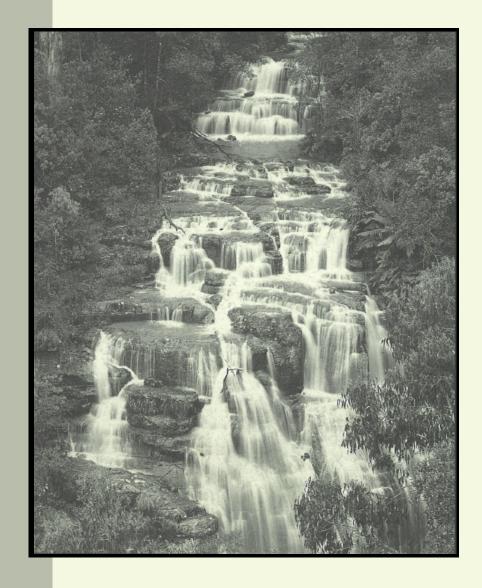
# Kinglake National Park

Management Plan

June1996



NATURAL RESOURCES AND ENVIRONMENT This Management Plan for Kinglake National 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 was published in February 1996. A total of 44 submissions were received. Copies of this plan can be purchased from:

Outdoors Information Centre Department of Natural Resources and Environment 240 Victoria Parade EAST MELBOURNE 3002

NRE Alexandra Office Department of Natural Resources and Environment Aitken Street ALEXANDRA VIC 3714

For further information on the Plan, please contact:

Chief Ranger, Goulburn, NRE Alexandra Office, (057) 720 200

# KINGLAKE NATIONAL PARK MANAGEMENT PLAN

**National Parks Service** 

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT

**VICTORIA** 

**JUNE 1996** 

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This Approved Plan is based on a Draft Plan compiled by Connell Wagner Pty Ltd under contract to the National Parks Service.

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#### **FOREWORD**

Kinglake National Park is an important area for the conservation of native flora and fauna close to the residential areas of Melbourne. The Park protects a range of rare and endangered species once present in the now partially urbanised Yarra Valley and foothill slopes of the Great Dividing Range.

Managed primarily for nature conservation purposes, the Park enables people to enjoy the natural environment. The popular Masons Falls and Jehosaphat Gully give many visitors their first experience of the mountain forests.

This Approved Plan establishes the long-term management framework for protecting the important conservation and recreation values of the Park and ensuring that it plays an important role in nature-based tourism in the Central Highlands of Victoria.

As a result of the plan's implementation, I am confident that the Park's special features will be protected while visitors' enjoyment is enhanced.

I look forward to the community's support for the management of this important national park, which is a significant part of Victoria's parks system.

Hon Marie Tehan MP

MINISTER FOR CONSERVATION and LAND MANAGEMENT

# **APPROVED MANAGEMENT PLAN**

This Approved Management Plan, has been prepared under the provisions of section 17 of the *National Parks Act 1975* (Vic.) and is approved for implementation.

The Plan provides the basis for future management of Kinglake National Park. It was finalised following consideration of the 44 submissions received on the Draft Plan.

Mark Stone

**Director, National Parks Service** 

Chris McRae

**Interim Regional Manager, North East** 

#### **SUMMARY**

Kinglake National Park (21 600 ha) protects a significant foothill forest ecosystem which includes vegetation communities on the edge of their range.

The Park's diverse environments are part of the Yarra and Goulburn River catchments. Significant natural values and close proximity to Melbourne make it attractive for a range of activities including picnicking, walking, camping and nature study, and offer great potential for scientific research.

The Park will be managed as a world-class protected area for conservation and recreation consistent with its National Park status. Protecting and enhancing the Park's largely undisturbed environments will be an important management goal, as will maintaining its distinctive mountain forest character and offering a retreat from the pressures of urban life.

Visitors will be able to enjoy the Park's diverse attractions through quality visitor facilities at major features or in the undeveloped core areas of the Park. The Park makes an important contribution to nature-based tourism on the northern fringes of Melbourne.

Major management directions for the Park are described below.

- Significant flora, fauna and other natural and cultural features will be protected, and where appropriate interpreted.
- Pest plants and animals will be controlled or eradicated with co-operation from local land owners and community groups.
- The Park and neighbouring assets will be protected against wildfire, and the conservation of native vegetation and habitat interlinking major blocks of Park and adjoining forest will be fostered.
- The Park will be promoted as an important conservation reserve with outstanding scenery, natural history and recreational opportunities in a forested setting.
- Visitor access and information will be improved.

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#### 1 INTRODUCTION

# 1.1 Location and planning area

Kinglake National Park, the largest national park near Melbourne, covers 21 600 hectares of eucalypt forest on the slopes of the Great Dividing Range, 65 km north-east of the city centre. It is reached via Whittlesea, Hurstbridge or Yarra Glen.

The management plan covers the following parts of the Park, totalling 11 650 hectares:

- Sugarloaf Block
- Everard Block
- Wombelano Block
- Andrews Hill Education Area (210 hectares)
- the former Yea River Park (220 hectares).

Planning for the Wallaby Creek Catchment (9965 hectares) which was added to the Park on 15 December 1995 (section 1.4), will be undertaken separately.

The terms 'Kinglake National Park' and 'the Park' are used in the Plan to refer to the area of the Park excluding the Wallaby Creek Catchment.

#### 1.2 Regional context

Kinglake National Park forms a forested upland backdrop to the north-eastern suburbs of Melbourne. The township of Kinglake, at 540 m above sea level, is centrally located to the various blocks of Park.

The proximity of the Park to Melbourne allows easy access for day visitors attracted by its mountain scenery, waterfalls and fern gullies. The Park complements the landscaped parklands of the 'reservoir' parks in Melbourne's north-eastern ranges, the spectacular Mountain Ash forests surrounding Healesville and Warburton, forest drives through Toolangi and Mt Disappointment State Forest, and popular regional attractions such as Healesville Sanctuary and Gulf Station.

The Park is surrounded by private property, much of which is vegetated with forest types similar to those found in the Park and of significant conservation value. This adds to the cultural landscape quality of the Kinglake plateau farmlands. Further subdivision and housing development around the Park will lead to increased visitor use and pressure on conservation values and Park resources.

# 1.3 Significance of the Park

Kinglake National Park makes a valuable contribution to Victoria's parks system, which aims to protect viable, representative samples of the State's natural environments occurring on public land. Parks also provide opportunities for visitors to enjoy and appreciate natural and cultural values, and many make important contributions to tourism.

The Park is assigned the IUCN Category II (National Parks) of the United Nations' List of National Parks and Protected Areas. Category II areas are managed primarily for ecosystem conservation and appropriate recreation.

Kinglake National Park conserves a significant sample of the mostly dry forests typical of the foothills and southern slopes of the Great Dividing Range. Significant features of the Park are listed below.

#### **Natural values**

- A high diversity of native plants and animals, including almost 600 native plant species, over 40 native mammal and 90 native bird species.
- Rare and restricted fauna, including 10 listed under the *Flora and Fauna Guarantee Act 1988* (Vic.).
- Nine rare or threatened flora species in a range of vegetation communities.
- Plant species near the limits of their range.
- Sites of botanical significance at State and National level.

#### Cultural values

- Isolated artefacts of Aboriginal land use.
- Relics of European pioneering, gold mining and sawmilling.

#### Tourism and recreational values

- Opportunities to experience a mountain environment within one hour's drive of Melbourne.
- A park located in one of Victoria's highest profile tourism regions.
- Splendid scenery including waterfalls, fern gullies and tall trees.
- A range of visitor facilities in quiet forest settings.
- Excellent opportunities for scenic driving, walking, cycling, horse riding, nature study, painting and photography.
- Panoramic views across the plains to Melbourne, Port Phillip Bay and the You Yangs.
- Significant opportunities to interpret the Park's natural values.

#### 1.4 Creation of the Park

On 7 March 1928, an area of 5585 hectares was permanently reserved as a site for a National Park. Several small additions between 1928 and 1978 brought the area of the Park to 5836 hectares. Since 1975, the Park has been included on Schedule Two of the National Parks Act.

In 1980, following the LCC Melbourne Study Area Final Recommendations (LCC 1977), the size of the park almost doubled (to 11 270 hectares) with the inclusion of the Wombelano Block and two education areas. Subsequent additions in 1981, 1984 and 1986 brought the area to 11 430 hectares.

On 15 December 1995, a net area of 10 170 hectares was added to the Park. This net increase, arising from the LCC Melbourne Area District 2 Review (LCC 1994) comprised:

the addition of Yea River Park
 (220 hectares), which since 1980 had been

- reserved under Schedule Three of the National Parks Act;
- the addition of a substantial part of the Wallaby Creek catchment area (9965 hectares);
- an excision of 15 hectares.

# 1.5 Legislation, LCC recommendations and quidelines

Kinglake National Park is reserved and managed under the provisions of the National Parks Act. The Act requires the Director to preserve and protect the natural condition of the Park and its natural and other features, and to provide for the use of the Park by the public for enjoyment, recreation and education, and for research.

Land Conservation Council recommendations for the Park (LCC 1994) specify that harvesting of forest products, grazing by domestic stock, hunting and the use of firearms are not permitted. Apiculture is not permitted except on traditionally licensed sites, which are to be maintained subject to (a) the outcome of research of the ecological impacts on native communities, and (b) park management requirements. In addition, the Kinglake Education Area is no longer recommended.

The Park is managed in accordance with Department of Natural Resources and Environment guidelines for the management of Parks (NPS 1995) and LCC recommendations, and with other Departmental plans and guidelines, including the Draft Alexandra Regional Fire Protection Plan (CNR 1994).

# 1.6 Park management aims

Sections 4 (Objects) and 17 of the National Parks Act provide the main basis for management of the Park. The following management aims are derived from those sections and as such broadly govern all aspects of park management.

## **Resource conservation**

Preserve and protect the natural environment.

- Allow natural environmental processes to continue with the minimum of disturbance, and maintain biodiversity.
- Conserve features of archaeological, historical and cultural significance.

# Park protection

- Protect water catchments and streams.
- Protect human life, the Park and adjacent lands from injury by fire.
- Eradicate or otherwise control introduced plants, animals and diseases.

#### The Park visit

 Provide opportunities for appropriate recreation and tourism.

- Promote and encourage an appreciation, understanding and enjoyment of the Park's natural and cultural values and its recreational opportunities.
- Encourage appropriate Park use and behaviour and foster a conservation ethic in visitors.
- Take reasonable steps to ensure the safety of visitors.

#### Other

- Provide for and encourage scientific research, surveys and monitoring that will contribute to a better understanding and management of the Park.
- Co-operate with local, State and interstate government authorities, the community and other interested organisations to assist in the management of the Park.

#### 2 STRATEGIC DIRECTIONS

#### 2.1 Park vision

A future visitor to Kinglake National Park finds a world-class National Park, well known and loved by Melburnians and popular with interstate and overseas tourists as a bushland retreat within easy access of the city. The Park is being managed with an increased understanding of its natural environments. Its significant species and communities and landscape qualities are well protected, and disturbance to its important catchment areas is minimal.

The Park is widely used by day visitors enjoying a retreat from the pressures of urban life. First-class visitor facilities and services, concentrated on the plateau areas, facilitate passive recreation such as scenic driving, walking, picnicking and nature study. High quality interpretation of the Park's natural and cultural values enhances visitors' experience and stimulates their interest in further exploration of the adjacent ranges.

The Park is promoted within the context of the full range of opportunities for outdoor recreation available within the Central Highlands. Sensitive management, assisted by a strong Friends Group and supported by the local community, ensures that increased visitor use is accommodated without compromising the Park's key attributes. The interests of future generations are assured.

# 2.2 Management directions

Major management directions for the Park are outlined below.

#### **Resource conservation**

- Biological surveys to identify all significant flora and fauna will be conducted.
- Monitoring programs to assist management in the conservation of significant species and communities will be implemented.

 Rare and threatened species, communities and habitats will be given special protection.

# Park protection

- The Park and neighbouring assets will be protected against wildfire by a fire protection regime based on strategic fuel reduction compatible with the conservation of native communities.
- Pest plants and animals will be controlled or eradicated through a program based on identification of key sites, target species and methods of control.
- Aboriginal sites and artefacts, and significant relics of pioneering European settlement, will be protected and interpreted.

#### The Park visit

- The Park will provide for quality visitor experiences.
- Ongoing monitoring of visitors will be conducted to better determine their needs.
- Information services enabling visitors to easily locate the Park and its features, services and facilities will be improved.
- Visitor access to the Park's major scenic features will be improved.
- Visitor enjoyment of the Park will be enhanced by improved interpretation of its key features. Targeted programs will encourage visitor interest in high country bushland and National Parks generally.
- The Park will be promoted as an important conservation reserve giving ready access to outstanding scenery, natural history and recreation in a forested setting.

#### Community awareness and involvement

 Co-operation with local Government and other public authorities, community groups and land owners in conserving native vegetation and habitat interlinking

major blocks of Park and adjoining forest will be fostered.

# 2.3 Zoning

A park management zoning scheme has been developed to:

- provide a geographic framework in which to manage the Park;
- 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 these and the protection of Park values;
- provide a basis for assessing the suitability of future activities and development proposals.

Three management zones apply to the Park - Conservation and Recreation, Recreation Development and Education.

In addition, a special protection area and a special management area (public utility) are used to summarise requirements additional to those of the underlying primary management zones.

Table 1 specifies the management zone and overlay characteristics, and their locations are shown in figure 1.

# TABLE 1 MANAGEMENT ZONES AND OVERLAYS

	ZONE			OVERLAY		
	CONSERVATION AND RECREATION	RECREATION DEVELOPMENT	EDUCATION	SPECIAL PROTECTION AREA	SPECIAL MANAGEMENT AREA - PUBLIC UTILITY	
AREA/LOCATION	10 140 ha, 87% of Park.	1300 ha, 11% of Park. Main visitor destinations.	210 ha, 2% of Park (Andrews Hill Education Area).	880 ha, 7.7% of Park. Upper catchment of Diamond Creek (Broad Gully and Black Calf Creek sub-catchments).	Eastern Energy/PowerNet easement. Crosses Wombelano and Sugarloaf Blocks.	
VALUES	Important natural values and scope for recreation opportunities.	Sites of existing and proposed facility development in a natural setting.	Readily accessible area with a range of land units and ecological communities.	Sites containing habitat of threatened butterflies (appendix IV) and flora of national significance (appendix II).	Strip of mostly cleared land carrying parallel transmission lines.	
GENERAL MANAGEMENT AIMS	Protect less sensitive natural environments and provide for sustainable dispersed recreation activities and small-scale recreation facilities without significant impact on natural processes.	Provide primarily for high use visitor nodes with a concentration of recreation and/or interpretation facilities.	Provide primarily for environmental education in a relatively undisturbed area.	Protect specific natural or cultural values in specific areas and sites where a special management focus is required.	Highlight areas or sites where special management provisions are needed to provide for a particular non-standard use or activity.	

#### 3 RESOURCE CONSERVATION

# 3.1 Geological and landform features

The Park's main landform features are the Kinglake plateau and its southern escarpment, formed during the Permian period, some 255 million years ago. The plateau has an undulating surface with steeper slopes confined to stream valleys. This contrasts with the escarpment, which is characterised by a series of steep-sided ridges and valleys where slopes of up to 30° are common.

The Kinglake sediments are composed primarily of siltstones, which because of their low permeability are weathered by chemical action. Consequently, joints and fissures largely control landform development.

Masons Falls is formed by a steeply dipping joint pattern, resulting in a series of rectangular steps. This and other sites of geomorphological interest, such as Wombelano Falls, are popular destinations for visitors to the Park, and present opportunities for interpretation (section 5.3).

Generally, the Park's geomorphological features are not subject to damage from visitor use.

#### **Aims**

- Minimise impacts from visitors, management activities and educational studies on the Park's significant geological and geomorphological features.
- Provide opportunities for appropriate research into, and appreciation of and/or education about, geological and geomorphological features.

#### **Management strategy**

 Provide interpretive material on the formation of the escarpment at Masons Falls and other geomorphological features (section 5.3).

# 3.2 Vegetation

Almost 600 native vascular plants have been recorded. Nine Ecological Vegetation Classes (EVCs) are currently recognised in the Park (appendix I). Variants within the EVCs recorded in the Park have not been described in detail. For instance, Gully Woodland (Beardsell 1994) is a variant of Valley Forest and Riparian Forest.

Nine rare or threatened species have been recorded in the Park (appendix II). Beardsell (1994) identified four sites of botanical significance in Kinglake National Park (appendix III). Protection of these areas must be assured.

Each of the four botanical sites listed by Beardsell contains sections of forest described by Robinson (1994) as sites of botanical significance. These sections represent areas which are rare, rich and diverse with high quality remnants of Heathy Dry Forest, Valley Forest, Damp Forest and Riparian Forest. The sites also support the most westerly occurrence of the regionally significant Butterfly Orchid (Robinson 1994). The Plan proposes special protection for the section of the upper catchment of Diamond Creek within the Park (known locally as Broad Gully and Black Calf Creek catchments) (section 2.3, table 1 and sections 3.3 & 5.2.5).

The early reservation of part of the Park around Wombelano Falls in 1928 enhances opportunities for monitoring and interpreting habitat change.

The Wombelano Block has been subject to disturbance from previous land uses including timber harvesting and cattle grazing. There is little information on species distribution in the Wombelano Block, which was not surveyed by Beardsell (1994).

The Park's non-vascular plant communities have not been documented.

Native vegetation adjacent to the Park forms an important buffer and a corridor for wildlife (section 6.2).

Firewood collection is a threat to native vegetation (and micro-fauna) in the vicinity of heavily utilised picnic areas.

#### Aims

- Conserve native plant communities in their natural condition, as far as is practicable, and maintain genetic diversity.
- Increase knowledge of, and provide special protection for, significant plant communities and species.
- Revegetate degraded areas.

# **Management strategies**

- Manage Flora and Fauna Guarantee listed species (appendix II) according to approved action statements.
- Implement management regimes based on knowledge of the ecological processes associated with each EVC.
- Design and implement a vegetation monitoring program, including sites of rare or threatened species and communities, non-vascular plants and representative habitats within the Park where appropriate.
- Survey the vegetation of the Wombelano Block to complement surveys carried out for the rest of the Park.
- Survey non-vascular plants in the Park.
- Revegetate disturbed sites within the Park using seed stock collected from the immediate area.
- Through education programs, encourage owners of neighbouring properties to assist in management and conservation of buffer vegetation on their land.
- Prohibit the collection of firewood from the whole of the Park except for the areas immediately surrounding the Gums

camping area and the Island Creek picnic area (sections 5.2.2 and 5.2.3).

- Develop a campfire strategy that:
  - avoids the need for firewood collection by visitors;
  - encourages visitors to reduce use of firewood and to bring their own equipment;
  - minimises cost to NRE.

#### 3.3 Fauna

The Park has a high diversity of vertebrate faunal habitats (Beardsell 1994). Over 40 species of mammals are known to occur, and seven of these are considered significant within the Park (appendix IV). Four mammal species are listed under the Flora and Fauna Guarantee Act: Spot-tailed Quoll, Brush-tailed Phascogale, Eastern Horseshoe Bat and Common Bent-wing Bat.

The Park supports a diverse assemblage of fauna species and is an important repository from which animals can disperse and recolonise disturbed or fragmented habitat in the surrounding landscape. The very large Mountain Grey Gums along the creek valleys are important habitat for large hollow-nesting species such as the Greater Glider and Powerful Owl.

The former Mount Slide Road antimony mine hosts one of the largest cave-bat colonies in the Greater Melbourne area, and is likely to be a key roosting site in the movement of the Common Bent-wing Bat and Eastern Horseshoe-bat. Seven other bat species have been recorded in the vicinity of the former mine.

Over 90 species of birds have been recorded in the Park, of which eight species are considered significant (appendix IV). Four species are listed under the Flora and Fauna Guarantee Act: Masked Owl, Powerful Owl, Sooty Owl and Turquoise Parrot. Lyrebirds are also recorded.

There are 23 species of reptiles, mostly lizards, of which the Tree Goanna and Mountain Dragon are considered significant (appendix IV).

There are significant fish species that include Galaxias. Also, sightings of significant butterfly species include the Large and Small Ant-blue Butterflies (Beardsell 1994). Apart from these species, there is little information relating to fish and invertebrates.

Small populations of introduced Sambar and Fallow Deer occur in the Park. Hunting, which has never occurred in the Park, is a prohibited activity. It is inappropriate because of the fragmented nature of the Park and its proximity to urban developments.

The topography and climate create an overlap of foothill and mountain habitats and thus produce a high diversity of fauna; 28 mammal species in the Sugarloaf and Everard Blocks (particularly in Diamond Creek headwaters), 11 reptile species in the Everard Block (particularly Mount Everard/Broad Gully area) and 34 butterfly species in the Mount Beggary, Broad Gully and Mount Everard areas within the Everard Block. Both mountains are important habitat for butterflies. The plan proposes special protection for the section of the upper catchment of Diamond Creek within the Park (known locally as Broad Gully and Black Calf Creek catchment) (section 2.3, table 1 and sections 3.2 & 5.2.5).

#### **Aims**

- Protect native fauna communities and maintain genetic diversity.
- Provide special protection for significant fauna.
- Increase knowledge on the distribution and management of significant fauna species.

#### **Management strategies**

- Manage Flora and Fauna Guarantee listed species according to approved action statements.
- Conduct surveys of fauna and faunal habitats in the Park, in particular:
  - fauna and habitats in the Wombelano Block;
  - fish and invertebrate species.

- Map the location of significant or threatened populations and provide suitable protection for them.
- Maintain the annual monitoring of lyrebird populations.
- Encourage research to determine the status and life cycle of the Large and Small Ant-blue Butterflies in the Everard Block.
- Monitor deer populations.
- Develop suitable procedures and monitor change in fauna populations on a regular basis, particularly significant taxa.
- Investigate measures to conserve native fish populations in the Park.

# 3.4 Landscape

The Park lies within the Foothills Landscape Character Type (Leonard & Hammond 1984), characterised by moderate to steeply sloping hills forming a transition between the flat cleared lowlands and the true highlands and alps of the Great Dividing Range.

Systematic assessments of scenic values and prescription of landscape management zones within the Park have yet to be made.

The forested and steeply dissected escarpment of the southern sections of the Park is an important element in the backdrop to the northern suburbs of Melbourne. The value of this landscape, enhanced by contiguous forest on abutting private lands, will increase as the suburbs of Melbourne extend northward. This element of the landscape is particularly important to the enjoyment of visitors driving from Melbourne to the Park.

The forests of the northern sections of the Park are a major component of the distinctive landscape of low rolling hills, forests and farmlands of the Kinglake Plateau, which attracts large numbers of car-based tourists.

Enclosed landscapes within the Park are characterised by the outstanding geological features of Masons Falls (the highest and most

spectacular waterfall in the Greater Melbourne area) and Wombelano Falls, and also by the wet forests and fern gullies of the escarpment and the dry forests of the northern sections of the Park.

Some elevated sites within the Park, particularly Frank Thomson Reserve and Mount Sugarloaf, have outstanding potential as scenic lookouts to the south across the plains and the Melbourne skyline to Port Phillip Bay and the You Yangs.

Major visual intrusions into the landscape of the Park and its approaches include the electricity transmission line (and its massive pylons) which transects both the Wombelano and Sugarloaf Blocks along Bowden Spur (section 7.1); the residential development bordering National Park Road (section 5.2.1); and clearing and development on farming land below the escarpment (section 7.2). Essential fire protection works can also intrude (section 4.1). Future clearing and development on adjoining private lands, particularly those below the escarpment, have the potential to degrade the landscape and scenic values of the Park (sections 6.2 and 7.2).

#### **Aims**

- Minimise visual impacts on the natural landscape, especially as seen from major access routes and viewing points.
- Remove or ameliorate undesirable visual intrusions.

# Management strategies

- Monitor and manage the visual resources of the Park and abutting areas in accordance with NPS guideline 15.3R.
- Ensure that any new proposals for public utilities in the Park or on its boundaries are assessed for their landscape impacts, especially proposals that would be visible from major viewing points.
- Revegetate the boundaries of existing and planned developments as necessary to conserve or enhance landscape values in accordance with NPS guidelines (section 5.2.2).

 Manage fire protection works and pest control measures to minimise their impact on landscapes viewed from access routes and day visitor facilities.

# 3.5 Cultural heritage

## **Aboriginal history**

It seems that Aboriginal visits to the area were infrequent. Living mostly in the open wooded plains, the Wurundjeri to the south and the Taunerong to the north would have intermingled in the Park area.

A total of 141 Aboriginal archaeological sites are recorded on the Aboriginal Affairs Victoria Site Register for the Park; all are protected under the *Archaeological and Aboriginal Relics Preservation Act 1972* (Vic.). These sites are distributed throughout the three blocks of the Park. Of the 141 sites, 134 are isolated artefacts, three are scarred trees and four are surface scatters.

## **European history**

The Park area has a history of European impact similar to that of other foothill areas in Victoria: low impact pastoral occupation and gold mining (1860s), sawmilling (1880s onwards), agricultural settlement on the Plateau (from the 1870s) and tourists including sightseers, picnickers and naturalists (particularly after World War I with the advent of the motor car). Logging took place in areas north of the Divide until they were added to the Park in 1980.

Relics of pre-Park land uses are still evident. The Mt Slide Road gold mines, Cooksons Hill, the remains of Carmans Sawmill, the old tramline and sawdust heap near Masons Falls picnic area and Lady Stonehavens Lookout at Frank Thomson Reserve are reminders of early pioneering activity in the Kinglake area. These relics present opportunities to educate visitors about early settlement but need careful management to ensure the safety of Park visitors.

#### **Aims**

- Protect archaeological and historic sites of significance.
- Provide access to, and interpret, appropriate historic sites, consistent with ensuring the safety of visitors.

# **Management strategies**

 Involve the Wurundjeri community in identifying, protecting and interpreting significant sites.

- Develop further the existing interpretive material on the history of European settlement in the Kinglake area and the creation of the Park (section 5.3).
- Monitor and interpret appropriate relics of previous uses, e.g. the Mt Slide Road gold mine, the remnants of Carmans Sawmill and tramline on the Boundary Track, and Lady Stonehavens Lookout (section 5.3).

#### 4 PARK PROTECTION

# 4.1 Fire management

The National Parks Act requires the Director of National Parks to ensure that appropriate and sufficient measures are taken to protect Parks from injury by fire. Current fire protection measures are in accordance with the Alexandra Region Draft Fire Protection Plan (CNR 1994). This plan includes provision for the maintenance of the Park's system of fire protection tracks (section 3.4) and liaison with private landholders for the common purpose of fire management within the Park and on adjacent land. Fire protection also includes informing Park users about fire regulations. Benefits would be gained by adding information on Park assets in the plan, including areas of ecological and cultural significance, and picnic and camping areas.

Researchers believe that ecological burning of sections of long unburnt Wet Heaths and Heathy Woodland (for example in Broad Gully) should be conducted so that a mosaic of successional stages of the heathy vegetation is established. This could benefit individual orchid species, the Swamp Bush-pea, Southern Emu-wren, Southern Brown Bandicoot and White-footed Dunnart. Fire management programs may also encourage the growth of weeds and spread of disease.

#### **Aims**

- Protect human life, property and Park values from injury by fire.
- Minimise the adverse effects of fires and fire suppression methods.
- Maintain fire regimes appropriate to the conservation of native flora and fauna.

#### **Management strategies**

- Publicise and enforce fire regulations and restrictions on the use of fire within the Park.
- Review the Park's fire protection strategy in conjunction with finalisation of the Draft Fire Protection Plan, or as new information becomes available.

- Seek to include the following in the fire protection plan:
  - information on park assets, including areas of ecological and cultural significance, and picnic and camping areas;
  - subject to requirements for overall fire control and safety, give preference to using suppression methods which can reduce environmental impacts, including the following:
    - fireline construction using hand crews:
    - air attack to drop fire retardant, water or foam;
    - back burning from existing roads and tracks;
    - using existing roads and tracks or topographic features as control lines.
- Avoid use of bulldozers as far as practicable in Cinnamon Fungus infested areas, in the Special Protection Area, in riparian forest and on the banks of streams.
- Minimise fire risk in the Park by installing coin operated gas or electric barbeques at heavily used picnic or camping areas, and fireplaces at areas with lesser use, as appropriate.
- Undertake necessary fire pre-suppression works in the Park's camping areas.
- Encourage research into the effect of burning regimes and slashing on vegetation communities and associated fauna in the Park, in particular on rare and threatened species e.g. Swamp Bushpea. Carry out the necessary ecological slashing and burning so that populations are promoted and co-existing flora and fauna species are not harmed.
- Develop a fire protection plan for Cinnamon Fungus infested areas (section 4.2).

 Rehabilitate fire control lines and other disturbed areas resulting from fires and fire suppression activities as soon as possible after the fire.

# 4.2 Pest plants and animals, and diseases

Over 130 introduced plants, both exotic and native, have been recorded in the Park (appendix V). While some of these are not invasive, many have the potential to spread through the Park, threatening the integrity of indigenous flora and fauna communities and the survival of particular species.

Cinnamon Fungus has been confirmed at 16 sites in the Everard and Sugarloaf Blocks, mostly along tracks, and is believed to occur at many similar sites throughout the Park.

Disturbances along the Park boundary from farms adjoining the Park between Pheasant Creek and Kinglake, and bushblock subdivision at Strathewen, are increasing. Introduced predators, particularly foxes, cats and dogs, are increasing. These are threatening the viability of the lyrebird population and probably other taxa. The substantial goat population in the Everard Block threatens natural values in the Special Protection Area.

#### **Aims**

- Monitor, control, and where possible eradicate, pest plants and animals in the Park.
- Minimise the impact of control programs on native flora and fauna.
- Restore native vegetation to areas where weeds have been eradicated.
- Protect the Park from other threats and diseases, in particular Cinnamon Fungus.

#### Management strategies

 Survey the incidence of pest plants and animals in the Park and encourage neighbouring land owners to survey adjoining private land. Co-ordinate pest plant and animal control efforts in the Park with those on adjacent land.

- Prepare a pest plant and animal management strategy for the Park which details species and areas to be treated, and methods of control. Give priority to the prevention of new infestations, managing weeds with a high potential for invasion, managing areas of high conservation significance and weed species with broad ecological tolerances.
- Control Blackberry and Tutsan along Jehosaphat Creek near Old Kinglake Road where it is likely that the area can be successfully managed to prevent further invasions.
- Where weeds have been eradicated, restore native vegetation to prevent the recurrence of weed invasion.
- Monitor by ground reconnaissance the occurrence of Cinnamon Fungus, particularly in high risk sites with sensitive species and new development sites which involve earthworks.
- Prepare strategies to contain existing Cinnamon Fungus infestations and to prevent new infestations. In particular, monitor and control visitor activities which have the potential to spread Cinnamon Fungus within the Park.
- Minimise soil disturbance during wildfire suppression, road maintenance and facility development works, in accordance with NRE guidelines.
- Control, and if possible eradicate, goats in the Special Protection Area.

#### 4.3 Soil conservation

The soils of the Park are derived from Devonian siltstone (the deep friable red loams of the Kinglake Plateau), Silurian sandstones (yellow gradational soils with sandy surfaces grading to medium clay on spurs, slopes and foothills) and Quaternary alluvium (the deep, grey loam topsoil of creek valleys).

The ridges are subject to high rainfall (1200 mm annually). Past logging and clearing have

led to topsoil erosion, especially in the Chadds Creek catchment, and to severe gully and sheet erosion, which has been subject to control attempts involving contour ripping.

Many sections of tracks on steep grades are subject to ongoing sheet and gully erosion, and some are deeply incised. The disturbed and exposed soil surfaces are unsightly and vulnerable and there is the potential for increased erosion through overuse and use at inappropriate times. In addition, the movement of soil affects water quality and causes siltation downstream in the catchment.

Within the Park different activities are contributing to erosion: settlement and horse riding along Wild Dog Creek and its feeder gullies; gold mining, rabbits and past vehicle use along Chalmers Ridge, north of Steels Creek; and horse riding and picnicking on the lower slopes near Jehosaphat Creek. In the Wombelano Block, severe gully erosion is spreading from a freehold inlier into the Park.

Kinglake National Park falls within two Catchment and Land Protection Regions: Port Phillip and Goulburn. Park management needs to consult with the respective regions about activities which may affect the quality of the catchment system, such as the development of recreational facilities.

#### Aims

- Prevent and control soil erosion from visitor and management activities.
- Revegetate disturbed areas with indigenous species.
- Protect and maintain the integrity of catchments within the Park.

#### **Management strategies**

- Encourage responsible authorities to adequately maintain roads traversing the Park that are open to the public so as to minimise erosion during wet weather. Alternatively, consider closing roads on a seasonal basis (section 5.2.1).
- Liaise with adjacent land owners about soil conservation issues and in particular take action to halt the spread of the 'gully head' stream erosion adjacent to the Wombelano Block.
- Liaise with the relevant Regional Catchment and Land Protection Boards in regard to park management activities.
- Manage horse riding to avoid damage to soils (section 5.2.5).
- Revegetate disturbed areas with resistant indigenous species.
- Manage the road and track network to protect soil and water quality.

#### 5 THE PARK VISIT

#### 5.1 The Park visitor

Kinglake National Park offers two main visitor experiences:

- easily accessible car-based recreational activities, such as scenic driving and picnicking, in a natural setting;
- opportunities for more independent enjoyment of the forest environment, through activities such as walking, cycling, camping, horse riding and nature study.

About 90 per cent of visitors come from the Melbourne metropolitan area and about 85 per cent from within a 1.5 hour drive. Most are in family groups. Almost all visitors arrive by private car and drive to existing car parks and picnicking facilities near the well-known features of Masons Falls, Jehosaphat Gully and Mount Sugarloaf. Few visit areas such as The Gums, Frank Thomson Reserve, Wombelano Falls and Island Creek.

In 1995 the Park received over 220 000 day visitors attracted to popular locations such as Masons Falls and Jehosaphat Gully picnic areas. Visitor numbers have fluctuated over the last 10 years with a marked increase in the last two years.

Emerging areas of visitor interest are in naturebased tourism, backpacking (particularly for international visitors) and tourism associated with major events in Melbourne and elsewhere.

The Park is an important component of one of Victoria's highest profile tourism regions. A regional tourism strategy is currently being produced by Tourism Victoria for the 'Yarra Valley, Dandenongs and the Ranges' region. A strategy would clarify the focus and direction of future tourism in the region, and the role of the Park in providing opportunities for people to enjoy and appreciate the natural and cultural features of the area. Other attractions in the region include the Gulf

Station, Healesville Sanctuary, Toolangi State Forest and the Maroondah Reservoir. This part of Victoria offers the tourist a complete range of activities and education opportunities (section 5.4).

#### Providing for the visitor

Kinglake National Park will continue to provide visitors with an opportunity to escape from the city to a bushland setting and participate in nature-based recreation. The visitor services strategy will continue to target car-based groups from Melbourne, mainly family groups, but will welcome anyone to explore the Park's distinctive natural and cultural attributes. Park management will work to facilitate quality visitor experiences at the same time as conserving and protecting the Park's natural environment. Existing facilities and services will be improved, and more will be provided to achieve the above goal.

Significant developments will include:

- a new viewing platform at Mount Sugarloaf to maximise wonderful views of Melbourne, the You Yangs and the Dandenong Ranges;
- new and enhanced facilities at day use areas;
- additions to the range of walking tracks;
- closer ongoing evaluation of visitor needs to identify trends as a basis for determining future visitor services and facilities.

#### Aim

 Provide for visitors in accordance with the above overview of future management for visitors.

#### Management strategies

 Permit recreational activities in accordance with table 2.

TARIF 2	SUMMARY OF RECREATION ACTIVITIES

	MANAGEMENT ZONES AND OVERLAYS						
ACTIVITY	1	2	3	4	5		
Picnicking	Y	Y	Y	N	Y		
Camping	N	YC	N	N	N		
Walking	Y	Y	Y	Y	Y		
Bicycle riding	YC	YC	N	N	YC		
Horse riding	YC	N	N	N	YC		
Orienteering/rogaining	YC	N	YC	N	YC		
Rock climbing/abseiling	N	NA	NA	NA	NA		
Fishing	Y	NA	Y	N	NA		
Firewood collection	N	$N^{+}$	N	N	N		
Hunting	N	N	N	N	N		
Dogs	N	N*	N	N	N		

- 1 Conservation and Recreation Zone
- 2 Recreation Development Zone
- 3 Education Zone
- 4 Special Protection Area
- 5 Special Management Area Public Utility
- allowed in defined areas
- \* allowed in Frank Thomson Reserve

Y Yes

N Not appropriate

YC Conditional - refer to relevant section for details

N/A Not applicable

Provide and maintain a range of facilities and services which highlight, but are in keeping with, the Park's distinctive character (tables 3, 4 and 5, and sections 5.2, 5.3 and 5.4).

- Conduct visitor surveys to assess visitor profiles, patterns of behaviour, expectations and preferences.
- Establish a program to determine levels of recreational activity consistent with protecting recreational experiences and park values.
- Encourage all visitors to adopt minimum impact techniques and to adhere to Codes of Conduct appropriate to their activity.
- Monitor visitor use to ensure adequate provision of facilities consistent with appropriate types and levels of use.

# 5.2 Visitor recreation activities and facilities

#### 5.2.1 Vehicle access

Access roads and tracks to and within the Park (figure 2) present opportunities for a range of visitor experiences. Two-wheel drive sightseeing is popular along the roads to the Park, and to Mt Sugarloaf, Jehosaphat Gully and Lady Stonehavens Lookout in the Park.

Promotional signage and information on major approach roads to the Park is currently inadequate. Image signs would create a stronger Park identity and knowledge of facilities.

Many visitors approach the Park along National Park Road to visit attractions in the Sugarloaf Block, and to a lesser extent along the Kinglake-Healesville Road to visit Jehosaphat Gully. Visitors to the Sugarloaf Block pass from an attractive landscape of forests and farmlands to a high density urban residential development as they approach and enter the Park. Redevelopment of the existing

entry and associated infrastructure would greatly enhance their sense of arrival at the Park. It would also provide for improvements and expansion of opportunities for visitors within the block (sections 5.2.2 and 5.3).

A number of illegal activities such as car body and rubbish dumping, shooting and firewood collection occur along Old Kinglake Road and Full-and-Plenty Track. Closure to public vehicles will prevent these practices and enable horse riders to use Old Kinglake Road as an alternative route from south of the Park to Kinglake Township. There is alternative vehicular access via the Old Yarra Glen-Glenburn Road. The status of these roads and tracks and their future management are given in table 3.

In the Wombelano Block there are a number of old logging and fire protection roads which have been gated to prevent illegal access. These are maintained for management vehicles, walkers, horse riders and mountain bike riders. In the southern blocks, poorly located tracks on adjacent private property enable illegal vehicular or trail bike access to the Park and also impact on the landscape.

#### **Aims**

- Provide and maintain an appropriate network of roads and tracks for visitor use and management purposes.
- Enhance visitor experiences by improving the entry to the Sugarloaf Block.
- Increase awareness of the Park's identity by improving roadside directional signage.
- Minimise the impact of vehicle use on the Park's natural and cultural values, and on opportunities for remote experiences.

#### **Management strategies**

- Manage and permit the use of roads and tracks in the Park in accordance with table 3 and figure 2.
- Liaise with VicRoads and develop image roadside signage at appropriate 'gateway' locations on major roads leading to the Park.

- Upgrade and standardise road and track signposting throughout the Park.
- Prepare a redevelopment and landscape plan for the existing Park entry and Visitor Centre/office complex at the National Park Road entrance to the Sugarloaf Block.
- Liaise with Shires to ensure a co-operative approach to road maintenance of Park access roads and retention of scenic features and alignment.
- Commence with Shire of Nillumbik and the Shire of Yarra Ranges formal closure of Old Kinglake Road to public vehicles.
- Commence with the Shire of Yarra Ranges and adjacent land owners formal closure of Full-and-Plenty Track to public vehicles.
- Liaise with the Shire of Murrindindi to seasonally close Captain Creek Road, and the Shire of Nillumbik to seasonally close Pine Ridge Road.

#### 5.2.2 Day use areas

Existing recreation facilities are listed in table 4.

The Masons Falls and Mt Sugarloaf areas are currently very popular; other potential destinations such as Wombelano Falls, Frank Thomson Reserve and Jehosaphat Gully and Island Creek are less utilised. Visitor surveys indicate concerns about overcrowding and poorly maintained visitor facilities. Dispersal of visitors away from over-utilised sites would enhance the experience of visitors and assist in protecting the Park. This can be achieved by encouraging visitors to use other areas, with improved or new facilities, and separating facilities for activities such as picnicking/short walks and bushwalking (section 5.2.4).

Some visitors to Masons Falls and Jehosaphat Gully picnic areas seek firewood for portable barbecues.

TABLE 3 MANAGEMENT OF ROADS AND TRACKS

ROAD OR TRACK	CLASS	COMMENTS/USES	ST	ATUS	FUTURE MANAGEMENT		
			Current Proposed				
Masons Falls Rd	1	Access to Masons Falls for picnicking, sight seeing and walking tracks. FPM. Gates closed daily after hours.	O	O	Unchanged		
Mt Sugarloaf Rd	1	Access to Mt Sugarloaf for sight seeing and walking tracks. FPM. Gates closed daily after hours.	O	O	Unchanged.		
Macs Rd	3	FPM. Unused Govt road. Gated (southern end).	MVO	-	Close and incorporate into Park.		
Wallaby Tk	3	FPM. Walking route.	MVO	MVO	Unchanged.		
Running Ck Tk	3	FPM. Walking route.	MVO	MVO/W	Close section between Masons Falls Picnic area and viewing platform, and convert to a walking track.		
Pine Ridge Rd*	3	Fire escape route. Government road.	О	MVO/O	Arrange for seasonal closure in consultation with Shire.		
McKimmie Tk	3	Fire escape route. Gated.	MVO	MVO	Unchanged.		
Rifle Range Tk	3	FPM. No through access. Gated.	MVO	MVO	Unchanged		
Beale Ave*	2	Government road. FPM.	O	O	Unchanged.		
Bowden Spur Rd	2	Local through traffic.	O	O	Unchanged.		
Bald Spur Rd	2	Local through traffic.	O	О	Close loop on hill to reduce spread of Cinnamon Fungus.		
Heidelberg-Kinglake Rd*	1	Major through road and sightseeing route. Access for walking route.	0	О	Unchanged.		
Everard Tk	2	FPM. Walker route. Gated.	MVO	MVO	Unchanged.		
Watsons Ck Tk	3	FPM. Gated (eastern end).	MVO	MVO	Unchanged.		
Old Kinglake Rd*	2	FPM. Some local through traffic.	О	MVO	Close to public vehicles to reduce illegal activities, and provide alternative horse riding access.		
Mt Jerusalem Tk	2	FPM. Walker traffic. Gated.	MVO	MVO	Unchanged.		
Brennan Rd	2	Private property access. Gated (Park boundary).	O	O	Unchanged.		
Wild Dog Ck Rd	2	Private property access.	O	O	Unchanged.		
Old Yarra Glen- Glenburn Rd*	1	Local through road.	O	О	Unchanged.		
Cooksons Hill Tk	3	FPM. Walking route.	MVO	MVO	Unchanged.		
Full-and-Plenty Tk*	3	Private property access.	O	MVO	Close to public vehicles.		
Brock Spur Tk	3	FPM. Gated.	MVO	MVO	Unchanged.		
Andrews Hill Tk	3	FPM. Gated.	MVO	MVO	Unchanged.		
Andrews Hill West Tk	3	FPM. High erosion risk due to gradient.	MVO	MVO/W	Close west of Dusty Miller Track because of high erosion risk, and convert to walking track.		

Table 3 (cont.)

ROAD OR TRACK	CLASS	COMMENTS/USES	ST	ATUS	FUTURE MANAGEMENT
_			Current	Proposed	_
Dusty Miller Tk	3	FPM. Access only from other gated tracks.	MVO	MVO	Unchanged.
Mountain Ck Tk	3	FPM. Gated.	MVO	MVO	Unchanged.
Stringybark Tk	3	FPM. Access only from other gated tracks.	MVO	MVO	Unchanged.
Eastern Energy	1	FPM. Utility management. Gated.	MVO	MVO	Unchanged.
Powerline Tk					<u> </u>
Yea River Tk	2	Access to Yea River for recreation purposes.	O	MVO	Close to reduce illegal activities.
Eucalyptus Rd	1	FPM. Major through road.	O	O	Unchanged.
Island Creek Tk	3	FPM. Gated	MVO	MVO	Unchanged.
Easement Tk	3	FPM. Gated (at Captains Ck Rd).	MVO	MVO	Unchanged.
Captain Ck Rd*	3	FPM. Private property access.	O	O	Arrange for seasonal closure between
•					Wombelano Falls car park and Boggy Ck Rd
					junction in consultation with Shire.
Boggy Ck Rd	2	FPM.	O	O	Unchanged.
Candlebark Tk	3	FPM. Gated (eastern section only).	MVO	MVO	Close and revegetate W of Boggy Ck Rd.
Burgan Tk	3	FPM.	MVO	MVO	Unchanged.

Class: 1 All vehicle - all weather

2 All vehicle - dry weather only

3 4WD - dry weather only

FPM - for Park management

Status: MVO - management vehicles and walkers
O - open to public vehicles

- walkers only

- private property access

\*Public road, not part of the Park, maintained by the Shire of Murrindindi, Nillumbik or Yarra Ranges.

An observation platform overlooking Masons Falls gives spectacular views. Good views towards Melbourne could also be obtained from the escarpment near Mount Sugarloaf.

Visitor experiences could be enhanced by redeveloping facilities at the site of the existing entry and creating a more natural setting.

The Frank Thomson Reserve has potential as a lookout and day visitor area for visitors who wish to picnic, and perhaps walk a dog, but who do not necessarily seek a bushland setting.

Improved low-key facilities at Island Creek and Wombelano Falls would give visitors opportunities for recreation in a semi-remote bushland setting.

Buses will not use picnic areas in the Wombelano Block because of the restricted access and limited facilities.

#### Aims

- Establish and manage day visitor facilities which enhance visitor enjoyment of the Park and are consistent with protecting Park values.
- Provide facilities and services for a variety of visitor experiences and levels of activity.

#### **Management strategies**

- Concentrate passive recreation facilities in the Recreation Development Zone (figure 1) to minimise disturbance to Park values.
- Give the highest priority to improving the day visitor facilities at key sites in the Park in accordance with table 4 and figure 3.
- Upgrade the existing facilities in the Masons Falls car park and picnic area.
- Re-develop the Mt Sugarloaf car park and picnic areas, include the construction of new picnic facilities, a lookout platform and new toilets.
- Investigate redevelopment of the existing entry to the Sugarloaf Block, including car

- parking, picnic areas and a walking track link to Boundary Track and Masons Falls, relocation of fee collection and information services and office, and creation of a more natural setting at the existing entry.
- Re-develop Frank Thomson Reserve to improve current facilities and to cater for visitors with dogs.
- Construct parking spaces for buses on the former house site adjacent to the Jehosaphat picnic site.
- Develop low-key picnic facilities at the parking area to Wombelano Falls.
- Develop a new small picnic site at Brock Spur if visitor numbers regularly exceed the capacity of the facilities at Jehosaphat Gully.
- Install a small shelter at Frank Thomson Reserve, and investigate the possibility of providing small shelters to protect picnickers from inclement weather at other locations as required.
- Maintain existing toilets to a high standard; replace if necessary.
- Maintain the existing 'take your rubbish home' strategy for all visitor sites.
- Maintain a visitor monitoring system which includes vehicle and visitor numbers, and observations of environmental and social impacts of recreation activities
- Maintain existing vehicle counters at the entrance to the Sugarloaf Block and Jehosaphat Gully, and install a new counter on Captain Ck Road at Wombelano Falls.
- Review entry fees to the Park annually.

TABLE 4 EXISTING AND PROPOSED RECREATION FACILITIES

SITE	Toilets	PICNIC TABLES	ELECTRIC OR GAS BBQS	FIRE PLACES	WATER SUPPLY	Park Info.	WALK TRACK	LOOKOUT	CAMPING	SHELTER
Park entrance area	P	P	P	N	P	P	P	N	N	P
Masons Falls	E	E	E	N	E	E	E	E	N	E
Mt Sugarloaf	P	E	N	N	N	P	E	P	N	N
Frank Thomson Reserve	Е	Е	P	N	Е	P	N	E	N	P
Jehosaphat Gully	E	Е	Е	N	E	Е	Е	N	N	E
Wombelano Falls	P	P	N	N	N	P	Е	E	N	N
Island Creek	Е	E	N	Е	Е	P	Е	N	N	N
The Gums	E	N	N	E	E	Е	E	N	E	N
Proposed Mountain Creek camping area	P	N	N	P	Р	P	Е	N	Р	N

E = existing facility; N = no facility; P= proposed facility

# 5.2.3 Camping

Camping (for both tents and caravans) is currently available at The Gums camping ground beside Island Creek in the Wombelano Block. This low-key camping area, suitable for visitors with limited mobility, is popular with family groups. Most campers collect firewood in the vicinity for camp fires. Ten sites only are available. The number of campers at The Gums has increased consistently since 1987.

There is potential to expand camping facilities for vehicle-based visitors, groups and bushwalkers at other locations in the Park. The Wombelano Block is the most appropriate location for further camp sites. A site adjacent to Mountain Creek near the Andrews Hill Education Area could

accommodate larger groups and school groups (section 6.3).

Currently there is a small fee for camping at The Gums. Fee collection would be more cost effective if additional camping sites were provided.

#### Aim

 Provide low key camping sites for family and group camps in the Wombelano Block while minimising impacts on Park values.

## Management strategies

 Develop new camping facilities at Mountain Creek for use by groups including school groups engaging in activities in the Andrews Hill Education area.

- Monitor the effect of firewood collection for campfires at The Gums Camping Area and Island Creek Picnic Area (section 3.2).
- Ensure that the development of camping facilities does not detract from the scenic amenity of the Park or contribute to erosion problems.
- Levy appropriate fees for vehicle-based camping facilities.
- Consider expanding camping facilities at existing and proposed locations if demand frequently exceeds capacity.

#### 5.2.4 Bushwalking

There are many tracks in the Park (table 5). The short/medium walking tracks are heavily used and sometimes overcrowded. Wheel chair access is provided at Lyrebird Track and Cicada Track but additional opportunities are needed for visitors with limited mobility at each day use site. Interpretive information relating to natural and cultural features along the tracks is generally lacking, as are signs indicating the time and distance of each walk.

A number of new walks could be developed to disperse walkers away from currently overcrowded tracks.

In the Masons Falls area, visitors may choose from several short walks or combine these to form a full day walk (approximately 13 km) to Mt Sugarloaf. Parking at this site is inadequate because of the large number of picnickers also using this site (section 5.2.2).

In the Everard Block, there are five tracks which interlink to form a circuit walk of about 20 km, an attractive option for visitors seeking a long walk.

A half-day walk from the headwaters of Jehosaphat Creek to Mt Slide would give access to Mountain Ash forests and form a different experience for Park users in this area.

Currently there is a long walk along the Brock Spur Track to the Melba Highway, but no shorter tracks in the Brock Spur area. A new short to medium length walking track, skirting the headwaters of Dixons Creek and returning to the proposed Brock Spur picnic ground, would give visitors a choice of walks in the area.

Some sections of walking track are poorly drained and consequently subject to sheet and gully erosion.

#### Aim

 Increase the range of bushwalking opportunities in the Park, while minimising impacts on Park values.

#### **Management strategies**

- Maintain and enhance a range of walking opportunities in accordance with table 5.
- Re-develop the Lavers circuit walk to improve drainage and provide access for people with limited mobility.
- Improve the drainage and surface of the Blackfish Way to give better access.
- Improve drainage and the surface of Wombelano Falls Walk and investigate providing a return route.
- Design and construct half-day walk from Jehosaphat Gully (Everard Block).
- Construct a new loop walk at Brock Spur if a picnic site is provided (section 5.2.2).
- Install appropriate signposting with time and distance information on all walking tracks.

#### 5.2.5 Horse riding

Horse riding is a popular activity among residents in nearby rural areas, particularly those to the south of the Park. Substantial numbers of recreational riders and groups from local commercial horse riding schools visit the Park.

TABLE 5 MANAGEMENT OF WALKING TRACKS

NAME	LENGTH (ONE WAY)	CURRENT STANDARD	ADDITIONAL WORK REQUIREMENTS	PROPOSED STANDARD
Sugarloaf Ridge Track	3.0 km	С	New section to be constructed around Cinnamon Fungus site	С
The Lyrebird Circuit #	500 m	A1		A1
Masons Falls Walk	500 m	A2		A2
Shelley Harris Track	3.2 km	C		C
Banksia Ridge Track	1.2 km	D		D
Bundy Track	3.0 km	D		D
Lavers Circuit	800 m	С	Upgrade (include boardwalks and surfacing)	A2
Cicada Circuit #	500 m	A2		A2
Blackfish Way	2.0 km	C	Upgrade	В
Wombelano Falls Walk	500 m	C	Upgrade	В

NB Walking is also available on management vehicle only tracks and all other vehicle roads and tracks in the Park (table 3)

<sup>#</sup> Suitable for wheelchairs

C1	11	١.
<b>NTar</b>	ndard	٠.

Grade A1	Fully sealed surface suitable for visitors with limited mobility
Grade A2	Track physically well defined, well drained with good surface
Grade B	Track well defined, benched and drained

Grade C Track well defined through use which may be benched, drained and cleared in sections

Grade D Track defined through use but having no basic construction

Horse riding has generally been confined to traditional routes shown on the existing Park brochure, although some other tracks are used. Tracks used by horse riders are generally maintained by NRE; however, commercial operators using the Wombelano Block have contributed to and constructed a separate horse trail parallel to Eucalyptus Road.

The number of horse riders visiting the Park has been increasing and this trend is likely to continue. In particular, more horse riders are expected to seek entry to the Park up the escarpment as closer settlement occurs in areas to the south. Additional riders will also seek to enter the Park if a horse riding trail is established along the Watsons Creek Valley, as has been proposed. Any commercial safari horse riding introduced to the area could also lead to an increase in horse riding in the Park.

Horse riding strategies have yet to be prepared for the region as a whole.

Horse riding damage to the Park has been restricted by existing guidelines which encourage horse riders to concentrate their activities on tracks in the Wombelano Block. Detailed knowledge of the vegetation communities of this Block is yet to be established (section 3.2), but the Block has generally more friable soils, lower slopes and lower rainfall, and has been more extensively disturbed by past land use, than other areas of the Park.

Horse riders from areas south of the Park use the Mount Jerusalem Track and Everard Track, and have created other linked tracks to access the Kinglake plateau. Increased erosion and the spread of grassy weeds have been observed along these tracks. These escarpment areas are subject to high rainfall, gully and sheet erosion, and the introduction and spread of Cinnamon Fungus. Horse riding threatens natural values in these areas, including the Special Protection Area (section 2.3, table 1 and sections 3.2, 3.3, 4.2 and 4.3). Alternative access will be made available on Old Kinglake Road, once it is closed to public vehicles.

#### Aim

 Provide opportunities for both commercial and recreational horse riders, consistent with protecting natural values and avoiding conflict with the activities of other park visitors.

#### **Management strategies**

- Permit horse riding in accordance with table 6, subject to closures as necessary.
   Prohibit horse riding on all other tracks and areas including Mount Jerusalem Track, Everard Track and all tracks within the Special Protection Area.
- Promote horse use of Old Kinglake Road (once it is closed to public vehicles).
- Close tracks shown in table 6 to horse riding as necessary, to prevent further erosion.
- Provide a map showing Park roads and tracks available for horse riding, and

- copies of the 'Horse Riding Code', to horse riders on request, and encourage them to follow the code.
- Liaise with the Shire of Nillumbik and the Shire of Yarra Ranges regarding the provision of an appropriate horse trail network on roads and road easements surrounding the Park. In particular, consider linkages emanating from Old Kinglake Road.
- Determine impacts of current commercial horse riding operations, and negotiate appropriate future use.
- Liaise with commercial horse riding interests regarding suitable cost sharing arrangements for track, bridge and other horse-riding-related facility maintenance.
- Monitor and assess impacts of horse riding on natural resources, tracks, weed distributions, and other park visitors as a basis for determining appropriate levels of use on tracks where horse riding is permitted.
- Limit group size for commercial and non-commercial riding groups to 20 horses.

#### 5.2.6 Cycling

Cycling has increased in popularity over the past decade, with family groups predominating. Bicycles are transported on vehicles to the Park, often to picnic areas which are used as a base for rides. The group size is usually small.

Much of the Park is suited to this activity because of the network of roads connecting and crossing the various non-contiguous blocks.

TABLE 6	ROADS AND TE	SACKS ON WHIC	H HORSE RIDING IS	PERMITTED
IADLL	NOADO AND H			

SECTION OF PARK	PARK ROADS AND TRACKS
Wombelano Block.	Easement Track, Boggy Creek Road, Candlebark Track, Burgan Track, Island Creek Track, tracks on the transmission line easement, Mountain Creek Track between Eucalyptus Road & Tea-tree Horse Trail, Davids Track, Hakea Ridge Track.
Sugarloaf Block.	Bowden Spur Road, Bald Spur Road.
Everard Block.	Cooksons Hill Track, Wild Dog Creek Road.

<sup>\*</sup>Horse riding occurs on the following public roads adjacent to or within the Park:
Eucalyptus Road, Captain Creek Road, Beale Avenue, Pine Ridge Road, Old Kinglake Road, Old Yarra Glen
- Glenburn Road, Heidelberg - Kinglake Road, Full-and-Plenty Track.

The 'Mountain Bike Code' sets out guidelines for safe cycling and methods of minimising the impacts of cycling on Park and other natural environments.

Off-road cycling is not compatible with the protection of natural values in escarpment areas (section 2.3, table 1 and sections 3.2, 3.3 and 4.3), including preventing the spread of Cinnamon Fungus (section 4.2) particularly in the Special Protection Area.

### Aim

 Provide access for cycling while minimising environmental damage and conflicts with other recreation activities.

# **Management strategies**

- Permit cycling on all vehicular routes in the Park except the Everard Track.
- Prohibit cycling in the Special Protection Area.
- Prohibit cycling on walking tracks.
- Install signs on Running Creek Track to warn cyclists of steep slopes and warn them to give way to walkers.
- Make available, and encourage use of, the 'Mountain Bike Code'.

 Reduce groups larger than seven riders to notify Park staff of planned routes, to avoid conflict with other users of the Park.

# 5.2.7 Orienteering and rogaining

Orienteering and rogaining are not permitted in Reference Areas and sites of scientific significance, areas where the environmental impact would be unacceptable, and areas heavily used by visitors. Decisions on the acceptability of orienteering in other areas is, in part, based on the proposed intensity, frequency and timing of events.

There is no formal orienteering course within the Park.

Wombelano Block is the most suitable location for orienteering and rogaining events. Orienteering and rogaining are not suitable activities for the Everard Block, which has high conservation values, or the Sugarloaf Block, which has a concentration of other visitor activities.

#### Aim

 Provide orienteering and rogaining opportunities in the Park, while minimising impacts on Park values.

#### **Management strategies**

- Permit orienteering and rogaining in the Wombelano Block in accordance with NPS Guideline 19.2R.
- Prohibit orienteering and rogaining in the Sugarloaf and Everard Blocks.

# 5.2.8 Fishing

Fishing is an infrequent activity within the Park because of the limited number of suitable streams. Most fishing occurs in Arthurs Creek, Running Creek Reservoir and Island Creek. The impact on the Park environment is minimal but the impact on the fish populations is undetermined.

The presence of a large population of introduced Brown Trout in Arthurs Creek at the Park boundary has almost eliminated the native Mountain Galaxias and contributed to the elimination of Broad-finned Galaxias. However, these occur in larger numbers in the headwater sections, out of reach of trout. Large populations of Mountain Galaxias have also been recorded in the headwaters of Diamond and Jehosaphat Creeks. Monitoring of fish species and communities is necessary to determine the impact of fishing on populations.

Running Creek Reservoir contains Freshwater Blackfish and Brown Trout. Blackfish and Mountain Galaxias cannot negotiate the reservoir spillway. There is currently no official access to the reservoir within the Park. Informal access is at present down a spur line off Running Creek Track, reached via Mount Sugarloaf Road.

The future for the reservoir is to be investigated (section 7.1).

#### Aim

 Provide fishing opportunities while minimising conflict with Park conservation values.

#### **Management strategies**

- Permit recreational fishing in all areas of the Park except the Special Protection Area
- Allow informal access to Running Creek Reservoir for fishing consistent with the strategy for the reservoir specified in section 7.1.
- Establish a program to monitor fish species and populations.

# 5.3 Visitor information and interpretation

Information and interpretive services are currently inadequate, being limited to visitor leaflets, a saleable Park map at 1:25 000 scale, a few information boards around the Park and a limited holiday program. Inadequate roadside signage hinders orientation throughout the Park (section 5.2.1). The provision of quality information and interpretive services would help orientate visitors, guide visitor use, assist marketing of the Park, reduce management problems and contribute to a broader community understanding and appreciation of the Park's natural and cultural values and management objectives.

The development of an interpretation plan encompassing the Park's conservation values, Wurundjeri and Taunerong culture and European settlement history is a priority.

#### Aims

- Orientate visitors to the Park and its features through the provision of quality signage and information.
- Enhance visitors' enjoyment and understanding of the Park's natural and cultural values, through the provision of quality interpretive services.

#### **Management strategies**

 Prepare an Interpretation Plan for the Park, in the context of broader regional opportunities, encompassing improved availability of trail information,

- information boards and interpretive material at key visitor locations and walking track entry points. Consider developing the topics indicated in table 7.
- Arrange for the erection of Park information boards on the major approach routes including the Melba Highway, Hurstbridge Road and Kinglake West-Whittlesea Road.
- Improve Park information at main arrival points, and directional/identification signage of key attractions and facilities within the Park.
- Develop a saleable publication detailing the natural resources, recreation opportunities (e.g. notes for walks), and opportunities for community-based management of the Park.
- Provide adequate visitor orientation information and safety messages at key visitor sites.
- Emphasise community involvement in park management in interpretive themes (section 6.2).
- Establish and implement monitoring and maintenance schedules for all interpretive facilities.
- Undertake regular evaluation of information and interpretive programs related to the Park.
- Investigate measures to enhance the presentation, effectiveness and efficiency of the visitor services provided to Park users.

# 5.4 Commercial tourism operations

The Park's diverse natural, cultural and recreational values present prime opportunities for nature-based tourism. Activities offered by commercial operators include horse riding, cycling and bushwalking, although at certain times of the year these activities may be restricted through to the seasonal closure of some tracks.

Numerous privately-run commercial establishments cater for tourists in areas surrounding the Park. These feature in tourism promotion campaigns focusing on the product region known as the Yarra Valley, Dandenongs and the Ranges. Commercial accommodation is currently available on private land adjacent to the Park and in nearby townships for those wishing to stay overnight in the area.

There is great potential to develop commercial tours within the Park. A coordinated effort between tour operators and Park management would result in the provision of high quality services while ensuring that Park values are protected.

An important issue relating to increased tourism is the number of cars and buses transporting visitors to the area. Buses can be noisy and polluting, and take up space which can influence the level of satisfaction gained from a visit to the Park by other tourists.

#### Aims

- Provide opportunities for commercial tourism services consistent with Park management objectives.
- Complement tourism opportunities and activities in the region.
- Liaise with local tourism bodies to increase awareness of the Park and to coordinate use by touring groups.
- Promote the special character of the Park in terms of its relationship to the encroaching metropolitan area of Melbourne and the surrounding region.

#### **Management strategies**

- Encourage bus tour operators to visit the Park at times of low use by other visitors.
- Encourage commercial operators to assist in the protection of Park values and management of its facilities, and ensure that they comply with Park

#### **TABLE 7 INTERPRETATION THEMES**

For the Park as a whole: Aboriginal culture.

Aboriginal and European heritage resources of the Park.

European settlement and early Park history.

Threats to conservation values.

For particular sites:

Masons Falls Landscape formation/Catchment.

Lyrebird Track Timber milling history/Lyrebirds/Vegetation types.

Jehosaphat Gully Mountain ash forest/Historical/Lyrebirds.

Mt Slide Road Impacts of gold mining. Everard Trail at Broad Gully Ecological variation.

Wombelano Falls Differential regrowth/Catchment (section 3.2).

Boundary Track Weeds, boundary issues.

Regulations and NRE guidelines for commercial tour operators.

- Encourage the assessment and development of services, facilities and information for visitors in centres close to the Park.
- Supply information on the Park to commercial operators to ensure the integrity and accuracy of information given to clients.
- Liaise with local and regional tourism bodies to ensure that visitor opportunities in the Park are incorporated into tourism programs for the region.
- Promote the Park's tourism values as part of a mountain rim scenic drive.
- Participate in the development of local tourism strategies.

#### 5.5 Public safety

The climate, topography and densely vegetated landscape of the Park present inherent dangers and risks to Park visitors.

Wildfire is a potential hazard during dry times of the year.

The Victoria Police is responsible for search and rescue operations within the Park. Such operations would usually involve NRE, the State Emergency Service and other groups, under Police supervision.

#### Aim

• Promote and encourage safe practices among staff and visitors to the Park.

#### **Management strategies**

- Ensure Park staff are sufficiently trained for, and have the ability to assist in, emergency situations, and co-operate with emergency service organisations.
- Encourage visitors to seek information about any activities they intend to undertake in the Park.
- Contribute to Displan planning for search and rescue within the Park.
- Develop an emergency response plan for the Park.

#### 6 COMMUNITY AWARENESS AND INVOLVEMENT

#### 6.1 Friends and volunteers

Friends and volunteers are very important assets as they foster community support for parks. Interested groups such as the Friends of Kinglake National Park, the Friends of the Lyrebird, field naturalists, local bird observers and conservation groups make valuable contributions to Park management projects, and their assistance is encouraged.

#### Aim

• Encourage volunteer involvement in managing the Park.

#### **Management strategies**

- Encourage the Friends of Kinglake National Park and the Friends of the Lyrebird to assist in monitoring populations of significant fauna.
- Encourage volunteer groups to assist in weed management, regeneration and conservation programs.
- Promote the existence and activities of Friends and volunteer groups, to gain greater support from the community.
- Develop, implement and evaluate a longterm volunteer strategy which incorporates the skills and interests of volunteer groups in Park management strategies, e.g. in running volunteer guide programs.

# 6.2 Community awareness and Park neighbours

The public land strip along the mountain escarpment is as narrow as one kilometre in places. The forested escarpment has been constricted by land clearing from above on the plateau and below in the Strathewen and Steels Creek valleys. This may have partly caused the decline of the Yellow-bellied Glider and elimination of the Tree Goanna from the ranges in the western section of the Park.

Forested private land adjoining the Park should be protected as this land forms a buffer for the Park and increases the viability of fauna in the Park.

A forested private land wedge (1.5 to 2 km in width) between the upper Diamond Creek and Bald Spur separates the two southern blocks of the Park. It forms a valuable corridor for movement of wildlife which should be maintained.

Significant bushland adjacent to the Park must be protected, particularly large, old trees containing hollows, and streamside and gully vegetation (section 3.2). Neighbours need to understand the implications of their land management practices, especially in relation to weed control and domestic animal ownership. Land owners adjacent to the Park should be encouraged to preserve native vegetation and fauna via the implementation of a range of protection mechanisms and incentives.

Although there is a high level of community involvement in the Park (section 6.1), greater participation would further benefit the Park. Community involvement could be encouraged through the use of pamphlets explaining the formation and protection of natural features, how the Park functions, and methods for protecting and managing key assets. Good neighbour programs and Landcare and Land for Wildlife programs on adjacent private land could be promoted by this process.

#### Aims

- Encourage conservation and sound land management practices on private land adjoining the Park. In particular, minimise change to relatively undisturbed native vegetation adjacent to the Park.
- Promote a positive image of the Park which enhances appreciation of its contribution to the community.

#### **Management strategies**

 Liaise with local community groups, land owners, and Catchment and other bodies as necessary, and as appropriate involve them in relevant aspects of planning and managing the Park.

- Encourage private property owners adjoining the Park to protect existing native vegetation, particularly mature habitat trees and streamside and gully vegetation, through such mechanisms as covenants on title, Section 173 agreements (Planning and Environment Act) and the Land for Wildlife Scheme.
- Liaise with and encourage Local Government Authorities to design and institute overlay controls in local Planning Schemes to conserve existing native vegetation on private property, particularly land in catchments above the Park and within two kilometres downstream of the Park. In particular, encourage the Shire of Nillumbik to rezone vulnerable unoccupied bushland adjoining the Park to Conservation A.
- Encourage revegetation of cleared land adjoining the Park, particularly land visible from the viewing platform opposite Masons Falls.
- Maintain a public relations program with all sectors of the community aimed at promoting Park values and resolving conflicts with adjacent land owners, particularly regarding threats to conservation values from weeds, domestic pets and pest animals.
- Apply, and encourage the application of, the Good Neighbour Policy to management issues on or near the boundary of the Park.

## 6.3 Schools education

The Park is an important educational resource for school students. A range of recreational resource material is available or in preparation to assist school groups, including a VCE Geography Resource Kit and Draft Guides for Teachers and Students.

Ranger staff at the Park currently provide a free interpretation service for primary, secondary and tertiary school groups, and programs for the Park have also been developed by Park staff in conjunction with local schools.

Presentations are held in the current Visitor Centre adjacent to the Park Office, and interpretation undertaken on-site in the Park (section 5.2.1). During weekends and holidays special educational and/or fun activities are organised for families.

There are significant opportunities to further develop the Park as a base for educational studies. The Andrews Hill Education Area offers an appropriate study area for formal programs, and camping facilities for school groups may be situated in this area (section 5.2.3).

The popularity of the Park for school group visits places pressure on management resources. An education resource guide for the Park and improved interpretation will ensure better knowledge of the significance of external threats to the Park, such as weeds and feral animals, and the importance of community involvement in managing boundary land around the Park (section 5.3).

#### Aim

 Provide opportunities for education programs in the Park while minimising the environmental impact of these activities.

#### **Management strategies**

- Liaise with and inform the Department of Education about new procedures for continuing educational use of the Park based on limiting ranger involvement and encouraging a self-help approach by teachers, using the Visitor Centre as the main resource.
- Investigate measures to enhance the provision of schools educational programs in the Park, e.g. levy of appropriate fees, contracting services out.
- Publicise the availability, particularly to local schools, of schools education and resource material which will assist teachers to meet the needs and objectives of curriculum programs.
- Encourage use of the Andrews Hill Education Area for education activities.

- Encourage development of education material about threats to Park values and proper management of adjoining land through co-operation with communities and adjacent landholders.
- Finalise the education resource guide for teachers and students.

#### 7 OTHER ISSUES

#### 7.1 Authorised uses

A number of public authorities maintain facilities within the boundaries of the Park. PowerNet maintains a major high voltage powerline supported on large intrusive pylons, situated in a cleared strip which extends across the Sugarloaf and Wombelano Blocks. Eastern Energy maintains a low voltage powerline adjacent to the pylon line. In both Blocks, the powerline access tracks attract off-road vehicle activity, especially trail bike riding. The impact of these activities on the Park is considerable in the Wombelano Block

Land Conservation Council recommendations state that this easement will continue to be used for electricity transmission purposes (LCC 1994).

Agreements between NRE and each utility company are needed to ensure that the impact of the facilities is minimised (section 3.4).

A permanent survey marker and trig. point are located on Beales Hill in the north-eastern section of the Wombelano Block. Access is required for maintenance.

There is a 273 megalitre reservoir on Running Creek in the south-western part of the Sugarloaf Block. The Running Creek drainage basin is a proclaimed Water Supply Catchment. The reservoir supplied domestic water to consumers in the outer suburban area of Wattle Glen and Hurstbridge until 1988, but is no longer used for this purpose.

The reservoir is informally used for fishing and contains a colony of Common Bent-wing Bats in the reservoir outlet pipe. There is currently no track to the reservoir.

#### Aims

- Minimise the impacts of public utilities on the Park.
- Ensure appropriate use and licensing of existing and any proposed new public utilities.

### Management strategy

- Ensure that each existing public utility is covered by a Section 27 consent in accordance with NPS guidelines:
  - consult with Eastern Energy and PowerNet on methods of reducing the visual impact of the electricity powerlines, pylon line, road batters, vegetation clearings and maintenance works;
  - liaise with Melbourne Water in relation to the future of the Running Creek Reservoir.

# 7.2 Boundaries and adjacent uses

Private land adjacent to the Park consists of mixed livestock farms, orchards, small market gardens, and berry and potato farms, all of which have the potential to affect the Park's ecological processes and landscape (section 3.4). A number of small bush block residences also surround the Park (section 6.2). State forest borders the northern boundary of the Wombelano Block and the Toolangi State Forest is east of the Melba Highway. The landscape of mixed rural and forested land over the foothills and plateau is attractive to visitors.

Residential development is close to the Park boundaries in a number of locations (National Park Road, Bald Spur Road, Parkland Road) and in nearby townships. Land use in the area is covered by planning schemes administered by the Murrindindi, Nillumbik and Yarra Ranges Shires.

There is a considerable amount of public land adjacent to the southern boundary of the Everard Block, in the vicinity of Watsons Creek. Much of this land is owned by Melbourne Water as part of the proposed Little Watsons Creek Reservoir and is forested and little disturbed, supporting a range of vegetation communities (Melbourne Water 1994). The Land Conservation Council has recommended that some of this land be in a proposed habitat link between the Yarra River at Warrandyte and Kinglake National Park, under co-operative

management by NRE and Melbourne Water (LCC 1994).

#### **Aims**

- Co-operate with landholders adjacent to the Park in the protection of both private property and public land from fire, pests, visual threats, erosion and other hazards.
- Minimise conflicts between Park values and surrounding land use.

## **Management strategies**

• Liaise with local planning authorities, and private land owners, on the use and operation of planning schemes, guidelines, covenants and legal agreements, with the aim of minimising adverse effects of private land use and developments on Park values.

- Maintain liaison with other managing authorities regarding the use of adjoining public land reserves and easements.
- Negotiate with landholders the terms for continued access through the Park to adjacent freehold properties, as appropriate.
- Support the establishment and protection of the Warrandyte-Kinglake Nature Conservation Link and liaise with Melbourne Water on future management issues.

# **8 IMPLEMENTATION**

A three-year rolling implementation program will be prepared for the Park to ensure efficient implementation of this Plan. Priorities for management are identified in table 8 as an initial step in this process.

TABLE 8 PRIORITY MANAGEMENT STRATEGIES

MANAGEMENT STRATEGIES	SECTION IN PLAN
Resource conservation	
Implement management regimes for Ecological Vegetation Classes.	3.2
Survey habitat resources of Wombelano Block.	3.2, 3.3
Develop and implement a fauna survey program.	3.3
Investigate conservation measures for native fish populations.	3.3
Revegetate disturbed sites.	3.2
Seek to protect adjoining native vegetation.	6.2, 7.2
Reduce visual impacts relating to Park.	3.4
Investigate methods of reducing the visual impact of Eastern Energy	
and PowerNet powerline facilities.	3.4, 7.1
Involve the Wurundjeri community in the management and	
interpretation of significant Aboriginal sites.	3.5
Park protection	
Provide input to finalise the Draft Alexandra Regional Fire Protection	
Plan.	4.1
Survey and develop plans and strategies for Cinnamon Fungus infested	
areas.	4.2
Provide coin operated gas or electric barbeques.	3.2, 4.1
Develop and implement a pest management strategy.	4.2
Co-ordinate pest plant and animal control measures with those of	
adjoining landholders.	4.2, 6.2
The Park visit	
Prepare a redevelopment plan for the Park entry to Sugarloaf Block.	5.2.1, 5.3
Provide signage on key approach roads.	5.2.1, 5.3
Manage road network.	5.2.1
Develop interpretation plan for the Park.	3.5, 5.3
Redevelop visitor facilities at key attractions.	5.1, 5.2.1, 5.2.2, 5.2.3
Develop new group camping facilities.	5.2.3
Develop a campfire strategy.	3.2
Improve management of horse riding.	5.2.5
Improve and develop walking tracks.	5.2.4
Promote the Park's identity and tourism values.	5.2.1, 5.3, 5.4
Promote community involvement.	5.3, 6.1, 6.2, 7.2
Promote education resources.	6.3
Investigate options for Running Creek Reservoir.	5.2.8, 7.1

# Table 8 (cont.)

MANAGEMENT STRATEGIES	SECTION IN PLAN
Monitoring and research	
Design and implement monitoring program for significant species	
and communities.	3.2, 3.3
Monitor the Park's lyrebird population.	3.3
Encourage research on the ecology of selected species	3.3
Encourage research on the effect of fuel reduction burning and	
slashing on vegetation communities.	4.1
Assess visitor requirements and maintain visitor monitoring.	5.1, 5.2.2

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# APPENDIX I ECOLOGICAL VEGETATION CLASSES

EVC*	HABITAT	DOMINANT SPECIES			
		OVERSTOREY	SHRUB LAYER	GROUND LAYER	
Wet Forest	Protected slopes of ranges, southerly aspects, plateaus, high rainfall, deep, rich, well- drained soils.	Mountain Ash.	Silver Wattle, Blackwood, Hazel Pomaderris, Blanket-leaf.	Soft Tree-fern, Rough Tree-fern, Mother Shield- fern.	
Damp Forest	Range of soils and aspects.	Messmate, Mountain Grey Gum, Manna Gum.	Hazel Pomaderris, Prickly Coprosma, Bootlace Bush.	Common Ground-Fern, Ivy-leaf Violet, Rough Tree-fern.	
Riparian Forest	Moist, fertile, well-drained soils, rich understorey.	Manna Gum.	Silver Wattle, Blackwood, Hazel Pomaderris, Woolly Tea- tree.	Soft Tree-fern, Red-fruit Saw-sedge, water ferns, Tall Sword-sedge, Common Reed.	
Herb-rich Foothill Forest	Northern sections, on northerly aspects on lower or gently sloping ground.	Narrow-leaf Peppermint, Messmate.	Common Cassinia, Silver Wattle.	Kidney-weed, Weeping Grass, Common Lagenifera, Bidgee- widgee.	
Shrubby Foothill Forest	Higher slopes, 400–900 m, north and south of the Great Dividing Range, mostly north east or westerly aspects.	Messmate, Narrow-leaf Peppermint.	Narrow-leaf Wattle, Dusty Miller, Handsome Flat-pea.	Ivy-leaf Violet, Common Raspwort, Grey Tussock-grass.	
Valley Forest	Lower slopes and valleys of the foothills, southerly aspects, acidic duplex soils.	Red Box, Red Stringybark, Long-leaf Box, Yellow Box, Swamp Gum.	Burgan, Cherry Ballart, Black Wattle, Sweet Bursaria, Common Cassinia.	Weeping Grass, Kangaroo Grass, Grey Tussock- grass, Silver-top Wallaby- grass, Kidney Weed.	

# (Appendix I cont.)

EVC*	HABITAT	DOMINANT SPECIES		
		OVERSTOREY	SHRUB LAYER	GROUND LAYER
Heathy Dry Forest	Shallow, stony soils of low fertility, poor water retention, northerly or westerly aspects, upper slopes.	Broad-leaved Peppermint, Long-leaf Box, Red Stringybark.	Rosy Baeckea, Wire Rapier-sedge, Austral Grass-tree, Creeping Grevillea, Cat's Claws Grevillea, Silver Banksia.	Silver-top Wallaby-grass.
Grassy Dry Forest	Exposed aspects, moderately fertile acidic duplex soils.	Red Box, Red Stringybark, Long-leaf Box, Yellow Box.		Grey Tussock-grass, Silver-top Wallaby-grass, Velvet Wallaby-grass, plume grasses, Grey Guinea-flower, Purple Coral-pea.
Heathy Woodland	Gentle, lower slopes, sandy at the surface with a clay or coffee-rock layer at some depth, seasonally wet, but dry out in summer.	Narrow-leaf Peppermint, Mealy Stringybark, Messmate.	Hairpin Banksia, Bushy Hakea, Furze Hakea, Dagger Hakea, Swamp Bush-pea.	Wiry Spear-grass, Kangaroo Grass, Red Bent-grass, Thatch Saw- sedge, Common Raspwort.

<sup>\*</sup>Ecological Vegetation Classes combine defined floristic communities to a set of ecological processes, in a three level hierarchy:

- Ecological Vegetation Class
- Floristic community
- Floristic sub-community.

SOURCE: AHC & CNR (1994)

Other vegetation types not adequately described at this stage: wetland vegetation, including submerged/floating meadow; emergent herbfield; gorge or cliff-face shrubland.

#### APPENDIX II RARE OR THREATENED FLORA

SCIENTIFIC NAME	COMMON NAME	STATUS	HABITAT
Caladenia flavovirens	Summer Spider-orchid	r	HDF
Caladenia lindleyana	Wine-lipped Spider- orchid	v	VF or HW
Euchiton umbricolus	Cliff Cudweed	r	cliff-face
Grevillea repens	Creeping Grevillea	r*	HW or HDF
Prasophyllum lindleyanum	Green Leek-orchid	v	HW
Pseudanthus divaricatissimus	Tangled Pseudanthus	r	cliff-face
Pteris comans	Netted Brake	r	WF or RF
Pultenaea weindorferi	Swamp Bush-pea	r*	HW
Tmesipteris ovata	Oval Fork-fern	r	WF/RF

#### STATUS:

Conservation status in Victoria (FIS database 1996).

- r Rare in Victoria, but not considered otherwise threatened.
- Vulnerable in Victoria, rare, not presently endangered but likely to become so soon as a result of continued depletion.
- \* Listed under the Flora and Fauna Guarantee Act.

#### HABITAT:

Ecological Vegetation Classes in Kinglake National Park.

HDF - Heathy Dry Forest

HW - Heathy Woodland

RF - Riparian Forest

VF - Valley Forest

WF - Wet Forest

# APPENDIX III SITES OF BOTANICAL SIGNIFICANCE

SITE	SIGNIFICANCE	FEATURES
Arthurs Creek-Chadds Creek headwaters	State	Damp Forest, Wet Forest and the most extensive Riparian Forest in north-east Melbourne. Following a prior classification by Robinson (1994), this site is of State significance.
Running Creek headwaters	State	Rare Cliff Cudweed, Tangled Pseudanthus and Creeping Grevillea. A diverse representation of Valley Forest uncommon elsewhere in the Park.
Diamond Creek headwaters	National	Rare Summer Spider-orchid, vulnerable Green Leek-orchid, rare Swamp Bush-pea and rare Creeping Grevillea. Largest known population of Swamp Bush-pea. Most extensive/intact stands of Heathy Woodland and Wet Heath in the Port Phillip Catchment. Most extensive/intact stands of Valley Riparian Forest and Valley Forest in north-east Melbourne. Area has been largely protected from logging and other human activity.
Steels Creek-Watsons Creek headwaters	State	This area is inaccessible and remote with pristine foothill stream catchments. Rare Netted Brake and Creeping Grevillea. Largest known population in Greater Melbourne of Butterfly Orchid (30 plants). One of the most intact stands of Riparian Forest and the most extensive stand of Dry Sclerophyll Forest in north-east Melbourne.

SOURCE:

Beardsell (1994)

# APPENDIX IV SIGNIFICANT FAUNA

SCIENTIFIC NAME	COMMON NAME	STATUS
Mammals		
Dasyurus maculatus	Spot-tailed Quoll	*v
Miniopterus schreibersii	Common Bent-wing Bat	*res
Myotis adversus	Large-footed Myotis	r
Nyctophilus gouldi	Gould's Long-eared Bat	-
Phascogale tapoatafa	Brush-tailed Phascogale	*r
Rhinolophus megaphyllus	Eastern Horseshoe Bat	*res
Sminthopsis murina	Common Dunnart	r
Birds		
Accipiter novaehollandiae	Grey Goshawk	r
Neophema pulchella	Turquoise Parrot	*r
Ninox connivens	Barking Owl	r
Ninox strenua	Powerful Owl	*r
Phalacrocorax varius	Pied Cormorant	res
Platalea regia	Royal Spoonbill	res
Tyto novaehollandiae	Masked Owl	*r
Tyto tenebricosa	Sooty Owl	*r
Reptiles		
Tympanocryptis diemensis	Mountain Dragon	-
Varanus varius	Tree Goanna	-
Fish		
Gadopsis marmoratus	Freshwater Blackfish	i
Galaxias brevipinnis	<b>Broad-finned Galaxias</b>	-
Galaxias olidus	Mountain Galaxias	i
Butterflies		
Acrodipsas myrmecophida	Small Ant Blue	e*
Acrodipsas brisbanensis	Large Ant Blue	r*
Ogyris genoveva araxes	Genoveva Azure	r

SOURCE:

CNR (1994a); CNR (1995)

### STATUS:

# CNR (1995)

e Endangered in Victoria

i Insufficiently known in Victoria

r Rare in Victoria

res Restricted in Victoria

v Vulnerable in Victoria

No conservation status

\* Listed under the Flora and Fauna Guarantee Act.

#### APPENDIX V MAJOR ENVIRONMENTAL WEEDS

#### SCIENTIFIC NAME COMMON NAME

Acacia baileyana Cootamundra Wattle Acacia decurrens Early Black Wattle Acacia longifolia Sallow Wattle Acetosella vulgaris Sheep Sorrel Agrostis capillaris Brown-top Bent Aira caryophyllea Silvery Hair-grass Aira cupaniana Small Hair-grass Aira elegantissma Elegant Hair-grass

Anagallis arvensis Pimpernel

Anthoxanthum odoratumSweet Vernal-grassAphanes arvensisParsley PiertArbutus unedoIrish Strawberry-tree

Arctotheca calendula Cape Weed
Aster subulatus Aster-weed

Briza maximaLarge Quaking-grassBriza minorLesser Quaking-grass

Bromus catharticus **Prairie Grass** Great Brome Bromus diandrus Soft Brome Bromus hordeaceus Callitriche stagnalis Water Starwort Calycotome spinosa Spiny Broom **Indian Hemp** Cannabis sativa Capsella bursapastoris Shepherds Purse Carduus tenuiflorus Slender Thistle Centaurium erythraea Common Centaury

Centaurium tenuiflorum Centaury

Cerastium diffusumSpreading Mouse-ear ChickweedCerastium glomeratumCommon Mouse-ear Chickweed

Chrysanthemoides moniliferaBoneseedCirsium vulgareSpear ThistleConyza albidaFleabaneConyza bonariensisTall FleabaneCotula coronopifoliaWater ButtonsCrataegus monogynaHawthornCynosurus echinatusRough Dogs-tail

Cynosurus echinatus

Cyperus eragrotis

Cyperus eragrotis

Cyperus tenellus

Cytisus palmensis

Cytisus palmensis

Cytisus scoparius

Cytisus scoparius

English Broom

Dactylis glomerata

Cocksfoot

Digitalis purpurea

Foksium plantagingum

Petersons Curso

Echium plantagineumPatersons CurseEhrharta erectaPanic Veldt GrassEhrharta longifloraAnnual Veldt GrassEpilobium hirtigerumHairy Willow-herbErica lusitanicaSpanish HeathErigeron karvinskianusBony-tip Fleabane

Fumaria bastardii Fumitory

#### SCIENTIFIC NAME

#### COMMON NAME

Fumaria officinalis **Fumitory** Fumaria vaillantii **Fumitory** Cleavers Galium aparine

Gamochaeta purpurea Purple Cudweed Genista linifolia Flax-leaf Broom Genista monspessulana Montpellier Broom

Hedera helix Ivy

Helminthotheca echioides Ox-tongue Holcus lanatus Yorkshire Fog

Hypericum androsaemum Tutsan

Annual Flatweed Hypochoeris glabra

Hypochoeris radicata Flatweed Ilex aquifolium Holly Juncus articulatus Jointed Rush Leontodon taraxacoides Hairy Hawkbit

Lepidium africanum Common Pepper-cress Lolium perenne Perennial Rye-grass Lonicera japonica Japanese Honeysuckle Lotus corniculatus Birds-foot Trefoil Lotus suaveolens Hairy Birds-foot Trefoil

Malus X domestica Domestic Apple Medicago polymorpha Burr Medic Melilotus indicus Sweet Melilotus Mentha pulegium Pennyroyal Modiola caroliniana Carolina Mallow Moenchia erecta Erect Chickweed Myosotis sylvatica Wood Forget-me-not

Red Bartsia Parentucellia latifolia Paspalum dilatatum **Paspalum** Paspalum distichum Water Couch

Phalaris aquatica Toowoomba Canary-grass

Picris hieracioides Hawkweed Picris Pinus radiata Monterey Pine Pittosporum undulatum Sweet Pittosporum

Plantago coronopus **Bucks-horn Plantain** 

Plantago lanceolata Ribwort

Plantago major Greater Plantain Annual Meadow-grass Poa annua English Meadow-grass Poa pratensis Polycarpon tetraphyllum Four-leaved Allseed

Polygonum aviculare Prostrate Knotweed Prunus cerasifera Cherry-plum Quercus palustris Pin Oak Wild Radish Raphanus raphanistrum

Rapistrum rugosum Giant Mustard Common Onion-grass

Rubus fruticosus spp. agg. Blackberry

Romulea rosea

Rubus laciniatus Cut-leaf Blackberrry

#### Appendix V (cont.)

Trifolium pratense

#### SPECIES NAME COMMON NAME

Rubus procerusBlackberryRubus vestitusBlackberryRumex conglomeratusClustered DockRumex crispusCurled DockRumex obtusifoliusBroad-leaf DockSagina apetalaCommon Pearlwort

Senecio jacobaea Ragwort

Silybum marianumVariegated ThistleSisyrinchium iridifoliumStriped Rush-leafSolanum nigrumBlack NightshadeSolanum physalifoliumCherry NightshadeSolanum pseudocapsicumMadeira Winter Cherry

Solanum tuberosum Potato Soliva sessilis Jo Jo

Bluebell Creeper Sollya heterophylla Rough Sow-thistle Sonchus asper Milk Thistle Sonchus oleraceus Spartium junceum Spanish Broom Stellaria media Chickweed Stellaria pallida Lesser Starwort Taraxacum Sect. Vulgaria Garden Dandelion Narrow-leaf Clover Trifolium angustifolium Trifolium arvense Hares foot Clover Trifolium campestre Hop Clover Trifolium dubium Suckling Clover

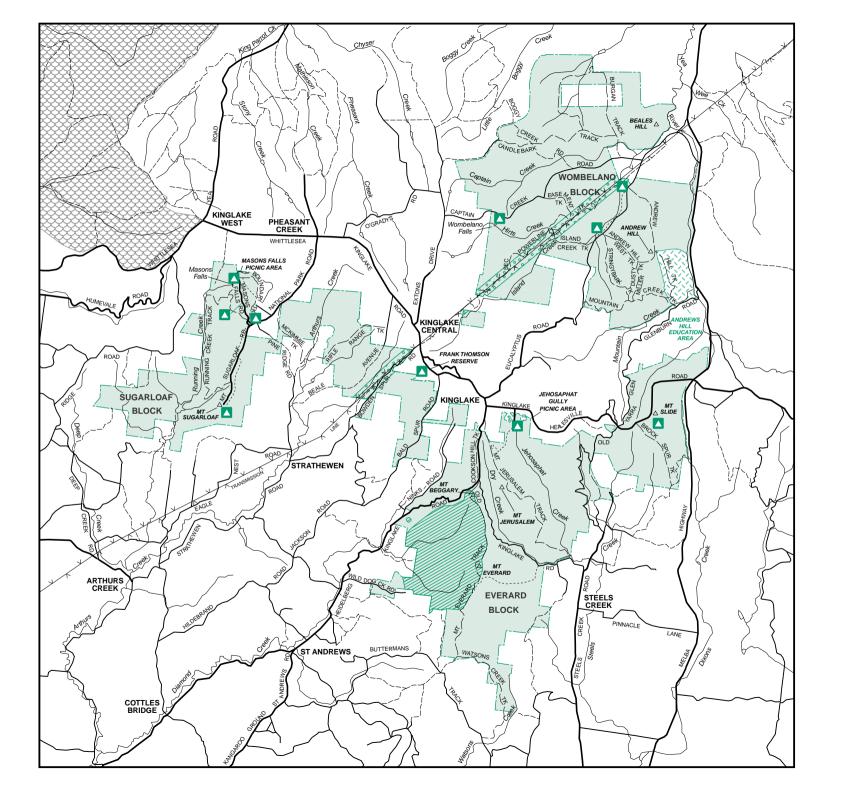
Trifolium repensWhite CloverTrifolium subterraneumSubterranean Clover

Ulex europaeus Gorse Ulmus procera English Elm Verbascum thapsus Great Mullein Twiggy Mullein Verbascum virgatum Common Vetch Vicia sativa ssp. sativa Blue Periwinkle Vinca major Viola odorata Common Violet Vulpia bromoides Squirrel-tail Fescue Vulpia myuros Rats-tail Fescue

Watsonia meriana Watsonia

44 Kinglake National Park

Red Clover





# Figure 1 **KINĞLAKE NATIONAL PARK**

# **MANAGEMENT ZONES**

Major road Minor road Management Vehicles Only track Vehicular track Walking track Wallaby Creek Catchment part of Kinglake National Park not covered by plan ZONES

Conservation and Recreation

Education

Recreation Development



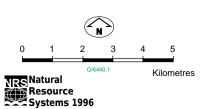
#### **OVERLAYS**

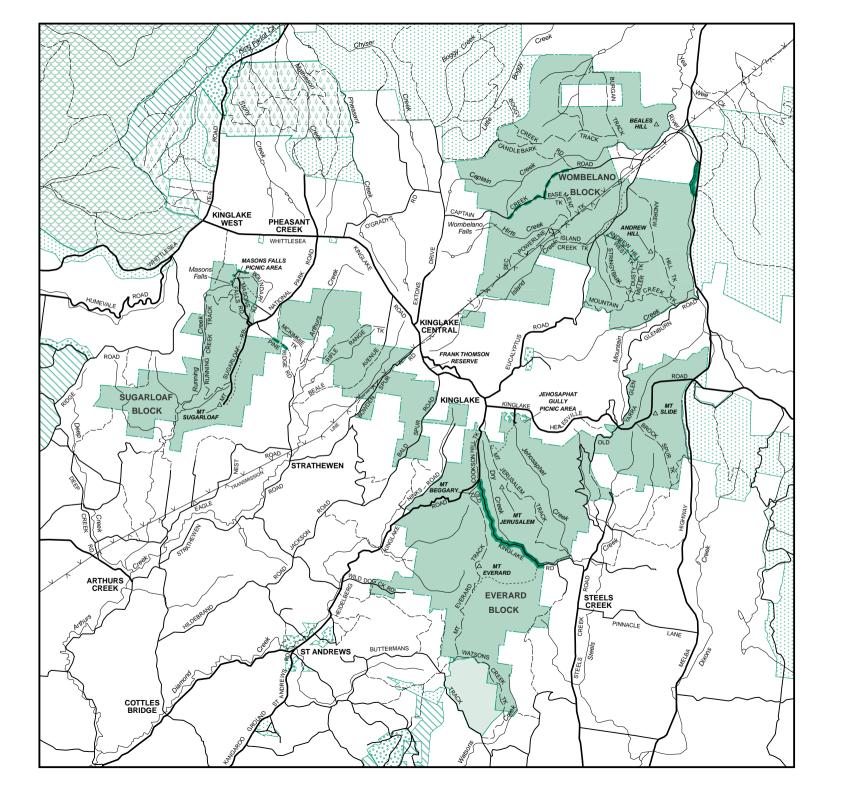
Special Protection Area

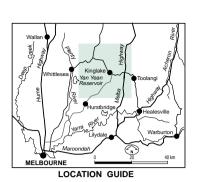


Special Management Area







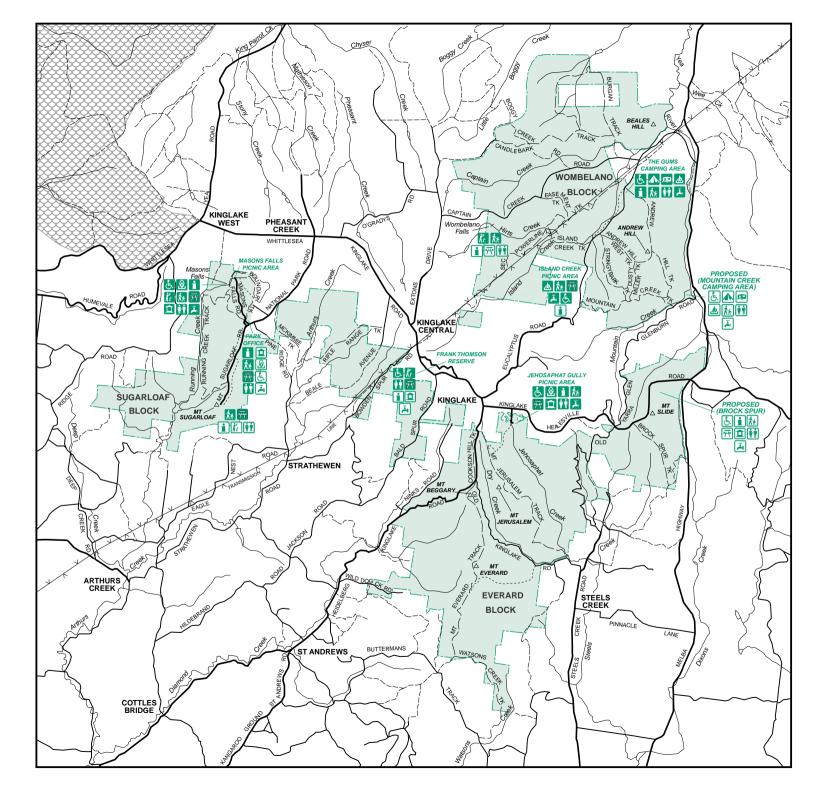


# Figure 2 KINGLAKE NATIONAL PARK

# PUBLIC LAND USE AND ACCESS MANAGEMENT

Major re	oad			_	
Minor re	oad			_	
Manage	ement V	ehicles C	Only track	_	
Vehicul	ar track			_	
Walking	g track				
	ed Mana cles Onl	agement y track			
Propos	ed seas	onal clos	ure	-	
Propos	ed new	road		-	
Propos	ed walk	ers only		• •	•••••
	Kinglake ed by P	e Nationa lan	al Park		
Propos	ed addit	ions to P	ark		
Gazette	ed Rese	rves			:
Melbou	rne Wat	er Land			
Victoria	ın Planta	ations Co	rporation	land	$\Delta \Delta \Delta \Delta$
State F	orest				
part o		Catchme ke Natior y Plan			
			$\geq$		
0	1	2	3	4	5

NRS Natural Resource Systems 1996 Kilometres





# Figure 3 KINGLAKE NATIONAL PARK

# **VISITOR FACILITIES**

Major road		
•		
Minor road		
Management Vehicles	s Only track	
Vehicular track		
Walking track		
Wallaby Creek Catch part of Kinglake Na not covered by plan	tional Park	
Part of Kinglake Nation	onal Park	
Access for Disabled	EXISTING	PROPOSED
Camping	<u> </u>	
Caravan	æ	
Fireplace	<u>.</u>	<u></u>
Gas BBQ	<u>@</u>	
Information		
Lookout	Ĭ.	i.
Nature Walk	//∧	/Å.★
Picnic Table	<b>A</b>	兩
Shelter		<u> </u>
Toilets	i i	<u> </u>
Water	<b>3</b>	<b>[</b>
	N	
0 1 2	3	4 5
G/6	440.3	Kilometres
NRS Natural		
Resource		
Systems 1996		