

Greater Bendigo National Park



Management Plan July 2007



This Management Plan for Greater Bendigo 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 for the park was published in January 2006. Forty-five submissions were received. All submissions have been considered in preparing this approved Management Plan.

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GREATER BENDIGO NATIONAL PARK MANAGEMENT PLAN



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Acknowledgements

In their rich culture, Indigenous Australians are intrinsically connected to the continent — including the areas now known as Victoria, and the State's parks and reserves. Parks Victoria recognises that the park is part of *Country* of the Traditional Owners.

Parks Victoria is grateful to all those organisations and individuals who have contributed to this Draft Management Plan. Special thanks go to members of the Greater Bendigo National Park Management Plan Advisory Group: Jennifer Alden, Graham Borrell, Frank Fenwick, Peter Galvin, Tim Jenkyn, Rod Leunig, Rex McKenzie, Rodney Orr, Alistair Stewart, Karen Thomas, Phillipa Varris, David Watters and Laurie Whelan.

Disclaimers:

This plan is prepared without prejudice to any negotiated or litigated outcome of any native title determination applications covering land or waters within the plan's area. It is acknowledged that any future outcomes of native title determination applications may necessitate amendment of this plan; and the implementation of this plan may require further notifications under the procedures in Division 3 of Part 2 of the *Native Title Act 1993* (Cwlth).

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

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

FOREWORD

Greater Bendigo National Park features a diverse range of Box–Ironbark forest and woodland vegetation that supports at least 70 threatened species, including the Pink-tailed Worm-lizard, Swift Parrot, Whipstick Westringia and McIvor Spider-orchid. The park significantly contributes to the unique forested landscape backdrop to Bendigo — the 'City in the Forest'.

Places and relics in the park convey to visitors the region's fascinating Indigenous, mining, forest utilisation and development history.

Being readily accessible, the park offers Bendigo residents and others in the wider community opportunities to explore its natural, cultural and recreational values.

The park is within *Country* of the Dja Dja Wurrung community, and many others in the community have historical associations with the area. Parks Victoria respects the traditional associations, and recognises the important contribution that those traditionally associated with the area, and others who know and value the area, can make to its management.

Through this plan, Parks Victoria seeks to strengthen its relationships with community groups with particular interests in the park, and encourage them to support the park's management with their enthusiasm, knowledge and skills.

The long-term management framework established in this plan will protect the significant natural and cultural values of the park, and provide appropriate recreational opportunities.

I thank the Greater Bendigo National Park Management Plan Advisory Group for their valuable contribution to the plan, and also wish to thank those individuals and organisations who made submissions on the draft plan. I look forward to the community's ongoing support for the management of Greater Bendigo National Park.

JOHN THWAITES MP Minister for Environment, Water and Climate Change

Ahr (Shr ants

APPROVED MANAGEMENT PLAN

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

The plan provides the basis for the future management of Greater Bendigo National Park. It was finalised following consideration of the 45 submissions received on the Draft Management Plan.

PETER HARRIS

Secretary to the

Department of Sustainability and Environment

MARK STONE

Chief Executive

Parks Victoria

INTRODUCTION TO BOX-IRONBARK PARKS

The Box–Ironbark forests and woodlands lie inland of the Great Dividing Range in northern Victoria. Extending in a broad band from Wodonga through Chiltern, Beechworth and Benalla, they reappear near Numurkah and continue through Heathcote, Bendigo, Maryborough and St Arnaud to Ararat and Stawell (figure 1). At the time of European settlement they covered almost three million hectares, or 13% of Victoria.

Box–Ironbark forests and woodlands are unique to Australia, valued by local communities and celebrated in literature and art. The landscapes of the region have inspired poets, writers and artists, both past and contemporary, including Banjo Paterson and Samuel Thomas Gill.

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

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

The Box–Ironbark forests have been associated with forestry, gold mining, grazing and apiculture since the 1830s. The major reefs and underground ore bodies helped establish and maintain towns and, together with forest products, contributed to the State's economic development.

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

opportunities to celebrate, protect and enhance these special landscapes.

European settlement has had a substantial impact on Box–Ironbark forests and woodlands. More than 80% of their original area has been cleared, and nearly all the remainder (496 000 ha, of which 372 000 ha is on public land) has been affected by grazing, timber cutting and other pressures from settlement. Past land uses have also contributed to region-wide problems of pest plants and animals, salinity and soil erosion.

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

Although dominated by box and ironbark eucalypts, the Box–Ironbark forests are not uniform. Six broad vegetation and landscape types and 73 ecological vegetation classes (EVCs) are recognised. Before European settlement the most extensive EVCs were Plains Grassy Woodland, Grassy Woodland and Box Ironbark Forest; all three are now endangered or depleted.

Fragmentation and loss of habitat in the Box–Ironbark region is the main reason that almost 300 of its 1500 flowering plant species and 53 of its 250 vertebrate animal species are now threatened. Many species, particularly of birds, are in an ongoing state of decline. A key aim of Box–Ironbark conservation and management is therefore the recovery of species, as well as the protection of species that are not threatened.

One of the greatest losses has been large old box and ironbark trees, which produce reliable and abundant nectar, supply foraging sites such as peeling bark and fallen timber for grounddwelling animals, and have many hollows vital for native mammals and birds. Instead of a landscape of large old and widely spaced trees, much is dominated by multi-stemmed coppice regrowth. In October 2002, after many years of study and debate, the Victorian government proclaimed a number of parks designed primarily to protect and enhance the natural and cultural values of some of the remaining original Box-Ironbark forests. The parks were also to be available for a range of appropriate recreational activities and for community enjoyment and appreciation. They comprise five national parks, five State parks, seven regional parks, two historic parks and reserves and one national heritage park. There are also some 300 conservation reserves to help link these park areas, bringing some connectivity to an otherwise fragmented landscape.

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

The parks should not be seen as separately managed 'islands' but as reservoirs of biodiversity within a broader landscape. Protecting and enhancing natural values on other public and private land in the region is vital because it improves and connects habitat for native species. The whole community, including the park managers, have roles to play in protecting, promoting and managing landscape biodiversity.

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

Because of their rich Indigenous and European heritage, in addition to their natural attractions, the Box–Ironbark parks are likely to have a growing significance for Victorians and visitors from interstate and overseas in the years ahead. The parks are an integral part of the character of growing regional cities such as Bendigo. They have great potential as complementary tourism attractions for people who come to the region for other reasons, such as for social, recreational, sporting or heritage experiences. There is also potential for Indigenous communities and products to support the development and delivery of Box–Ironbark experiences for visitors.

This plan explains these values and attractions in detail for Greater Bendigo National Park, and sets out how they will be protected and managed.

SUMMARY

Greater Bendigo National Park (17 020 hectares) comprises five areas—Kamarooka and Whipstick to the north, One Tree Hill and Mandurang to the south-east, and Big Hill to the south. The park contains significant natural and cultural features, and supports a diverse range of recreational activities.

The park, together with the Bendigo Regional Park and other forested areas, surround the Bendigo urban area, giving a characteristic landscape backdrop to the 'City in the Forest'.

The park lies within the *Country* of the Dja Dja Wurrung community. According to Indigenous tradition, *Country* was established in the *Dreaming*, and the Traditional Owners are part of it and bound by its laws. The Traditional Owners have occupied the area that includes the park for thousands of years and maintain an ongoing association with it.

As a consequence of the area's rich postsettlement history, many other people in the community have strong associations with the area that includes the park. They understand and appreciate the historical significance of the post-settlement transitions of the landscape from widely spaced large trees with a grass and herb understorey, to a relatively barren gold mining terrain, to the predominantly regrowth forest now protected in the park.

Twelve ecological vegetation classes (EVCs) occur in the park. The Sandstone Ridge Shrubland vegetation in the Whipstick and Kamarooka areas is one quarter of the existing statewide area of this EVC, and the park protects one of the largest areas of Grassy Woodland EVC in Victoria.

The park supports over 770 vascular plant and 218 vertebrate animal species. Thirty-eight plant species and 32 animal species are classified as threatened, including the nationally endangered McIvor Spider-orchid, Whipstick Westringia, Swift Parrot and Regent Honeyeater. The park includes more than 50% of the known populations of the Pink-tailed Worm-lizard, which is endangered in Victoria and vulnerable nationally. The diversity of woodland birds is a feature of the park, which supports many species of the endangered Victorian temperate-woodland bird community.

Popular recreation activities in the park include bushwalking, nature appreciation, bike riding, prospecting, picnicking, camping, orienteering, rogaining, hiking, horse riding, dog walking and car and motorbike touring.

This plan outlines sustainable management of the new national park to protect and conserve park values while enhancing the opportunities for visitor enjoyment and appreciation of the park. Key elements of the plan include:

- restoration of more natural age class distributions, structures and floristic diversity to vegetation communities
- maintenance, and in the long-term, if practicable, restoration of viable populations of threatened flora and fauna
- encouragement of sustainable recreational activities in appropriate locations, and in ways that minimise impacts on park values and fellow visitors
- management of the Kamarooka and Sandhurst Reference Areas to minimise human impacts
- management of pest plants, animals and diseases to minimise impacts on all park values
- respect for Indigenous knowledge relating to Country and appropriate reflection of the Traditional Owners' views, interests, rights and aspirations in all planning and management of the park
- protection of Indigenous cultural places and objects, and interpretation as appropriate
- protection, conservation and interpretation of historic cultural places and relics, and significant cultural landscapes
- encouragement and support of research that will assist the management of natural and cultural values
- engagement of the community in information, interpretation and education programs, from development to implementation
- enhancement of community awareness and a sense of custodianship of the park

- encouragement and support of community involvement in the park's management, particularly among those with traditional or historical associations with, or other special interests in, the park
- encouragement and support of community partnership projects, in the park or the surrounding areas, that protect and enhance park values.

In relation to the Kamarooka and Whipstick areas, this management plan replaces the Kamarooka and Whipstick State Parks Management Plan prepared in 1996.

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1 INTRODUCTION

1.1 Location and planning area

Greater Bendigo National Park is 160 km north of Melbourne. It includes five separate areas partially encircling the City of Bendigo, including the former Whipstick and Kamarooka State Parks. The One Tree Hill area of the park is almost completely surrounded by residential areas of the City. The Bendigo Regional Park provides a buffer between the City and the northern and southern areas of the national park (figures 1 and 1a).

The park (17 020 ha) includes the areas formerly known as:

- Whipstick State Park (2303 ha; north of Bendigo)
- Kamarooka State Park (7273 ha; north of Bendigo)
- One Tree Hill Regional Park (1090 ha; south-east of Bendigo)
- Mandurang South and Sandhurst State Forests (1327 ha; south of Bendigo).

It also includes former:

- Water Production areas (1482 ha; south of Bendigo)
- Eucalyptus Oil Production areas (2267 ha; in north of Bendigo in the Whipstick area)
- Flora Reserve (3 ha)
- Earth Resources areas (156 ha)
- areas of uncommitted land linking Kamarooka and Whipstick State Parks (1005 ha)
- freehold land (94 ha)
- land donated by the Trust for Nature at One Tree Hill (20 ha), which the Trust had acquired with funds donated by the public, the former Strathfieldsaye Shire, Ross Trust, Australian Geographic, two anonymous donors and the Government of Victoria (Victorian Government 2004).

Kamarooka Reference Area (225 ha; north of Bendigo) and Sandhurst Reference Area (425 ha; south of Bendigo) are within the park.

For management purposes, the separate areas comprising the park are referred to as blocks (figures 2a, b), namely:

- Kamarooka block
- Whipstick block
- One Tree Hill block
- Mandurang block
- Big Hill block.

1.2 Creation of the park

Greater Bendigo National Park was included in Schedule Two of the *National Parks Act 1975* (Vic.) as a result of the *National Parks (Box–Ironbark and Other Parks) Act 2002* (Vic.) and was proclaimed on 30 October 2002.

The park resulted from the ECC's Box–Ironbark Forests and Woodlands Investigation Final Report, Recommendation A4 (ECC 2001). In accordance with ECC final recommendations:

- unused road reserves were added to adjoining parks where appropriate
- the recommended Sandhurst Reference Area (G6) and the areas formerly reserved as state park are reserved to the centre of the Earth; all other areas, including One Tree Hill, Mandurang and Big Hill, are reserved to a depth of 100 metres below the surface.

1.3 Plan development

This Management Plan for Greater Bendigo National Park was prepared by Parks Victoria, with significant input from the Greater Bendigo National Park Management Plan Advisory Group and other stakeholders. It takes into account existing information, reports and research findings and plans that relate to the area, including:

- Kamarooka and Whipstick State Parks Management Plan (DNRE 1996)
- Box–Ironbark Forests and Woodlands Investigation Resources and Issues Report (ECC 1997)

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- Box–Ironbark Forests and Woodlands Investigation Final Report (ECC 2001)
- Government Response to Environment Conservation Council Box–Ironbark Forests and Woodlands Investigation Final Report (Victorian Government 2002)
- Recreation Framework for Box–Ironbark Public Land (DSE 2003a).

This plan is also informed and supported by a range of best practice management systems.

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

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

The Draft Management Plan was published for public comment in January 2006, and 45 submissions were received (appendix 2).

All submissions were carefully considered. Where necessary, further consultation with the community and stakeholders was undertaken.

Significant changes made as a result of submissions include:

- removal of inferences as to who were
 Traditional Owners (throughout the plan)
- introduction of strategies to prevent the introduction and spread of diseases and weeds (section 4.7)
- inclusion of further information from the Victorian Aboriginal Heritage Information System (section 2.2)
- clarification of the importance of habitat for the Pink-tailed Worm-lizard in the park and surrounding areas (section 4.6)

- correction of information, and inclusion of new information, relating to past wildfires in the park (section 4.8)
- inclusion of information relating to a scoping study that investigated and gave recommendations about interpretive and educational opportunities across the Box– Ironbark forest and woodland landscapes (section 6.1)
- classification of certain roads as fire access roads (section 6.2 and table 4)
- clarification that unformed and informal roads and tracks not listed in the management plan will not be maintained and will be allowed to revegetate over time (sections 6.2, 6.3 and 6.4)
- the removal of toilet facilities at the One Tree Hill Lookout visitor site and investigation of overnight closure of the site (section 6.5)
- amendment of text relating to apiary activities in the park, and research into impacts of introduced European honey bees on natural ecosystems (section 7.2)
- reference to the 'Bush Telegraph' service as a means for the community to report suspicious or destructive behaviours in the park (section 8.2).

No changes were made in respect of submissions seeking:

- dog walking opportunities in the Mandurang block of the park (section 6.8)
- extension of access opportunities for bike riders, and particularly for bike orienteering events, beyond the road and track network shown in the plan (sections 6.7 and 6.10).

This Management Plan will direct future management of Greater Bendigo National Park, until reviewed.

In relation to the Kamarooka and Whipstick areas, this plan replaces the existing management plan for the Whipstick and Kamarooka areas, the *Kamarooka and Whipstick State Parks Management Plan* (DNRE 1996).

2 BASIS

2.1 Regional context

Greater Bendigo National Park lies within the Goldfields bioregion, except for 2 ha that is within the Victorian Riverina bioregion.

The northern blocks of the park are predominantly in the Loddon River Catchment, while the southern blocks are predominantly in the Campaspe Catchment. The North Central Catchment Management Authority coordinates strategic directions for land and water management in both of these catchments.

The City of Greater Bendigo's branding as the 'City in the Forest' is becoming increasingly recognised and acknowledged. The Bendigo urban area is encircled by Box-Ironbark forests and woodlands, with the innermost 'circle' being predominantly parts of the Bendigo Regional Park, and the outer 'circle' comprising parts of Greater Bendigo National Park, State forest, and nature conservation and natural features reserves (figure 1a). The Bendigo Regional Park therefore forms the main interface between urban and forest areas, and accordingly receives intensive use for a variety of recreational pursuits, and in some areas provides a protective buffer to the national park.

The City of Greater Bendigo is growing at a rate of 1.8% a year, and by the year 2030 the population is expected to rise to around 133 400 people. The City is planning for sustainable growth, while protecting the environmental, heritage, social and economic assets of the City by leading a number of integrated and strategic projects (COGB 2005a). Parks Victoria and other agencies work in partnership with the City council in the development and implementation of these projects. Projects and strategies particularly relevant to the park include the 'City in the Forest' project, Residential Development Strategy, Bendigo Industrial Land Strategy, Open Space Strategy, Cycling and Walking Strategy and the Crusoe Park project. When the Crusoe Park project is completed, the number of visits to the adjacent Big Hill block of the park is likely to increase significantly.

A variety of settled areas directly abut the park, including:

- rural residential living and residential (predominantly along the boundaries of the One Tree Hill block and the Mandurang block, and the eastern and south-eastern boundaries of the Big Hill block)
- land managed predominantly for grazing, cropping, intensive animal production industries and rural residential living (predominantly along the boundaries of the Kamarooka block and northern boundaries of the Whipstick block)
- farmland (predominantly along the southern and western boundaries of the Big Hill block).

The Bendigo Regional Park abuts the southern boundaries of the Whipstick block and northern boundaries of the Big Hill block.

Other forested areas in the Bendigo region with attributes that supplement the national park's values include Mount Alexander Regional Park, Kooyoora State Park, Wellsford State Forest, Heathcote–Graytown National Park, Castlemaine Diggings National Heritage Park and some forested areas of freehold land.

The park lies within the *Country* of the Dja Dja Wurrung community. According to Indigenous tradition, *Country* was established in the *Dreaming*, and the Traditional Owners are part of it and bound by its laws. The Traditional Owners have occupied the area including the park for thousands of years and maintain an ongoing association with it. The Jaara Jaara people assert an association with the park and surrounding areas that is based on direct descent from the original Indigenous custodians of the area. Other Indigenous groups may also assert cultural associations with all or parts of the park.

Some other sections of the community retain strong interests in the Box–Ironbark areas based on treasured historical associations developed since European settlement. Such associations are enshrined in the poetry and narratives of writers of yesteryear, and continue to inspire contemporary poets, writers and artists.

During the past 40 years the attitudes of the broader community towards the management of the Box-Ironbark forests have undergone a transformation. Since the 1960s, groups such as the Bendigo Field Naturalists Club became more aware of the values of the forests and promoted their protection. In the 1970s, community attitudes supported a broadening of focus of forest management to systematically embrace a mix of purposes, including recreation, water catchment, and conservation of natural and cultural values, as well as continuing production of timber and other forest products. More recently, many more people have come to understand the history of post-settlement destruction of the forests, their subsequent regeneration, and the continued growth in new demands and the impacts on them with the continued expansion of Bendigo. As a result, many people have become passionate about retaining and restoring the park as a significant part of what remains of the Box-Ironbark forests.

Parks Victoria recognises the history of close involvement of the community with the Box–Ironbark forests, and in accordance with Government policy, is working to manage the Box–Ironbark parks and reserves in appropriate partnerships with it.

The park is within Tourism Victoria's Central Goldfields product region. The Goldfields region encompasses the major gold diggings of central Victoria, including cities and towns of Bendigo, Ballarat, Maldon, Castlemaine, Maryborough, Heathcote, Avoca, Clunes, Dunolly and Creswick.

Tourism activities include a focus on sites associated with the region's gold and settlement heritage. A majority of the tourists who come to the Bendigo area come to visit friends or relatives, for holidays, recreation or sporting or educational activities. During their stay they may also visit national parks for appreciation of wildflowers, historic features, bird watching or prospecting.

Annual domestic overnight visitors to the Goldfields region between 1999 and 2005 have ranged between 1.1 and 1.6 million (Tourism Victoria Research Unit 2006). Among visitors staying overnight in the region, a majority are

domestic visitors, predominantly from Melbourne or elsewhere in Victoria. Of these approximately 13% go bushwalking during their stay, which may include a visit to a national park (Bureau of Tourism Research 2001).

There is potential to attract more visitors to the park as its natural and cultural values become better known.

2.2 Park values and significance

Greater Bendigo National Park makes a valuable contribution to Victoria's parks and reserves system, which aims to protect viable, representative samples of the State's natural environments occurring on public land. The park also provides opportunities for visitors to enjoy and appreciate natural and cultural values.

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

Significant features of the park include the following.

Natural values

- a diverse range of Box–Ironbark forest and woodland vegetation communities, including significant large areas of Sandstone Ridge Shrubland and Grassy Woodland
- habitat supporting at least 32 species of threatened fauna including the Pink-tailed Worm-lizard, Swift Parrot, Regent Honeyeater and a number of other endangered woodland birds
- at least 38 species of threatened flora including Whipstick Westringia, McIvor Spider-orchid and other orchids
- a variety of orchids and other wildflowers, which transform the park with spectacular colourful displays during spring
- part of the unique geology, vegetation and fauna of the Whipstick area, which is listed on the register of the national estate (DEH 2004)

- the geology of the Big Hill Range, which has statewide significance, and fossil graptolites of international significance (also found elsewhere in the Bendigo region)
- water catchment for Bendigo Creek, which is linked to the nationally significant Tang Tang Swamp and Kow Swamp, and water catchment for Axe Creek, which is recognised as a waterway of state significance
- protection of abutting cleared areas around Whipstick and Kamarooka blocks, and waterways originating in the park against salinisation.

Cultural and social values

- rich cultural associations of Indigenous communities with *Country*
- cultural landscapes that reflect the rich history of the Box–Ironbark forests and woodlands, in particular Indigenous occupation and use of the land, gold mining and forestry landscapes
- places listed on the Victorian Aboriginal Heritage Information System (VAHIS)
- places listed on the Victorian Heritage Register, including Old Tom Reef Gold Puddling Site, Phillips Gully Gold Mining Precinct and Reudin's Eucalyptus Distillery
- intangible values associated with community attachment and tradition tied to stock grazing, mining and timber harvesting over many years
- education and research opportunities for school and university groups.

Recreation and tourism values

- highly accessible natural areas which are closely connected with the City of Bendigo's residential areas and other open space
- opportunities for landscape viewing, walking, jogging, picnicking, cycling, prospecting, nature appreciation, cultural heritage appreciation, car touring, trail bike riding, dog walking, horse riding, orienteering and rogaining, and camping

 important parts of the Box–Ironbark cultural landscape, which supports Bendigo tourism.

2.3 Evidence of past use

The landscape of the park has been shaped by its history. The Traditional Owners harvested the rich natural resources of the land for food, shelter, medicinal purposes, canoes, spears, clubs, boomerangs, tools, dishes and other implements. Areas closest to watercourses were most heavily utilised.

From the 1830s pastoralists (or squatters) introduced stock to the region, resulting in substantial impacts on soils and vegetation, particularly along watercourses and nearby plains and woodlands. Increasingly, the activities of Indigenous peoples were displaced from their most productive hunting, gathering and living areas around the waterways and into other areas including areas now included in the park.

In the early years of settlement, the hunting of wildlife was a popular pastime that decimated many faunal populations. Forms of hunting continued, under regulation, until the park was declared.

The discovery of alluvial gold in the Bendigo valley during late 1851 led to rushes that, by 1852, built the mining population of the area to tens of thousands. Gold-bearing quartz reefs were being worked by 1853. The alluvial gold rush lasted a decade, whereas quartz gold mining continued much longer—at Bendigo until 1954 and again recently, under the City. The use of forest resources to support quartz gold mining and urban development has had a lasting impact on the environment of the park.

The bulk of Bendigo's mining was carried out within, or on the outskirts of current day Bendigo and Eaglehawk. Associated with the mining activities there was widespread felling of trees to supply fuel and construction materials for the rapidly growing population. By 1880 it was found necessary to transport timber to Bendigo from forests up to 160 km away (Bannear pers. comm. 2002). The devastating impact on the forest is encapsulated in Alec Finley's observations at Eaglehawk in 1858 (Bannear pers. comm. 2002):

'The hills on each side of the gully which might have been called thickly timbered [less than two months before], are now cleared a considerable distance up for firewood, and trees are barked for miles around for the closing in of chimneys, securing sides of tents and covering the mouths of holes from the wet.'

As the forests grew back throughout the early 20th century they continued to be utilised as a source of timber, eucalyptus oil and honey, and for domestic stock grazing. Products from the forests were important resources used in regional and statewide development. Wood products were used in gold extraction and in the tanning of leather. During World War 2 charcoal was used to produce gas to power trucks and as a filter in gas masks. Historic kilns that were used for charcoal production are preserved in the park. Honey and beeswax from the forests were important in the domestic and British markets.

Today's park landscape of closely spaced coppice regrowth forest, of varying age classes, bears testament to the history of intense timber utilisation over the past 150 years. Little mature vegetation remains and many years will pass before trees regrow to maturity and provide habitat for the fauna that depend on them.

Places associated with alluvial and quartz gold mining within the park include some widespread shallow alluvial diggings, puddling machine sites, mullock heaps, battery foundations, mine shafts, tunnels, tailings dumps, dams and water races. There are also hut sites, usually marked by the remnants of fireplaces.

Prospecting for gold, once an important business, has continued mostly as a recreational activity and has greatly increased in the region with the advent of lightweight and more effective metal detectors.

Water was scarce in the Bendigo area from the early years of settlement, and increasingly so as the town of Bendigo expanded. From the late 1860s, the Bendigo Waterworks Company constructed local water catchment reservoirs, filtering works and channel networks around Bendigo to supply the City's water. The Coliban Water Scheme, devised in 1858 to dam water at Malmsbury and supply water to

Castlemaine and Bendigo via a system of channels and reservoirs, was completed and became fully operational in 1877. By then the infrastructure of the Bendigo Waterworks Company had been purchased and incorporated as part of the Coliban Scheme (Hewat 1983).

The park contains many of the channels and small holding dams originally constructed by Bendigo Waterworks Company. The Crusoe and Number 7 reservoirs are listed on the Victorian Heritage Register under the Coliban Water Supply System, and are part of the area to be redeveloped by the City of Greater Bendigo as Crusoe Park.

2.4 The park visitor

The park is highly accessible through multiple routes from a major residential area (Bendigo) and from the adjoining regional park (Bendigo Regional Park). Visitors exploring the local bush may be unaware they have entered the park. Some residents of the City consider the park as an 'extension of their backyard'.

Most visitors to the park come from the Bendigo area for a day visit. The main attractions are One Tree Hill Lookout and Notley and Shadbolt picnic areas. The most popular activities include walking, jogging, picnicking and bike riding. Prospecting, nature appreciation, cultural heritage appreciation, car touring, trail bike riding, dog walking, horse riding, and orienteering or rogaining, are also popular. Visitor numbers are greatest in spring when many visitors come to appreciate the spectacular wildflower displays, which transform the park with a carpet of colour. A significant increase in day visitors to the west end of the Big Hill block is expected as a result of the Crusoe Park development (section 2.1).

A number of school and university groups use the park extensively as an important natural resource for recreation, education and research. Small numbers of visitors stay for longer than a day at one of the five campsites in the park.

In terms of statewide priorities, Parks Victoria has rated the park as a park of regional value for the provision of visitor services. An appreciation of the park's natural and cultural values will be promoted, together with picnicking and camping. Resources will focus

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on the Notley visitor site, the principal camping and picnicking area in the park.

Park managers and community representatives familiar with the area consider that the level of awareness of the park and its values across some sections of the community is low. The park receives only minor mention in local and regional tourism strategies. Stronger partnerships are being formed with the City of Greater Bendigo, Goldfields Tourism and Tourism Victoria to promote the park as a key tourism attraction and backdrop for visitors to Bendigo.

2.5 Legislation and ECC recommendations

Legislation

Greater Bendigo National Park is reserved and managed under the *National Parks Act 1975* (Vic.). The Act requires the Secretary to DSE to preserve and protect the park and the natural and other features that it contains and, subject to this, to provide for the use of the park by the public for enjoyment, recreation and education. Appropriate research activities are also provided for under the Act.

The objects and provisions of the National Parks Act set the framework for the management of Greater Bendigo National Park (appendix 1). Specific legislation and Environment Conservation Council (ECC) recommendations accepted by government also govern particular aspects of management of the park as described below and in subsequent sections of the plan.

The National Parks (Park) Regulations 2003 apply to the park.

The *Parks Victoria Act 1998* (Vic.) enables management services for Greater Bendigo National Park to be provided on behalf of the Secretary to DSE by Parks Victoria.

The Archaeological and Aboriginal Relics Preservation Act 1972 (Vic.) and the Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cwlth) apply to the park and protect all Aboriginal cultural heritage values, including places and objects (section 5.1)

The *Native Title Act 1993* (Cwlth) applies to the management of the park.

An application for a native title determination, which covers Greater Bendigo National Park, among other areas, was registered with the Native Title Tribunal on 15 August 2000. Implementation of this Management Plan will take into account the outcomes of this and any subsequent native title applications.

The Environment Protection and Biodiversity Conservation Act 1999 (Cwlth) applies to the whole of the park with respect to actions that have, will have, or are likely to have a significant impact on matters of national environmental or cultural heritage significance. Under this Act, threatened species, threatened communities or threatening processes can be listed and threat abatement plans, and species or community recovery plans may be developed. Additionally, heritage sites of national significance may be listed and conserved under this Act.

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

ECC recommendations

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

- Recommendation A Use of Greater Bendigo National Park in accordance with the general recommendations for National Parks (A4) subject to special provisions relating to metal detecting (prospecting) (section 6.11) and eucalyptus oil harvesting (section 7.2)
- R8 land managers continue with and further develop adaptive management research and monitoring programs, develop targeted new programs and apply the results where appropriate
- R15 planning and management relating to traditional interests and uses be based on recognition and respect for the traditional and contemporary relationship of Aboriginal peoples with the land
- R42 public lands be available for a range of recreation activities for community

enjoyment and appreciation and appropriate to the land use category.

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

2.6 Policy and guidelines

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

- Recreation Framework for Box–Ironbark Public Land (DSE 2003a)
- North West Region, Bendigo Fire District, Fire Protection Plan (DSE 2003b)
- Code of Practice for Fire Management on Public Land (DSE 2006)
- Guidelines and Procedures for Ecological Burning on Public Land in Victoria (DSE 2004)
- Heritage Management Strategy (Parks Victoria 2003)

- Indigenous Partnership Strategy and Action Plan (Parks Victoria 2005)
- Biodiversity Action Planning: Strategic Overview for the Goldfields Bioregion, Victoria (DNRE 2002a)
- Sustainable Recreation and Tourism on Victoria's Public Land (DNRE 2002b)
- Victoria's Native Vegetation Management
 — A Framework for Action (DNRE
 2002c).

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

- North Central Regional Catchment Strategy 2003–2007 (NCCMA 2003a)
- North Central Region Rabbit Management Action Plan 2000–2005 (DNRE 2000)
- North Central Region Weed Action Plan 2001–2005 (DNRE 2001).

3 STRATEGIC DIRECTIONS

3.1 Park vision

With the community's enthusiastic enjoyment and support, Greater Bendigo National Park protects robust native ecosystems, including the rich diversity of vegetation and fauna, and the Indigenous and historical post-settlement cultural heritage of the area.

The vegetation consists of the full complement of indigenous plant species, regenerating naturally, in diverse structures. The habitat provided by the vegetation supports viable populations of indigenous animals.

The community appreciates that the park protects large remnants of some of Victoria's rarest vegetation such as Box Ironbark Forest and Sandstone Ridge Shrubland, and species of flora and fauna still threatened nationally or within the State. Volunteers, neighbours and visitors actively cooperate and participate in the control of threats such as pest plants and animals, and in ensuring the range of recreational activities undertaken have minimal impact on the park's natural and cultural values.

The Bendigo community as a whole, and the broader community, appreciate and respect Country, and support the reflection of the Traditional Owners' knowledge, interests, rights in, and aspirations for the park in all aspects of its planning and management. They recognise the rich meaning and value of the park landscape in relation to the vital role the area played in supporting the gold rush and in building the City of Bendigo. They appreciate the resilience of the vegetation in recovering from widespread and sometimes severe and repeated disturbance by mining and timbercutting, and the management activities that have contributed to the recovery and the improved structural and floristic diversity of the ecosystems.

The broader community enjoys the aesthetic and environmental values of the park, use it for a broad range of outdoor activities that are sustainable in the setting, recognise and appreciate the health benefits these activities

bring, and demonstrate this in the respect they show to the park and to other visitors. Universities and local schools make widespread and regular use of the park for education and research.

Park managers work in partnerships with community groups, businesses, local government and agencies, and involve them in the resolution of park management issues in ways that foster pride, commitment and a sense of custodianship that support the ongoing preservation of the park's values for the benefit of future generations.

3.2 Zoning

A Park Management Zoning Scheme has been developed to:

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

Three management zones apply to the park: Reference Area Zone, Conservation Zone and Conservation and Recreation Zone (table 1 and figures 3a, b).

In addition, four Special Protection Area overlays, one Special Management Area overlay and two Land Use Designation overlays are used to identify requirements additional to those of the underlying primary management zones (table 1).

TABLE 1 MANAGEMENT ZONES AND OVERLAYS

ZONE/OVERLAY	AREA/LOCATION	VALUES	MANAGEMENT AIM		
Zones					
Reference Area	650 ha, 4% of the park.	Relatively undisturbed representative land types and	Protect viable samples of one or more land types that are relatively		
	Kamarooka Reference Area (225 ha).	associated vegetation.	undisturbed for comparative study with similar land types elsewhere, by keeping all human interference to the		
	Sandhurst Reference Area (425 ha).		minimum essential and ensuring as far as practicable that the only long- term change results from natural processes, in accordance with ministerial directives.		
Conservation	3908 ha, 23% of the park.	Broad areas containing sensitive natural environments or ecosystems.	Protect sensitive natural environments and provide for minimum-impact recreation and simple visitor facilities, subject to ensuring minimal interference with natural processes.		
Conservation and Recreation	12 442 ha, 73% of the park.	Important natural values and scope for recreation opportunities.	Protect less sensitive natural environments and provide for sustainable, dispersed recreational activities and small-scale recreational facilities without significant impact on natural processes.		
OVERLAYS					
Special Protection Area 1 – Skylark Dam (Whipstick block)	5 ha, < 1% of the park. As designated in figure 3a, and to be marked with appropriate on-ground signage to prevent disturbance by recreational or management activities.	Diverse range of rare and threatened flora and fauna and historic puddling machine.	Maintain vegetation and puddling machine by precluding activities that damage or disturb vegetation, ground litter and soil in this area.		
Special Protection Area 2 – Skylark Rd	18 ha, < 1% of the park.	Bull Mallee vegetation is at least 50 years unburnt, one of	Maintain and enhance Bull Mallee and other dense vegetation as bird habitat and preclude activities that may damage vegetation and habitat.		
(Whipstick block)	As designated in figure 3a.	the oldest intact stands. Also dense shrubby vegetation as habitat for Gilbert Whistler, Chestnut-rumped Heathwren and other bird species of the Victorian temperate-woodland bird community.			
Special Protection Area 3 – Erodible Soils (One Tree Hill block)	0.5 ha, < 1% of the park. As designated in figure 3b, and to be fenced for exclusion of activities that may disturb the area.	Soils susceptible to erosion if soil and vegetation are disturbed.	Maintain soil stability by allowing vegetation to be restored and precluding activities that damage vegetation, ground litter and soil in this area.		

Table 1 (cont'd)

ZONE/OVERLAY	AREA/LOCATION	VALUES	MANAGEMENT AIM
OVERLAYS			
Special Protection Area 4 – Costas Rd (Mandurang block)	27 ha, <1% of the park. 100 metres either side of Costas Rd, as designated in figure 3b.	Diverse vegetation of several age classes, species and strata, particularly around dams in this area, make this a key site for a diverse range of woodland birds, particularly robins.	Maintain a diverse age, species and strata of vegetation and protect vegetation from inappropriate modification or disturbance.
Special Management Area – High-voltage Electric Line Corridor	8.5 ha, <1% of the park.25 metres width corridor, as designated in figure 3b.	High-voltage electricity line as a public utility.	Manage vegetation to allow safe transmission of high-voltage electricity.
Land Use Designation – Prospecting	11 967 ha, 70% of park; 96% of Conservation and Recreation Zone. As designated in figures 3a and 3b.	Recreational prospecting.	Allow searching for minerals while protecting biodiversity, catchment, geological and cultural values.
Land Use Designation – Eucalyptus Harvesting	445 ha, 3% of the park. As designated in figure 3a.	Eucalyptus leaf harvesting for eucalyptus oil production.	Allow eucalyptus harvesting for production of eucalyptus oil as per licence conditions until 2012.

3.3 Management directions

Major management directions for the park are as follows.

Natural values conservation

- A more natural age class distribution, structure and floristic diversity will be restored to the Heathy Dry Forest, Box Ironbark Forest, Grassy Woodland, Grassy Dry Forest, Sandstone Ridge Shrubland and Hillcrest Herb-rich Woodland in the long-term.
- Viable populations of threatened flora and fauna will be maintained and, where possible, restored in the long-term.
- Natural values of the park will be enhanced by encouraging community partnership projects that restore or reinstate native vegetation links outside the park.
- Native vegetation will be restored in cleared areas consistent with the protection of cultural landscapes and places.
- Flora, fauna and heritage values at the Special Protection Area 1 – Skylark Dam and Special Protection Area 3 – Erodible Soils will be protected by precluding

- activities that could damage or disturb vegetation, ground litter and soil, including prospecting, orienteering, rogaining and mountain bike riding, and limiting any damage from park management activities.
- Bull Mallee vegetation and associated avian habitat at the Special Protection Area 2 – Skylark Rd will be protected by precluding activities that damage or modify vegetation, including prescribed burning.
- The diversity and structure of vegetation and associated avian habitat at the Special Protection Area 4 Costas Rd will be protected from inappropriate modification or disturbance, particularly by minimising park management activities.
- The Kamarooka and Sandhurst Reference Areas will be maintained as relatively undisturbed areas by keeping human interference to a minimum.
- Research into the management requirements of significant flora and fauna communities will be encouraged.

TABLE 2 SUMMARY OF RECREATIONAL OPPORTUNITIES

ACTIVITY	MANAGEMENT ZONE			OVERLAY			
	Conservation	Conservation & Recreation	Reference Area	SPA1, 3	SPA2, 4 & SMA	LUD 1	LUD 2
Percentage of park	23%	73%	4%	< 1%	< 1%	3%	70%
Cycling and mountain bike riding	Y	Y	N	N	Y	Y	Y
Cultural heritage appreciation	Y	Y	N	Y	Y	Y	Y
Camping* – at designated sites with limited facilities (section 6.6)	Y	Y	N	N	N	N	Y
Campfires in designated fireplaces	N	Y	N	N	N	N	Y
Campfire firewood collection*	N	N	N	N	N	N	N
Camping* – dispersed with no facilities (section 6.6)	N	Y	N	N	N	N	Y
Dog walking (section 6.8)	N	Y	N	N	N	N	Y
Fires in gas or liquid- fuel stoves (section 6.6)	Y	Y	N	N	N	N	Y
Four wheel drive touring	Y	Y	N	N	Y	Y	Y
Fossicking for relics	N	N	N	N	N	N	N
Horse riding (section 6.9)	N	Y	N	N	N	Y	Y
Hunting	N	N	N	N	N	N	N
Orienteering, rogaining	N	Y	N	N	Y	N	Y
Picnicking*	Y	Y	N	N	Y	N	Y
Prospecting for minerals	N	Y	N	N	Y	Y	Y
Scenic driving	Y	Y	N	N	Y	Y	Y
Trail bike riding	Y	Y	N	N	Y	Y	Y
Walking	Y	Y	N	Y	Y	Y	Y

KEY

Y Yes—subject to overlay prescriptions and conditions referred to elsewhere in this plan.

Overlays

SPA1	Special Protection Areas – Skylark Dam (5 ha)	SMA	Special Management Area – High-voltage Electric Line
SPA2	Special Protection Areas – Skylark Rd (18 ha)	LUD 1	Land Use Designation – Eucalyptus Harvesting (445 ha)
SPA3	Special Protection Area – Erodible Soils (0.5 ha)	LUD 2	Land Use Designation - Prospecting (11967 ha)

SPA4 Special Protection Area – Costas Rd (27 ha)

N Not permitted.

^{*} Use of chainsaws or generators not permitted.

- The park will be protected from wildfire through the implementation of approved DSE regional fire protection plans.
- Prescribed fire will be used where appropriate to improve the long-term health of specific vegetation communities.
- Pest plants, animals and diseases will be eradicated or managed to minimise impacts on all park values.
- The impact of works and infrastructure on the park's natural and cultural values will be minimised by careful planning, design, siting and construction.

Cultural values conservation

- Indigenous places and objects will be protected from interference or damaging activities.
- The Traditional Owners' knowledge, interests and rights in the area and aspirations for *Country*, will be reflected in the park's planning and management, in accordance with legislation and policies.
- Indigenous cultural obligations relating to Country will be respected, and Traditional Owners' knowledge promoted and interpreted in accordance with their views.
- Historic places and relics will be protected and conserved, including by raising appreciation of their value among park visitors.
- The special and ongoing connection between the park's natural and cultural values and the Bendigo community will be nurtured.
- Research into historic cultural heritage of the park will be encouraged.

The park visit

- Access will be maintained and recreation opportunities will be available in accordance with table 2.
- Appropriate visitor activities will be encouraged in locations and in a manner that minimises impacts on park values and other park users.
- Visitor sites will be monitored and managed to protect park values and visitors.

 Visitor activities, needs and expectations will be monitored to provide relevant information for planning and managing park values and visitor use.

Community awareness and involvement

- The wider community will be encouraged to become more aware of the park and appreciative of its values.
- Local communities and visitors will be encouraged to develop a sense of custodianship for the park, and participate in its management.
- Strong cooperative relationships will be developed and maintained with groups and individuals that have particular interests in becoming involved in a park program or in maintaining a traditional association with the park.
- Programs will be designed to make good use of the skills, knowledge and enthusiasms of community groups as appropriate.
- Strong collaborative partnerships will be developed with the Traditional Owners to facilitate the reflection of their knowledge, interests, rights and aspirations in all planning and management of the park.
- Community partnership projects that contribute to the protection of park values, whether within the park or the surrounding areas, will be encouraged and supported as appropriate.
- Collaborative partnerships will be established with relevant agencies to progress areas of mutual interest which strengthen protection of the park.

4 STRATEGIES FOR NATURAL VALUES CONSERVATION

4.1 Landscape

Greater Bendigo National Park, together with the Bendigo Regional Park, and certain other reserves and areas of Crown land, provide the setting for the City of Bendigo, which is becoming increasingly known as the 'City in the Forest' (section 2.1). Many residents regard the forested areas as the 'Lungs of the City' and an important source of wellbeing. The major viewing site is the One Tree Hill lookout tower, which provides expansive views of the surrounding landscape. The ridgetop at Big Hill provides views of the farmland to the south of the park and the City to the north. A walking track to a lookout on this ridge is proposed (section 6.5).

The southernmost section of the park at Big Hill has steep slopes rising to a broad ridgetop. The Mandurang and One Tree Hill blocks and parts of the Whipstick block are characterised by low, undulating hills. The Whipstick landscape to the north of Eaglehawk can be viewed from the Flagstaff Hill lookout. In the more northern sections of the park, lower in the catchments at Whipstick and Kamarooka, the land flattens out and is characterised by Sandstone Ridge Shrubland and Grassy Woodland vegetation.

Spectacular wildflower displays in spring and the mosaic of contrasting Box–Ironbark trees are a special feature of the park.

As part of *Country*, all elements of the landscape are rich in meaning for Jaara Jaara people, who honour their tradition (section 5.1). The landscape also has cultural significance for many non-Indigenous families (section 5.2).

Past land use activities have significantly modified the natural landscape and add considerable visual interest to the area (section 2.3). Areas where trees were cut over repeatedly are characterised by a high density of small, multi-stemmed trees. These are particularly evident at One Tree Hill and in some areas of Big Hill and Whipstick. Because the Mandurang block has had a somewhat different land use history, it has a more natural forest landscape than many other areas of the park (section 4.5).

Vegetation disturbance, soil disturbance and park management activities can alter the landscape values of the park temporarily or permanently. Where these activities are detrimental to park values in the long-term, action should be taken to halt degradation and rehabilitate if appropriate. Some management activities, such as burning, may have a temporary impact on landscape values.

Threats to the landscape character of the park include increasing visitor pressure on sites, inappropriately designed visitor facilities, and public utilities. Inappropriate designs, materials and siting of developments adjacent to the park can also adversely affect the landscape character of the park.

Aims

- Protect the landscape, particularly of areas of high scenic quality or traditional or cultural significance, while allowing natural processes to continue.
- Minimise the visual impact of management, recreation and other activities on the landscape.

Management strategies

- Identify and assess cultural landscapes in accordance with section 5.2.
- Consider and respect the significance of the landscape to Traditional Owners in planning and implementing management activities (sections 5.1, 6.1 and 8.2).
- Ensure that the restoration of vegetation communities and degraded areas is consistent with the protection of landscape and cultural values (sections 4.5 and 5.1).
- Work with relevant authorities to minimise the visual impact of public utilities on landscape values (sections 7.1 and 8.3).
- Protect landscape values from inappropriate development in or adjacent to the park (sections 6.2, 6.5, 7.1 and 7.2).

4.2 Geology and landforms

The park contains a variety of significant geological and geomorphological features, including one of state significance (DPI 2003).

The oldest basement rocks in the Bendigo region are Ordovician sandstones and mudstones (Castlemaine Group) consisting of thousands of alternating sedimentary layers that were deposited in a deep ocean. The layers were folded and uplifted during the Early Silurian Period, resulting in a series of large north-south corrugations called anticlines and synclines. Gold and quartz were introduced into the anticlines near the end of this folding. These are the famous saddle reefs of the Bendigo goldfields. The age of the sedimentary rocks is known from fossil graptolites that are well preserved in thin horizons of black shale. The Bendigo region is renowned for its fossil graptolites, which attract geologists to the area from around the world. Many fossil localities occur in the park (Katsonis & Joyce 2003). The type locality for several graptolite species that are recognised as being regionally significant is located in the Bendigo Regional Park, adjacent to the One Tree Hill block of the national park.

Part of the Big Hill Range in the southern part of the park is a geological site of state significance (DPI 2003). The range forms part of a metamorphic aureole around the Harcourt Granodiorite, which pushed up through the sandstone and mudstones about 368 million years ago. The rock layers were metamorphosed into a hard rock called hornfels for about 1 km around the granodiorite. The small portion of the hornfels zone within the park is significant because it forms a prominent high ridge along the southern boundary (Katsonis & Joyce 2003).

Deep weathering during Mesozoic to Cenozoic times resulted in a dissected lateritic plateau in the Whipstick and Kamarooka areas. Shallow soils over the lateritic zone are mostly stony and gravelly and bleached duplex soils consisting of ironstone and gravel. This weathering led to the formation of the Gravelly Sediment Mallee EVC in the Whipstick block.

The southern blocks of the park are part of the dissected uplands, which are made up of bleached duplex soils and red duplex soils, mainly developed over the Castlemaine Group. These have a poor topsoil structure and poor loams and earths, and both have low available nutrient levels and water-holding capacity. Typical examples include the quartz ironbark ridgelines.

Later erosion of the Castlemaine Group and the enclosed quartz reefs concentrated gold in the alluvium of the gullies and streams. Alluvial mining during the gold rush era exhausted most of these gold deposits. These sites are popular for prospectors still who search for gold nuggets (section 6.11).

Faulting in the last few million years uplifted the region between the Sebastian and Whitelaw faults in an area called the Alexander Horst. Subsequent erosion has stripped thick soils from the uplifted Alexander Horst, whereas the area east of the Whitelaw Fault is less hilly and more deeply weathered (Katsonis & Joyce 2003).

Landform patterns range from low-lying and gently undulating areas in the northern Kamarooka and Whipstick blocks to steeper hills, slopes and plateau in the southern One Tree Hill, Mandurang and Big Hill blocks.

Particular landform features may be intrinsic to the *Dreaming* of the Traditional Owners.

Aim

 Ensure impacts from visitor and management activities on significant geological and geomorphological features are minimised.

Management strategies

- Increase awareness and understanding among the community and visitors about geological and geomorphological sites and processes in the park (sections 6.1 and 8.1).
- Protect landform features of geological significance from interference or damaging activities
- Consider and respect the significance of landforms to the Traditional Owners in planning and implementing management activities (sections 4.1, 5.1 and 6.1).

4.3 Soils management

Soil stability can be influenced by physical soil and landscape factors and by activities undertaken in the park. The poor soils within the park are highly susceptible to erosion. The poor surface soil structure, low permeability and high sodicity increase the soil erodibility. The steeper slopes and hilly areas act as water

catchments, leading to sheet and gully erosion within the park despite the overall low rainfall of the area.

Activities that can reduce soil stability and lead to erosion and waterway sedimentation include grazing pressure, vegetation removal, road construction and maintenance works, machinery use and fire. Erosion within the park can be exacerbated where rainfall runoff is increased or concentrated in an area by park road drainage, soil compaction from past land use, or developments on adjacent land. Illegal off-road vehicle and trail bike use within the park are major contributors to erosion.

Erosion mitigation works have been undertaken at Phillips Gully in the Kamarooka block. In One Tree Hill an Erodible Soils – Special Protection Area 3 (section 3.2, figure 3b) has been designated to protect the erodible soils from disturbance and allow natural regeneration to take place in this fenced area. Visitor and park management activities with potential to disturb soil are precluded from this area.

Aim

 Prevent or control soil degradation caused by visitor or management activities or significant natural events.

Management strategies

- Regularly observe eroded areas, and rehabilitate sites or implement erosion control works as appropriate to control active erosion problems (section 4.4).
- Fence the Erodible Soils Special Protection Area 3 at One Tree Hill block to ensure that there is no disturbance to soil.
- Maintain adequate drainage on all roads and walking tracks.
- Maintain visitor awareness of behaviour and use education programs, patrolling and cooperation with other agencies as necessary to reduce the impacts of activities on soils in the park (sections 6.1, 6.3 and 8.3).

4.4 Rivers and catchments

Greater Bendigo National Park is within the region of the North Central Catchment

Management Authority (NCCMA). Most of the park is within the Loddon River catchment; the remainder is within the Campaspe River catchment. Both of these rivers eventually drain to the Murray River, contributing flows of water with associated salts, sediment and nutrients.

The Whipstick and Kamarooka blocks lie in the Loddon River catchment. The headwaters of Mosquito, Round and Reedy creeks are within the park, and all three flow into Piccaninny (Bendigo) Creek, as do tributaries of Myers Creek. Piccaninny and Myers creeks are high priority waterways of the North Central River Health Strategy (NCCMA 2005) as they are linked to the nationally significant wetlands of Tang Tang Swamp and Kow Swamp. The north-western slopes of the One Tree Hill block flow into Spring Creek, another tributary of Piccaninny Creek. The section of Big Hill west of the Calder Highway forms part of the catchment of Bullock Creek, which flows into the Loddon River.

The remaining sections of One Tree Hill, Big Hill and Mandurang blocks lie within the Campaspe catchment, forming part of the Axe Creek subcatchment. The gullies within these sections drain into Sheepwash and Emu creeks. These are major tributaries of Axe Creek, a waterway of state significance and a Representative River for the North West Uplands river region (DNRE 2002d).

The natural flow regime in the park has been altered by dams and channels originally constructed for mining, grazing, fire protection and water delivery purposes. The extent of water harvesting and the purpose of each dam in the park is currently unknown.

The relatively intact vegetation within the park acts as a natural filter to reduce sediment and nutrient loads in the surrounding waterways and also maintain groundwater at low levels beneath the park. Past land clearing within the Loddon and Campaspe catchments has resulted in increased sedimentation of regional waterways and rising groundwater levels and salinisation at discharge sites. Recorded groundwater levels at the forest fringes within the Kamarooka block are rising at almost triple the rate of rise within the park (Hekmeijer et al. 2000). If the region experiences a prolonged period of above-average rainfall, the forest fringes of the Kamarooka block may be

threatened by rising groundwater and salinisation (Hekmeijer pers. comm. 2005). Potential impacts of rising groundwater elsewhere in the park have not been researched, but may well be similar to those relating to the Kamarooka block.

The provisions of the *Catchment and Land Protection Act 1994* (Vic.) and *Water Act 1989* (Vic.) apply to the park. Works relating to road management, pest control and fire management have the potential to impact on catchment values.

Aim

 Conserve or improve the ecological and morphological condition of streams and catchments.

Management strategies

- Review water harvesting occurring in the park, in consultation with stakeholders and with due regard for licensed water storages (section 7.2) and requirements for fire dams (section 4.8), and determine the practicality of restoring more natural stream flows (section 7.2).
- Encourage greater awareness of waterway values among park licensees, neighbouring land managers and park visitors, and encourage restoration projects that enhance park values (sections 6.1, 7.2 and 8.2).
- Encourage salinity mitigation projects on cleared land abutting the park in the Loddon and Campaspe River catchments that will assist in protecting the park from rising groundwater levels.
- Plan and implement all ground works in the park so that potential impacts on the ecological and morphological values of streams are minimised, in accordance with the Catchment and Land Protection Act and Water Act and in consultation with the NCCMA (section 8.3).

4.5 Vegetation

Since European settlement, Box–Ironbark forests and woodlands have been extensively cleared and fragmented for agriculture, gold mining, urban development and wood products. These forests and woodlands once covered three million hectares of northern

Victoria. Since European settlement 83% of the original forest has been cleared.

Vegetation communities

Greater Bendigo National Park supports 12 ecological vegetation classes (EVCs). Grassy Woodland EVC covers 21% of the park and is found in the northern part of the Kamarooka block. This is one of the largest blocks of this vegetation type in Victoria (ECC 2001). The rich understorey flora is a valuable remnant of the once widespread northern plains flora. Grazing pressure from wallaby and kangaroo populations is evident in many areas of the park, but particularly in Grassy Woodland.

Around 40% of the total extent of Sandstone Ridge Shrubland EVC in the state's parks and reserves system is found in the Kamarooka and Whipstick blocks. The association of four species of Mallee (Green Mallee, Blue Mallee, Bull Mallee and Kamarooka Mallee) growing on clay and rocky soils of Ordovician origin is unique to this area of Victoria.

Given the national and statewide significance of EVCs and threatened species in the Kamarooka block, a total of 45% of this area has been zoned as a Reference Area and Conservation Zone. The Conservation Zone allows only for low-impact recreational activity.

The Box Ironbark Forest EVC occurs on the undulating rises and low hills in the southern section of the Whipstick block and all three southern blocks of the park. This open forest has Red Ironbark and Grey Box as the dominant eucalypts, with Red Box on the drier slopes and Yellow Gum on moister sites. There is an open shrubby understorey with a sparse ground layer of scattered herbs and grasses. The variation in flowering sequences of this EVC throughout the year, particularly Red Ironbark and Yellow Gum, provide important food resources for native fauna throughout the year. The availability of pollen throughout the year is also important for honey production (section 7.2).

The intact vegetation of the park, particularly in the Kamarooka and Whipstick blocks, maintains groundwater at low levels within the park and adjacent areas (Hekmeijer et al. 2000), thereby buffering these areas from increasing salinisation.

Box Ironbark Forest grades up into Heathy Dry Forest and Grassy Dry Forest EVCs, which occur on the upper slopes and ridge tops of low hills in all three of the southern blocks. Grassy Dry Forest tends to occur predominantly on the southern and easterly aspects, with Yellow Box, Red Stringybark and Red Box as the main trees. The understorey is sparse or absent and the ground layer is dominated by herbs and grasses. Heathy Dry Forest occurs on the upper slopes and has Red Stringybark and Red Box as the main trees, with a dense heathy understorey in which Daphne Heath is the dominant species. The ground layer is sparse and dominated by Silvertop Wallaby Grass.

The Big Hill block is characterised by steep slopes rising to a broad ridgetop. Hill Crest Herb-rich Woodland is found on this ridgetop and is an open woodland dominated by Yellow Box, Bundy, Grey Box and White Box. There is a very sparse shrub layer and a ground layer rich in herbs and grasses.

All of the aforementioned EVCs except Heathy Dry Forest are depleted or endangered within the Goldfields Bioregion.

Small areas of Valley Grassy Forest, Heathy Woodland, Plains Grassy Woodland, and Alluvial Terraces Herb-rich Woodland EVCs are also present in the park.

Areas where trees were cut over repeatedly for mining timber or fuelwood during the early growth of Bendigo (section 2.3) are characterised by a high density of small, multistemmed trees. These are particularly evident at One Tree Hill and in some areas of Big Hill and Whipstick.

The vegetation structure of the Mandurang block differs somewhat from other areas of the park. Most of the block was thinned for firewood production in the past 20 years, prior to its inclusion in the park. The thinning operations have resulted in a forest with a variety of tree sizes, age classes and spacings that more closely reflects a natural vegetation structure than do other areas of the park.

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

degradation and fire. The aim of the strategy is to create optimum conditions for survival and development of old trees recognised as essential habitat for many threatened species of native fauna.

A key element of the strategy and a major focus of the research program is a landscape-scale experiment to examine changes in forest structure, flora and fauna in response to ecological thinning, which has been established in certain other Box–Ironbark parks. The findings from this research program will provide the basis for deciding whether or not to implement an ecological thinning program in the park.

Soil disturbance associated with past timber and eucalyptus oil harvesting, and gold mining has inhibited the recruitment of indigenous woody and herbaceous species. Generally this has reduced the floristic diversity and abundance of shrub and ground layer vegetation. The long absence of fire across the majority of the park may also be a contributing factor (section 4.8).

Aboriginal scar trees within the park should be managed in accordance cultural heritage legislation (section 5.1).

Indigenous people recognise vegetation as an intrinsic element of *Country* and Traditional Owners maintain a sophisticated knowledge of vegetation and flora of the Bendigo and Castlemaine areas and its value and uses.

Following the phase out of eucalyptus oil harvesting in the Whipstick and Kamarooka blocks, management action will be needed to assist the regeneration of the vegetation.

Flora species

The park's vegetation supports over 770 native vascular flora species including 38 threatened species (appendix 3). Kamarooka Mallee is endemic to Victoria and restricted to three main areas in the State (Davies 1992). The park supports the largest population of Kamarooka Mallee found on public land.

Detailed flora information is lacking for much of the park, particularly the blocks newly added to the park — One Tree Hill, Mandurang and Big Hill.

The McIvor Spider-orchid is endemic to Victoria, and only three populations are known

to exist. The single population in the park is the only occurrence in a protected area (Todd 2000a, b).

Whipstick Westringia is an endangered shrub that grows along gully lines in Sandstone Ridge Shrubland (Davies & Riley 1993).

Recovery Plans are currently being implemented for McIvor Spider-orchid and Whipstick Westringia under the *Environment Protection and Biodiversity Conservation Act* 1999 (Cwlth) (EPBC Act).

Recent assessments of the condition of, and risks to, vegetation in the park have identified the following threats to flora species and communities in the park:

- modification by weed invasion
- loss, and lack of coarse woody debris on the ground
- disturbance to soil and vegetation by recreational activities
- over-browsing by native and non-native animals
- inappropriate fire regimes or inappropriate fire management practices
- rising groundwater levels around the forest fringes, and potential for salinisation (section 4.4)
- alteration or modification of natural plant and animal pollination systems and regeneration processes by introduced species. This includes direct competition between native and introduced species for nectar, and reduced population sizes of natural pollinators such as native insects and birds through competition or predation.

There is limited information available about the distribution and management requirements of significant flora species and communities throughout the park, particularly those in One Tree Hill, Mandurang and Big Hill blocks.

The Flora and Fauna Guarantee Act 1988 (Vic.) (FFG Act) establishes the legal framework to enable and promote the conservation of Victoria's flora and fauna. Among other things, the Act provides for the declaration of protected flora and fauna communities, the regulation of activities relating to them, and the development of

Action Statements to guide future management. The provisions of the EPBC Act also apply to the park (section 2.5).

Kamarooka Reference Area and Sandhurst Reference Area (sections 1.2 and 3.2) are managed under the Ministerial Directives for Reference Areas (February 1998) in accordance with provisions of the *Reference Areas Act 1978* (Vic.), and also in accordance with Parks Victoria's operational policies.

Aims

- Protect indigenous flora, particularly rare or threatened species.
- Protect indigenous vegetation communities and, where possible, restore and maintain their structure and composition to a more natural state, consistent with protection of cultural landscape values.
- Increase knowledge of significant flora and fauna species, including their management requirements.

Management strategies

- Manage threats and promote the natural regeneration of woody and herbaceous species in priority EVCs consistent with the protection of cultural and landscape values. Priority EVCs are:
 - Heathy Dry Forest
 - Box–Ironbark Forest
 - Grassy Woodland
 - Grassy Dry Forest
 - Sandstone Ridge Shrubland
 - Hillcrest Herb-rich Woodland.
- Progressively restore native vegetation to cleared areas, particularly in Kamarooka, Mandurang and Whipstick blocks, consistent with the protection of cultural landscape values. This includes areas previously licensed for eucalyptus harvesting.
- Protect populations of rare and threatened flora species, particularly Kamarooka Mallee, Whipstick Westringia, Erect Peppercress and McIvor Spider-orchid, and cooperate with DSE to identify requirements to maintain viable

- populations of the threatened species in the park (section 8.3).
- Reassess the condition of, and threats to, vegetation in accordance with approved monitoring techniques.
- Encourage and coordinate surveys and research on significant plants and vegetation communities, particularly in One Tree Hill, Mandurang and Big Hill blocks, to improve knowledge of their distribution, management requirements and traditional uses (sections 8.2 and 8.3).
- Encourage community groups, tertiary institutions and individuals to survey flora and report findings, particularly in the One Tree Hill, Mandurang and Big Hill blocks. Arrange for new records to be recorded in DSE's Flora Information System.
- Maintain habitat of sites known to be regularly visited by Swift Parrots.
- Implement priority actions from approved Action Statements or Recovery Plans to address threats to species or communities listed under the FFG and EPBC Acts.
- Publicise and enforce park regulations concerning the protection of native flora.
- Minimise removal of vegetation in implementing essential maintenance of visitor sites.
- Refine flora and vegetation management practices according to the latest research and monitoring findings, consistent with the protection of cultural values.
- Where appropriate, encourage research to identify Indigenous knowledge relating to vegetation, flora and harvesting practices.
- Respect the cultural obligations of Traditional Owners in relation to plants.
- Reflect Indigenous knowledge of plants in management practices as appropriate, and ensure the significance of plants to the Traditional Owners is respected in all visitor and management activities (sections 4.8, 5.1, 6.1 and 8.2).
- Engage in research on prescribed fire requirements of vegetation communities within the park in collaboration with DSE,

- and seek to incorporate research results into future fire protection plans (section 4.8).
- Encourage neighbouring land managers, community groups, and government and non-government agencies, to complement park conservation management by conserving, and restoring links between blocks of native vegetation on the lands they manage (section 4.6).

4.6 Fauna

The vegetation communities in the park provide habitat to support a wide range of bird, reptile and mammal species, including 32 threatened species and one threatened community — the Victorian temperatewoodland bird community (appendix 4). The more open canopy and range of understorey and ground species present in Mandurang block support a diverse range of fauna, including many threatened mammal and bird species, particularly around the Costas Road Special Protection Area 4.

The native fauna in the park also plays an important role in maintaining flora communities and species through symbiotic relationships, particularly in plant pollination and reproduction processes.

A feature of the park is the large number of bird species (175). The Swift Parrot and Regent Honeyeater, which are endangered in Australia, and the Barking Owl and Grey-Crowned Babbler, which are endangered in Victoria, have been recorded in the park, although the Regent Honeyeater has not been sighted in the park or surrounding areas since the early 1990s (DSE 2003a). There is concern at the decline in populations of woodland birds across the whole Box–Ironbark ecosystem. A Recovery Plan is being implemented for the nationally endangered Swift Parrot under the EPBC Act.

Seven frogs, five snakes and twelve lizards have been recorded from the park. Of these, the most significant is the Pink-tailed Wormlizard, which is considered to be endangered in Victoria and vulnerable nationally. The entire known Victorian population of the Pink-tailed Worm-lizard is located in Box–Ironbark habitat surrounding the City of Bendigo, and is mostly within the park.

Nineteen mammal species have been recorded in the park, including the Brush-tailed Phascogale and Common Dunnart, which are vulnerable in Victoria, the Fat-tailed Dunnart, which is near threatened in Victoria, the Eastern Grey Kangaroo, Water Rat and several species of bat.

Little information about the traditional knowledge of the Traditional Owners relating to fauna is available.

Threats to native fauna in the park include:

- lack of hollow bearing trees, stumps and logs
- inadequate foraging, breeding and roosting sites, and competition for these resources from introduced fauna
- habitat modification by weed invasion
- loss and lack of coarse woody debris on the ground
- structural modification due to past land uses
- disturbance to soil and vegetation by recreational activities
- over-browsing by non-native and native animals
- inappropriate fire regimes
- inappropriate fire management practices
- alteration or modification of natural plant pollination and regeneration processes by introduced species, including the European Honey Bee.

In addition, the fragmentation of forest blocks in the broader landscape by roads and cleared private property may restrict the movement of fauna between local populations, increasing the risk of their local extinction. Increasing linkages between the park and surrounding vegetation on public and private land is crucial to better ensure the conservation of these species.

There is limited information available about the distribution and management requirements of significant fauna species and habitats throughout the park, particularly those in One Tree Hill, Mandurang and Big Hill blocks.

Aims

- Protect and enhance indigenous fauna and habitat, particularly for threatened species.
- Increase knowledge of significant fauna species and habitats, including their management requirements.

Management strategies

- Maintain habitat values for groundforaging birds, reptiles and mammals by retaining all rocks and fallen timber on the ground through education programs, patrolling and enforcement.
- Retain hollow-bearing habitat for hollowdependent fauna, including mature live and dead trees, logs, stumps and coppice bases (section 4.8).
- Encourage the retention of hollow-bearing habitat for hollow-dependent fauna on land adjacent to the park, and restoration of surrounding habitat (sections 6.1 and 7.4).
- Protect habitats of populations of threatened species, particularly habitats of the Pink-tailed Worm-lizard, Brush-tailed Phascogale, Powerful Owl, Swift Parrot and Painted Honeyeater. Cooperate with DSE to identify requirements to maintain viable populations of the threatened species in the park (section 8.3).
- Encourage and coordinate surveys and research on significant fauna species in the park, particularly in One Tree Hill, Mandurang and Big Hill blocks, to improve knowledge of their distribution, management requirements and traditional uses (sections 8.2 and 8.3).
- Encourage community groups, tertiary institutions and individuals to survey fauna and report findings, particularly in the One Tree Hill, Mandurang and Big Hill blocks. Arrange for new records to be recorded in DSE's Atlas of Victorian Wildlife database.
- Minimise damage to fauna habitat from fire management practices (sections 4.5 and 4.8).
- Implement priority actions from approved Action Statements or Recovery Plans to address threats to threatened species or

communities listed under the FFG and EPBC Acts.

- Where appropriate, encourage research to identify Indigenous knowledge relating to fauna.
- Respect the cultural obligations of Traditional Owners in relation to fauna.
- Reflect Indigenous knowledge of fauna in management practices as appropriate, and ensure the significance of fauna to the Traditional Owners is respected in all visitor and management activities (sections 4.8, 5.1, 6.1 and 8.2).
- Encourage neighbouring land managers, community groups, and government and non-government agencies to complement park conservation management by conserving fauna habitat and restoring links between blocks of native vegetation on the lands they manage (section 4.5).

4.7 Pest plants and animals, and diseases

Pest animals

Fourteen non-indigenous pest animal species have been recorded within the park. These include the Rock Dove, Blackbird, House Sparrow, European Goldfinch, Indian Myna, Starling, Black Rat, House Mouse, European Rabbit, Brown Hare, Cattle (feral), Red Fox, Cat (feral) and Goat (feral). There are anecdotal reports of unattended domestic dogs and cats roaming the park. The impact of fox and cat predation in the park is largely unknown. These pests may pose a significant threat to small mammals such as the Brushtailed Phascogale, ground-foraging and nesting birds, and reptiles. Annual monitoring and control programs are undertaken for foxes, cats and rabbits. The numbers of goats in Whipstick and Kamarooka blocks have increased.

Partnership projects between adjacent land managers and Parks Victoria will be encouraged where these projects maintain or enhance park values. Reducing predation of native fauna by feral and domestic cats is a priority for the park. Through partnerships with local government, this can be achieved by promoting responsible cat ownership and enforcing regulatory controls such as the cat

curfew and cat control programs within the park and surrounding areas. Grazing pressure from introduced and native herbivores is having an impact on the structure and composition of the shrub and ground layer in some parts of the park, particularly in the Kamarooka block.

There are wild populations of European honey bees in the park. The incidence of European Wasps is increasing in the region and little is known about their impacts on flora and fauna. Wasps may need to be controlled at picnic and camping sites in the park if they pose a risk to park visitors.

Pest plants

Weed survey mapping was undertaken in 2004 to identify weeds and determine their distribution within the park. Numerous non-indigenous flora species are present within the park. Priority weeds in the park include Horehound, Sweet Briar, Wheel Cactus, Pampas Grass and Cape Broom. Priorities for weed control will be reviewed, taking into account regional priority weeds as identified by the North Central CMA (State of Victoria 2003) and field assessments of the distribution and abundance of weeds.

The key entry points for weed invasion are leaking water channels, edges of the park, roads and walking tracks, and previously disturbed areas. Disturbance assists many weeds to spread within the park. Pest plant infestations in the park are preventing the regeneration and establishment of native vegetation, altering habitat for native fauna, providing harbour for pest animals, degrading landscape values and increasing fire fuel loads.

Annual weed control programs aim to reduce weed threats to park values using Parks Victoria's Risk Assessment Program and ongoing park based weed risk assessments. Several community and voluntary groups are involved in pest plant management projects within the park (section 8.2). Continuation of this important work is encouraged by Parks Victoria.

Diseases

No plant pathogen has been identified as a serious threat to park values, although the area is likely to be susceptible to *Phytophthora* dieback should this disease be introduced to

the park in the future (Victorian Government 2005). This disease is usually introduced into new areas via infected soil transported on vehicles or machinery.

Aims

- Control and where possible eradicate new pest plant infestations.
- Control the spread of pest plants that threaten particular park values.
- Eradicate or control populations of pest animal species which threaten particular environmental values, especially threatened flora and fauna species and communities.
- Avoid the introduction of new diseases or weeds into the park.

Management strategies

- Implement annual weed control programs for priority weeds as identified in ongoing weed risk assessments.
- Monitor foxes, rabbits, cats and goats as necessary, using approved monitoring techniques. Undertake control programs to meet annual targets.
- Ensure all pest control programs minimise potential impacts on the park's natural and cultural values.
- Minimise soil disturbances when undertaking management or recreational activities or authorised uses.
- Remove European Wasp nests where they pose a risk to park visitors.
- Promote responsible pet ownership among park neighbours by working cooperatively with Council, DSE and community groups to inform them on the impacts of cats on park values, what they can do to control these, and cat control programs being implemented within the park.
- Ensure materials used for construction and maintenance works are certified pathogen and weed free, and that machinery hygiene practices are utilised for all works undertaken in the park.
- Monitor for the emergence of pathogens that may impact on the park's natural values.

- Encourage cooperative projects with adjacent land managers, agencies and community groups to control pest plants and pest animals where such projects make significant contributions to maintaining park values.
- Encourage and coordinate research on the impacts of cats, foxes, dogs, goats, feral European honey bees and European Wasps on park values, in collaboration with Parks Victoria's Research Partners, regional tertiary institutions and interested community members.

4.8 Fire management

The National Parks Act requires the Secretary to the Department of Sustainability and Environment to ensure that appropriate and sufficient measures are taken to protect parks from injury by fire. Current fire protection measures are carried out in accordance with North West Region, Bendigo Fire District Fire Protection Plan (DSE 2003b) and the *Code of Practice for Fire Management on Public Land* (DSE 2006).

The Fire Protection Plan is a strategic plan to prevent, prepare for, suppress and recover from wildfire on public land in the Bendigo Fire District, which is implemented through a three-year Fire Operations Plan. These take account of:

- protection of life and property
- protection of natural and cultural values
- ecological requirements of specific vegetation communities
- fuel accumulation rates as determined by DSE's *Overall Fuel Hazard Guide*.

The plan applies the following three fuel management zones to the park:

- Zone 3. Most areas of the park. This provides for an irregular mosaic of areas of fuel reduction, complementing works in Zones 1 and 2 in reducing the severity of wildfires. Fuel management in these areas also aims to reduce, periodically, a nominated range of fuel.
- Zone 1. Two areas of park located around the Pioneer and Osborne Roads in the One Tree Hill block, to protect high-density housing in the Strathfieldsaye township.

The areas provide the highest level of strategic protection to human life, property and highly valued public assets and environmental values.

• Zone 2. One area in the Whipstick block. A 300 metre wide strip from Daley Road, east between Nuggety Road/Notley Road and Cicada Track, extending to the south-eastern boundary of the park at Skylark Road. A strategic corridor of sufficient width and continuity to provide a substantial barrier to the spread of wildfire by reducing fire speed and intensity, and the potential for spot fire development, and reducing damage caused by wildfire.

The fire protection requirements around the Sandhurst and Kamarooka Reference Areas need special consideration.

The Code of Practice for Fire Management on Public Land requires that fire management activities ensure that environmental values, including the vigour and diversity of the state's indigenous flora, are protected, as far as practicable, from the harmful effects of wildfire and inappropriate fire regimes (DSE 2006).

Little is known of the fire history of the park or the use of fire by the Traditional Owners prior to European settlement. Post-settlement historical accounts of Aboriginal life in the area indicate that Aboriginal groups used fire to promote the fresh growth of grasses and to drive game.

The Big Hill block, on the eastern side of the Calder Highway, has been burnt a number of times. In 1924, a large fire was started at the Big Hill Railway tunnel and burnt approximately 900 ha of this block. The same area (approx. 900 ha) was once again burnt in 1944. Other smaller fires in this part of the Big Hill block include: about 100 ha near Mt Herbert in 1960; 20 ha near Harpers Rd in 1968; 20 ha near Big Hill Railway tunnel in 1973 and 20 ha near Hunts Gap Rd in about 1984. Historic fires within the Big Hill block are not recorded in DSE's fire database, as the area was previously a Water Supply Reserve and therefore not included in historic Protected Public Land Records.

Only three wildfires have been recorded elsewhere in the park since the recording of fire history commenced in 1932. The total area covered by these fires is 448 hectares. In 1961 an area of 238 ha in the One Tree Hill block was burnt near the present site of Latrobe University along Guys Hill Road. In 1983 an area of 120 ha in Kamarooka block was burnt near Tennyson Rd and Burnside Rd. In 2005, 90 ha was burnt in Kamarooka block near the Bendigo–Tennyson Rd.

Potential causes of wildfire include lightning strikes, campfires, discarded cigarettes, sparks from machinery, illegally lit fires, and fuel reduction burns within and adjacent to the park.

Regular fuel reduction burns have been carried out in the park since 1980 and have burnt a total of approximately 950 hectares, or less than 6% of the park. The vast majority of the vegetation in the park is therefore long unburnt. The potential impacts of long periods of fire exclusion on vegetation communities that require fire-related disturbance for regeneration include a decline in the cover and abundance of species that regenerate well after fire and an increase in cover and abundance of longer-lived and fire sensitive species.

The need to protect hollow-bearing vegetation from fire within the park for native fauna must be considered in the planning and implementation of controlled burns.

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

Given the large number of dams in the park, particularly in Whipstick and Kamarooka blocks, and their various levels of utility as fire dams, a review of fire dam requirements is warranted (sections 4.4 and 4.6).

Aims

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

Management strategies

 Undertake prescribed burning in accordance with the Bendigo Fire District

- Fire Protection Plan, the three-year Fire Operations Plan, Parks Victoria operational policy, and the Guidelines and Procedures for Ecological Burning on Public Land in Victoria (DSE 2004). Regularly review plans to ensure they reflect findings of research on natural and cultural values (sections 4.5 and 5.1), and monitoring of fuel loads and accumulation rates.
- Investigate the fire protection needs of the Sandhurst and Kamarooka Reference Areas, in collaboration with DSE, and if appropriate, amend the Regional Fire Protection and Fire Operations Plans.
- Ensure all planning and implementation of fire protection and management operations take account of the park's natural and cultural values, particularly populations of threatened species and cultural places, and are consistent with the Code of Practice for Fire Management on Public Land (DSE 2006) (sections 4.5, 4.6 and 5.1).

- Ensure fire management practices during fuel reduction burns, and fire-site rehabilitation work, are carried out with minimal disturbance to scar trees, mature trees and fauna habitat, particularly hollow-bearing trees (live and dead), large logs, tree stumps and coppice bases (sections 4.6 and 4.7).
- Assess needs for dams for fire protection purposes, in conjunction with DSE. Drain and restore sites of any dam that was established for fire protection purposes and is no longer required, and map and signpost all remaining dams (section 4.4).
- Publicise and enforce fire regulations and restrictions (section 6.6), and inform the community on the use and role of fire within the park (section 6.1).
- Encourage research into Indigenous knowledge relating to fire, including its use and management, in cooperation with the Traditional Owners. Reflect Indigenous knowledge of fire in education and fire management programs as appropriate (sections 4.5, 4.6, 5.1 and 8.2).

5 STRATEGIES FOR CULTURAL VALUES CONSERVATION

5.1 Indigenous cultural heritage

The park lies within the Country of the Dja Dja Wurrung community. The Dja Dja Wurrung language group comprises 24 clans (Clark & Cahir 2004). According to Indigenous tradition, Country was established in the *Dreaming*, and the Traditional Owners are part of it and bound by its laws. The Traditional Owners have occupied the area that includes the park for thousands of years, and maintain an ongoing association with it. The Jaara Jaara people assert an association with the park and surrounding areas that is based on direct descent from the original Indigenous custodians of the area. Other Indigenous groups may also assert ancestral association with all or parts of the park.

In addition to the Traditional Owners, other Indigenous communities have interests in the park, including the Bendigo and District Aboriginal Cooperative (BADAC).

As part of *Country*, all elements of the landscape are rich in meaning for the Traditional Owners, who honour their tradition (sections 4.1 and 4.2). The park contains a range of cultural landscapes and places associated with Indigenous culture. Only limited areas of the park have been surveyed for Indigenous cultural places and objects. Better knowledge of the cultural heritage would facilitate the protection of what remains.

All Aboriginal places and objects are protected under the Archaeological and Aboriginal Relics Preservation Act and the Aboriginal and Torres Strait Islander Heritage Protection Act (section 2.5). It is an offence to damage, interfere with or endanger an Aboriginal site, place or object without obtaining prior written consent from the scheduled Aboriginal community.

Issues relating to the protection of Aboriginal places and objects, and the involvement of local Aboriginal communities are approached in accordance with these Acts. As the Bendigo Dja Dja Wrung Aboriginal Association Incorporated (BDDWAA) (the scheduled Aboriginal community) is currently not in operation, cultural heritage matters, including the identification, care, management or

authorised disturbance of Aboriginal places and objects, is the responsibility of the Minister for Aboriginal Affairs, who can be contacted through Aboriginal Affairs Victoria (AAV) (section 8.3).

Issues relating to Native Title are dealt with according to the Native Title Act. An application by the Dja Dja Wurrung for a native title determination covering large areas surrounding Bendigo, including the area of Greater Bendigo National Park, was entered on the Register of Native Title Claims on 15 August 2000 (Reference no. VC00/1 or V6001/00) and has been registered from that date. Parks Victoria will take account of the outcomes of this and any other native title applications and amend the plan as necessary.

Parks Victoria respects views of the Traditional Owners and seeks to reflect their knowledge, interests, rights and aspirations for *Country* in planning and management of the park (Parks Victoria 2005).

Aims

- Protect Indigenous cultural heritage from interference or damaging activities.
- Support the views of the Traditional Owners in managing the park.

- Protect all Indigenous cultural places and objects from disturbance and damage in partnership with the Traditional Owners, in cooperation with the scheduled Aboriginal community and in liaison with AAV (section 8.2), and in accordance with:
 - the provisions of relevant legislation
 - Parks Victoria's Guidelines for Working with Indigenous Communities and Protection of Cultural Sites (Parks Victoria 2002).
- Respect the views of the Traditional owners and the cultural obligations of Indigenous communities.
- Ensure that all management actions are in accordance with the Native Title Act.

- Assess annual work programs to integrate relevant Indigenous practices and minimise the potential for impacts from park management activities on Indigenous cultural heritage, in consultation with the Traditional Owners and the scheduled Aboriginal community (section 8.2).
- Reflect the Traditional Owners' knowledge, interests, rights and aspirations for Country in all planning and management of the park in consultation with the scheduled Aboriginal community and in accordance with Parks Victoria's operational policies (sections 4.1, 4.2, 4.5, 4.6, 4.8, 6.1 and 8.2, and chapter 7).
- Encourage the identification, recording and monitoring of Indigenous places and objects, and Indigenous knowledge relating to the park, in collaboration with the Traditional Owners and in liaison with the scheduled Aboriginal community and AAV (sections 6.1 and 8.2).
- Work with the Traditional Owners to assess and identify Indigenous cultural heritage suitable for promotion and interpretation (sections 6.1 and 8.2).
- Ensure all park staff undertake Cultural Awareness training.
- Maintain confidentiality in respect of Indigenous cultural obligations, knowledge, places, objects and aspirations, in accordance with the views of the Traditional Owners (sections 6.1 and 8.2).

5.2 Historic cultural heritage

The park contains a range of cultural landscapes and places associated with Indigenous culture (section 5.1), gold mining, charcoal production, eucalyptus oil distillation, water storage and distribution, and forestry.

Apiculture and honey production commenced in the park areas with settlement in the 1830s. Honey production still occurs within the park at many sites. Apiary sites are usually characterised by an open space in which the bee hives are placed when nectar and pollen are abundant in the area.

Gold mining commenced with the discovery of alluvial gold in Bendigo Valley during late 1851, leading to a series of rushes that built up

the field's mining population to tens of thousands by late 1852. It is estimated that around five million ounces of alluvial gold was won from the Bendigo goldfield.

During the course of alluvial mining, gold-bearing quartz reefs were discovered and were being worked by 1853. It was the latter industry that made the goldfield famous, and quartz gold mining was carried out continuously at Bendigo until 1954. In this period, the reefs yielded about 17 million ounces of gold, making it Victoria's greatest gold producer. Mining deep below the City has recently recommenced.

The bulk of Bendigo's mining was carried out within current-day Bendigo and Eaglehawk, and their outskirts. In the park, mining for both alluvial and quartz gold was relatively small-scale and dispersed. Surviving evidence includes landscapes of shallow alluvial diggings with relics of mining infrastructure such as puddling machine sites, mullock heaps and machinery foundations, mine shafts and tunnels, tailings dumps, dams and water races. Associated with the mining evidence are the remains of hut sites, usually marked by the remnants of fireplaces.

The distillation of eucalyptus oil has been carried out in the Box-Ironbark forests of Victoria since the 1870s. The industry expanded dramatically in the 1890s through a local response to the declining fortunes of the region's quartz gold mines. Thrown out of work, some miners turned to eucalyptus oil production, finding all the necessary ingredients in their backyards. The forests around Bendigo contained large tracts of oilrich Blue and Green Mallee, as well as steam boilers and large dams abandoned by quartz gold miners. The eucalyptus oil industry reached its peak in the late 1940s. Thereafter, the industry declined as production costs increased and as large eucalypt plantations were established overseas (Bannear pers. comm. 2002). Most of the visitor camping and picnic areas in the Whipstick and Kamarooka blocks are located on abandoned eucalyptus oil distillery sites. Many of these sites were dismantled or covered over during the 1970s, according to management practices of the time to make the sites safe for the public.

By the turn of the century Bendigo was the world's richest and deepest quartz goldfield.

By this time, however, the Bendigo field was in decline and mining companies were attempting to maintain their income by introducing new technology. One way in which companies sought to reduce costs was by reducing their firewood consumption through the introduction of more efficient steam boilers and the use of gas-producer plants to power crushing batteries. Gas-producer plants were fuelled by charcoal, and their increased use on the Bendigo goldfield from 1910 created a substantial charcoal industry in the local forests.

There was another burst of local charcoal production during World War 2, when charcoal became a vital alternative to liquid fuel. It was widely used to power gasproducing units fitted to trucks and cars. The former Forests Commission coordinated all production of charcoal from private sources, as well as constructing and operating its own kilns (Moulds 1991). The Kamarooka block was a key locality for World War 2 charcoal production, and relics still survive from this period.

Water distribution channels, or water races, supply stock and domestic water to properties surrounding the park. These still operate at various times of the year in the Big Hill, Mandurang, One Tree Hill and Whipstick blocks (section 2.3).

A survey of historic sites in the Big Hill and Mandurang blocks has not yet been undertaken. Therefore survey is a priority for these areas. A comprehensive assessment of historic landscapes is yet to be undertaken for the park.

Three places in the Whipstick block — Old Tom Reef Gold Puddling site, Phillips Gully Gold Mining Precinct and Reudin's Eucalyptus Distillery — are listed as heritage places on the Victorian Heritage Register. The Big Hill Railway Precinct, including the tunnel, also listed on the Victorian Heritage Register, is not included in the park, although it is bounded by park on either side.

The cultural landscape of the park reflects intangible heritage values associated with community attachment and tradition tied to settlement, stock grazing, mining, timber harvesting and recreational activities over many years. The landscape is of particular

significance to many non-Indigenous local families, who retain feelings of belonging and a sense of custodianship for the place as a result of their historical associations with it (sections 2.3 and 4.1). Community groups, including the Bendigo Historical Society, seek continued involvement in the management of the historic cultural heritage in the park.

The interpretation of culturally significant sites will be addressed in consultation with relevant stakeholders through Parks Victoria's information, interpretation and education programs (section 6.1).

Historic and cultural places are managed in accordance with the *Heritage Act 1995* (Vic.) and the Australia ICOMOS Burra Charter (ICOMOS 1999).

Aim

 Protect historic cultural landscapes, places and relics from damaging processes and inappropriate visitor activities, while generally allowing the landscape to evolve naturally.

- Manage places of historic cultural significance in accordance with The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (the Burra Charter) (Australia ICOMOS 1999), provisions of the Heritage Act and the management principles of Parks Victoria's Heritage Management Strategy and operational policies. Consult with agencies, including Heritage Victoria and Environment Australia, and the community, as appropriate (sections 8.2 and 8.3).
- Consider community perspectives and opinion in determining appropriate management and interpretation of the park's historic cultural heritage values.
- Foster community custodianship of the park by encouraging the recording the oral history of people from the surrounding communities who have a long or significant involvement in land and resource use or conservation activities in the park.
- Research and assess the cultural significance of all historic landscapes,

- places and objects. Prepare and implement a Heritage Action Plan that includes the park area and determines past impacts of land uses on these values, and management requirements including appropriate visitor access and interpretive information for each of them (sections 4.5 and 5.1).
- Establish and implement an ongoing program for managing historical cultural heritage values that includes the identification and recording of values, monitoring and assessment of the condition of values and the risks to the values, the effectiveness of management practices, the success of interpretative works and materials, and the recording of information in Parks Victoria's Asset Management System. Community and interest groups will be encouraged to be involved in monitoring and evaluation activities (section 8.2).
- Encourage the research and recording of historical information and place names relating to the park.

- Protect non-indigenous plants that contribute to the significance of historic places where appropriate, and where protection of such plants does not threaten park values through the spread of pest weeds (section 4.7).
- Identify training needs, and train and authorise staff, in relation to the management of historical cultural values. Include knowledge of the Heritage Act in training programs.
- Develop and implement an induction course on the history and historical cultural heritage of the park for Parks Victoria staff, tour operators, commercial operators and contractors (sections 6.1 and 6.12).

6 STRATEGIES FOR VISITORS

6.1 Information, interpretation and education

Information, interpretation and education services can help visitors to orientate themselves, and to more easily gain an appreciation and understanding of the park's natural and cultural values, recreational opportunities, and management. They can also encourage and assist visitors to have a safe visit without damaging the park.

Pre-visit information and promotion

Parks Victoria delivers pre-visit information through its website, and through Parks Victoria offices, Bendigo's Visitor Information Centre, local festivals and events, Park Notes and maps. It also distributes the *Experience Bendigo Outdoors* brochures, developed in partnership with the City of Greater Bendigo, which contain information about the park and other public open space areas around Bendigo.

The City of Greater Bendigo, Goldfields
Tourism and Tourism Victoria promote and
provide strategic direction for tourism in the
Bendigo region. Parks Victoria also promotes
the park through the local media, organised
education, business and community networks
(sections 6.12 and 8.3). The park complements
other tourist destinations in the area. Improved
promotion of the park in conjunction with local
attractions could increase visitation and
support the tourism industry.

The City in the Forest project aims to encourage a healthy interface between the built and natural environments of Bendigo City. The project is directed by a steering committee that includes representatives from the City of Greater Bendigo, DSE and Parks Victoria.

Orientation

Visitors can find it difficult to find their way to and along the many routes that provide access to and within the five separate blocks of park. The effective distribution of orientation information to visitors is complicated because most visitors, including the high proportion who live locally and frequently use the park, do not visit park offices or the Visitor Information Centre before they visit. There is a need to provide adequate signage and

distribute relevant information through a variety of channels.

Directional signage to the park is provided by the City of Greater Bendigo and VicRoads, in consultation with Parks Victoria. Parks Victoria provides orientation information on signage at major entrances to the park and on an information board at the Notley visitor site, which has been repeatedly vandalised. More signage, including orientation, risk and regulatory information, is needed at key visitor nodes such as the entrance to the Big Hill block from the Crusoe Park area and One Tree Hill lookout.

Interpretation

There is a range of opportunities to enhance visitors' interest in and understanding of characteristics and features of the park, particularly those relating to the ecology and cultural heritage of the Box–Ironbark forests, and the relationship between healthy people and parks.

A scoping study (Thwaites & Black 2005) investigated and provided recommendations for interpretive and educational opportunities across the Box–Ironbark forest and woodland landscapes. The project partners (Parks Victoria, DSE, City of Greater Bendigo and LaTrobe University) are currently considering these recommendations for implementation.

Interpretive information is provided on the board at the Notley visitor site. Parks Victoria also hosts or supports a variety of Ranger-led interpretive programs, such as Spring in the Bendigo Bush. Explanatory information and interpretive publications about the park, its natural features and land use history are provided at events in the Bendigo area.

Schools and community education

The park is used extensively for educational purposes by schools and universities. Parks Victoria, together with DSE and the North Central CMA, has prepared a Box–Ironbark Education Kit for use by schools and community groups, and participates in various events such as tree-planting days and careers days.

Parks Victoria is keen to participate in partnerships with educational institutions and other agencies that engage in environmental education programs relating to parks or the values they contain (sections 2.1, 8.2 and 8.3 and chapter 7). Such services need to be well-coordinated, and the natural resource and cultural values messages must be appropriate and consistent.

Aims

- Encourage and assist visitors to discover, enjoy and appreciate the park's natural and cultural values, and support park management practices.
- Orientate visitors and the local community in relation to the park's features and values.
- Provide equitable access to current consistent information about the park.
- Ensure that messages delivered about the park by Parks Victoria, and local and regional agencies, are coordinated and consistent.

Management strategies

Pre-visit information and promotion

- Supply the community, in an equitable manner, with current consistent pre-visit information about the park, through the following channels as appropriate:
 - Park Notes
 - ParkWeb
 - Parks Victoria Information Centre and accredited Visitor Information Centres
 - Information Notes
 - Box–Ironbark Education Kit
 - Interpretive school holiday programs
 - Community networks, e.g. Landcare, Neighbourhood Watch, sporting and recreational clubs, nature clubs
 - Experience Bendigo Outdoors brochures
 - Local media publications, media releases and local radio.
- Promote the park, in collaboration with partner organisations, as an integral

- component of the City in the Forest project.
- Encourage and supply appropriate information, and work with the City of Greater Bendigo, Goldfields Tourism and Tourism Victoria to ensure that:
 - the park is appropriately promoted in regional visitor information centres
 - the park's natural, cultural and recreational values are a prominent feature of regional tourism strategies and promotional literature, e.g. the Bendigo Visitor Guide.
- Provide appropriate, useful and consistent information about park access and the managed road and walking track network to relevant agencies and interested community groups (section 6.2).
- Inform visitors that drinking water is not provided, and encourage them to bring their own drinking water to the park.
- Supply relevant information about park values and prospecting issues to prospectors through local prospecting groups, the Prospectors and Miners Association of Victoria, prospecting supply outlets and make available on ParkWeb (section 6.11).
- Promote the health benefits of undertaking low impact recreational activities in the park to local residents and the wider community under the 'Healthy Parks, Healthy People' slogan.

Orientation, interpretation and education

- Promote greater public understanding and appreciation of and respect for Indigenous culture by incorporating information about Indigenous tradition, places and objects in information, interpretation and education programs in collaboration with the Traditional Owners (sections 5.1 and 8.2).
- Erect and maintain directional, regulatory, safety, information and interpretation signage as appropriate and necessary for the guidance of visitors, and in accordance with tables 3 and 5.
- Develop and deliver information and interpretive services in accordance with table 3, as appropriate.

TABLE 3 INFORMATION, INTERPRETATION AND EDUCATION MANAGEMENT

SITE/EVENT	MAIN TOPIC	FACILITY/SERVICE	MANAGEMENT ACTION		
Outside park:					
PV website	General park information	Park Notes	Maintain up to date.		
PV offices and Visitor Information Centres – Bendigo – Castlemaine – Heathcote	Visitor information	Recreation Information Notes	Develop and maintain as necessary.		
- Crusoe Park	Flora and fauna	Orientation and	Develop and maintain.		
(at entrance to Big Hill)	Geology	interpretive materials			
Programs/Events	Flora and fauna	Essa to foss intermedias	Dlan and implement a		
Current examples include: - School activities (BIB,	Natural values	Face to face interpretive activities and programs,	Plan and implement a variety of interpretive		
Cluster schools program,	Indigenous cultural heritage	familiarisation of park	events and programs,		
'City in the Forest' project) – Spring in the Bendigo	historical heritage	Box—Ironbark Education Kit Box—Ironbark Education Kit aresources, are cooperation partner orgal ated an and community recognition and reception event a past years the			
bush	Recreation		resources, and in		
	Other topics as appropriate		cooperation with partner organisations.		
Regular 'park information, community recognition and	Recognition of park-related community participation and achievements	community recognition	Plan and implement on a regular basis.		
reception' event	Parks Victoria report on past years works, and reception of the community's information, ideas and views about past and future management for consideration when establishing local work program priorities				
Local Businesses – Recreational equipment retailers	Access and management for specific recreational activities	Recreation Information	Supply information as appropriate.		
- Community health	'Healthy Parks, Healthy People'	Face to face	Develop and maintain.		
organisations - Visitor information centre staff / Licensed tour operators	Park features and values: cultural heritage, natural, recreational	interpretation Park features/values familiarisation tour			
In park:					
- Notley (Whipstick)	Cultural heritage: gold, eucalyptus oil production	Orientation and interpretive signage	Maintain.		
	Flora and fauna	Educational signage			
	Bushland trail	about regulations			
 One Tree Hill block 	Dog access and management	Orientation signage	Develop and maintain.		
		Educational materials and/or signage about regulations	Develop and maintain.		
– One Tree Hill lookout	'City in the Forest'	Interpretive materials	Develop and maintain		
– Goom gooruduron-yeran (Big Hill)		Orientation signage	Develop and maintain.		
Shadbolt (Whipstick)	Indigenous cultural heritage	Orientation signage	Develop and maintain.		
· · · · · · · · · · · · · · · · · · ·	Historical heritage.	Face to face interpretive	•		
	Environmental values	programs and events			
	Other topics as appropriate				

- Develop and maintain bushwalking, bicycle riding and dog walking notes detailing track locations, brief descriptions, and interpretive materials, as appropriate.
- Provide appropriate opportunities, encouragement and support for Indigenous people to participate in the interpretation of Indigenous cultural heritage relating to the park, in consultation and with the agreement of the Traditional Owners.
- Coordinate messages provided by Parks Victoria to visitors and the community about natural and cultural values with related messages provided by other agencies, through partnerships such as communication and education networks e.g. North Central Community Engagement Network (sections 8.2 and 8.3).
- Educate park visitors about the impacts of recreation activities on sites and park values (section 4.3).
- Publicise and enforce fire regulations and restrictions and inform the community on the use and role of fire within the park (section 4.8).
- Promote responsible pet ownership to park visitors and park neighbours.
- Work cooperatively with community groups and the City of Greater Bendigo in educating cat owners about the impacts of cats on park values, responsible cat ownership, and cat control programs within the park (sections 4.7, 6.1 and 8.3).

6.2 Access

Greater Bendigo National Park is highly accessible to park visitors. Major roads providing vehicular access to the park include: Eaglehawk–Neilborough Rd in the Whipstick block; Bendigo–Tennyson Rd in the Kamarooka block; Strathfieldsaye Rd, Mandurang Rd and McIvor Highway for the One Tree Hill block; and Mandurang Rd for the Mandurang block. For the Big Hill block, access to the east end is via Mandurang South Rd and Hunts Gap Rd and access to the west end is via Crusoe Rd and through the councilmanaged Crusoe Park area. Although the Calder Highway dissects the Big Hill block, no

suitable public vehicular access is available from this road.

An extensive network of vehicular roads and tracks for walkers and cyclists exists throughout the park. Most are formed and some are unformed. Table 4 lists the vehicular roads in, or bounded by park which will be maintained, and also lists the responsible authorities. Specific park roads have been identified as fire access roads in collaboration with DSE, and they will be maintained in accordance with DSE fire access road guidelines (DSE 2005c). Much of the road network managed by the City of Greater Bendigo within and adjacent to the park are primary or secondary fire access roads.

Visitors in motor vehicles are required to observe seasonal road closures (table 4), emergency road closures and regulations that apply to the use of roads and tracks and the parking of vehicles.

Walking tracks planned for the park are listed in table 5, with current and proposed grades and recreational uses. See section 6.8 in relation to dog walking, and section 6.9 in relation to horse riding.

Big Hill block offers visitors the opportunity to experience a greater sense of remoteness than is available elsewhere in the park.

Vandalism of facilities, damage to park values and disturbance to fauna and park neighbours during the night at the One Tree Hill visitor site has been an ongoing issue.

Aims

- Provide and maintain a sustainable network of motor vehicle roads and tracks appropriate for visitor use and management.
- Minimise the impact of road and track management on the park's values.

Management strategies

• Manage and maintain roads for motor vehicles in accordance with table 4, figures 4a and 4b, and the park's management directions. Unformed tracks not shown in table 4 will not be maintained for vehicular access and where the condition of these tracks compromises

- park values or public safety they will be revegetated.
- Ensure maintenance works do not damage natural or cultural values by, where necessary, carrying out full environmental and cultural risk assessments in cooperation with the Traditional Owners and the scheduled Aboriginal community (sections 4.1–4.6, 5.1 and 5.2).
- Maintain appropriate signage on all vehicle access roads, as listed in table 4, and ensure that 'no through roads' are appropriately signposted.
- Manage fire access roads according to their classification (table 4), and as agreed with DSE.
- Liaise with the City of Greater Bendigo to ensure the maintenance of vehicular roads in the park under its control, is compatible with the protection of park values.
- Investigate and seek approval from the City of Greater Bendigo to close Edwards Road (access to One Tree Hill lookout) to vehicular traffic outside daylight hours.
- Seek the application of seasonal vehicle road closures as necessary to protect park values and visitors.
- Ensure emergency services are supplied with updated information on managed roads within the park.

6.3 Car touring, four wheel driving and trail bike riding

Car touring, four wheel driving and trail bike riding are undertaken on formed roads in parts of the park. Trail bike riding in the park and surrounding forest areas is a popular activity for locals, particularly for young licensed riders.

The most popular destination for car touring is the One Tree Hill lookout. From the lookout tower the City and its park and forest surrounds can be clearly viewed (section 4.1).

Off-road driving and riding are not permitted in the park. Off-road riding and driving can damage vegetation and soil, causing habitat fragmentation, soil erosion and compaction, and contamination of waterways. Such action damages and degrades park values and the enjoyment of the park by other park visitors. Parks Victoria works with Four Wheel Drive Victoria to encourage safe and responsible four wheel driving practices.

Aims

- Provide appropriate and sustainable vehicular access for car touring, four wheel driving and trail bike riding.
- Encourage responsible riding and driving practices that minimise impacts on park values and other park visitors, and maintain safety for all park visitors.

- Manage and maintain roads for car touring, four wheel driving and trail bike riding in accordance with table 4 (section 6.2).
- Provide and promote appropriate vehicular access information to the local community and interested groups.
- Maintain appropriate signage on all vehicular roads open to the public.
- Participate in projects aimed at curtailing illegal off-road trail bike riding in the park and providing appropriate locations for such activities outside park areas in collaboration with local government, police, agencies, industry and the local community. Ensure compliance with legislation where necessary.
- Develop an education campaign about park awareness and safe and responsible trail bike riding, targeted at local youth.
- Continue to work with clubs and peak bodies for motorised recreational activities, and with relevant agencies, to promote safe and responsible motoring practices in the park.
- Continue to consult and coordinate with the peak bodies of recreational activities on matters of mutual concern, e.g. education programs, road maintenance, temporary road closures.

TABLE 4 MOTOR VEHICLE ACCESS MANAGEMENT

ROAD			FIRE ACCESS ROAD CLASS'N	ROAD AUTHORITY	ROAD FUNCTIO	
Kamarooka block – in park						
Boobialla Tk	5D/5D	M2	Bi, Wa	SFA	PV	4
Noble Tk ¹	5D/5D	M2	Bi, Wa	_	PV	4
Angle Rd 1	5D/5D	M2	Bi, Wa	SFA	PV	4
Camp Rd 1	5D/5D	M2	Bi, Wa	SFA	PV	4
Clay Rd	5E/5E	M2	Bi, Wa	SFA	PV	5
Mallee Tk	5E/5E	M2	Bi, Wa	_	PV	5
Harrower Rd	5D/5D	M2	Bi, Wa	_	PV	4
Ludeman Rd	5E/5E	MV4	Bi, Wa	_	PV	5
East Boundary Rd	5E/5E	M2	Bi, Wa	BFA	PV	4
North Boundary Rd	5E/5E	M2	Bi, Wa	BFA ²	PV	4
Morrison Rd	5D/5D	MV4	Bi, Wa	SFA	PV	4
Whirakee Tk	5D/5D	M2	Bi, Wa	SFA	PV	4
– outside park						
Millwood Rd	5C			_	COGB	4
Mellotes Rd	5C			_	COGB	4
Rasmussens Rd	5C			_	COGB	4
Clays Rd	5C			_	COGB	4
Burnside Rd ³	5C			_	COGB	4
Hayhursts Rd	5C			_	COGB	4
Jensens Rd	5D			_	COGB	4
Bendigo-Tennyson Rd	5A			_	VicRoads	3
Campbell Rd 3	5D			_	COGB	4
Hartlands Rd	5C			_	COGB	4
Whipstick Block – in park						
Red Rumped Tk	5E/5E	M4	Bi, Wa, Ho	_	PV	4
[Babbler Rd]	5D/5D	M2	Bi, Wa, Ho	BFA	PV	4
Skylark Rd	5D/5D	M2	Bi, Wa, Ho	SFA	PV	5
Raywood Channel Rd	5E/5E	MV4	Bi, Wa, Ho	PV 5	PV	5
Scotsman Rd	5D/5D	M2	Bi, Wa, Ho	PV 5	PV	5
Sandfly Rd	5D/5D	M2	Bi, Wa, Ho	PV 5	PV	5
Old Tom Rd	5D/5D	M2	Bi, Wa, Ho	PV 4	PV	4
Foxes Bend Rd	5D/5D	M2	Bi, Wa, Ho	PV 5	PV	5
Daley Rd	5D/5D	M2	Bi, Wa, Ho	_	PV	4

(cont'd on next page)

Table 4 (cont'd)

ROAD	ROAD MOTOR USES CLASS'N VEHICLE USE		FIRE ACCESS ROAD CLASS'N	ROAD AUTHORITY	ROAD FUNCTION	
Nuggety Rd	5D/5D	M2	Bi, Wa, Ho	SFA	PV	5
Notley Rd	5C/5C	M2	Bi, Wa, Ho	Wa, Ho SFA PV		4
[Bellbird Rd]	5E/5E	M2	Bi, Wa, Ho	Wa, Ho FFA PV		5
Rifle Range Rd	5D/5D	M2	Bi, Wa, Ho	_	PV	5
[Bibrons Rd]	5E/5E	M2	Bi, Wa, Ho	SFA	PV	5
Elliot Rd	5D/5D			-	PV (Regional Park)	4
[Greenhood Rd] from Eaglehawk– Neilborough Rd heading east for 2.2 km	5E/5E	MV4	Bi, Wa, Ho	-	PV	5
[Wallanjoe Rd] from freehold land boundary north to Brights Lane	5E/5D	M2	Bi, Wa, Ho	BFA	PV	5
– outside park						
[Greenhood Rd] from Black Rock Road heading west for 2.4 km	5E			_	COGB	5
Neilborough Rd	5C			_	COGB	4
[Wallanjoe Rd] from freehold land boundary south to Wards Rd	5D			-	COGB	5
Woodvale East Rd	5C			_	COGB	4
Wattle Gum Rd	5C			_	COGB	4
Pierces Rd	5C			_	COGB	4
Evans Rd	5C			_	COGB	4
Whipstick Rd	5B			_	COGB	4
Wards Rd	5C			_	COGB	4
Gray Rd	5C			_	COGB	4
Ott Rd	5D			_	COGB	4
Eaglehawk–Neilborough Rd	5B			_	COGB	4
Black Rock Rd	5B			_	COGB	4
Burtonclays Rd ³	5B			_	COGB	4
Blandfords Rd	5B			_	COGB	4
Loeser Rd	5C			_	COGB	4
Camp Rd	5C			_	COGB	4
One Tree Hill Block – in park						
[Ausfelds Rd]	5E			_	COGB	5
Wildflower Dve	5C/5C	M2	Wa, Bi, Dog	SFA	PV	5

Table 4 (cont'd)

ROAD			FIRE ACCESS ROAD CLASS'N	ROAD AUTHORITY	ROAD FUNCTION	
Bushland Trail (maintenance)	5E/5E	MV4	Wa, Bi, Dog	-	PV	5
[Scrub Tk]	5D/5D	MV4	Wa, Bi, Dog	Dog – PV		4
Pioneer Rd	5D/5D	M2	Wa, Bi, Dog SFA PV		5	
Kairn Rd	5D/5D	M4	Wa, Bi, Dog	SFA	PV	5
Turners Rd from Wildflower Drive for 600 m	5D/5D	M2	Wa, Bi, Dog			4
– outside park						
Turners Rd from Junortoun Rd for 1km	5D			_	COGB	4
Guys Hill Rd	5A			_	COGB	3
Osborne La	5C			_	COGB	4
Edwards Rd	5A			_	COGB	3
Strathfieldsaye Rd	5A			_	VicRoads	3
Mandurang Block – in park						
Davey Rd between Tannery Lane and Mandurang Rd	5D/5D	M4	Wa, Bi, Ho	BFA	PV	5
Davey Rd between Diggers Road and Mandurang Rd	5F/5F	MV4	Wa, Bi, Ho	-	PV	5
Dyson Tk	5D/5D	M4	Wa, Bi, Ho	SFA	PV	4
[Speckled Warbler Rd]	5D/5D	M4	Wa, Bi, Ho	_	PV	5
Tobbi Rd	5D /5D	M2	Wa, Bi, Ho	SFA	PV	5
Bubbs Rd	5B/5B	M2	Wa, Bi, Ho	_	PV	3
Diggers Rd	5D/5C	M4	Wa, Bi, Ho	_	PV	5
Bailiff Rd	5D/5D	M2	Wa, Bi, Ho	SFA	PV	5
Costas Rd	5D/5D	M4	Wa, Bi, Ho	SFA^4	PV	5
– outside park						
Hogans Rd	5C			_	COGB	4
Dyson Rd	5D			_	COGB	5
Kerrs Rd	5C			_	COGB	4
Mandurang Rd				_	COGB	4
Big Hill Block – in park						
Coliban Main Channel Tk	5C/5C	MV2	Wa, Bi	SFA	PV	4
[Scarlet Robin Tk]	5D/5D	MV4	Wa, Bi	SFA	PV	5
					(cont'd	on next page)

Table 4 (cont'd)

Road	CURRENT/ PLANNED ROAD CLASS'N	CURRENT AND PLANNED MOTOR VEHICLE USE	OTHER FIRE ACCESS PLANNED ROAD CLASS'N USES		ROAD AUTHORITY	ROAD FUNCTION
Cherry Tree Rd	5D/5D	MV2	Wa, Bi	SFA	PV	4
[Firetail Tk]	5E/5D	MV4	Wa, Bi	_	PV	4
[Swift Parrot Rd]	5D/5D	MV4	Wa, Bi	_	PV	5
[Thornbill Tk]	5D/5D	MV4	Wa, Bi	_	PV	5
[Tower Tk]	5D/5D	MV4	Wa, Bi	SFA	PV	4
[Pylon Tk]	5D/5D	MV4	Wa, Bi	_	PV	4
[Railway Tk]	5D/5D	MV4	Wa, Bi	SFA	PV	4

KEY

- Seasonal road closure commencing after Queens Birthday weekend in June until the last weekend in October.
- 2 Bendigo-Tennyson Rd to East Boundary Rd only.
- 3 Further negotiation is required relating to road maintenance requirements and management responsibilities.
- 4 Bailiff Rd to Nankervis Rd only.
- [] Newly named road.

Parks Victoria Road classification:

- 5A Primary Road—all weather, two-laned, mainly sealed road
- 5B Secondary Road—all weather, two-laned formed and gravelled, or single lane sealed with gravel shoulders.
- 5C Minor Road—single lane unsealed, formed road usually lightly gravelled.
- 5D Access Track—single lane, dry weather formed (from natural materials).
- 5E Rough Track—Single lane, unformed earth track at or near the natural surface.

Motor vehicle use:

M2 Visitors in 2wd and 4wd motor vehicles

M4 Visitors in 4wd motor vehicles

MV2 Management vehicles— 2wd and 4wd motor vehicles

MV4 Management vehicles—4wd motor vehicles

Other uses:

Bi Bicycling/Mountain bike riding

Wa Walking
Ho Horse riding
Dog Dog walking

Fire access road classification:

PFA primary fire access roads that provide both fire tanker and bulldozer access

SFA secondary fire access roads – branch off primary roads and provide fire tanker access

FFA feeder fire access roads – specific access that may branch off primary or secondary fire access roads

BFA boundary fire access roads – significant roads between public land and freehold properties, suited to fire tanker access

Road authority:

PV Parks Victoria

COGB City of Greater Bendigo

VicRoads

Road function:

- 3 Major roads between townships.
- 4 Roads provide for park access, and additional functions such as commercial uses, through access to other locations (outside the parks), or access to private property or utilities.
- Roads exclusively provide access for visitors into parks for recreational activities, or exclusive use for park management.

TABLE 5 WALKING TRACK MANAGEMENT

TRACK	LENGTH (KM)	CURRENT GRADE	PLANNED GRADE	CURRENT USE	PLANNED USE	MANAGEMENT ACTIONS/COMMENTS
Kamarooka Tracks						
Mulga Dam to Black Rock	15.9 (total 19.1)	3	3	Wa	Wa	Links Mulga and Flagstaff visitor sites.
Mulga Dam	1.7	3	3	Wa	Wa	Short loop track from Mulga Dam visitor site.
Whipstick Tracks						
Flagstaff Hill	1	3	3	Wa	Wa	
Mulga Dam to Black Rock	3.2 (total 19.1)	3	3	Wa	Wa	Links Mulga and Flagstaff visitor sites.
Black Rock to Flagstaff Hill	10.2	3	3	Wa	Wa	Links Mulga, Flagstaff and Old Tom visitor sites.
Old Tom Mine	4.2	4	4	Wa, Bi	Wa, Bi	Provide signage. Links Old Tom and Flagstaff visitor sites.
Frog Mouth	1.5	3	3	Wa	Wa	Loop track from Notley visitor site.
Proposed Notley to Old Tom	1.0		4		Wa	Develop as link for Notley and Old Tom visitor sites, and sign track.
One Tree Hill Tracks						
Bendigo Bushland Trail	9.5	3	3	Wa, Bi, Dog	Wa, Bi, Dog	
College	1.6	4	4	Wa, Bi, Dog	Wa, Bi, Dog	
Channel	9.2		4	Wa, Bi, Dog	Wa, Bi, Dog	Develop and sign track
Grevillea	4.7		3	Wa, Bi, Dog	Wa, Bi, Dog	Develop and sign track
Lookout	1.3		3	Wa, Bi, Dog	Wa, Bi, Dog	Develop and sign track
Ridge	4.2			Wa, Bi, Dog	Wa, Bi, Dog	Develop and sign track
Hovea	2.3		3	Wa, Bi, Dog	Wa, Bi, Dog	Develop and sign track
Dedicated downhill mountain bike track	2.9		n/a		DDBi	Develop one-way single width track using existing tracks and sign.
Big Hill Tracks						
Great Dividing Trail (Coliban Main Channel)	8.4	3	3	Wa, Bi	Wa, Bi	Relocate sections of this trail using existing tracks.
Scarlet Robin Tk	2.4		3		Wa, Bi	Develop and sign track
Thornbill Tk	4.7		3		Wa, Bi	Develop and sign track

(cont'd on next page)

(Table 5 cont'd)

KEY

Track grades [based on Australian Standards Classification for walking tracks (AS 2156.1 – 2001)]:

- For visitors to walk in slightly disturbed natural environments, requiring moderate levels of fitness with occasional encounters and perhaps signage—interpretation and facilities are not common.
- 4 For visitors to explore and discover relatively undisturbed natural environments along defined and distinct tracks with few encounters and no interpretive signage.
- n/a Walking track grades not applicable track open to cycling will be graded using International Mountain Bicycling Association standards.

Uses:

Bi Bicycling and mountain bike riding DDBi Downhill mountain bike riders only

Dog Dog walking Wa Walking

6.4 Bushwalking and jogging

Bushwalking and jogging are popular activities throughout the whole park. These may be undertaken on roads and tracks designated for this purpose (section 6.2; tables 4 and 5). There are nine routes for walkers that are not available for public motor vehicle access. Five of these routes include shared access with bicycles (section 6.7).

There are a number of unformed historic tracks between the Notley visitor site and the Old Tom walking track. There is an opportunity to formalise one of these tracks as a walking track linking the two features. This would link together all the walking tracks in the Whipstick and Kamarooka blocks.

Past activities that have occurred off-track in the park have resulted in the creation of numerous disturbed areas and informal tracks, particularly in the One Tree Hill block.

Park visitors are encouraged to remain on designated routes. Walking and running off these routes can degrade the natural and cultural values of the park. It can damage vegetation and soil leading to fragmentation of habitat and erosion.

Sporting clubs wishing to use the park for events or functions require a permit (section 7.3).

Appropriate information on tracks and permitted uses will be provided in Park Notes and other information as part of Parks

Victoria's information, interpretation and education program (section 6.1).

The needs of walkers and cyclists around the Bendigo region will be addressed by the City of Greater Bendigo through the development and implementation of its Cycling and Walking Strategy. The Bendigo Bushland Trail, which encircles Bendigo and passes through areas of Bendigo Regional Park and the One Tree Hill block of Greater Bendigo National Park, caters for bushwalkers and cyclists. The Great Dividing Trail (GDT), which links Ballarat, Bacchus Marsh and Bendigo, passes through the Big Hill block of the national park, and also caters for bushwalkers and cyclists.

A section of the GDT is currently within the Sandhurst Reference Area and must be relocated outside the Reference Area, pursuant to Ministerial Directives and Parks Victoria's operational policy for the management of Reference Areas (section 2.5). There is an opportunity for the GDT to be linked with the Crusoe Park area using existing tracks within the park to the south of the Sandhurst Reference Area, along the ridgeline.

Aim

 Provide a variety of sustainable walking and jogging opportunities in the park, while minimising impacts on park values and other park visitors.

Management strategies

- Maintain the track network as detailed in table 5. Unformed tracks not shown in table 5 will not be maintained and will be allowed to revegetate over time.
- Ensure maintenance works do not damage natural or cultural values by, where necessary, carrying out full environmental and cultural risk assessments, in cooperation with the Traditional Owners and the scheduled Aboriginal community (sections 4.1–4.6, 5.1 and 5.2).
- Relocate the section of the GDT that is in the Sandhurst Reference Area to a suitable location outside the Reference Area, and work with the Great Dividing Trail Association to investigate linking the GDT through part of the park to the Crusoe Park area using existing tracks (sections 2.5, 6.6 and 6.7).
- Work collaboratively with the City of Greater Bendigo and other agencies in developing the Cycling and Walking Strategy for the City (sections 2.1 and 8.3).
- Formalise and signpost a walking track between the Notley visitor site and Old Tom Mine Walking Track.
- Promote minimal impact bushwalking (section 6.1).
- Provide appropriate information to the City of Greater Bendigo and tourism organisations on bushwalking opportunities around Bendigo (section 6.1).
- Involve, as appropriate, local bushwalking groups and VicWalk in monitoring the impact of tracks on park values, resolving bushwalking issues and implementing restoration projects.

6.5 Visitor site activities

The most popular destinations for picnicking are at the Notley and Shadbolt sites in the Whipstick block. Notley, the primary visitor site in the park, caters for both picnicking and camping. Shadbolt has been designed for use by day visitors.

The day shelter at Notley was erected through a cooperative project with the Eaglehawk Rotary Club in 1987. Repeated theft and

vandalism of the materials that comprise the shelter, and of the facilities provided, have occurred at the site. The design of the shelter is inappropriate for visitor needs, being too high and large, and the materials comprising it are not compatible with the heritage and natural values of the area.

Horse riders on day visits in the Whipstick block may stop at Loeser picnic area. Other visitors wishing to use this area should be aware that it is shared with horse riders on day visits to the park. Rush Dam and Mulga Dam provide for picnicking in a more remote setting with limited facilities. A walking track also commences at Mulga Dam. Drinking water is not provided within the park, so visitors should ensure they bring their own drinking water with them.

The One Tree Hill lookout along Edwards Road is one of the most frequently visited sites in the park. Clear views of Bendigo and its surrounding parklands can be obtained from the lookout. The electric barbecue at this site is rarely used by park visitors, and this facility and the toilets have been repeatedly vandalised. Other public amenities are available nearby, outside the park area.

Visitors accessing the Big Hill block will be able to use parking and toilet facilities in Crusoe Park, which is being redeveloped by City of Greater Bendigo and will be managed by a Committee of Management. There is an opportunity to develop a loop track leading to the Big Hill scenic viewing area in the western end of the Big Hill block for use by walkers and cyclists (section 4.1 and table 5).

The recreational facilities provided in the park are developed and maintained in accordance with Parks Victoria's Visitor Services Framework and research findings.

Aim

• Encourage sustainable site-based activities that enhance visitors' enjoyment of the park and are consistent with the protection of park values.

Management strategies

• Develop and maintain sites and facilities as detailed in table 6.

- Site and design all facilities to minimise impacts on natural and cultural values (chapters 4 and 5).
- Monitor visitor sites and usage to identify changing demands, and review visitor facility requirements if necessary.
- Manage Shadbolt picnic area for day visitors, and prohibit camping.
- Remove fireplaces from Shadbolt and Loeser visitor sites.
- Remove the electric barbecue and toilet facilities from the One Tree Hill lookout visitor site.
- Redesign and replace the shelter provided at the Notley visitor site, with due consideration of visitor needs and the landscape character of the area, and in consultation with the Eaglehawk Rotary Club and other interested groups.
- Work collaboratively with the City of Greater Bendigo to ensure that the visitor facilities that will be established at Crusoe Park, such as on site information, parking and toilets, can also be used by visitors to adjacent sections of the national park.

6.6 Camping

There are campgrounds at each of the Notley, Loeser, Rush Dam and Mulga Dam visitor sites in the Whipstick or Kamarooka blocks of the park (table 6).

The Shadbolt site, which had previously been a popular destination for both campers and day visitors, is to be managed for day visitors only due to increasing demand for day visitor facilities. Campers are encouraged to use the nearby Notley site or one of the other campgrounds within the park.

The campsites contain basic facilities only, except the Notley site which has been upgraded with improved layout and toilets, and provision of park information. Car-based camping must be within these defined camping areas only (table 6).

Parts of the park are occasionally used for overnight hiking and dispersed camping.
Dispersed camping by hikers is permitted in Mandurang, Whipstick and Kamarooka blocks within the Conservation and Recreation Zone,

except within 500 metres of defined camping areas. It is not permitted in the Conservation Zone (with the exception mentioned below) or the Reference Area Zone.

It is proposed to develop a Goom gooruduronyeran campground for hikers and cyclists using the Great Dividing Trail in the Conservation Zone of the Big Hill block nearby the Sandhurst Reference Area (section 6.4 and table 6).

No campgrounds are provided elsewhere in the Big Hill block, or in the One Tree Hill or Mandurang blocks, as these are close to alternative town accommodation and are popular areas for day visitors, and therefore unsuitable.

A camping area that caters for overnight camping with horses may be provided outside the park at Sandners campsite in the Bendigo Regional Park, if sufficient demand exists for such a facility and park values are not unduly compromised (section 6.9).

Collection and burning of firewood from within the park destroys and depletes essential fauna habitat (sections 4.5 and 4.6) and is therefore an unsustainable and unacceptable activity in the park.

Campfires are permitted in the fireplaces at Notley, Rush Dam and Mulga Dam visitor sites throughout the year, except at the Notley campground where campfires are restricted to outside the declared fire danger period. Campfires are not permitted elsewhere in the park, but hikers are permitted to use gas or liquid fuel stoves in dispersed camping areas, and at the proposed Goom gooruduron-yeran campground after it is established.

As previously stated (section 6.5), drinking water is not provided within the park, so visitors need to bring their own water with them.

Aim

 Provide appropriate and sustainable camping opportunities in the park, while minimising impacts on the park and other park users.

TABLE 6 VISITOR SITE FACILITIES MANAGEMENT

SITE	LEVEL OF SERVICE CURRENT / PLANNED	TOILET	PICNIC TABLE	FIRE PLACE	ELECT. BBQ	WATER SUPPLY		LOOK- OUT/ SCENIC VIEWS	CAMPING	SHELTER	PARKING CAR/BUS
Campgro	ounds										
Notley	Mid/Mid	Y	Y	Y	N	N	Y	N	U	U	Y/Y
Loeser	Basic/ Basic	N	Y	R	N	N	N	N	Y	N	Y/N
Rush Dan	m Basic/ Very basic	N	Y	Y	N	N	N	N	Y	N	Y/N
Mulga Da	am Basic/ Very basic	N	Y	P	N	N	N	N	Y	N	Y/N
Goom goorudurd yeran	on- Basic	N	N	N	N	N	N	N	Y	N	N/N
Scenic Vi	iewing & Picnic	Areas									
Shadbolt	Basic/ Mid	Y	Y	R	N	N	N	N	N	N	Y/Y
One Tree Hill Look		R	Y	N	R	N	N	Y	N	N	U/Y
Flagstaff Hill Look	Basic/ cout Very basic	N	N	N	N	N	N	Y	N	N	Y/N
Big Hill scenic viewing	- / Basic	N	N	N	N	N	P	P	N	N	N/N
Other Sit	tes										
Old Tom Mine	Basic/ Very basic	N	N	N	N	N	N	N	N	N	Y/N
KEY											
Y	Yes	Yes Site Levels of									
	No		High		high level of visitor facilities and amenities provided						
	Provide facility Mid				moderate level of visitor facilities and amenities provided						
	Remove facility		Basi		limited visitor facilities and amenities provided						
	Upgrade facility Very basic				limited or no visitor facilities or amenities provided						

- Maintain camping sites and facilities as detailed in table 6.
- Establish the Goom gooruduron-yeran campsite for hikers and cyclists on the Great Dividing Trail (sections 2.5 and 6.4).
- Permit dispersed camping for hikers within the Conservation and Recreation Zone of Mandurang, Whipstick and Kamarooka blocks, except within 500 metres of defined camping areas (table 6). Permit hikers to use single-burner gas or liquid fuel stoves in these areas, and at the Goom gooruduron-yeran visitor site after it is established.

- Prohibit camping at the Shadbolt visitor site (section 6.5).
- Permanently remove the fireplace from the Loeser visitor site.
- Provide a fireplace at Mulga Dam visitor site.
- Remove fireplaces from Notley visitor site during the CFA Region 2 declared fire danger period.
- Encourage visitors to bring their own gas or liquid fuel stoves for use at visitor sites.
- Prohibit collection of firewood for campfires within the park.
- Provide information to campers about the need to bring their own water and firewood from outside the park (section 6.1).

6.7 Bicycle and mountain bike riding

Bicycle and mountain bike riding are popular recreational activities for exploring Bendigo and its surrounding parks.

Bicycles can be ridden on most roads and some tracks throughout the park (tables 4 and 5). Bicycle and mountain bike riding is not permitted on some tracks because of their narrow width, potential conflicts with walkers and other park users, and the potential environmental impacts. Off-road cycling can degrade the natural and cultural values of the park, and damage vegetation and soil resulting in fragmentation of habitat and erosion, and is therefore an unacceptable activity in the park.

The Bendigo Bushland Trail and the Great Dividing Trail cater for cyclists as well as bushwalkers. A section of the Great Dividing Trail is currently located within the Sandhurst Reference Area within the park, and will be relocated outside of the Reference Area (sections 2.5, 6.4 and 6.6).

Mountain bike riding is increasing in popularity in the hilly areas of the park close to residential areas, particularly in One Tree Hill and Mandurang blocks, as well as outside the park. There is an opportunity to maintain a section of track for use by experienced mountain bike riders in One Tree Hill block, and to link this with Pioneer Road and One Tree Hill Road. Because this track is narrow and has some steep sections, it will need to be

a one-way track starting from Pioneer Road. Provision of an interpretive loop track for use by walkers and bicycle riders in the Big Hill block, adjacent to the Crusoe Park area, would provide for low-impact recreational activity.

Small groups that use routes designated for cycling and observe guidelines require no permits. Organisers of events or functions must obtain a permit from Parks Victoria prior to the event (section 7.3).

The Mountain Bike Code outlines guidelines for safe cycling methods to minimise the impacts of cycling on park values. It is available on the Parks Victoria website (www.parkweb.vic.gov.au).

Local mountain biking and orienteering clubs have expressed interest in promoting environmentally sensitive riding practices and being actively involved in track maintenance projects where they are required. Parks Victoria proposes to work with mountain bike riding clubs and other park visitors in maintaining and monitoring the track network in the park, and assisting them to find suitable areas for mountain bike riding outside the park.

Aims

- Provide access for a range of sustainable cycling and mountain biking experiences for park visitors, while minimising impacts on park values and other park visitors.
- Encourage responsible riding practices that minimise impacts on park values and other park visitors and maintain safety for all park visitors.

- Permit bicycle and mountain bike riding as detailed in tables 4 and 5. Prohibit such riding elsewhere in the park.
- Maintain appropriate signage in relation to bicycle and mountain bike riding.
- Encourage adherence to the Mountain Bike Code.
- Provide appropriate information and promote bicycle and mountain bike riding in the park, as appropriate (section 6.1).
- Establish a section of track for use by experienced downhill mountain bike riders

in the One Tree Hill block. Manage as a one-way track commencing at Pioneer Rd and finishing at One Tree Hill Rd, and maintain the track in consultation and collaboration with mountain biking groups (table 5 and figure 4b).

- Develop a loop track in the Big Hill block, adjacent to the Crusoe Park area for walkers and bicycle riders (section 6.4).
- Involve local mountain bike riding and cycling groups such as Central Victorian Mountain Bike Club, Bendigo Cycling Club, and other groups, including Cycling Australia and Mountain Bike Australia, in monitoring and assessing tracks, resolution of cycling issues and the implementation of restoration projects.

6.8 Dog walking

Dog walking is generally not permitted in national parks within Victoria. Dog walking in the One Tree Hill block, mostly by residents in nearby areas, was an established activity prior to the declaration of the park and will continue to be permitted (DSE 2003a).

Dog droppings are offensive to other park visitors and can spread disease to humans and animals within the park. Dog owners are encouraged to be responsible and immediately collect their dog's droppings and remove them from the park at the end of their visit. This limits the impacts of dog walking on park values and other visitor's enjoyment of the park.

Although dogs are permitted on roads through the park managed by the City of Greater Bendigo, this can be confusing for the community and these roads may not be the most suitable or safest areas for dog walking. The City council supports consistent management of dogs in the park.

Dogs are permitted if confined in vehicles which are in transit through the park on roads open to the public (table 4). Dogs must not be left in a stationary vehicle in the park.

Aim

 Minimise the impact of dogs on the park, while maintaining opportunities for dog walking in the One Tree Hill block of the park.

Management strategies

- Permit the walking of dogs only on a leash on the roads and walking tracks designated for dog walking in the One Tree Hill block of the park in accordance with tables 3 and 4.
- Erect and maintain appropriate signage at entries to dog walking areas.
- Encourage responsible dog walking practices through targeted education programs and enforcement of regulations where appropriate (section 6.1).
- Involve the local community where appropriate in monitoring and assessing dog walking activities, resolving issues and implementing restoration projects in areas affected by the activity.
- Investigate with COGB the implementation of consistent management of dogs in the park by allowing dog walking only on roads within One Tree Hill block and not on any council-managed roads in other blocks (section 6.2 and table 4).

6.9 Horse riding

Horse riding by individuals and small groups has been an occasional day activity in the Mandurang and Whipstick blocks.

Horse riding in the park has the potential to impact on park values. Horse hooves can cause erosion, manure can introduce weeds into the park, and grazing by horses can damage vegetation. Horse riding can also conflict with the amenity and safety of other visitors.

The City of Greater Bendigo permits horse riding on the sections of road it manages within the boundaries of the park. The application of consistent management of horse riding across blocks would facilitate the protection of habitats that are sensitive to weed invasion, better provide for rider safety and reduce potential clashes with other park visitors.

Horse riders may stop at Loeser picnic area in the Whipstick block, but they are not allowed to stop or linger at other picnic or camping sites in the park. In the future, if there is sufficient demand and park values are not unduly compromised, provision could be made for overnight camping with horses outside the park at Sandners historic site in the Bendigo Regional Park (section 6.6). Day visits on horses throughout the Whipstick block would be possible from Sandners historic site.

The Horse Riding Code provides guidelines to help riders protect park values and avoid conflict with other park visitors. It is available on the Parks Victoria website (www.parkweb.vic.gov.au).

Horse riding groups that use the park are encouraged to become involved in weed management programs, particularly in areas affected by horse riding.

A permit is required to be obtained for organised horse riding events in the park, prior to events. Small groups of horse riders do not require a permit. A tour operator is licensed to use specific roads in the Whipstick block for horse tours.

Aims

- Permit access for horse riding in Mandurang and Whipstick blocks while minimising the impacts on park values and the amenity of other park visitors.
- Encourage safe and responsible horse riding practices and respect for park values and other park visitors.

Management strategies

- Permit horse riding on roads in the Mandurang and Whipstick blocks as detailed in table 4, and allow horses at the Loeser visitor site. Prohibit horse riding elsewhere in the park on and off-road.
- Investigate with the City of Greater Bendigo the implementation of consistent management of horse across park management blocks by allowing horse riding on all roads within Whipstick and Mandurang blocks but not on other sections of council-managed roads through the park (section 6.2 and table 4).
- Encourage adherence to the Horse Riding Code.
- Provide appropriate information on horse riding, including information on feeding horses on 'weed free feed' for 48 hours prior to entering the park, and promote horse riding in the park as appropriate (section 6.1).

• Involve local horse riding groups, as appropriate, in monitoring of horse riding activities, resolution of issues and the implementation of restoration projects in areas affected by this activity.

6.10 Orienteering and rogaining

Orienteering, rogaining and mountain bike orienteering are increasing in popularity in the Bendigo region, and events and training are undertaken within the park.

Orienteering is a competitive sport in which participants move through the countryside on foot to reach a set number of control points in a given sequence in the shortest possible time. Rogaining is a team sport involving long-distance cross-country navigation, with events usually being of 12 or 24 hours duration. Orienteering and rogaining events require participants to navigate their way through the park off roads and walking tracks. Some disturbance of vegetation, fauna and soils may result from this activity.

Mountain bike orienteering events utilise the road and track network to navigate to control points in the shortest possible time (section 6.7). Further detail on orienteering and rogaining can be found in the Recreation Framework for Box–Ironbark Public Land (DSE 2003a).

To minimise impacts on park values, Parks Victoria encourages orienteerers and rogainers to use designated walking tracks wherever possible in training for events.

Parks Victoria works together with event organisers and other land management agencies to ensure that events are held in areas suited to the activities but not in areas containing sensitive natural or cultural values that could be compromised by the activities.

Orienteering and rogaining clubs have compiled detailed maps of park areas that they use for events. Clubs are encouraged to highlight the areas requiring permanent or seasonal protection from activities on these maps.

A permit must be obtained for an orienteering, rogaining and mountain bike orienteering event within the park, prior to the event.

Aim

 Provide appropriate access for orienteering and rogaining activities while minimising the impacts on park values and the amenity of other park visitors.

Management strategies

- Encourage and promote orienteering and rogaining activities that are safe, and respect park values and the amenity of other park visitors (section 6.1).
- Work with DSE and orienteering and rogaining clubs to:
 - identify a number of areas capable of sustainably supporting a variety of orienteering events over time
 - maintain a standard process for event application and approval.
- Work with orienteering and rogaining clubs to:
 - ensure that events are conducted in areas and at times that pose the least threat to park values and park visitors
 - provide information on sensitive park areas to orienteering and rogaining clubs and how to avoid damage to these areas.
- Parks Victoria will consult with key stakeholders, including the Victorian Orienteering Association and the Victorian Rogaining Association, should changes to permit processes become necessary.
- Involve local orienteering and rogaining groups, where appropriate, in monitoring any impacts of orienteering and rogaining activities, resolution of issues and the implementation of restoration projects in areas affected by the activities.

6.11 Prospecting

Prospecting is a popular recreational activity in the Goldfields region. Prospecting in the park can generate a strong connection between contemporary prospectors and the history of gold discovery in the Bendigo region (sections 2.2, 2.3 and 5.2).

Prospecting should not be confused with 'treasure hunting' or 'fossicking' (searching for archaeological relics (such as coins and

bottles), which is not permitted in the park. The disturbance of archaeological relics without approval is an offence under the Heritage Act.

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

In Victoria, searching for minerals is primarily controlled under the provisions of the *Mineral Resources Development Act 1990* (Vic.), which requires that prospectors hold a Miner's Right (MR) or operate under a Tourist Fossicking Authority (TFA). Prospecting under such authorities is conditional on the protection of vegetation and the repair of any damage to the land, including the backfilling of any holes, and is limited to the use of non-mechanical hand tools. Prospectors generally use a metal detector, shovel, mattock or similar implement, or a pan.

Most of the areas available for prospecting in the former State Parks and the new areas added to the park when it was created in 2002 were designated for searching for minerals by the Minister for Environment (Gazette No. S199, 30 October 2002).

The ECC recommended that prospecting be permitted in designated zones that are located to protect significant park values, including certain plants and small ground-dwelling animals, and that the zones be developed as part of the management plan process in consultation with the Prospectors and Miners Association of Victoria (ECC 2001) (section 2.5). In accordance with this ECC recommendation, the areas available for prospecting have been redefined (table 1 and figures 3a, b).

Some activities undertaken by prospectors can cause undue disturbance to soils and damage vegetation, and disturb cultural heritage places and objects. In particular, orchid tubers can be inadvertently damaged or destroyed, and soil disturbance can lead to erosion and contamination of waterways. Little information is available on the distribution of significant park values that are susceptible to disturbance, including threatened flora species (section 4.5).

A *Prospecting Guide* has been collaboratively developed by Parks Victoria, the Prospectors and Miners Association of Victoria (PMAV),

the Victorian Gem Clubs Association and the Victorian Government. The guide provides information about prospecting, including PMAV's Code of Conduct for this activity. Information networks used by prospectors include meetings and newsletters of the PMAV and other prospecting clubs, as well as equipment suppliers and websites. Information about prospecting and park values can be made available to prospectors through these networks (section 6.1).

As relatively little is known of the location of cultural heritage places in the park (chapter 5), prospectors are encouraged to become aware of how to recognise possible Indigenous heritage sites, and to report possible sites to Aboriginal Affairs Victoria in accordance with requirements under legislation. Prospectors are also encouraged to become familiar with recognising post-European heritage sites and to refrain from disturbing these areas. Some introductory prospecting courses include sessions on detecting and protecting heritage areas and places.

Aim

 Permit prospecting while minimising the impacts on the natural and cultural values of the park and the amenity of other park visitors.

Management strategies

- *Permit prospecting in the park:*
 - only in areas described in table 1, and figures 3a and 3b
 - only by prospectors who hold a current Miners Right or Tourist Fossicking Authority.
- Encourage adherence to the Prospecting Guide
- Foster prospecting practices that minimise impacts on park values and other park visitors.
- Involve local prospecting groups and the PMAV as appropriate in monitoring prospecting activities, resolution of issues, and restoration projects in areas affected by the activity.
- Make information about the park and prospecting readily available to the

prospecting community, including the location of:

- Land Use Designation Prospecting areas
- significant known park values within the Land Use Designation – Prospecting areas that are sensitive to disturbance (section 6.1).
- Maintain appropriate signage at park entrances to avoid inadvertent breaches of exclusion areas, and support enforcement against deliberate breaches (section 6.1).
- Promote prospecting activities in the park as appropriate.

6.12 Tourism services

Tourism services facilitate access to the land and to recreational activities. They can also serve to promote the values and appropriate use of public land. They encourage visits to parks and the enjoyment of a wide range of appropriate recreational opportunities in parks by people who might not otherwise visit.

Parks Victoria's licensed tour operators play a key role in nature-based tourism in Victoria by offering guided park tours and supported recreation activities, and information that promotes park values and appropriate use. Licensed tour operators currently offer guided prospecting, bushwalking, bus and horse riding tours of the park.

Parks Victoria encourages licensed tour operators to manage their activities in accordance with the Adventure Activity Standards that provide voluntary guidelines for undertaking potentially risky recreational activities in a manner designed to promote safety for both participants and providers. Observance of the Standards serves to help protect providers against legal liability claims and other litigation, and assist them to obtain insurance cover.

Aim

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

Management strategies

- Host a series of 'Familiarisation Visits' for regional tourism stakeholders to explore the role Box–Ironbark parks, and Greater Bendigo National Park in particular, can play in complementing regional tourism products and experiences.
- Encourage external providers to identify opportunities and undertake the supply of commercially viable visitor services that are consistent with this plan.
- Encourage and support the Traditional Owners to develop and deliver tourist services, which are based on their cultural heritage.
- Encourage licensed tour operators to recognise and respect the Traditional Owners' cultural heritage, and enhance the visitor experience by employing Indigenous people and working with the Traditional Owners to deliver Indigenous cultural heritage services.
- Ensure that all tour operators using the park are licensed and promote awareness of Adventure Activity Standards and minimal impact guidelines.
- Continue to work with licensed tour operators and the tourism industry to assist with the delivery of appropriate park information (section 6.1).
- Ensure that licences stipulate that Indigenous content may be used only with the approval of the Traditional Owners.
- Monitor the activities of licensed tour operators to assess actual and potential impacts on park values.

6.13 Public safety

Many sites in the park contain artefacts of mining, such as open cuts, shafts and mining relics or eucalypt distillation that present inherent risks to visitors and park staff. Some of these sites are culturally significant and should be conserved (section 5.1).

Motorists, cyclists, horse riders and walkers share internal access routes throughout the park. Motor vehicles travelling at excessive speeds along internal roads pose a safety risk to other road users. Bicycles travelling at excessive speeds along shared walking tracks pose a risk to walkers and other bike riders.

The fire history of the area indicates that the fire risk to visitors is generally not high provided prescribed precautions are taken, including observance of fire regulations.

Drinking water is not available in the park (sections 6.5 and 6.6).

Aim

• Promote and encourage safe practices among visitors and staff.

- Erect and maintain approved risk signage at key visitor sites and nodes to warn visitors of risks and the need to keep to roads and walking tracks (section 6.1).
- Conduct periodic risk assessments and assess and mitigate risks as part of Parks Victoria's statewide Risk Management Program and in accordance with Parks Victoria's operational policies.
- Provide information on safety issues including potential hazards and appropriate behaviour, and encourage visitor behaviour consistent with codes of practice and park regulations (section 6.1).
- Ensure that all staff are adequately trained to assist in emergencies, including incident reporting.

7 STRATEGIES FOR AUTHORISED AND ADJACENT USES

7.1 Public authority works

Section 27 of the National Parks Act and the relevant Parks Victoria operational policy require that public authority works in parks are limited to essential works and have a minimal effect on the park, park visitors and other park uses. Care must be taken to ensure that developments near key visitor sites have no adverse impact on the visual integrity of the area.

Water

Coliban Water operates and maintains a large network of channels and pipes across the park to distribute domestic, irrigation and stock water for use on freehold lands, subject to consents issued under Section 27 of the National Parks Act. The park also contains a number of dams, smaller channels and pipelines (section 7.2) that are maintained by neighbouring freehold land managers to supply water to their properties. Leakages of water from channels distribute weed seeds and can erode soils, and thereby threaten park values (sections 4.3 and 4.7).

Parks Victoria and Coliban Water are developing a Memorandum of Cooperation to ensure that impacts on the park and visitors from the water distribution works are minimised.

Energy and communication

SPI Powernet operates and maintains above-ground high-voltage power lines (with optic fibre cables attached) across the One Tree Hill and Big Hill blocks. Historically, a wide corridor has been maintained with little vegetation below and adjacent to the power lines. Nextgen Networks maintains underground optic fibre cables along the alignment of the high-voltage power line at One Tree Hill. There are also above-ground low-voltage power lines in some other areas of the park.

Gasnet Australia maintains an underground gas pipeline along an alignment in the Big Hill block in accordance with a Governor-in-Council Order under Section 25 of the *Pipelines Act 1967* (Vic.).

Parks Victoria maintains a tower on One Tree Hill as a public lookout. DSE also uses this tower as a fire lookout, and Coliban Water, Rural Ambulance Victoria and Victoria Police also use it as a telecommunications facilities platform. A second tower on One Tree Hill is operated and maintained by SPI Powernet. Latrobe University, NTL Communications and Powercor colocate, operate and maintain telecommunications facilities on this tower.

Telstra maintains a number of underground cables within the park boundaries, mostly alongside roads managed by the City of Greater Bendigo. The locations of these cables are poorly documented.

Aim

 Manage existing and proposed public authority works in accordance with legislation, while minimising the impacts on the park and visitors.

- Liaise with Coliban Water and adjacent land managers to obtain details about all infrastructure maintained or used for water distribution, including pipelines connecting dams with freehold land.
- Develop a Section 27 Consent and Memorandum of Cooperation with Coliban Water to facilitate their management of works for conveying water in the park in a manner that protects park values (section 8.3). Seek to include an agreement that Coliban Water will ensure its customers obtain an authority to convey water under Section 30G of the National Parks Act before receiving any new agreement for water conveyance through the park to individual freeholdings (section 7.2).
- Establish an operational working group, including Parks Victoria and Coliban Water representatives, to address operational issues relating to management of Coliban Water's infrastructure within the park.
- Initiate the granting of consents for newly proposed public authority works in

accordance with Section 27 of the National Parks Act and the relevant Parks Victoria operational policies.

- Survey all existing above-ground and below-ground, public authority works in the park. Initiate consents for all unauthorised works in accordance with Section 27 of the National Parks Act and the relevant Parks Victoria operational policies. Give priority to the issue of consents for existing high-voltage power lines and utilities, ensuring that conditions minimise the clearing of vegetation to essential clearances only.
- Seek the inclusion in all consents and authorities of conditions that minimise the impact of works and developments on the park. Monitor all public authority works and developments, and liaise with consent and authority holders to ensure that conditions are met and impacts on park values are minimised.
- Develop protocols and appropriate authorisations for the use and appropriate maintenance of the One Tree Hill towers.

7.2 Private occupations

Channels and pipelines (water supply)

Under section 30G of the National Parks Act, the Minister may grant an authority to a person to install, operate or manage works for conveying water in the park. Water is conveyed from Coliban Water channels to private customers on freehold land via small channels and pipelines through the park that were operating prior to the declaration of the park. The locations of all channels and pipelines need to be surveyed and documented.

Dams (water storage)

Twenty-five water storage dams existed prior to the declaration of the park. These dams are normally associated with channels and pipelines for conveying water from Coliban Water channels to freehold land, authorised under Section 30G of the National Parks Act. Current licences for these dams continue under legislation as before, until their expiry. Under section 30H of the National Parks Act, the Minister may grant licences for the use of dams that existed prior to the declaration of the park for a three-year term.

Eucalyptus oil harvesting

Eucalyptus oil harvesting is continuing in areas harvested since 1998 under two licences granted under the *Forest Act 1958* (Vic.).

Eucalyptus oil production was once widespread in the Sandstone Ridge Shrubland EVCs of the Whipstick block (section 5.2). Eucalyptus oil production in this area produces a marginal income and the ECC considered this activity to be an exclusive use of public land with minimal benefit to the wider community (ECC 2001). This activity is considered detrimental to several species reliant on Sandstone Ridge Shrubland vegetation, including the Pink-tailed Wormlizard, Whipstick Westringia and the Longtailed Greenhood (ECC 2001).

Soil compaction, erosion and weed invasion are evident at several eucalyptus oil harvesting sites (ECC 2001).

The eucalyptus oil industry is a distinctive cultural and historical feature of the region. Its historical associations and the historical places and relics associated with eucalyptus oil production are recognised as important features of the current industry and the basis of tourism associated with the industry (ECC 2001).

The Victorian Government recognises the need to phase-out eucalyptus oil harvesting in a way which allows the industry time to adjust (Victorian Government 2002), and supports the continuation of harvesting until 2012 in areas which have been harvested since 1998, in general accordance with ECC Recommendation A4 (section 2.5).

Two licensees are currently permitted to continue harvesting in designated areas of the park until 26 February 2012.

Apiculture

There is a long history of honey production in the park. Currently 40 apiary sites are located in the park, under permits issued under Section 21(b) of the National Parks Act. Victorian Government directives allow apiculture to continue in the park, but access to particular areas may be restricted if there are significant conflicts between apiculture and other uses such as recreation, or where research indicates the effects of nectar removal by managed European honey bees is likely to have

deleterious effects on ecological values. Where sites need to be relocated, access to an alternative site will be negotiated with the licence holder (Victorian Government 2002).

Two sites within the buffer of Sandhurst Reference Area are to be relocated to other public land to protect the Reference Area (section 2.5), in accordance with the outcome of negotiations with the licence holder.

Park managers need to consider apiarists' needs in making decisions such as road closures, or prescribed burns or ecological thinning which may affect flowering of vegetation, and give appropriate notifications to apiarists if their activities could be affected.

Access agreements

Under Section 30I of the National Parks Act, if a person owns land abutting or surrounded by the park, the Minister may grant to that person reasonable right of access to the land that will allow that person to use the land, subject to any conditions the Minister may wish to impose, and the Minister may exempt the person from any regulation.

Mining

The National Parks Act enables the Minister to consent to the grant of exploration and mining licences over those parts of the park which extend to 100 metres below the surface (section 1.2). The licences do not entitle the holder to do anything in the park within the licence area other than construct and operate minor mining infrastructure (e.g. shafts and vents) subject to any terms and conditions imposed by the Minister. Exploration and mining activities must also comply with the Heritage Act (section 2.5).

Other occupations

There may be unlicensed occupations in the park which have not yet been recorded, including encroachments from adjacent land.

Aim

 Manage private occupations to minimise their impacts on the park, in accordance with legislation and government-approved ECC recommendations.

- Initiate the granting of authorities for the purpose of conveying water for existing and proposed works in accordance with Section 30G of the National Parks Act and as consistent with minimising the impacts on the park and visitors.
- Discourage new applications for delivery of water through the park to individual freeholdings. Parks Victoria will not automatically grant authorities for new infrastructure for conveying water in the park (section 7.1). Require applicants to consider and exhaust all other options before initiating the granting of an authority for new water conveying infrastructure in the park by the Minister. Ensure that any works comply with the Water Act and the Waterways Protection By-law No. NC00/01 and that works in, on or under a designated waterway are authorised with a Works on Waterways Permit from the North Central Catchment Management Authority.
- Seek the inclusion in all licences, permits and authorities of conditions that minimise the impact of private occupations on the park. Monitor the impacts of all private occupations, and other licensed or permitted activities or occupancies to ensure conditions are met and impact on park values is minimised.
- Allow the use of dams under existing licences to continue in accordance with licence conditions until the licences expire. Initiate the granting of licences for the use of existing dam sites as necessary, in accordance with Section 30H of the National Parks Act. Do not allow any new dams to be constructed within the park.
- Allow eucalyptus oil harvesting to continue under existing licences, in accordance with licence conditions.
 Ensure licenced areas are managed to minimise environmental impacts. Phase out harvesting by 26 February 2012.
- Develop site restoration plans for areas where eucalyptus oil harvesting areas has ceased.
- Encourage interpretation and education activities associated with eucalyptus oil

- harvesting and oil production distilleries (section 6.1).
- Allow apiculture to continue in the park, except in the Sandhurst Reference Area and its buffer. Relocate the two apiary sites within the buffer to other areas of public land through negotiation with the licence holder.
- Issue permits with appropriate conditions in accordance with legislation and ECC recommendations, and work with the apiculture industry to ensure that impacts on park values and visitors are minimised.
- Notify apiarists if management decisions may affect their licensed operations.
 Ensure access to an accurate database of apiary sites for reference when making planning or management decisions that may affect honey production.
- Involve apiarists as appropriate in management decisions affecting apiary site access, and in monitoring, evaluation, maintenance and restoration projects in areas affected by apiculture activities.
- Encourage research into the effects of feral and managed European honey bees on park values by competent scientific practitioners, in liaison and cooperation with the apiculture industry.
- Seek to ensure that Section 40 consents for exploration and mining in the park include the conditions necessary to protect the park and the amenity of visitors. Monitor exploration and mining activities, and liaise with companies carrying out such activities, to ensure that consent conditions are observed and reviewed as necessary to meet the park management objectives.
- Survey and assess all private occupations in the park, and authorise and manage these occupations in accordance with legislation and LCC recommendations.

7.3 Events and occasional uses

A variety of organised events and functions have occurred in areas now included in the park, including some large mountain biking and orienteering events.

Groups and individuals organising such activities, or commercial activities such as

filming and photography conducted as part of a trade or a business, must obtain a permit beforehand. Amateur photographers or people taking film or video for personal or hobby interests do not require a permit.

All research and monitoring planned in the park by external individuals and organisations requires a research permit under the National Parks Act, issued by DSE.

Aim

• Manage events, functions and other occasional uses in the park to minimise their impacts on park values.

Management strategies

- Encourage groups proposing to conduct organised events or functions in the park to contact Parks Victoria to determine management requirements for the event or function, including whether a permit is required.
- Encourage events and functions that provide community benefits and accord with legislation. In accordance with legislation and Parks Victoria's operational policies, permit events and functions with conditions to ensure avoidance of:
 - damage to natural and cultural values
 - disturbance or disadvantage of other visitors
 - exposure of Parks Victoria to liability
 - unacceptable demands on Parks Victoria's resources.
- Ensure that the Traditional Owners are consulted and involved in the planning and conduct of formal gatherings where recognition of their traditional custodianship of the land is appropriate.
- Manage commercial filming and photography in accordance with Parks Victoria's operational policies.

7.4 Park boundaries and adjacent uses

The park is generally bounded by freehold land and Bendigo Regional Park, and encompasses a number of 'inlier' blocks of freehold land. The freehold land surrounding the northern blocks is mostly cleared and used for agriculture. Freehold land abutting the southern blocks is used for various purposes, including agriculture, rural and urban residence and industry.

Some uses or developments on the adjacent freehold land, particularly residential or industrial uses, are impacting and have considerable future potential to impact on park values. They include loss of landscape amenity, encroachment by development, uncontrolled entry, pest plant and animal invasion and increased fire hazard and risk. Neighbours and Parks Victoria share interests and responsibilities in controlling these boundary influences.

Within the City of Greater Bendigo, the City council regulates land use and development in accordance with the Greater Bendigo Planning Scheme. Land management agencies, including Parks Victoria, have been consulted in the development of the Residential Development Strategy (COGB 2004), in order to minimise the impacts on adjacent land reserved for conservation values where development is proposed on land zoned Residential 1.

Development proposals submitted to Council for planning approvals that may impact on the environment are referred to DSE for advice. DSE seeks input from Parks Victoria if proposed developments may affect land it manages.

Impacts on the park of adjacent land use and development are likely to be less significant where the adjacent land is retained in rural, environmental rural or rural living zones.

The forest areas encircling the City, which include Bendigo Regional Park and other conservation reserves managed by Parks Victoria, forest managed by DSE, and central areas managed by the City council, form parts of the extensive areas of open space in the City of Greater Bendigo. A number of plans have or are being prepared to protect and enhance these open space areas, including this management plan and the Open Space Strategy (COGB 2005b) adopted by the City council in April 2005. The strategy will require the council to consider the impact of proposals on open space environment before deciding on applications to use or develop land. Various

agencies liaise to ensure the planning is well informed and coordinated. Parks Victoria has provided input to the development of the Open Space Strategy.

Aim

 Cooperate with adjoining landholders and the City of Greater Bendigo to manage boundary and adjacent land use issues.

- Apply and encourage the application of the Good Neighbour program to management issues on or near the boundary of the park.
- Encourage and coordinate park programs with initiatives on abutting lands, such as Landcare, Land for Wildlife, Whole Farm Planning, Environmental Management Systems or Trust for Nature covenants, that facilitate or complement the achievement of park aims.
- Ensure that park neighbours have opportunities to participate in and benefit from Parks Victoria's information, interpretation and education programs (section 6.10). Coordinate messages with those of other agencies (section 8.3).
- Encourage adjacent landholders to maintain their fences along the park boundary.
- Encourage adjacent land managers to maintain control of domestic animals, and work with Parks Victoria to control invasive weeds in boundary areas.
- Liaise with the City of Greater Bendigo through DSE (section 8.3) and seek to ensure that:
 - developments and changes in the use of adjacent lands are compatible with the protection of park values
 - the development, maintenance and application of local policies, zoning and overlays that support the objectives for the park
 - new residential developments on land already zoned residential have minimal impact on park values

- new residential zoning proposals comply with the Guidelines for Rural Residential Development (Department of Infrastructure 1997), whereby residential developments within 500 metres of the park are discouraged.
- Encourage the City of Greater Bendigo to implement controls on cat and dog ownership in new residential developments adjacent to the park (section 8.3).

8 STRATEGIES FOR COMMUNITY AWARENESS AND INVOLVEMENT

8.1 Community awareness

The community is more likely to develop an awareness and sense of custodianship for the park, and assist in sustaining its future, if community views, values and culture are respected and reflected in management decision making, and encouragement is given to development of park centred social networks and to community participation in managing the park. Building awareness among people living near the park is particularly important.

To promote awareness of park values and visitor opportunities, Parks Victoria is involved in community forums such as 'Spring in the Bendigo Bush', and local festivals. The park is also promoted through signage, displays, education materials and Rangers. Local events also enable the community and Parks Victoria to share information and perspectives about the park and park values and associations (sections 6.1 and 8.2).

Existing community networks, particularly those with a strong commitment to the park, provide avenues for Parks Victoria to increase awareness of others in the community about the park and its values. Parks Victoria also supports the promotion of the park and its safe, responsible and sustainable recreational use through local businesses, agencies, recreational equipment retailers, community health organisations and educational institutions (sections 6.1, 8.2, 8.3 and table 3).

Active information, interpretation and schools education programs are carried out in the park (section 6.1).

Aims

- Increase community awareness and understanding of the park, its values and park management activities.
- Build a sense of custodianship for the park among community groups and individuals.
- Nurture relationships with adjoining landholders and the broader community that will benefit the park.

Management strategies

- Distribute information to park neighbours about park values, and behaviours that protect and enhance these values, in collaboration with other stakeholders such as the City of Greater Bendigo and Neighbourhood Watch networks.
- Maintain park information relevant to park neighbours on the Parks Victoria website.
- Participate in community activities, including attending local festivals to raise awareness of the park.
- Promote information on park features and, values, including its gold-bearing geology, and management activities to the local community, particularly through the use of local media.
- Communicate to the broader community the positive contributions that volunteer groups and Friends groups make towards protection and enhancement of park values (sections 6.1 and 8.2).
- Provide information, and coordinate interpretive activities at a localised level to increase awareness of the health benefits of recreation in parks and the value of parks to a healthy community (section 6.1).
- Promote responsible pet ownership to park neighbours.
- Work cooperatively with community groups and the City council in educating cat owners about the impacts of cats on park values, responsible cat ownership, and cat control programs within the park (sections 4.7, 6.1 and 8.3).
- Increase the broader community's awareness and understanding of the park's values and management activities through face to face interpretive activities and at local events (section 6.1 and table 3).

8.2 Community participation

Community groups, particularly local groups, park visitors and neighbours, assist in the early

detection of threats, bring enthusiasm, and provide knowledge and skills that assist management and greatly benefit the park.

The participation of community groups and individuals in the park's management is pivotal to the effective long-term planning, use and care of the park's values, particularly participation of the Traditional Owners and others in the community with historical connections to the land. Such participation should encourage a climate of reconciliation for all those with interests in the park. A strong working relationship with the Traditional Owners will be essential to reflecting their views in the park's planning and management and reconciliation of their interests and aspirations with those of other members of the community.

The participation of a community group is more likely to be sustained if the group's views and skills are respected and assimilated, and they receive active support in maintaining social networks and implementing projects.

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

Volunteers and community groups currently provide valuable contributions to on-ground park management projects, information on threats and illegal activities in the park and input in the development of management plans. Groups, such as local historical societies, Bendigo Field Naturalists Club, Jaara Jaara people, Prospectors and Miners Association of Victoria and individuals have provided important resource information during the development of this plan, and communicated their perspectives about park values.

A range of volunteer and community groups already participate in successful land and water projects that benefit the park, both within the park and on neighbouring land. Landcare groups, Friends groups, Regional Environment Employment Programs, Green Corps, Conservation Volunteers Australia, community correctional services, and North Central CMA coordinated projects all make positive contributions to the protection and enhancement of the park's values.

Agencies need to have realistic expectations of community groups' capacities for involvement. Additionally, recognition and celebration of volunteer contributions to park management, as well as continuing material and administrative support will be essential to ensure the on-going commitment of these groups.

Partnerships with educational institutions are an important means of involving community members in park management activities and increasing community awareness of park values.

Stronger partnerships between Parks Victoria and North Central CMA will enable better coordination of community participation and allocation of resources for projects that benefit the park (section 8.3). Urban volunteers are encouraged to participate in projects that benefit the park through existing volunteer groups such as Landcare groups, or to form new park related groups such as Friends groups. Park visitors and neighbours are encouraged to continue to report suspicious or destructive behaviour within the park, or other Crown land through the Bush Telegraph telephone reporting service.

Aims

- Encourage and support the active participation of the whole community including volunteers in projects that contribute to the protection and enhancement of the park.
- Support the development of park focused community groups and networks, which will contribute to the protection and enhancement of the park.

- Work to further develop a close inclusive working partnership with the Traditional Owners in managing the park and build, strengthen and maintain relationships with relevant Indigenous communities.
- Continue to foster, develop and coordinate existing and new projects that engage volunteers and community groups in protecting, or facilitating improvements to the park. Facilitate the development of networks among groups and Parks Victoria, and among projects. Cooperate

in the coordination of such projects with similar projects managed by other agencies such as North Central CMA as appropriate. Ensure the network of projects:

- provide sustainable activities, and rewarding experiences for a diverse range of people
- reflect the range of interests, ideas and opinions in the community that relate to the park.
- Liaise with local community groups and adjacent landholders and involve them in relevant aspects of the park's planning, protection and management.
- Support training initiatives and tools that increase groups' capabilities for participation.
- Provide administrative and resource support to groups to better enable their involvement in projects that benefit the park.
- Provide public recognition and celebration of the contributions that volunteers and community groups make in protecting and enhancing park values through a regular 'park information and community recognition' event (section 6.1).
- Encourage the establishment of an Indigenous reference group to work with Parks Victoria, in accordance with legislation and operational policies and explore means to involve them in reflecting the Traditional Owner's interests, rights and aspirations in the management of the park.
- Seek to establish a Memorandum of Understanding and working protocols with the Traditional Owners and the scheduled Aboriginal Community regarding the assessment of annual works programs.
- In consultation with the Traditional Owners, assess volunteer programs to minimise the potential for impact of activities on Indigenous cultural heritage.
- Develop and strengthen networks among local prospecting groups, the PMAV, Traditional Owners, Heritage Victoria, field naturalists clubs and Parks Victoria

- to encourage the sharing and understanding of each other's perspectives on the park and its values.
- Provide information and deliver localised interpretive activities to park neighbours to increase awareness of park values and encourage them to manage their land in ways that protect and enhance park values (sections 6.1 and 7.4).
- Involve park visitors and neighbours in protection of the park's values through promotion and use of the 'Bush Telegraph' service for reporting suspicious or destructive behaviour in the park.

8.3 Agency partnerships

Although Parks Victoria is directly responsible for management of the park, a number of other agencies are responsible for planning, managing or regulating certain activities that may be necessary in the park.

All activities in the park that are carried out by Parks Victoria or other agencies need to accord with all legislation and State Government policy and, as far as is practicable, be consistent with other agencies' policies and guidelines. To ensure this occurs, park staff must work closely with staff of relevant agencies and collaborate in implementing activities where appropriate.

The Department of Sustainability and Environment (DSE) provides strategic direction and policy advice for management of the park, including fire management, flora and fauna values and threatening processes. Parks Victoria is a support agency for emergency fire responses on public land, operating at the direction of DSE (section 4.8). Management of fires on freehold land is the responsibility of the Country Fire Authority. Parks Victoria operates in collaboration with DSE and CFA in fire suppression activities in order to protect human life and park values and other private and public assets.

The North Central Catchment Management Authority (NCCMA) is responsible for ensuring the protection and sustainable development of land, vegetation and water resources within the region, including preparation and implementation of the Regional Catchment Strategy and its supporting plans. These specifically address

the protection and enhancement of land and water assets through best management practices within the catchment (section 4.4). NCCMA also coordinates communications and community involvement in land and water management projects at a regional and local scale.

The Coliban Water Authority is responsible for managing the supply and distribution of stock and domestic water through a network of channels, dams and pipes within the park. The partnership relationship between Parks Victoria and Coliban Water will be strengthened through a Memorandum of Cooperation and an operational working group (section 7.1).

The City of Greater Bendigo is the responsible authority for administration and enforcement of the City's Planning Scheme, including the assessment of developments with a potential to impact on park values. Parks Victoria provides input into planning applications through DSE to Council where changes to land use or developments may impact on the park (sections 6.1 and 7.4). Protection of the park could be improved by adopting more practical arrangements for enforcement of regulations by cross-authorisation of Council and Parks Victoria staff.

Aboriginal Affairs Victoria (AAV) has certain statutory responsibilities for implementing the provisions of the Archaeological and Aboriginal Relics Preservation Act and the Aboriginal and Torres Strait Islander Heritage Protection Act (section 5.1). AAV's Cultural Heritage Unit provides advice to Parks Victoria on a range of issues relating to Indigenous cultural heritage and Indigenous communities (section 5.1). The North West Region Aboriginal Cultural Heritage Program (NWRACH) is responsible for the planning, development and delivery of a range of cultural heritage management services in north western Victoria.

Heritage Victoria provides advice on all historic cultural heritage management issues, including those relating to gold mining.

Parks Victoria, DSE, NCCMA, Latrobe University and City of Greater Bendigo Council are currently preparing a joint scoping study relating to interpretation of Box— Ironbark ecology in Bendigo. This project will produce recommendations for an appropriate collective response to address interpretation and education opportunities for tourists visiting Bendigo and may be used as a model elsewhere in Central Victoria.

Goldfields Tourism and Tourism Victoria have a responsibility to develop and promote tourism and support tourism facilities in the region. The City of Greater Bendigo works collaboratively with State and regional tourism authorities in its area of management.

Aim

• Liaise with other agencies that have statutory responsibility for activities that can affect the park, and collaborate with them in a timely manner as necessary to ensure optimum outcomes for the park.

- Work collaboratively with DSE in the protection of flora and fauna and other park values from potentially threatening processes.
- Liaise with NCCMA and coordinate Parks Victoria's management of the park with NCCMA's policies, strategies and plans for the region in general and lands abutting the park in particular.
- Strengthen the partnership relationship with NCCMA and encourage appropriate resource sharing and projects that raise community awareness of the park and contribute to conserving and enhancing park values (chapter 4).
- Develop a strong working relationship with the City of Greater Bendigo to deal with threats to park values (sections 4.7, 6.3 and 7.4).
- Investigate opportunities for appropriate cross-authorisations between City council and Parks Victoria staff to facilitate the enforcement of regulations (sections 4.7 and 6.8).
- Participate in the North Central Community Engagement Network to ensure the provision of appropriate, consistent and coordinated natural resource messages to community groups and visitors to public lands including the park (section 6.1).

- Collaborate with DSE, NCCMA and interested community groups in coordinating monitoring of flora, fauna and pest plants and animals at a local and regional level (sections 4.5, 4.6 and 4.7).
- Maintain cooperative and collaborative relationships with the Country Fire Authority and DSE to seek to ensure the protection of life, property and natural and cultural values, within and around the park (section 4.8).
- Consult with Aboriginal Affairs Victoria's Cultural Heritage Unit and North West Region Aboriginal Cultural Heritage program to obtain advice regarding Indigenous matters as appropriate.

- Consult with AAV to ensure compliance with the Archaeological and Aboriginal Relics Preservation Act and the Aboriginal and Torres Strait Islander Heritage Protection Act.
- Consult with Heritage Victoria to ensure accurate and timely advice for heritage management, and to ensure compliance with the Heritage Act.
- Liaise with State and regional tourism authorities to ensure appropriate promotion of the park in regional tourism strategies (section 6.1).

9 PLAN IMPLEMENTATION

9.1 Delivery and reporting

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

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

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

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

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

In implementing the plan, management will respond to monitoring and research information as it emerges. Parks Victoria's environmental management framework makes this possible. Based on the International Standard for Environmental Management

Systems (ISO 14001), the framework ensures that the future condition of values is considered in identifying threats and developing actions to ameliorate them. Over time the success of actions is reviewed against set objectives to ensure ongoing learning and refinement of management. The selection of actions and treatments of threats are guided by the precautionary principle. Management options are evaluated on the basis of least impact on the environment. Treatment of threats with a potential for serious damage that is not addressed in the plan will not be postponed for lack of information.

Parks Victoria will use a variety of means to report to the community about the progress of implementation of the plan. The primary means will be through routine liaison between Parks Victoria, interested groups and individuals from the local community and relevant government agencies. In addition to giving regular updates, there will be opportunities for input by interested members of the community into annual priority setting and feedback on management performance. Events such as park information days will offer similar opportunities for reporting and discussions about annual programs (section 8.2).

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

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

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

9.2 Plan amendment

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

Circumstances that might lead to amendment of the plan include:

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

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

9.3 Evaluation and review

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

Protecting natural values

- Progress towards the restoration of more natural age-class distributions, structures and floristic diversity of vegetation communities, while also preserving cultural landscapes.
- Increased levels of coarse woody debris on the ground as habitat for ground foraging birds, reptiles and mammals.
- Maintenance of hollow bearing vegetation for dependent fauna.
- Improved habitat for the Swift Parrot and other temperate woodland birds.
- An increase in the cover of indigenous ground and shrub layers in the park through a decrease in weed cover.
- Timely management intervention to minimise threats from foxes, rabbits, cats and goats.

- Meeting prescribed burning targets.
- Minimal impact of permitted uses.
- Compliance with regulations.

Protecting cultural values

- Overall progress towards working with Traditional Owners in all aspects of park management, particularly identification and protection of Indigenous places.
- Minimal impacts to significant heritage places and landscapes from human interference or other identified threats.
- Timely management intervention to avoid threats.

Managing recreation and visitor use

- Maintaining the levels of information and interpretation (section 6.1).
- Meeting and maintaining the levels of service for facilities (table 6).
- All facilities meet public safety standards and the majority of facilities have more than five years life expectancy.
- Meeting agreed road and track standards (tables 4 and 5).
- Minimal impact from visitors, including individuals and school and tour groups.
- Maintaining visitor satisfaction with adequacy of recreational opportunities.
- Meeting community expectations in relation to Parks Victoria's management of the park.

Providing for research and promoting understanding

- Progress towards reflecting Traditional Owners' views and aspirations in the park's planning and management.
- Improved understanding of the distribution, management requirements and traditional uses of significant fauna, flora and vegetation communities in the park.
- Improved identification and understanding of the significance of, and threats to, heritage places and landscapes, in

- particular those that require special protection.
- Ongoing partnerships with Indigenous communities, collaborative relationships with tertiary institutions and agencies, and wider community participation.

Methods for evaluating the benefits of the plan are likely to be refined over time. Parks Victoria has introduced a range of structured monitoring practices to collect standardised and scientifically robust information. In particular, these will improve the understanding of the outcomes of management

on natural values; and allow improved reporting and assessment of performance.

Parks Victoria also partners external research agencies to enhance knowledge and understanding of the values and features of the park and inform management decisions particularly in relation to pest and fire management. By using sound monitoring and assessment methods, this monitoring and research work will strengthen the basis for comparing management performance over time.

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GLOSSARY

Anticline—an arch-shaped formation of layers of sedimentary rock folded upwards by movement in the Earth's crust.

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

Bioregion—an area with unique underlying environmental and ecological features.

Catchment—the area of land from which a stream or body of water receives its water.

Cenozoic—the era of geological time from 65 million years to the present.

Community (people)—a group of people who live in the same area, or the area in which they live, or a group of people with a common background or with shared interests within society.

Community (plants and animals)—all the plants and animals that live in the same area and interact with one another.

Country—all of nature, culture and spirituality relating to an area.

Crown land—land belonging to the State.

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

Dreaming—the primordial creative world of the spirit ancestors and the continuing reality for their totem ancestors.

Duplex soils—'texture contrast' soils with a sharp boundary (10 cm thick or less) between a coarse A horizon, and a finer textured B horizon.

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

Ecological Vegetation Class—one or more vegetation communities that experience similar ecological processes and are linked to broad landscape features, so that they have comparable life-forms, plants genera and vegetation structure.

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

Freehold land—land held in private ownership.

Grandiorite—the most common intrusive igneous rock. Its essential components are quartz, feldspars, hornblende and biotite.

Graptolite—any of various small floating sea animals that lived in colonies that existed between about 550 million and 325 million years ago and are now found as fossils.

Herb—a seed-producing flowering plant that does not produce woody stems and that forms new stems and leaves each season.

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

Hornfels—a fine-grained metamorphic rock composed of silicate minerals and formed through the action of heat and pressure on shale.

Igneous—rock formed under conditions of intense heat or produced by the solidification of volcanic magma on or below the Earth's surface.

Indigenous people—people who are descendants of Aboriginal Australians.

Indigenous cultural heritage—all aspects of contemporary and traditional culture, and places and objects of significance to Indigenous people in accordance with tradition

Infrastructure—physical structures that facilitate the human use of an area (e.g. roads, paths, toilets).

Lease—a right of exclusive occupancy of land for a specific term. It creates a legal interest in the land in favour of the lessee.

Levels of Service (LOS)—Parks Victoria's policy rating of the relative importance of parks or sites in the delivery of the visitor service offer across the Victorian park network. Ratings apply to each park and site at which services are provided, and are based on factors that reflect the overall existing and potential value of providing visitor services to the community.

Licence—formal authority to enter upon land and carry out particular activity/ies but not to the exclusion of others or other activities.

Maintain—maintain biodiversity and ecosystems while allowing the natural processes of regeneration, disturbance and succession to occur.

Mesozoic—the era of geological time from 250 to 65 million years ago, between the Permian and Tertiary eras, when dinosaurs, birds and flowering plants first appeared.

Monitoring—the process of systematic observation of one or more elements of the environment over time.

Ordovician—the second oldest period of the Palaeozoic era, approximately 500 to 440 million years ago.

Permeability—the rate at which liquid passes through soil or rock.

Permit—a form of licence, usually granted for a short period of time or for a limited purpose.

Pest—a plant, animal or pathogens that, if introduced outside its natural or previous distribution, may causes significant changes to habitats, food chains, ecosystems or human health by feeding on or competing with native species, or causing disease.

Prospecting—the search for minerals (including gemstones) under a Miner's Right or Tourist Fossicking Authority, using non-mechanical hand tools.

Relevant Indigenous communities—includes the Traditional Owners and the scheduled Aboriginal community for the park.

Restore—improve the condition of existing ecosystems by returning a park either to an approximation of the natural condition or to a past known state.

Scheduled Aboriginal community—the local Aboriginal community scheduled under the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cwlth) relating to an area of the park.

Sediment—insoluble material suspended in water, consisting mainly of particles derived from rock, soil and organic material.

Sodic soils—soils containing so much exchangeable sodium that plant growth and soil stability are adversely affected.

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

Stormwater—runoff from land during and following rain. Stormwater removes accumulated material, including litter, soil, nutrients, pathogens, chemicals, pesticides, oils and grease.

Symbiotic relationship—a close association of animals or plants of different species that is often, but not always, of mutual benefit.

Syncline—a downward fold in a rock formation, shaped like a basin or trough, containing younger rocks in its core.

Threatened—in danger of becoming extinct.

Threatening process—a process that may have the capability to threaten the survival, abundance or evolutionary development of any taxon or community of flora or fauna.

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

Traditional Owners—communities of people that reasonably assert an association with the park area that is based on direct descent from the original Indigenous custodians of *Country*, in accordance with Indigenous tradition.

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

Explanatory note

Park vision—the vision describes the community's and Parks Victoria's aspirations for the park. The picture of the park in the future has been compiled from community consultation during the development of the plan.

Aboriginal Affairs Victoria

Abbreviations

AAV

PMAV

COGB	City of Greater Bendigo
DEH	Department of Environment and Heritage (Cwlth)
DNRE	The former Department of Natural Resources and Environment
DPI	Department of Primary Industries
DSE	Department of Sustainability and Environment
ECC	Environment Conservation Council
NCCMA	North Central Catchment Management Authority

Prospectors and Miners

Association of Victoria Inc.

PV Parks Victoria

APPENDIX 1 MANAGEMENT OBJECTIVES FOR NATIONAL PARKS

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

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

The objects of this Act are –

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

Section 17. National parks and State parks

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

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

APPENDIX 2 SUBMISSIONS ON THE DRAFT MANAGEMENT PLAN

A total of 45 submissions were received on the Draft Management Plan during February–April 2006, from the following organisations and individuals. Four submissions were marked confidential.

ORGANISATION	SUBMISSION No.	Individual	SUBMISSION No.
Submissions from groups	Total: 21	Submissions from individuals	Total: 24
Aboriginal Affairs Victoria	19	Confidential	9
Bendigo Bushwalkers	45	Confidential	10
Bendigo Field Naturalists Club	31	Confidential	18
Bendigo Greens	20	Confidential	30
Bendigo Historical Society	22	Terry Davidson	28
Bendigo Prospectors Club	43	Ian Dean	16
Big Hill Integrated Resort Development	32	Penni Edwards	15
Bike Tours Around Victoria	1	Chris Fyfe & Jeffrey McCubbery	7
Bird Observers Club of Australia	33	Julie Flynn	41
City of Greater Bendigo	37	Kenneth Griffin	6
DSE – North West Biodiversity Group	38	Peter Galvin	40
DSE – Threatened Species and Communities	3	Pam & John Land	13
DSE – Planning and Development	4	William McCullough	35
Country Fire Authority – North West Area	14	Bob, Eileen, Robert & Peter McDonald	25
Great Dividing Trail Association	23	Brenda & Malcolm Macdonald	8
Goornong Country Fire Authority	26	Rex McKenzie	11
VicWalk Conservation Committee	21	Eddie Moylan	34
NCCMA	44	Harry Oldmeadow & Rose Mazza	12
North West Region Aboriginal Cultural Heritage	24	Vanessa Richardson	36
Prospectors and Miners Association of Victoria	39	Bob Semmens	5
Victorian Apiarists' Association	27	Peter Searle	42
		Vern Sinclair	29
		Karen Thomas (nee Bartlett)	2
		Barrie Winzar	17

APPENDIX 3 RARE AND THREATENED FLORA

SCIENTIFIC NAME	COMMON NAME	Conservation Status		
		EPBC	VICTORIAN	FFG
Acacia ausfeldii	Ausfeld's Wattle		V	
Acacia flexifolia	Bent-leaf Wattle		r	
Acacia oswaldii	Umbrella Wattle		V	
Acacia williamsonii	Whirrakee Wattle		r	
Allocasuarina luehmannii	Buloke			L
Alternanthera sp. 1 (Plains)	Plains Joyweed		k	_
Arachnorchis audasii	McIvor Spider-orchid	E/R	e	L A (no. 24)
Austrostipa breviglumis	Cane Spear-grass		r	
Brachyscome chrysoglossa	Yellow-tongue Daisy		v	L
Choretrum glomeratum	Common Sour-bush		r	
Choretrum glomeratum var. glomeratum	Common Sour-bush		r	
Comesperma polygaloides	Small Milkwort		V	L
Desmodium varians	Slender Tick-trefoil		k	
Dianella longifolia var. grandis	Glaucous Flax-lily		v	
Philotheca difformis ssp. difformis	Small-leaf Wax-flower		V	
Eucalyptus froggattii	Kamarooka Mallee		r	L
Goodenia benthamiana	Small-leaf Goodenia		r	
Grevillea dryophylla	Goldfields Grevillea		r	
Lepidium pseudohyssopifolium	Native Peppercress		k	
Lepidium pseudopapillosum	Erect Peppercress	V	e	L
Leptorhynchos elongatus	Lanky Buttons		e	
Mimulus prostratus	Small Monkey-flower		r	
Myoporum montanum	Waterbush		r	
Olearia tubuliflora	Rayless Daisy-bush		r	
Orobanche cernua var. australiana	Australian Broomrape		v	
Phebalium festivum	Dainty Phebalium		v	L
Pimelea flava ssp. dichotoma	Diosma Rice-flower		r	
Pomaderris paniculosa ssp. paniculosa	Inland Pomaderris		V	
Prasophyllum patens	Broad-lip Leek-orchid		r	
			(cont'd o	n next page)

(Appendix 3 cont'd)

SCIENTIFIC NAME	COMMON NAME	Conservation Status		
		EPBC	VICTORIAN	FFG
Pseudanthus ovalifolius	Oval-leaf Pseudanthus		r	
Pterostylis aciculiformis	Slender Ruddyhood		k	
Pterostylis boormanii	Sikh's Whiskers		r	
Pterostylis maxima	Large Rustyhood		v	
Pterostylis setifera	Bristly Greenhood		r	
Ptilotus erubescens	Hairy Tails			L
Templetonia stenophylla	Leafy Templetonia		r	
Thelymitra × macmillanii	Crimson Sun Orchid		v	
Westringia crassifolia	Whipstick Westringia	E/R	e	L A40

Source: DSE (2005b)

Conservation status:

 $\ensuremath{\mathsf{EPBC}}$ - Environment Protection and Biodiversity Conservation Act status:

E endangered

V vulnerable

R a Recovery Plan has been prepared for its management

Victorian status:

- e endangered
- v vulnerable
- r rare
- k poorly known

FFG - Flora and Fauna Guarantee Act status:

- L listed under the Flora and Fauna Guarantee Act
- A An Action Statement has been prepared for its management

APPENDIX 4 RARE AND THREATENED FAUNA

SCIENTIFIC NAME	COMMON NAME	Conservation Status			
	-	EPBC	VICTORIAN	FFG	JAMBA/ CAMBA
Mammals					
Phascogale tapoatafa	Brush-tailed Phascogale		Vul	L A (no. 79)	
Sminthopsis crassicaudata	Fat-tailed Dunnart		LR		
Sminthopsis murina	Common Dunnart		Vul		
Birds					
Anas rhynchotis	Australasian Shoveler		Vul		
Chrysococcyx osculans	Black-eared Cuckoo		LR		
Chthonicola sagittata	Speckled Warbler		Vul	L LC	
Cinclosoma punctatum	Spotted Quail-thrush		LR		
Climacteris picumnus					
victoriae	Brown Treecreeper		LR	LC	
Coturnix ypsilophora	Brown Quail		LR		
Geopelia cuneata	Diamond Dove		LR	L	
Grantiella picta	Painted Honeyeater		Vul	L A (no. 193), LC	
Hirundapus caudacutus	White-throated Needletail			<i>"</i>	CJ
-	Chestnut-rumped		Vul	L	
Hylacola pyrrhopygia	Heathwren	E/D		_	
Lathamus discolor	Swift Parrot	E/R	End Vul	L LC	
Lichenostomus cratitius	Purple-gaped Honeyeater			ī	
Lophoictinia isura	Square-tailed Kite		Vul	L	
Melanodryas cucullata	Hooded Robin		LR	L LC	
Melithreptus gularis	Black-chinned Honeyeater		LR	LC	
Neophema pulchella	Turquoise Parrot		LR	L	
Ninox connivens	Barking Owl		End	L LC	
Ninox strenua	Powerful Owl		Vul	L A (no. 92)	
Oreoica gutturalis	Crested Bellbird		LR	L	
Pomatostomus temporalis	Grey-crowned Babbler		End	L A (no. 34), LC	
Stagonopleura guttata	Diamond Firetail		Vul	L LC	
Turnix velox	Little Button-quail		LR		
				L A (no. 41),	
Xanthomyza phrygia	Regent Honeyeater	E/R	CEn	LC	
Members of the FFG-listed	d Victorian temperate-woodla	nd bird com	munity		
Glossopsitta pusilla	Little Lorikeet			LC	
Lichenostomus fuscus	Fuscous Honeyeater			LC	
Melithreptus brevirostris pallidiceps	Brown-headed Honeyeater			LC	
- •	•				'd on next pag

Appendix 4 cont'd

SCIENTIFIC NAME	COMMON NAME	Conservation Status			
		EPBC	Victorian	FFG	JAMBA/ CAMBA
Microeca fascinans	Jacky Winter			LC	
Petroica goodenovii	Red-capped Robin			LC	
Turnix varia	Painted Button-quail			LC	
Reptiles					
Aprasia parapulchella	Pink-tailed Worm-lizard	V	End	L	
Pogona barbata	Eastern Bearded Dragon		Ins		
Ramphotyphlops proximus	Woodland Blind Snake		LR		
Varanus varius	Tree Goanna		Vul		
Amphibian					
Pseudophryne bibronii	Bibron's Toadlet		End	L	
Insect					
Myrmecia sp. 17	Bullant		Vul	L	

Sources: DSE (2005a), SAC (2000).

Conservation status:

EPBC - Environment Protection and Biodiversity Conservation Act status:

E endangered

V vulnerable

R a Recovery Plan has been prepared for its management

Victorian status:

CEn Critically Endangered

End Endangered

Vul Vulnerable in Victoria

LR Lower risk- near threatened

Ins Insufficiently known

FFG - Flora and Fauna Guarantee Act status:

L listed under the Flora and Fauna Guarantee Act

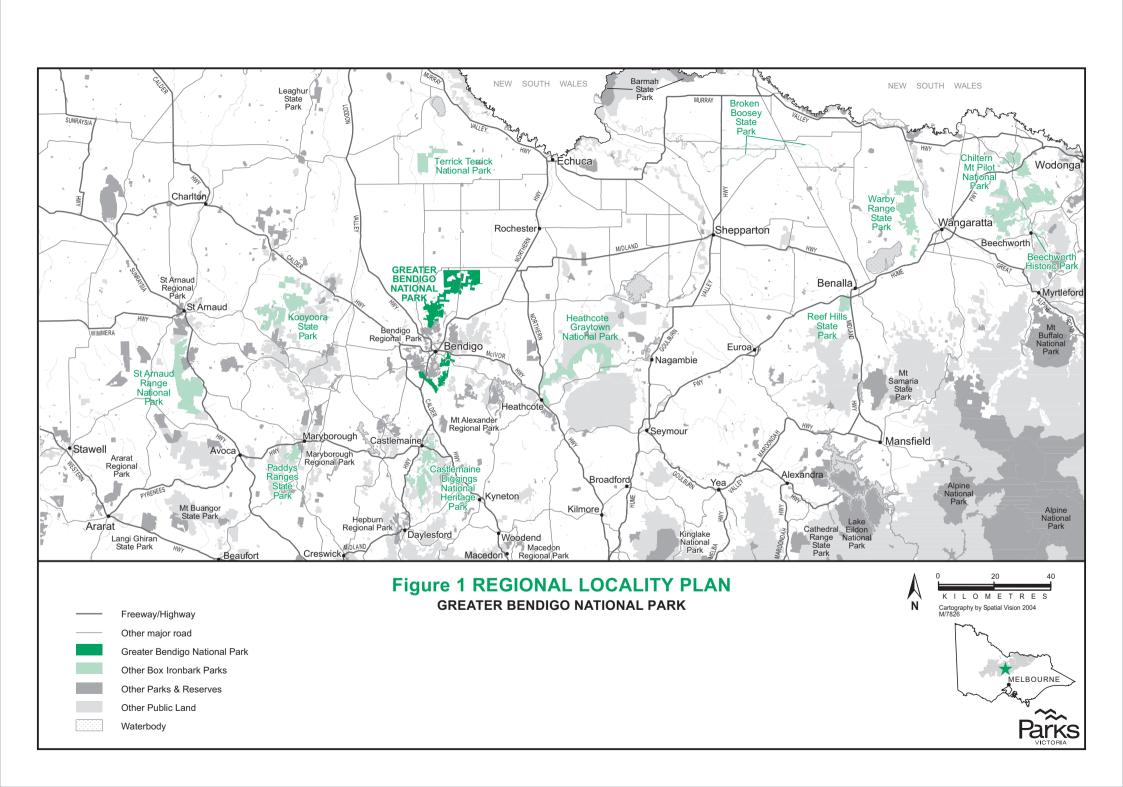
LC member species of the FFG-listed Victorian temperate-woodland community

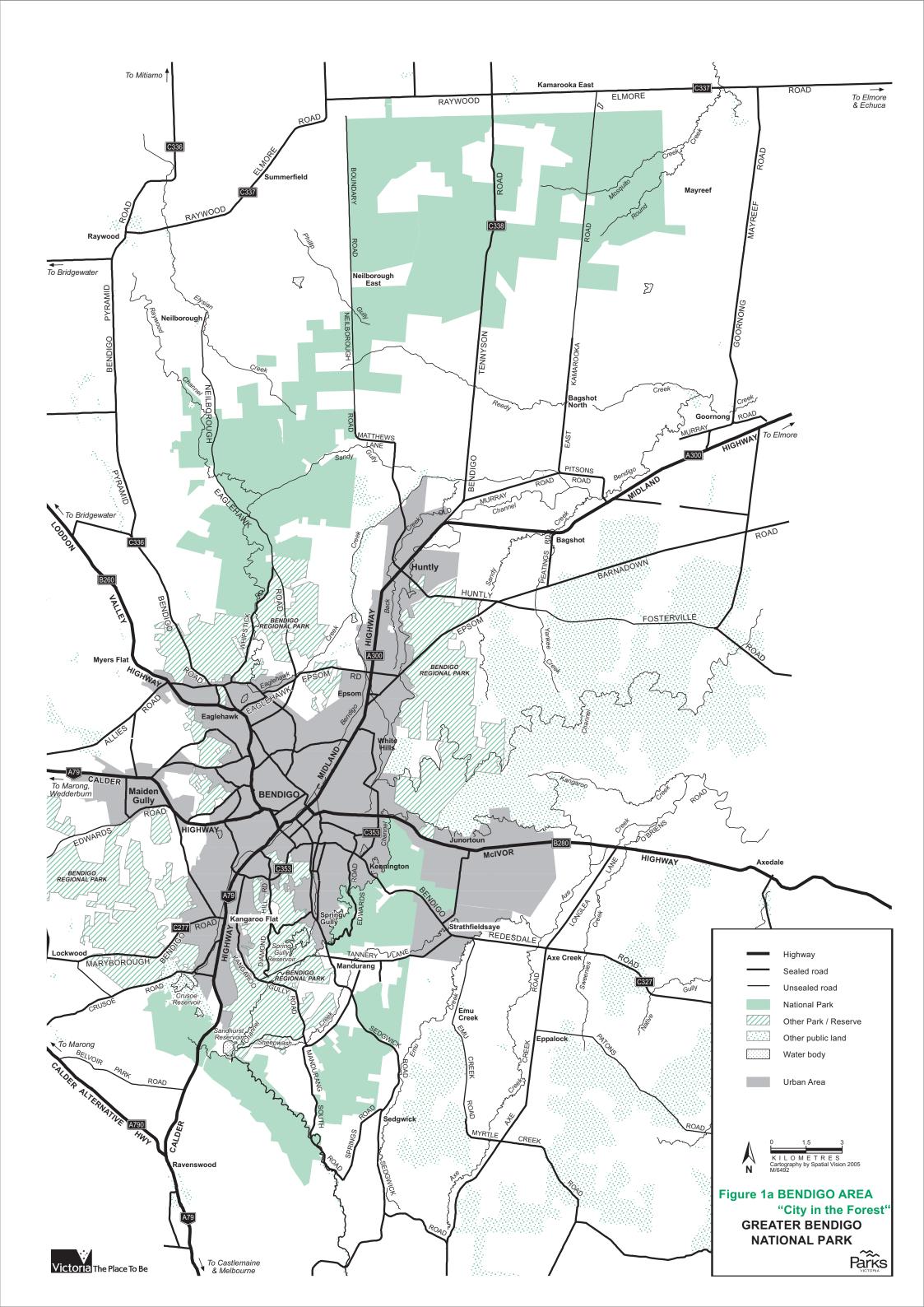
A an Action Statement has been prepared for its management

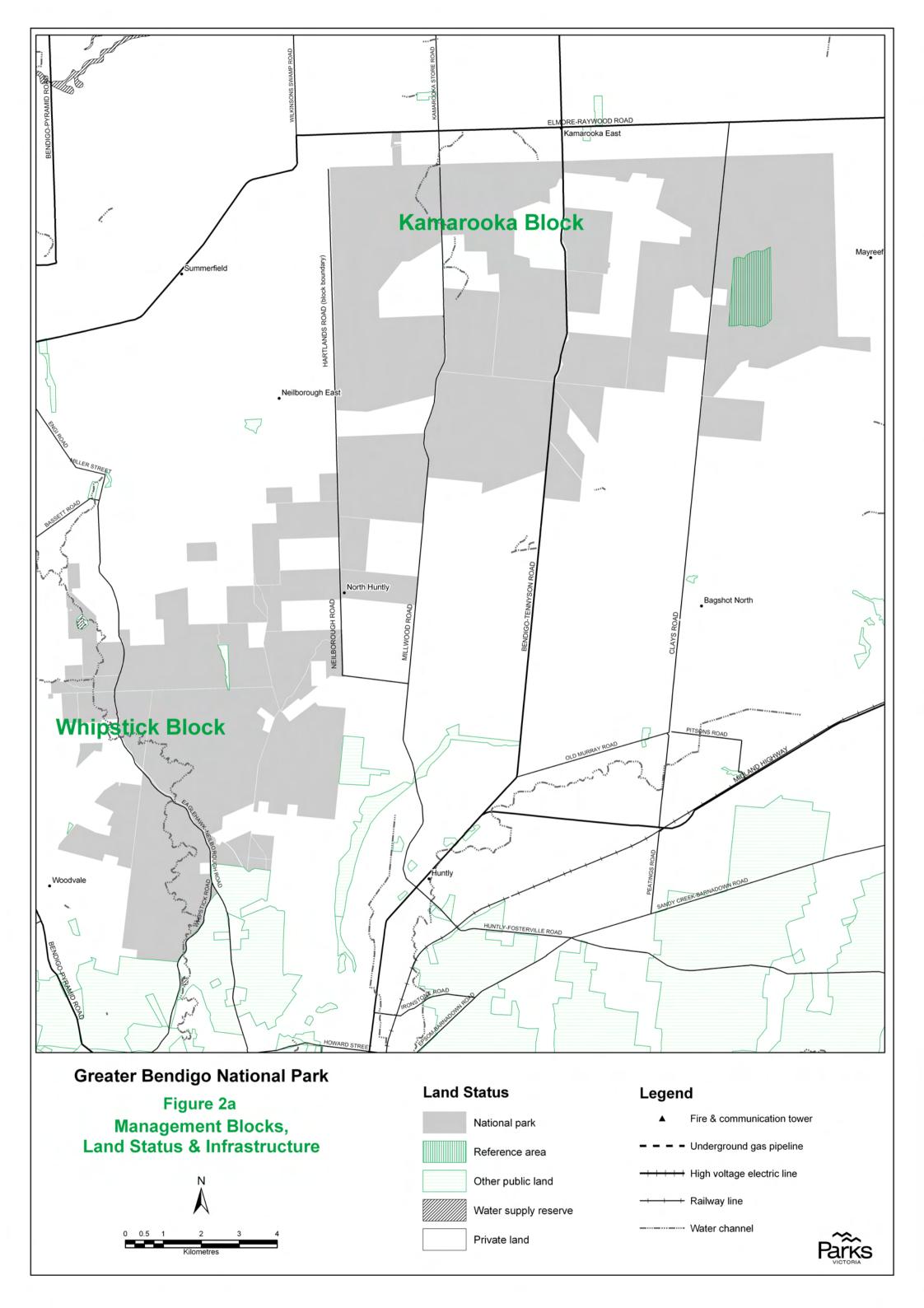
JAMBA/CAMBA status:

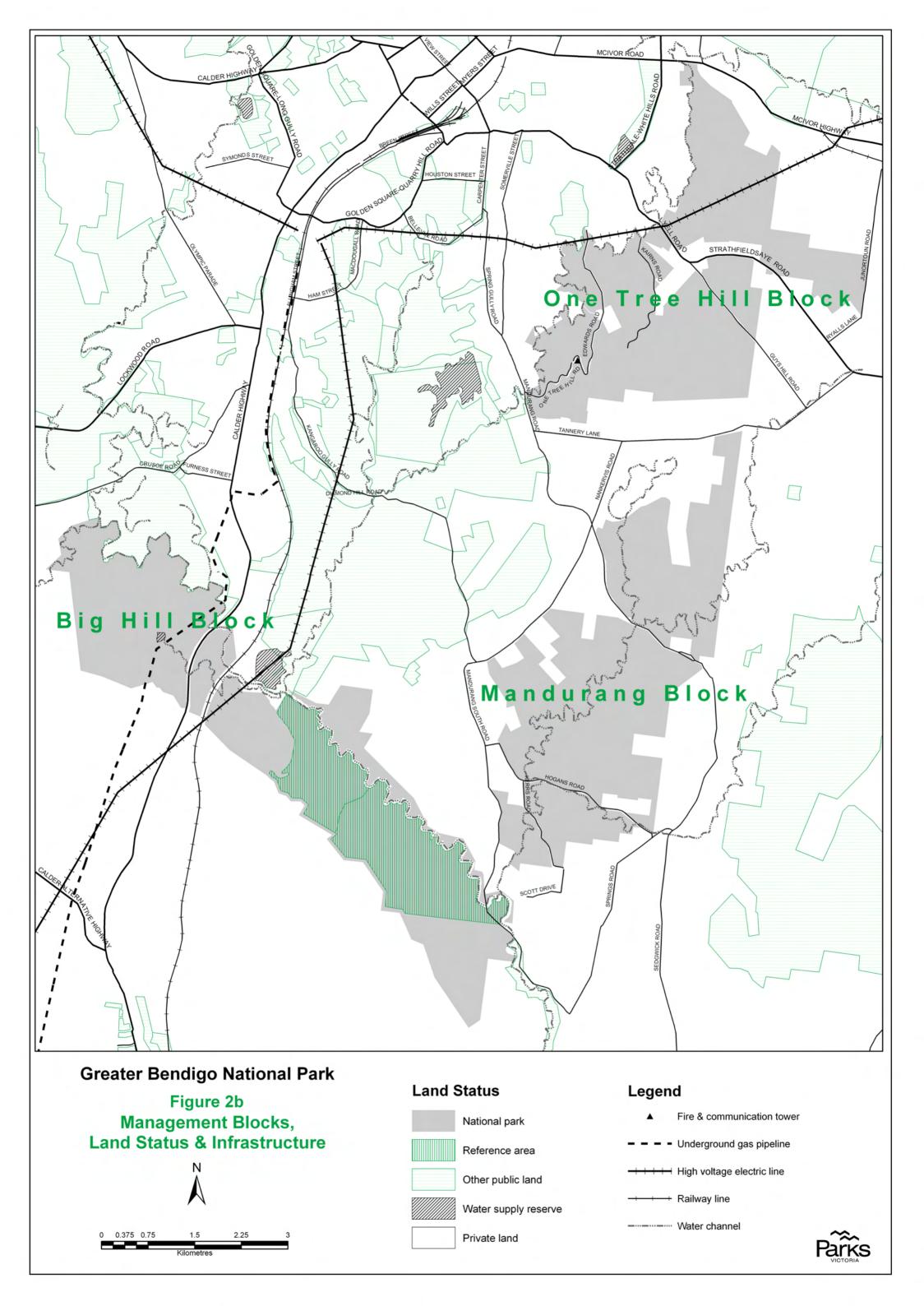
J JAMBA

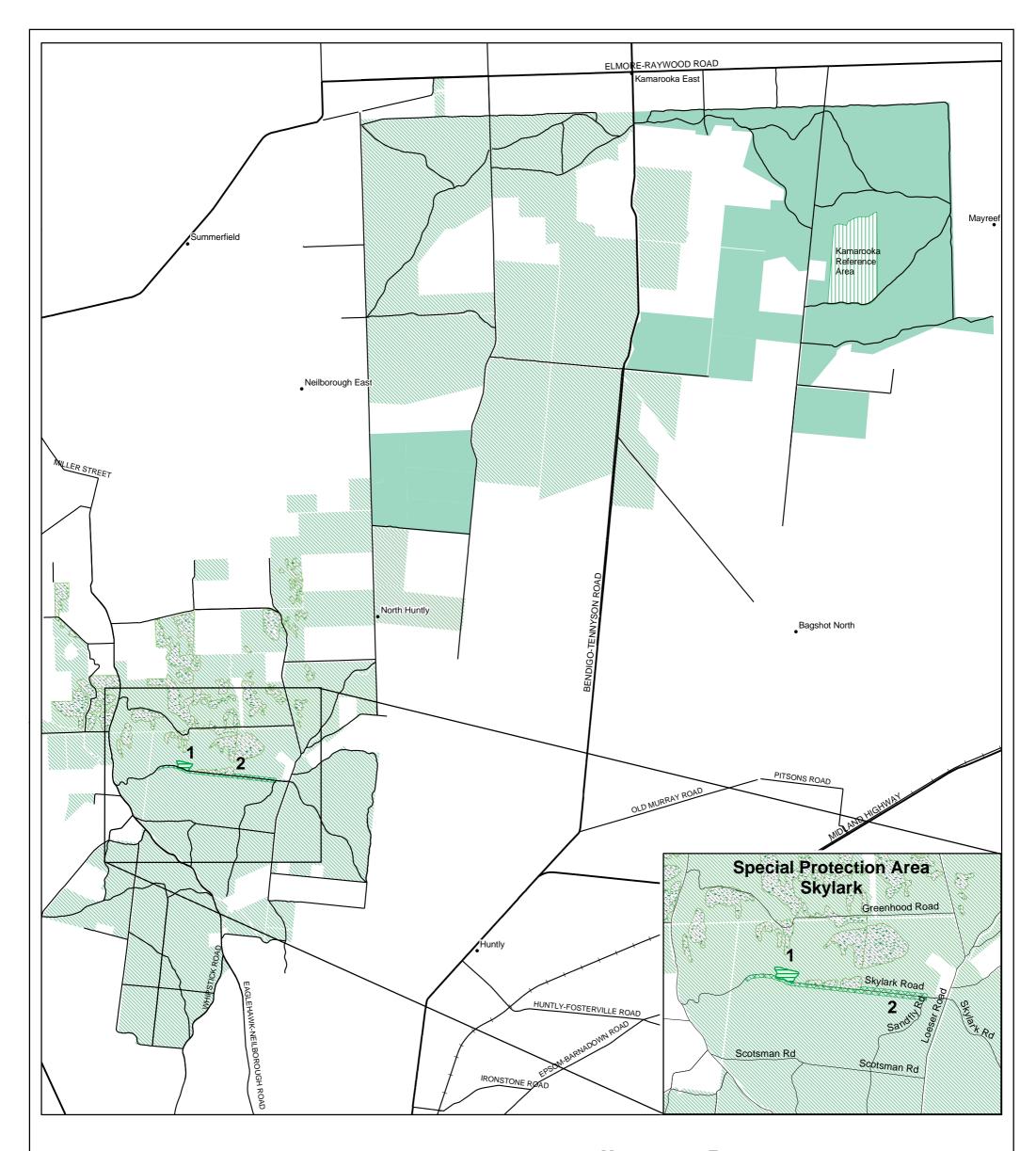
C CAMBA





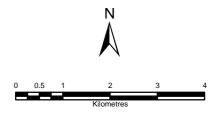






Greater Bendigo National Park

Figure 3a Management Zones and Overlays



Management Zones

Conservation and recreation

Land Use Designation Overlays

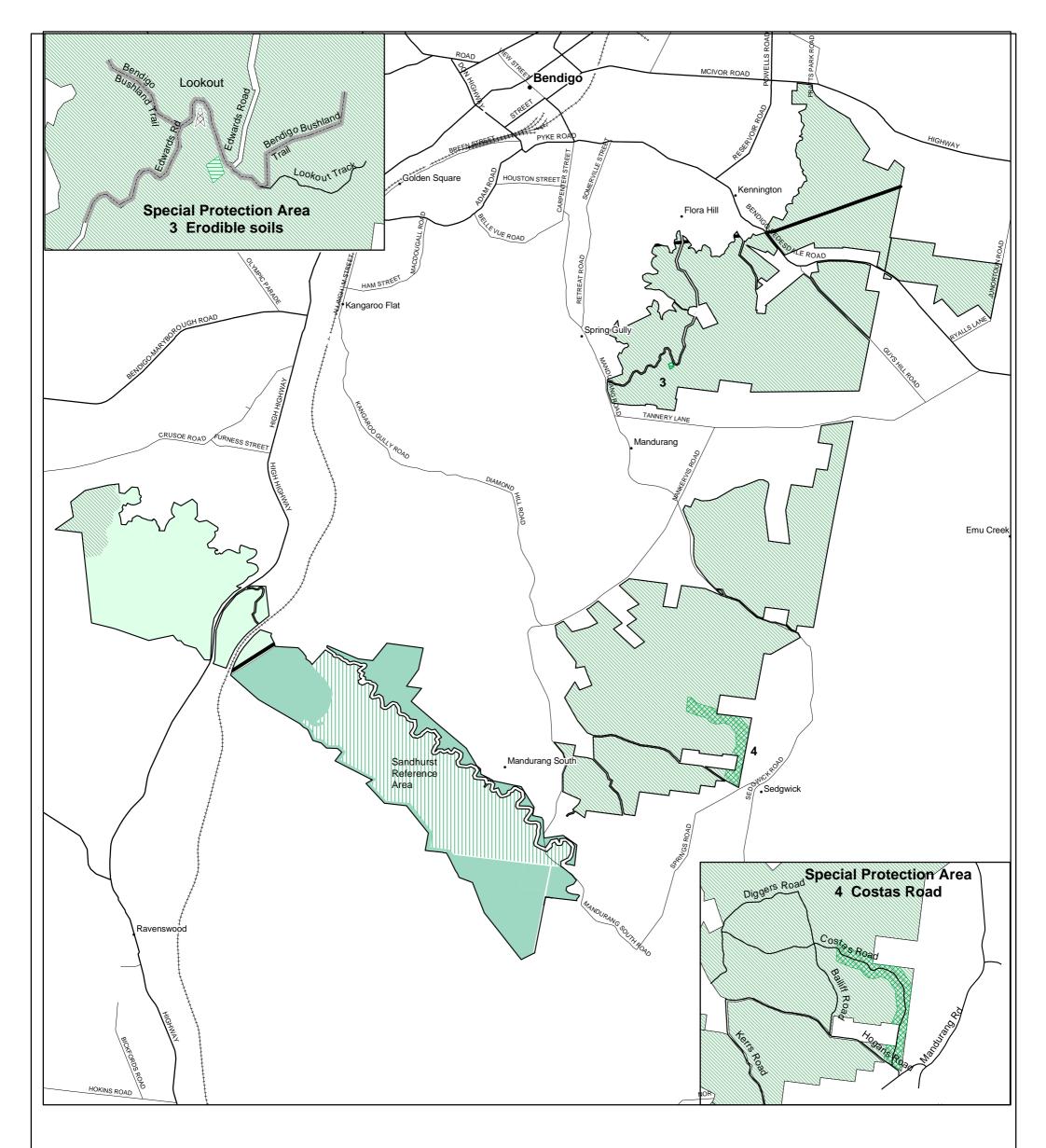
Prospecting

Eucalyptus harvesting

Special Protection Area Overlays

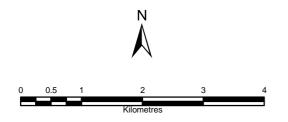






Greater Bendigo National Park

Figure 3b **Management Zones and Overlays**



Management Zones

Reference area

Conservation

Conservation and recreation

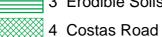
Special Management Overlay

High voltage electric line corridor

Land Use Designation Overlays

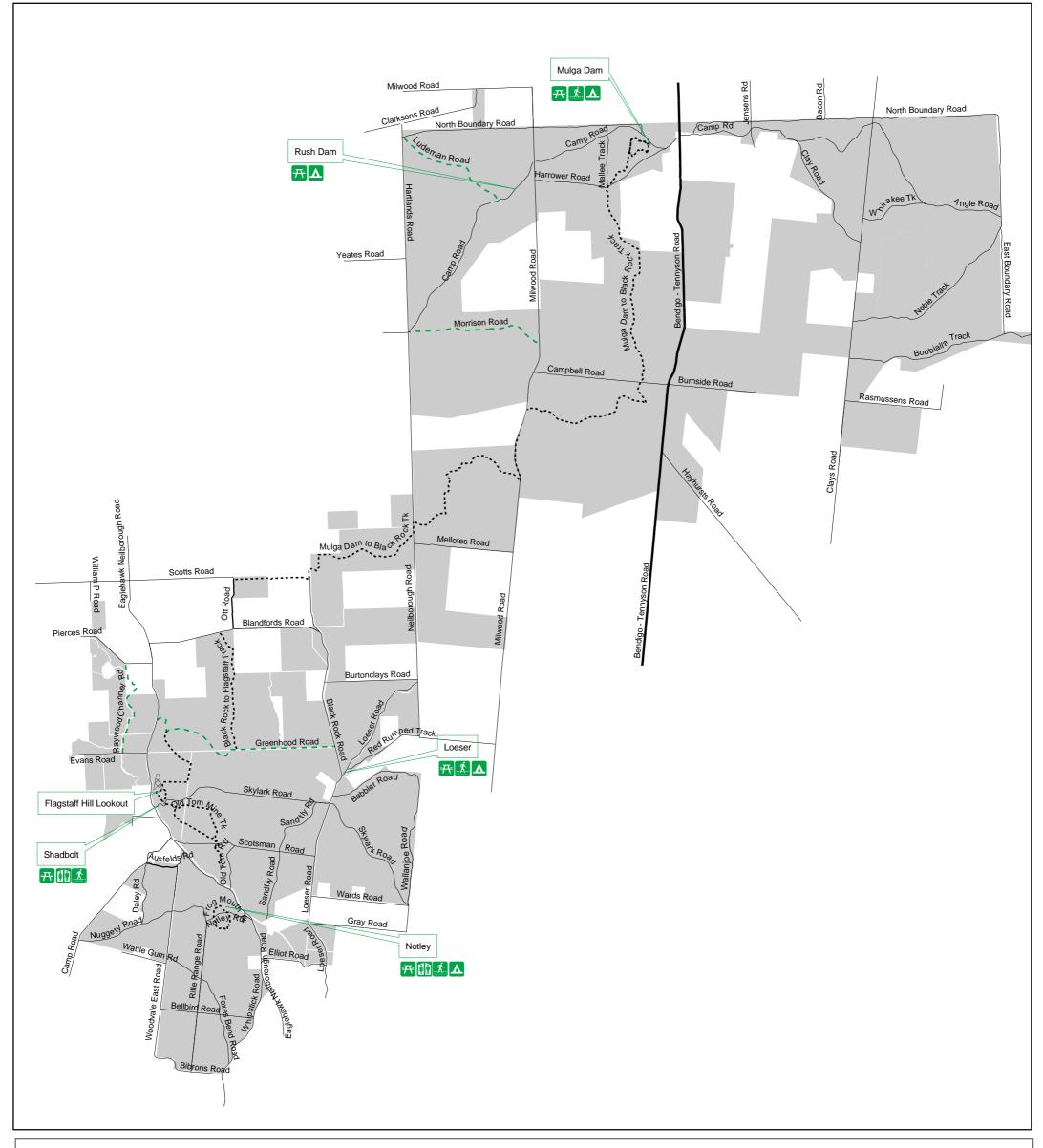
Prospecting

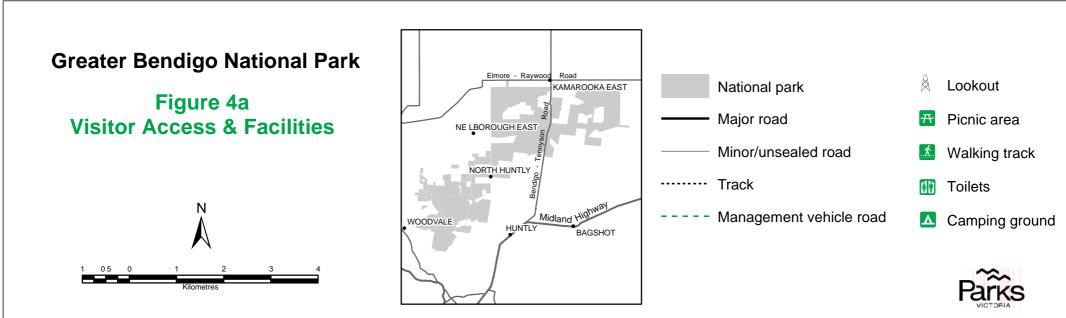
Special Protection Area Overlays

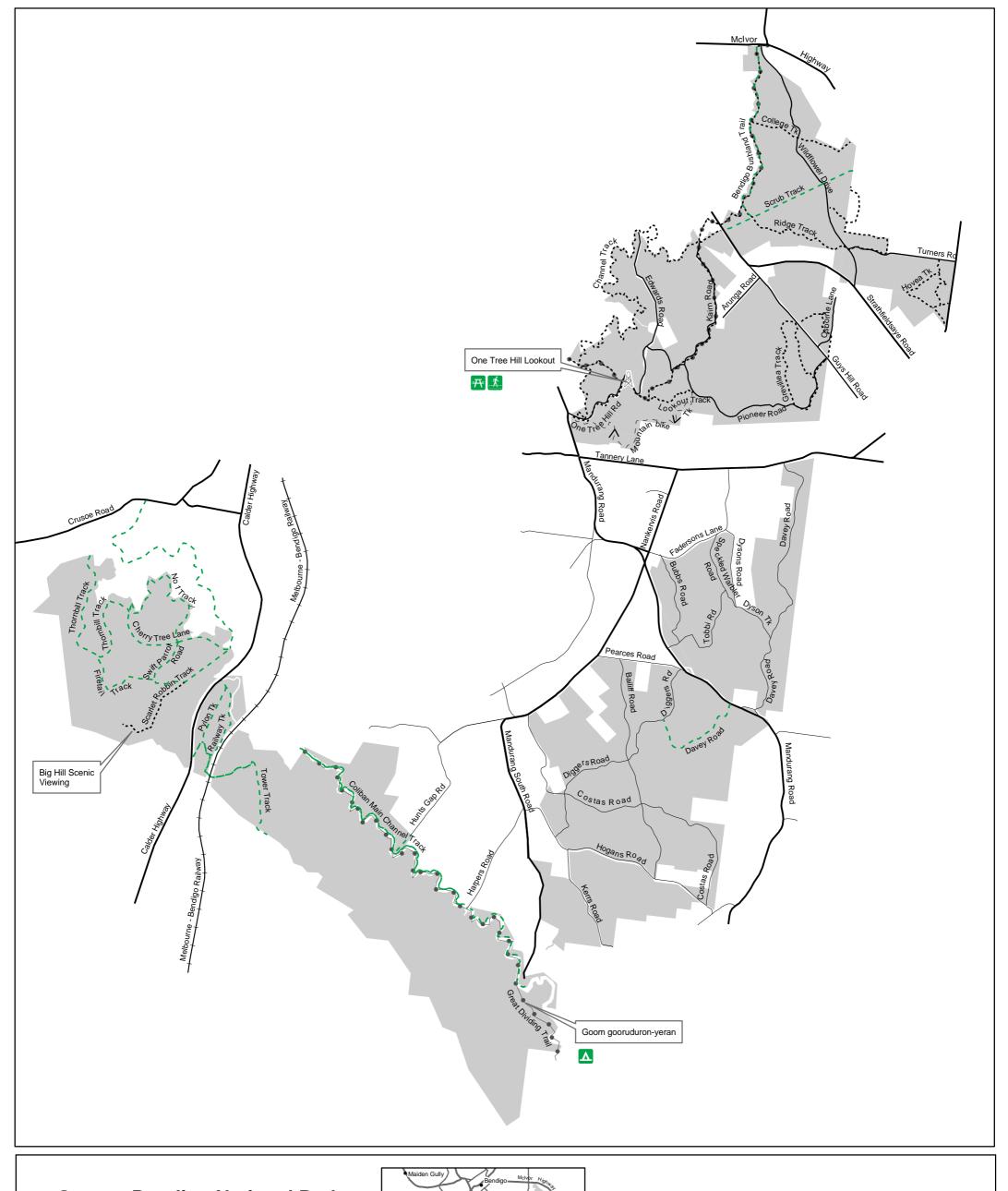


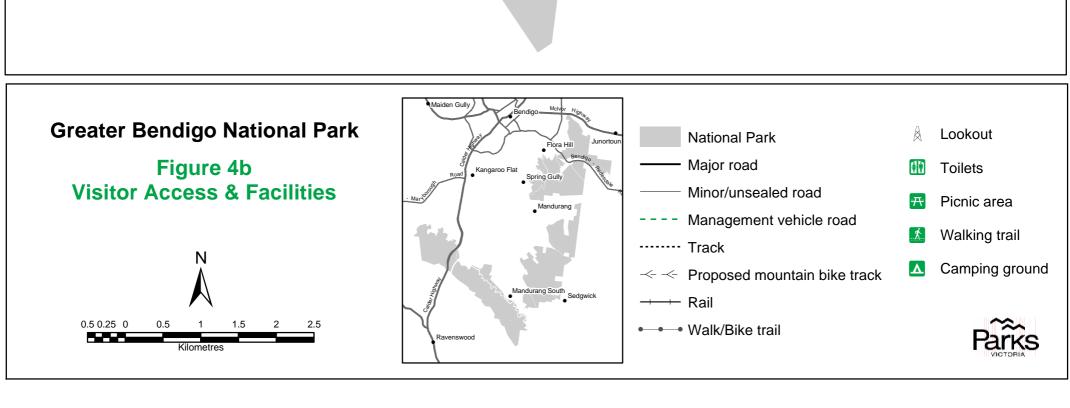
3 Erodible Soils













For more information contact the

Parks Victoria Information Centre

on 13 1963, or visit www.parkweb.vic.gov.au



