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Castlemaine Diggings National Heritage Park



Management Plan April 2007

**CASTLEMAINE DIGGINGS NATIONAL HERITAGE PARK
MANAGEMENT PLAN**



April 2007

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Acknowledgements

Acknowledgement of *Country*: In their rich culture, Indigenous Australians are intrinsically connected to the continent – including area now known as Victoria. 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 the members of the Castlemaine Diggings National Heritage Park Management Plan Advisory Group: Robyn Ballinger, Jeffrey Douglas, Maurice Dynon, Frank Fenwick, Miles Geldard, Drew Henry, Marie Jones, Max Kay, Morgan Kurrajong, Doug McConville, Ken McKimmie, Richard Piesse, Deirdre Slattery and Robin Taylor.

Note

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

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* (Cwth).

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

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FOREWORD

Castlemaine Diggings National Heritage Park protects a nationally significant historical cultural landscape of exceptional heritage value. The heritage places and landscapes of the park, as well as the stories associated with the Mount Alexander Gold Rush, help us to understand and connect with these significant events of the nation's heritage.

The park also protects diverse Box-Ironbark ecosystems, including communities, flora and fauna that are threatened within Victoria or nationally. The park has an open and accessible landscape, enabling visitors to use the park for a range of recreation, education, tourism and research activities.

Indigenous tradition indicates that the park lies within the *Country* of the Jaara Jaara people, who are part of the Dja Dja Wurrung.

Parks Victoria respects the views of the Traditional Owners, and those of other groups with historical associations with the park.

I thank the Castlemaine Diggings National Heritage Park Management Plan Advisory Group and other individuals and organisations for their valuable contributions to plan development and submissions on the Draft Management Plan.

This approved plan establishes the long-term framework to protect the important heritage and natural values of the park and to enhance the opportunities offered to park visitors.

I look forward to the community's ongoing support for, and participation in the management of Castlemaine Diggings National Heritage Park.

JOHN THWAITES MP
Minister for Environment

APPROVED MANAGEMENT PLAN

This Management Plan has been prepared under section 18 of the *National Parks Act 1975* (Vic.) and is approved for implementation.

The plan provides the basis for the future management of Castlemaine Diggings National Heritage Park. It was finalised following consideration of the 44 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 Parks lie inland of the Great Dividing Range in northern and central Victoria. Dotted across the landscape in a broad band from Wodonga through Chiltern, Beechworth and Benalla, they extend past Numurkah and through to Heathcote, Bendigo, Maryborough and St Arnaud to Ararat and Stawell. At the time of European settlement Box-Ironbark forests and woodlands covered almost three million ha 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, John Wolseley and Samuel Thomas Gill. With the creation of a highly protected system of parks and reserves in 2002, the future of these forests and woodlands is assured.

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

Different people value the forests in different ways, but local communities have strong

feelings of pride in and ownership of their Box-Ironbark landscapes. The creation of the Box-Ironbark parks presents further opportunities to celebrate, protect and enhance these special landscapes.

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

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

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

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

One of the greatest losses has been that of large old box and ironbark trees, which produce reliable and abundant nectar, supply

foraging sites such as peeling bark and fallen timber for ground-dwelling animals, and have many hollows vital for native mammals and birds. Instead of a landscape of large old and widely spaced trees, much is dominated by multi-stemmed coppice regrowth.

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

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

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

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

This Management Plan explains the values and attractions in detail for Castlemaine Diggings National Heritage Park, and sets out how they will be protected and managed.

SUMMARY

Castlemaine Diggings National Heritage Park is situated in central Victoria and is one of the largest protected historic places in Australia.

The park protects a nationally significant historic cultural landscape of exceptional heritage value, rich with relics and stories of the Victorian Gold Rush. In recognition of the park's outstanding heritage value to the nation, it has been listed on the National Heritage List.

Indigenous tradition indicates that the park lies within the *Country* of the Jaara Jaara people, who are part of the Dja Dja Wurrung. Scar trees, rock wells, seed grinding grooves, oven mounds, shell middens, isolated artefacts and meeting places recorded in the park provide physical evidence of Indigenous people's long association with the area.

The park protects a number of threatened species and their habitat, including the nationally threatened Swift Parrot, Powerful Owl, Eltham Copper Butterfly, Midlands Spider-orchid and Fryerstown Grevillea.

The park is managed under the provisions of the *National Parks Act 1975* (Vic.), to protect its outstanding cultural and natural values, and provide for a range of recreational opportunities including scenic driving, prospecting, camping, bushwalking and cycling.

Future management aims to provide enhanced sustainable opportunities for visitor enjoyment and appreciation of the park while maintaining and protecting park values.

Major management directions for the park are summarised below.

- The park's outstanding cultural landscapes will be recognised and protected, and secondarily the park's important natural values will be conserved.
- Cultural landscapes associated with the alluvial diggings and quartz mining era and places, and archaeological relics of historic significance will be protected.
- Indigenous places and objects will be protected from interference or damage.

- Natural processes over the long term will restore the structure of vegetation in the park to a more appropriate balance of juvenile, intermediate and mature trees.
- Knowledge and understanding of the park's cultural and natural values and cultural landscapes will be strengthened and improved through research.
- Viable populations of threatened flora and fauna will be maintained.
- Pest plants and animals that have the potential to threaten park values will be eradicated or otherwise controlled.
- Indigenous cultural heritage associated with the park will be recognised, and the views of the Traditional Owners and cultural obligations of Indigenous people respected.
- The Traditional Owners' knowledge, interests and rights in the park, and aspirations for *Country*, will be respected and reflected in planning and management, in accordance with legislation and policy.
- Indigenous knowledge relating to *Country* will be respected, and promoted and interpreted in accordance with the views of the Traditional Owners.
- Sustainable visitor activities and behaviours that minimise impacts on park values will be encouraged in appropriate locations in the park.
- Visitor understanding and appreciation of the park's cultural and natural values will be enhanced by the implementation of an information, interpretation and education program.
- Community groups, Friends groups, volunteers, institutions and government agencies will be encouraged to actively participate and cooperate as appropriate in the planning, use and care of the park.

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1 INTRODUCTION

1.1 Location and planning area

Castlemaine Diggings National Heritage Park is in central Victoria, 123 km north-west of Melbourne, and surrounds the historic townships of Castlemaine, Chewton, Fryerstown, Vaughan, Campbells Creek and Guildford (figures 1 and 1a).

The planning area covers Castlemaine Diggings National Heritage Park (7550 ha).

1.2 Creation of the park

Castlemaine Diggings National Heritage Park was originally created with the inclusion of 7500 ha in Schedule Four 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 Herons Reef Gold Diggings (45 ha), was purchased by the State Government in 2003 and added to the park as a result of the *National Parks (Additions and Other Amendments) Act 2004* (Vic.). Several adjustments have been made to the park including the excision of several small areas, and the addition of several allotments, bringing the total area of the park to 7550 ha.

In addition to Herons Reef, the park includes the following former areas of Crown land: Castlemaine–Chewton Historic Area (3511 ha), 2744 ha of State forest and uncommitted land near Castlemaine, Guilford and Upper Loddon, Upper Loddon Flora Reserve (820 ha), Vaughan Mineral Springs Reserve (83 ha), Expedition Pass, Crocodile and Golden Point Reservoirs and Water Production Areas (46 ha total), Faraday Education Area (42 ha) and 196 ha of various other public land units.

The National Heritage Park is a new land category created primarily to recognise and protect outstanding historic cultural landscapes and secondarily to conserve important natural values (section 2.5, appendix 1). Cultural landscapes are those areas where major cultural themes are best represented by virtue of the authenticity, number, significance and diversity of sites and relics that they protect, in surroundings essentially intact from the period they represent.

1.3 Plan development

This Management Plan for Castlemaine Diggings National Heritage Park was prepared by Parks Victoria, with significant input from the Castlemaine Diggings National Heritage Park Management Plan Advisory Group and other organisations and individuals, taking into account existing information, reports and research findings which relate to the park and is informed and supported by a range of best practice management systems.

The plan is a strategic guide for future management of Castlemaine Diggings National Heritage Park. As a public document, the plan establishes how Parks Victoria will protect the cultural and natural values of the park, and describes the services and facilities that will be provided to help visitors to 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 (section 9.1).

The Draft Management Plan was published for comment in July 2005, and 44 submissions were received (appendix 2).

Where necessary, further consultation with the community and stakeholders was undertaken.

Key changes made to the Draft Plan in preparing this Final Management Plan included:

- Greater recognition of the links between the landscape of the park and the cultural significance of the park.
- Inclusion of information about the presence of rock wells in the park.
- Inclusion of historical use of the park by apiarists and historic conservation of large Yellow Box trees for honey production purposes.

- Additional areas included in the Special Protection Area Overlays – Cultural and Natural Values, particularly for the protection of threatened species and their habitats (table 1, figure 2).
- Removal of the proposed 10 metre prospecting exclusion from walking tracks in the park, with this exclusion being limited to exclusion of prospecting on roads and tracks listed in tables 3 and 5.
- Clarification that the 50 metre prospecting exclusion is from both sides of the walking tracks at several heritage places listed in table 1 to protect heritage places and landscapes from damage by prospecting disturbance.
- Inclusion of additional information relating to the Loddon River and threatened species.
- Enhancement of strategies relating to strengthening relationships with community groups including cycling groups, and recognition of other community groups.

This Management Plan will direct future management of Castlemaine Diggings National Heritage Park, until reviewed (sections 9.2 and 9.3).

2.1 Regional context

The park forms part of the Goldfields Bioregion and is the only National Heritage Park in the State.

The area abutting the park is largely freehold land cleared for agriculture. There is also an increasing amount of residential development bordering the park associated with the historic townships of Castlemaine, Chewton, Fryerstown, Vaughan, Campbells Creek and Guildford, which are adjacent to or surrounded by the park. In addition, Fryers Ridge State Forest, Fryers Ridge Nature Conservation Reserve and the Upper Loddon State Forest are contiguous with the park and form an area of approximately 19 000 ha (figure 1). These parks, reserves and forests, in combination, play an important role in conserving native flora and fauna in the Loddon River Catchment.

Indigenous tradition indicates that the park is part of the *Country* of the Jaara Jaara people and that Indigenous people have a long association with this region.

The park is within Tourism Victoria's Goldfields tourism region. The region is characterised by historic towns, State forests, parks and places associated with early Victorian gold mining, including:

- Castlemaine, Ballarat, Creswick and Creswick Regional Park, Rushworth and Whroo, and Daylesford, Hepburn Springs and Hepburn Regional Park
- Maldon and Maldon Historic Reserve
- Maryborough Regional Park
- Paddys Ranges State Park
- Bendigo, Greater Bendigo National Park and Bendigo Regional Park
- Central Deborah Gold Mine.

Tourism development plans for the region are currently being prepared by the Mount Alexander Shire and the Goldfields Campaign Committee, with specific initiatives for the park.

Major population centres in the region include Ballarat, Bendigo, Castlemaine, Daylesford, Maldon and Maryborough (figures 1 and 1a), and many visitors to the park are drawn from these cities and towns.

2.2 Park values and significance

Castlemaine Diggings National Heritage Park makes a valuable contribution to Victoria's parks and reserves system, which aims to protect viable, representative samples of the State's cultural heritage and natural environments. The park also provides opportunities for visitors to enjoy and learn about cultural and natural landscapes, and makes an important economic contribution to the region through tourism.

In recognition of the park's outstanding landscapes and relics of the mid 19th century goldfields, it has been listed on the National Heritage List. The list recognises areas possessing outstanding heritage value to the nation and provides principles for management.

The Castlemaine Diggings National Heritage Park is also listed on the Victorian Heritage Register, making it one of the largest historic cultural heritage sites to be protected under both Federal and State legislation in Australia.

Key values of the park include:

Cultural values

- The story of the Mount Alexander Gold Rush and its associated and ongoing environmental, cultural, social, commercial and industrial impacts.
- The fabric of individual gold-related archaeological sites, groups of places and landscapes and associated townscapes.
- Regenerating features of the natural landscape that show resilience in the face of change.
- The gold-related places and landscapes in the park and the adjacent historic townships, which provided inspiration for a rich collection of contemporary writings, drawings and paintings.

- The park's historical nomenclature (place names), providing the key to tracing a chronology of site workings, occupations and events.
- Intangible values which reflect people's and community's attachment to the park and the importance of these values to the cultural significance of the place.
- Indigenous history of occupation and cultural heritage, including scar trees, rock wells, seed grinding grooves, oven mounds, shell middens, isolated artefacts and tools and meeting places.

Natural values

- Eight Ecological Vegetation Classes considered vulnerable, depleted or endangered within the Goldfields Bioregion.
- Diverse Box-Ironbark ecosystems supporting over 520 vascular plant species, including 13 that are threatened, and a range of fauna including 17 that are threatened.
- One of the largest protected populations in the state of the threatened Midlands Spider-orchid.
- One of only three known locations in the State of the vulnerable Eltham Copper Butterfly.
- A number of member species of the FFG-listed Victorian temperate-woodland bird community.
- Highly valued waterways and associated mineral springs.
- World-renowned fossil sites.
- Extensive quartz and alluvial gold endowment, and alluvial goldfields that were intensively mined in the past.

Recreation, education and tourism

- Well-preserved evidence of the original 1850s gold rushes, the authentic landscape, sites and relics associated with the Mount Alexander Gold Rush.
- The Mount Alexander Diggings Trail, a series of heritage trails linked to Tourism Visitor Information Centres at Castlemaine and Maldon.

- The Dry Diggings and Leanganook sections (totalling 32 km) of the Great Dividing Trail, which links Bendigo and Daylesford.
- An open and accessible landscape providing opportunities for education, historic touring, nature observation, camping, picnicking, bushwalking, prospecting and cycling.

2.3 Evidence of past land use

Indigenous

The Box-Ironbark forests and woodlands provided Indigenous people with wood and plants for food and shelter, medicinal purposes, canoes, spears, shields, nulla nullas (clubs), boomerangs, tools and dishes (ECC 2001). There are a number of rock wells that supplied drinking water for use by the Traditional Owners in the park. Several are well preserved as they are found in sandstone outcrops that do not bear quartz, and were therefore not damaged or destroyed by mining activities in the past (B. Nelson pers. comm. 2005).

Grazing

Livestock grazing in the park and the surrounding area dates back to the 1840s when the first squatting runs were established. Little information is available about the distribution of past grazing activities in the park. However, boundary areas would have been grazed more frequently, as the areas most suitable for pastoralism in the park (creek flats and gullies) were subject to mining. Grazing pressure from stock, along with other past land uses, has depleted native vegetation, accelerated erosion and promoted the invasion of pest plants in the park.

In accordance with recommendations of the Environment Conservation Council and Section 50I of the National Parks Act, grazing ceased in the park in October 2005 (section 7.2).

Gold mining

The area now occupied by the park was part of one of the world's richest shallow alluvial goldfield, luring tens of thousands of migrants to Victoria during the mid 19th century.

The initial gold rush mining activities were confined primarily to the creek flats, gullies and hilltops of the park. Holes and tunnels, which are still evident in the park today, covered the gullies and ridgelines. The trees in close vicinity to the rush gullies were cut down for fuel and construction.

New mining techniques were employed after the initial gold rush. Miners puddled and sluiced alluvial gullies and hillsides, dammed creeks and gullies, built roads, constructed water races to convey water, and dug intricate networks of shafts, tunnels and open-cuts. They erected machinery of wood, stone and iron, which was added to and replaced over time. The same machinery was subsequently dismantled and removed (with mountings and housings often abandoned) as the gold ran out, mines failed or miners fell on hard times.

As each period of mining commenced, it added its own historical layer by altering water courses and geological features, removing vegetation and leaving foundations, exotic plants, excavations, pathways and heaps. These landscapes highlight the transience of mining, demonstrate the severe environmental impact that can result from inadequate environmental constraints, and illustrate the resilience of the park's vegetation (Pearson et al. 2002). This physical evidence is found scattered through the park, inextricably linked to the reef lines, gullies, hills and natural values where the gold was mined.

Other industries

Gold mining supported the emergence of other industries in Castlemaine and surrounding townships, including gas works, foundries, tanneries and mills. During the 19th century tanneries in Castlemaine stripped bark from wattle trees for tannin. As a result a large number of wattle trees were killed as bark stripping usually proved fatal to the trees.

Harvesting of forest products for firewood, sawn timber, charcoal and tannins from wattle bark resulted in significant changes to the structure of local forests and woodlands (section 5.3). The move towards government forestry commenced in the 1880s with the establishment of nurseries and plantations. Some of the nurseries raised exotic conifers and other species to rectify the colony's lack of native softwoods, leaving a direct imprint in

the Castlemaine Goldfield with the planting of the Moonlight Pine Plantation during the 1920s.

The creation of the Forests Commission in 1919 led to the formulation of a fire protection plan for the State's forests. The first fire-spotting tower in the area was placed on top of Mount Tarrengower in 1927. From this time, foresters increasingly became involved in other activities such as road and dam making, forming firebreaks and fuel reduction burning. Timber cutting in many sections of the park ceased in the 1980s, when the majority of land making up the park was reserved for the protection of either mining relics or flora and fauna. From this time onwards, recreational activities have been the major use of the area.

Honey production has occurred in the park for over 100 years, with the honey produced from the Yellow Box trees prized for its superior quality and flavour. Of the remaining large old trees in the park, many are Yellow Box that were conserved for apiculture in the past (sections 4.2, 5.4 and 7.2) (R. McDonald pers. comm. 2005).

Gold mining was followed by other forms of land use in the park. Gold miners found mineral springs along the Loddon River at Vaughan in the late 19th century. The Government recognised the value of the Vaughan Mineral Springs area and by 1925 the Vaughan–Glenluce Mineral Springs Reserve had been established. The mineral springs remain a key feature of the park today.

2.4 The park visitor

Visitors to Castlemaine Diggings National Heritage Park are drawn to its rich cultural heritage and natural values. Bushwalking, camping, scenic drives, cycling, picnics, exploring the mining relics and gold prospecting are some of the more popular activities undertaken by visitors.

The majority of visitors to the park are residents from nearby townships and their friends and relatives. Visitation peaks during autumn and is lowest during winter.

Key visitor sites include Forest Creek Gold Diggings, Vaughan Mineral Springs and Expedition Pass Reservoir. Vaughan Mineral Springs is the most visited heritage destination in the park, particularly by day visitors

attracted by opportunities to sample mineral waters and the scenic Loddon River. Campers also regularly use this site. Forest Creek Gold Diggings also attracts many visitors. The interpretive walks, opportunities to pan for gold and guided tours attract school groups and families throughout the year. During summer, Expedition Pass Reservoir is popular with locals for swimming, fishing and canoeing.

Key tourism initiatives that attract visitors to the park include the Great Dividing Trail and the Mount Alexander Diggings Trail (sections 6.3 and 6.4). Totalling 260 km, the Great Dividing Trail traverses the top of the Great Dividing Range between Bendigo, Ballarat and Bacchus Marsh, providing walkers with a unique combination of cultural heritage and bushland experiences. The Dry Diggings and Leanganook sections of the trail (total 32 km) pass through the park. They offer the opportunity for both short and long distance walks running the length of the park, from Porcupine Ridge in the south to Specimen Gully in the north.

The Mount Alexander Diggings Trail was initiated and developed by the Mount Alexander Shire Council and various community and government stakeholders. This driving trail leads to various heritage sites in and around the park, with interpretive walking trails also developed at some sites (sections 6.2 and 6.3).

In terms of statewide priorities, Parks Victoria has rated Castlemaine Diggings National Heritage Park as having statewide importance for its provision of a unique visitor experience. The core role of this park contributes significantly to the diversity of the park network. For this reason, current visitor service levels should be maintained.

2.5 Legislation and ECC recommendations

Legislation

Castlemaine Diggings National Heritage Park is deemed to be reserved to a depth of 100 metres below the land surface under the *Crown Land (Reserves) Act 1978 (Vic.)*. Through section 19F of the National Parks Act 1975, the park is included in Schedule 4 of the National Parks Act. This means that the park is managed in accordance with the particular

provisions of the National Parks Act listed in Part 8 of that Schedule.

Overall, the park is to be managed so as to protect its cultural and natural heritage values, including its cultural landscapes, and to provide for its use by the public for enjoyment, recreation and education. While the emphasis of management is principally on the protection of cultural heritage values, the protection of natural values are also highly important in the management of the park.

The objects and provisions of the National Parks Act set the framework for the management of the park (appendix 1).

The *Parks Victoria Act 1998 (Vic.)* enables management services for the park to be provided by Parks Victoria on behalf of the Secretary to the Department of Sustainability and Environment (DSE). The National Parks (Park) Regulations 2003 apply to the park.

The *Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)* (EPBC Act) applies to the whole park with respect to actions that have, will have, or are likely to have a significant impact on matters of national environmental or cultural significance, including listed threatened species and communities and matters of national heritage in the park. As the park is listed on the National Heritage List, any action that has, will have, or is likely to have a significant impact on the national heritage values of the park is prohibited without the approval of the Federal Minister for the Environment and Heritage.

The *Native Title Act 1993 (Cwlth)* applies to the management of the park. An application for a native title determination, which covers Castlemaine Diggings National Heritage Park, among other areas, was registered with the Native Title Tribunal on 19th July 2000. The implementation of this management plan will take into account the outcomes of this and any subsequent native title applications.

Section 40 of the National Parks Act (relating to earth resources) does not apply to the park. Instead, in relation to minerals, the park is Restricted Crown Land under Schedule 3 of the *Mineral Resources (Sustainable Development) Act 1990 (Vic.)* (section 7.2).

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).

The Castlemaine Diggings National Heritage Park is included on the Victorian Heritage Register as an Archaeological Place and Heritage Place, for the purposes of the *Heritage Act 1995* (Vic.). Under this Act, any works or future development outside identified permit exemptions require a permit from Heritage Victoria.

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. These recommendations included:

Recommendation NHP Use of the Castlemaine National Heritage Park (NHP) in accordance with the general recommendations for National Heritage Park subject to special provisions relating to exploration and mining.

R8 Land managers continue with and further develop adaptive management research and monitoring programs, develop targeted new programs and apply the results where appropriate.

R15 Planning and management relating to traditional interests and uses be based on recognition and respect for the traditional and contemporary relationship of Aboriginal peoples with the land.

R42 Box-Ironbark public lands be available for a range of recreation activities for community enjoyment and appreciation and appropriate to the land use category.

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

2.6 Policies and guidelines

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

- *Castlemaine Diggings National Heritage Park Heritage Action Plan* (Pearson et al. 2002)
- *Code of Practice for Fire Management on Public Land* (DSE 2006c)
- *Indigenous Partnership Strategy and Action Plan* (Parks Victoria 2005)
- *Heritage Management Strategy* (Parks Victoria 2003)
- *North West Bendigo Fire District Fire Protection Plan* (DSE 2003b)
- *Recreation Framework for Box-Ironbark Public Land* (DSE 2003a)
- *Victoria's Biodiversity Strategy* (NRE 1997).

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

- *Discovering the Mount Alexander Diggings* (Mount Alexander Diggings Committee 1999)
- *Nature Based Tourism — Directions and opportunities for Victoria 2000–2003* (Tourism Victoria 2000)
- *North Central Regional Catchment Strategy 2003–2007* (NCCMA 2003)
- *Biodiversity Action Planning: Strategic Overview for the Goldfields Bioregion, Victoria* (NRE 2002a)
- *Policy for Sustainable Recreation and Tourism on Victoria's Public Land* (NRE 2002b).

3 STRATEGIC DIRECTIONS

3.1 Vision

The cultural significance of the Diggings landscape continues to be evident in the abundance of authentic relics and features stemming from the gold rushes of the 1850s. Creative interpretation of the gold mining stories brings the landscape to life, enabling visitors to draw connections between the setting and its history.

The park's natural attributes—its bush life, topography and geology—continue to coexist with its historical features and evidence of Indigenous occupation to form a dynamic, evolving cultural landscape.

Management intervention and infrastructure within the park—for conservation, safety, access, interpretation, or other purposes—are minimal. Authenticity is the key.

The park's value is apparent from the presence of visitors and the support of the local community, including members of the Jaara Jaara people, who are actively engaged in a wide range of recreational and cultural activities. Their sense of connection with the park makes them valuable advocates as well as regular park users.

Creative and sustainable management, within a context of ongoing community access and involvement, ensures that the intertwined values of the Castlemaine Diggings National Heritage Park continue to be respected and enhanced.

3.2 Zoning

A Park Management Zoning Scheme has been developed to:

- provide a geographic framework in which to manage a park and the adjoining protected area
- indicate which management directions have priority in different parts of the park
- indicate the types and levels of use appropriate throughout the park
- assist in minimising existing and potential conflicts between uses and activities, or

between activities and the protection of the park's values

- provide a basis for assessing the suitability of future activities and development proposals.

One management zone applies to the park — Conservation and Recreation Zone. In addition, five overlays are used to highlight special protection or additional management requirements (table 1 and figure 2).

Details of overlay characteristics are provided in table 1 and recreational opportunities in table 2.

3.3 Management directions

Major management directions for the park are outlined below.

Cultural values conservation

- Cultural landscapes associated with the alluvial diggings and quartz mining era and places, and archaeological relics of cultural significance, will be protected.
- Indigenous places and objects will be protected from interference or damage.
- The Traditional Owners' knowledge, interests and rights in the park 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 their knowledge promoted and interpreted in accordance with the views of the Traditional Owners.
- Research into the Indigenous and historic cultural heritage of the park will be encouraged and supported as appropriate in collaboration with the Indigenous and broader community.
- The impact of any works and buildings or other development on the park's cultural values will be minimised by careful planning, design, siting and construction.

TABLE 1 MANAGEMENT ZONE AND OVERLAYS

ZONE/OVERLAY	AREA/LOCATION	VALUES	MANAGEMENT AIM
ZONE			
Conservation and Recreation	7550 ha, 100% of the park.	Important cultural and natural values and scope for recreation opportunities.	Protect natural environments and provide for sustainable dispersed recreation activities and small-scale recreation facilities without significant impact on natural processes.
OVERLAYS			
Land Use Designation – Heritage Place	7550 ha, 100% of the park.	Archaeological Place and Heritage Place under the Heritage Act 1995.	To protect archaeological and heritage values and provide for sustainable dispersed recreation activities. All works and activities must be covered by a permit under the Heritage Act unless deemed to be an exempt activity.
Special Protection Area – Cultural and Natural Values	109 ha, 1.4% of the park. Comprises Herons Reef, Arthurs, The Monk, Little Specimen Gully, Kalimna, Quartz Hill, Welsh Village and Expedition Pass (figure 2).	Important cultural and natural values, including threatened flora.	Protect sensitive cultural and natural values, such as orchids, in specific areas and sites where visitor access needs to be restricted.
Land Use Designation – Prospecting	7102 ha, approx. 94% of the park. Excludes the Special Management Area – Research, the Special Protection Area – Cultural and Natural Values, and areas within 50 metres both sides of the walking tracks located at the following sites: Butchers Gully, Central Spring, Vaughan Mineral Springs, Red Knob, Glenluce Spring, Spring Gully Historic Mine, Escott Grave, Eureka Reef, Wattle Gully Mine, Forest Creek Gold Diggings, Garfield Waterwheel, Pennyweight Flat Cemetery and Specimen Gully. Prospecting is excluded on roads and walking tracks listed in tables 3 & 5.	Area of park in which searching for minerals is permitted under Section 32D of the National Parks Act.	Allow prospecting while protecting biodiversity, cultural, geological and catchment values and areas of high visitor use (section 6.10). The areas where prospecting is excluded are shown on figure 2.
Special Management Area – Research	120 ha, 1.6% of the park.	Ecological thinning research.	Provide for ecological thinning research consistent with the Box-Ironbark Ecological Management Strategy (section 5.3).
Special Management Area – Public Safety	1.2 ha, <1% of the park.	Safety buffer adjoining Castlemaine Gun Club area.	Minimise risk of shooting and associated activities on park visitors and values (section 6.12). Public access is prohibited when the shooting range is in use and flags to be displayed.

Natural values conservation

- Natural processes over the long-term will restore the structure of vegetation in the park to a more appropriate balance of juvenile, intermediate and mature trees.
- Viable populations of threatened flora and fauna will be maintained.
- Research into the management requirements of significant flora and fauna communities will be encouraged.

- Significant geological and geomorphological sites will be protected.
- Pest plants and animals that have the potential to threaten park values will be eradicated or otherwise controlled.

The park visitor

- Visitor understanding and appreciation of the park's natural and cultural values will be enhanced by the implementation of an appropriate information, interpretation and education program.
- Sustainable visitor activities and behaviours that minimise impacts on park values will be encouraged in appropriate locations in the park.
- Recreational opportunities will be provided in accordance with table 2.
- Visitor safety will be enhanced by the establishment of a monitoring and maintenance program, including regular safety audits for visitor facilities and sites.

Community awareness and involvement

- An awareness and understanding of the park and its management, and a sense of ownership and custodianship, will be encouraged among local communities and visitors.

- Strong relationships will be further developed and maintained with communities and groups who have strong connections or interests in the park as a basis for encouraging their participation in aspects of the park's management, as appropriate.
- Strong collaborative partnerships will be developed with the Traditional Owners to facilitate the reflection of their knowledge, rights, and interests and aspirations in the park's planning and management.
- Friends, volunteers, Indigenous and other community groups will be encouraged and supported to participate in areas of park management that relate to their interests.
- Friends, volunteers and other interest groups will be encouraged to develop an understanding and appreciation of the park's values and the rich and diverse knowledge and aspirations of the Traditional Owners.
- Ongoing opportunities for individuals, groups, communities and government agencies to discuss aspirations and issues of mutual concern relating to the park will be maintained.

TABLE 2 SUMMARY OF RECREATIONAL OPPORTUNITIES

ACTIVITY	MANAGEMENT ZONE OVERLAYS					
	1	2	3	4*	5**	6***
(percentage of park)	100%	100%	1.4%	94%	1.6%	<1%
Bushwalking	Y	Y	Y	Y	Y	Y
Camping – designated (facilities) (section 6.5)	Y	Y	N	Y	N	N/A
Camping – dispersed (no facilities) (section 6.5)	Y	Y	N	Y	N	N
Campfires – solid fuel in fireplaces provided only (section 6.5)	Y	Y	N	Y	N	N
Campfires – gas or liquid-fuels (section 6.5)	Y	Y	Y	Y	N	N
Car rallying (section 6.2)	Y	Y	N	Y	N	N/A
Cultural heritage appreciation	Y	Y	Y	Y	Y	Y
Dog walking – on leash (section 6.7)	Y	Y	N	Y	Y	Y
Firewood collecting	N	N	N	N	N	N
Fishing	Y	Y	N/A	Y	N/A	N/A
Four Wheel Drive touring (section 6.2)	Y	Y	Y	Y	Y	N/A
Heritage and nature study	Y	Y	Y	Y	Y	Y
Horse riding (section 6.8)	Y	Y	Y	Y	Y	N/A
Horse camping	N	N	N	N	N	N
Hunting	N	N	N	N	N	N
Mountain-bike riding and cycling (section 6.6)	Y	Y	Y	Y	Y	N/A
Nature photography/painting	Y	Y	Y	Y	Y	Y
Orienteering/rogaining (section 6.9)	Y	Y	N	Y	Y	Y
Picnicking	Y	Y	Y	Y	Y	Y
Prospecting (section 6.10)	Y	Y	N	Y	N	Y
Scenic viewing	Y	Y	Y	Y	Y	Y
Trail bike riding (section 6.2)	Y	Y	Y	Y	Y	N/A
Rock climbing and abseiling	N	N	N	N	N	N/A

Key:

Management Zone and Overlays:

1	Conservation and Recreation Zone	Y	Permitted subject to overlay prescriptions and conditions prescribed by legislation, licensed tour permits or elsewhere in the plan as indicated.
Overlays			
2	Land Use Designation – Heritage Place		
3	Special Protection Area – Cultural and Natural Values	N	Not permitted.
4	Land Use Designation – Prospecting	N/A	Not applicable.
5	Special Management Area – Research		
6	Special Management Area – Public Safety		
*	Overlay 4 – Figure 2 lists the areas where prospecting is excluded.		
**	Public access to the Special Management Area – Research (Overlay 5) will be restricted during research operations.		
***	Public access to the Special Management Area – Public Safety (Overlay 6) is prohibited when shooting range is in use (flags displayed)		

Note: Use of chainsaws and generators is not permitted in the park.

4 STRATEGIES FOR CULTURAL VALUES CONSERVATION

4.1 Indigenous cultural heritage

Indigenous tradition indicates that the Castlemaine Diggings National Heritage Park lies within the *Country* of the Jaara Jaara people who are part of Dja Dja Wurrung, and the area has a history of occupation dating back thousands of years. The Traditional Owners are intrinsically connected to the area by cultural heritage, and their active involvement in the management and care of the Castlemaine Diggings National Heritage Park is vital to their community's identity and wellbeing.

Many Indigenous places and objects have most likely been destroyed by historic land uses such as mining and timber harvesting. However, a number of Indigenous places and objects have been recorded in the park. These include scar trees, rock wells, seed grinding grooves, oven mounds, shell middens, isolated artefacts and meeting places. It is likely that further sites and places will be located as additional surveys are undertaken.

Degradation by natural processes, inappropriate human activity, management actions and fire are some of the major threats to the integrity of the park's Indigenous places and archaeological relics.

All Indigenous 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 such cultural heritage and the involvement of the scheduled Aboriginal community are approached in accordance with these Acts. As the Bendigo Dja Dja Wurrung Aboriginal Association Ltd (the scheduled Aboriginal community) is currently not in operation, the Minister for Aboriginal Affairs has cultural heritage responsibilities for Castlemaine Diggings National Heritage Park in accordance with the Aboriginal and Torres Strait Islander Heritage Protection Act. Aboriginal Affairs

Victoria (AAV) is to be contacted regarding cultural heritage matters within the community area.

Issues relating to native title are dealt with according to the Native Title Act (section 2.5).

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 places and objects from interference or damage.
- Strengthen park management and care through input from Indigenous communities.
- Support the views of the Traditional Owners in managing the park.

Management strategies

- *Protect all Indigenous places and objects from disturbance and damage, in partnership with the Traditional Owners, cooperation with the scheduled Aboriginal community and AAV (section 8.3), and in accordance with:*
 - *the provisions of relevant legislation including the Archaeological and Aboriginal Relics Preservation Act and Aboriginal and Torres Strait Islander Heritage Protection Act*
 - *Parks Victoria's Guidelines for Working with Aboriginal Communities and Protection of Cultural Sites (Parks Victoria 2002a).*
- *Respect the views of the Traditional Owners and the cultural obligations of Indigenous communities.*
- *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 5.1, 5.3, 5.4, 6.1 and 8.2).*

- *Ensure that all management actions are in accordance with the Native Title Act.*
- *Facilitate protection of Indigenous cultural heritage by developing a memorandum of understanding with the Traditional Owners (section 8.2), and foster aspirations of the Traditional Owners for the park by supporting their involvement in park management, heritage protection, interpretation, education and tourism, particularly that relating to their cultural heritage.*
- *Maintain confidentiality in respect of Indigenous cultural obligations, knowledge (including dreaming, stories and perspectives on landscape and landforms), places, objects, interests and aspirations, in accordance with the views of the Traditional Owners.*
- *Provide opportunities for Traditional Owners to use the park for traditional purposes and community wellbeing such as ceremonies and gatherings in accordance with National Parks (Park) Regulations 2003 and Parks Victoria's operational policies.*
- *Where appropriate, encourage and support research, into Indigenous cultural heritage that relates to the park (including language, use of flora and fauna and oral history), in collaboration with the relevant Indigenous communities and in liaison with AAV.*
- *Encourage and support surveys and risk assessments to identify Indigenous places and objects requiring specific protection from damage by natural processes, inappropriate human activities, management actions, fire or other hazards.*
- *Promote, in cooperation with the Traditional Owners and the scheduled Aboriginal community, the protection of Indigenous places and objects in information, interpretation and education programs (section 6.1).*
- *Where appropriate, provide visitor information, interpretation and educational material relating to Indigenous places and objects within the park, in collaboration with the relevant Indigenous communities (section 6.1).*
- *Facilitate the protection of Indigenous cultural heritage values of the park by developing and implementing an induction program for park staff, volunteers and community groups, licensed tour operators, gold miners and contractors, in collaboration with the relevant Indigenous communities (section 6.11).*
- *In cooperation with the Traditional Owners, the scheduled Aboriginal community and AAV, identify sites appropriate for skeletal reinterment and extend the Special Protection Overlay to provide protection to these areas from inappropriate activities, if required (table 1).*

4.2 Historic cultural heritage

The park contains authentic and rare cultural landscapes relating to the early 1850s gold rush events, as well as rare archaeological examples of 1850s mining site types. In addition, the park contains mining sites from post gold rush periods that document the evolution of the gold industry through to the present day.

The survival of a range of mining technologies and site types mean that the suite of sites also has great representative and interpretive value. Of particular importance is the layering of evidence from successive periods of mining.

The park also has intangible heritage values associated with community attachment and tradition tied to settlement, stock grazing, mining and timber harvesting.

Archaeological sites

The archaeological sites are concentrated around the sources of gold. The park has some 250 gold mineralisation localities — reef, gullies, flats, and hills — all with concentrations of sites. Most of the gold locations were named during or shortly after the gold rush. The place names are consistent historical markers linking the park to contemporary writings, drawings, photos and paintings.

Linked to the historical mining localities is a network of early pathways used for movement of people and materials. These historical pathways are archaeological places and many are relatively intact and form fundamental

components of cultural landscapes. They are not part of the current road network that is maintained to provide access in the park (section 6.2).

Archaeological surveys undertaken in the park since 1990 have identified over a thousand industrial and habitation sites associated with the gold rush and continuing mining. There are still areas of the park that have not been surveyed comprehensively and new sites continually emerge in the park. An example is the recent identification of the focal point of the Monster Meeting, the first great protest meeting of the Victorian gold rushes.

Most of the archaeological sites date from the 19th century and are formed out of stone and local rock. A few sites still have wooden and metal components. Much of the mining evidence (especially of early alluvial mining) is in relatively good condition compared with many other mining fields.

Common threats to condition include human interference, natural erosion, weathering and inadvertent damage from management practices and, at a few sites, tree disturbance and concealment by weeds. It is important to retain the authenticity of the park's extraordinary archaeological resources.

Archaeological surveys carried out so far (Bannear 1993; George 2001; Lawrance 2000; Stanin 2003) have recorded over 60 different site types. Some of the individual site types, such as habitation sites, are very numerous. Over 300 have been identified, of which a third consisted of stone and mud mortar chimney bases. There are some huts with walled garden plots (e.g. Herons Reef and Quartz Hill), and Chinese market garden sites (e.g. Central Springs and McLarens Flat). There is evidence of hotel sites (e.g. Eureka Reef); mining camps (e.g. Sailors Gully and Salters Creek); and mining villages (e.g. Welsh Village, Nimrod Reef and Cornish Town).

The park also contains six gold rush burial grounds (Pennyweight Flat Cemetery, Butchers Gully Burial Ground, Cemetery Reef Gully Cemetery, Deadmans Gully Burial Ground, Deadmans Gully Cemetery, and Vaughan Chinese Burial Ground) and at least two isolated graves (Escott Grave and Cassies Grave). Only two of the burial places are fenced. Threats to burial places include

disturbance by park visitors and inadvertent damage from management activities where burial places are inadequately marked.

The physical evidence of gold mining can be classified within the following four mining periods:

Period 1 (1850s–60s) – gold rush shallow alluvial and pioneering quartz mining

Prime examples of:

- Gold rush landscapes are found south of Vaughan, e.g. Sailors Gully, Sebastopol Gully, and along Middletons Creek.
- Puddling machine sites (circular machinery sites associated with dams and pebble dumps) are found at Cobblers, Scotchmans, Sailors and Sebastopol gullies.
- Diverting streams through cuttings in order to sluice creek and gully beds are found at Middletons Creek, Butchers Gully and Sailors Gully.
- Pioneering quartz mining (Cornish flues, engine houses, battery foundations, dams, tramways, buildings, mine workings, roasting kilns, and possible Chilean Mills) are found at Specimen Gully, Specimen Hill, Eureka Reef, Cobblers Gully, Crocodile Gully, Tubal Cain and Sebastopol Gully.

Period 2 (1870s–80s) – reworking shallow alluvial deposits and continuing quartz mining

Prime examples of:

- Ground sluicing (water races, head races, ground sluices, tail races, pebble dumps and slum ponds) and include the Loddon River Supply scheme and the sluicing of Old Red Hill, Turks Hill and Grogshop Gully; Hunts water race and the sluicing of Nuggetty Gully; and Manchester Hill.
- Continuing quartz mining (including new features such as Cornish engine houses and water wheels) is found at Eureka Reef, Herons Reef and Garfield Reef.

Period 3 (1890s–WWI) – pump sluicing and continuing quartz mining (including chlorination and use of cyanide)

Prime examples of:

- Pump sluicing (deeply cut gullies, water races, tailing ponds) is found at Golden Gully, near Fryerstown.
- Continuing quartz mining (new features include chlorination and cyaniding) is found at Spring Gully group of mines, Quartz Hill and Eureka Reef.

Period 4 (1930s mining revival to present day) – Susso shallow alluvial mining, continuing pump sluicing and quartz mining

Prime examples of:

- Susso mining in the form of ground sluices and hut sites are found at Manchester Hill, Sailors Gully, Cobblers Gully and Ajax Gully.
- Continuing hydraulic sluicing is Cox's sluicing plant at Red Hill that retains its machinery including a 200 hp engine powered by producer gas, and also found at Cobblers, Tom O'Shanter and Fifers gullies.
- Continuing quartz mining at Wattle Gully gold mine that still possesses the bulk of its 1950s mining plant and also at Garfield Reef, Phillips Reef and Spring Gully.

Since 1998, ten destinations within the park — Forest Creek Gold Diggings, Wattle Gully Mine, Garfield Waterwheel, Eureka Reef Walk, Escott Grave, Spring Gully Historic Mines, Pennyweight Flat Cemetery, Red Knob, Herons Reef and Vaughan Mineral Springs — have been established as part of the Mount Alexander Diggings Trail. This trail is promoted for cultural heritage tourism and education and leads to various heritage sites within the park and surrounding region, with short interpretive walking trails also developed at some sites (sections 6.2 and 6.3).

Landscapes

The physical landscape of the park is characterised by low hills and rises to 200 metres with granitic outcrops along ridge lines, dissected rocky uplands, narrow gullies with

intermittent water courses and wider valleys with permanent streams.

Cultural landscapes are 'a physical area with natural features and elements modified due to human activity...and resulting in patterns of evidence layered in the landscape which give a place its distinctive spatial, historical, aesthetic, symbolic and memorable character' (Lennon 1997).

The park is an outstanding example of a cultural landscape where the interaction between humans and the environment has been so intense and tangible that distinctive landscape features and patterns have been created that dramatically reveal the nature and development of the activities that took place.

Following the World Heritage definitions for cultural landscapes, the park is an organically evolved landscape, that is its present form and component features comprise both '*relic evolved landscapes*' and '*continuing evolved landscapes*'. These cultural landscapes reflect the evolution in response to the impacts of a mid-nineteenth century gold rush. Viewed as a whole, therefore the park is a creation or founding landscape that still bears material evidence of the impacts of the gold seekers.

The park's current evolved form is multi-layered and some of its gullies can be viewed as '*relict (or fossil) landscapes*' containing features that document the abrupt end of its former self and the creation of its new self. Landscapes of this nature, including Sailors and Sebastopol gullies, are mainly located to the south of Vaughan Springs.

Adding to the depth of the park, are '*continuing landscapes*' that now reflect intertwined cultural, natural and community values through different periods of gold mining and other forest uses. Examples of continuing landscapes include Spring Gully and Eureka Reef.

The various and numerous cultural landscapes within the park are partially defined in the Heritage Action Plan for the park (Pearson et al. 2002).

There are also intangible aspects attached to the land, such as the strong '*sense of self-in-place*' that has driven people from the gold rush onwards to recognise and protect the land's heritage values. Pennyweight Flat

Cemetery still has a powerful impact on people. When abandoned in 1857, its crude gold rush grave ruins and the sense of desolation were described as possessing ‘*an ancient history as real as any other world has produced*’ (MAM 1862). The perception of Pennyweight as hallowed heritage has stuck ever since.

A more recent example of ‘*sense of self-in-place*’ is the idea that management of the park’s biodiversity values should not only be about protection but also about enhancement with the view to producing more large trees. The ECC saw this goal as important because of the ‘*strong sense of spirituality and wonder*’ generated by large trees, as evoking ‘*the vast pristine Box-Ironbark forests and woodlands of pre-European Australia*’ (ECC 2001; section 5.3).

The mining related landscapes throughout most of the park have considerable variation in the size and form of trees. Some smaller areas of the park that are largely devoid of archaeological values predominantly have trees that are uniform in size with multi-stemmed (coppice) form reflecting past cyclical forest harvesting regimes. These areas include Shicers Gully and the Special Management Area – Research (table 1 and figure 2)

An additional type of cultural landscape in the park is ‘*designed landscapes*’. These are areas where humans have planned out and modified the natural landscape, including the planting of exotic and non-local trees. Examples of designed landscapes in the park include burial grounds, Chinese market gardens and Vaughan Mineral Springs.

Other historic human uses of the park have influenced the landscape character of the park. Many of the remaining large old trees in the park are Yellow Box that have been conserved for apiculture since the 1930s (section 5.4) (R. McDonald pers. comm. 2005).

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

Threats to the landscape values of the park include pest plant invasion (section 5.6), increasing visitor pressure on sites, and inappropriately designed or managed visitor facilities. Public utilities and authorised uses,

including channels, electrical transmission lines, a communications tower (section 7.1) and a slate and stone quarry (section 7.2), have the potential to visually impact on the park’s landscape values. In addition, inappropriate designs, materials and siting of developments adjacent to the park can also adversely affect the landscape character of the park.

Historic cultural heritage management

Historic and cultural places are managed in accordance with the *Heritage Act 1995* (Vic.), the *Australia ICOMOS Charter for Places of Cultural Significance* (the ‘Burra Charter’) (Australia ICOMOS 1999), and Parks Victoria’s *Heritage Management Strategy* (Parks Victoria 2003). Heritage Victoria has primary responsibility for ensuring compliance with the Heritage Act. Parks Victoria and Heritage Victoria have signed a formal memorandum of understanding to achieve mutual objectives for heritage conservation.

The *Castlemaine Diggings National Heritage Park Heritage Action Plan* (Pearson et al. 2002) provides detailed practical guidance for the conservation and related management of the major cultural resources contained within the park. Management of specific sites in the plan are also informed by the following plans: *Vaughan Mineral Springs Reserves — Master Plan Review* (VMWC 2000), *Draft Vaughan Mineral Springs, Castlemaine Diggings National Heritage Park, Heritage Action Plan* (Allom Lovell & Associates 2003), *Garfield Water Wheel Heritage Action Plan* (Giovannelli 2001), *Forest Creek Gold Diggings, Heritage Action Statement* (Parks Victoria 2002b) and *Castlemaine Goldfields Burial Grounds, Heritage Action Plan* (Ballinger & Associates 2003).

Aims

- Conserve and protect places and landscapes of historic, cultural and natural significance while allowing natural processes to continue.
- Encourage learning and understanding about the historic heritage of the park.

Management strategies

- *Manage historic places and cultural landscapes of cultural or historic significance in accordance with:*

- *the Burra Charter (Australia ICOMOS 1999)*
- *provisions of the Heritage Act 1995*
- *management principles of the National Heritage List and Parks Victoria's Heritage Management Strategy*
- *The Castlemaine Diggings National Heritage Park – Heritage Action Plan (Pearson et al. 2002)*
- *Vaughan Mineral Springs Reserves – Master Plan Review (VMWC 2000)*
- *Draft Vaughan Mineral Springs, Castlemaine Diggings National Heritage Park, Heritage Action Plan (Allom Lovell & Associates 2003)*
- *Garfield Water Wheel Heritage Action Plan (Giovannelli 2001)*
- *Forest Creek Gold Diggings, Heritage Action Statement (Parks Victoria 2002b)*
- *Castlemaine Goldfields Burial Grounds, Heritage Action Plan (Ballinger & Associates 2003).*
- *Develop, with State and Commonwealth agencies and interested communities, agreed management protocols/guidelines for protection of the park's heritage values to ensure heritage sites are not inadvertently damaged by park management or visitor activities (section 8.3).*
- *Further identify and define the significant cultural landscapes of the park, and determine management guidelines to minimise impacts on cultural landscape values.*
- *Implement an ongoing program of documentation, monitoring and conservation works for the park's heritage values, including places of special importance, archaeological sites, moveable cultural heritage, geological features, landscapes and exotic plantings. Enter information collected as part of this program into Parks Victoria's assets management system.*
- *Protect the park's sites and landscapes of historic or cultural significance by minimising damage and deterioration from natural erosion and weathering, human interference, pest plant or animal invasion (section 5.6) and tree disturbance.*
- *Allow Box-Ironbark forest and woodland landscapes modified by mining and forestry to evolve naturally, while recognising the need to protect significant historic structures from damage by plants or animals.*
- *Continue to manage the visitor sites established by the Mount Alexander Diggings Project, as the park's key visitor nodes, through the provision of appropriate interpretation and safe and controlled visitor access (sections 6.1 and 6.3).*
- *Encourage and support research and risk assessments to identify heritage values, , that have special significance such as the site of the Monster Meeting, or require special protection from natural erosion and weathering, human interference, pest plant or animal invasion and tree disturbance.*
- *Record, research and retain historic place names in the park.*
- *Consider community perspectives and opinion in determining appropriate interpretation of the park's heritage values.*
- *Establish and maintain an archive of documentary material about the layers of activity and meaning that make up the park.*
- *Identify and provide training for key Parks Victoria staff in archaeological site management, including authorisation and training under the Victorian Heritage Act.*
- *Develop and implement an induction program on the post-settlement cultural heritage values of the park for park staff, community groups, licensed tour operators, gold miners and contractors to enhance the interpretation and protection of the values (section 6.11).*
- *Where possible, protect all historic pathways from disturbance by vehicles (section 6.2).*

- *Encourage and support the recording of oral histories of people that have used and been closely associated with the park.*
- *Ensure that the locations of all cemeteries and burial grounds are identified and adequately protected.*
- *Work with relevant authorities and users to minimise the visual impact of public utilities and authorised uses on the park's landscape values (sections 7.1, 7.2 and 7.3).*
- *Site and design all park facilities to take into account the need to protect landscape values.*
- *Restrict infrastructure works in the park to existing cleared and disturbed areas where appropriate.*
- *In collaboration with the Traditional Owners, identify, respect and protect landscape features of special cultural importance to the Traditional Owners in planning and implementing management activities and interpretive programs (sections 4.1 and 6.1).*
- *Take into account the need to protect landscape values when commenting on proposed developments adjacent to the park.*
- *Where appropriate, rehabilitate, remove or ameliorate undesirable visual intrusions in the park.*

5 STRATEGIES FOR NATURAL VALUES CONSERVATION

5.1 Geological and landform features

The geological composition of the park is fundamental to understanding its natural values and cultural heritage. It has provided the environment for the park's Box-Ironbark forests and woodlands and has endowed the earth below them with gold, which attracted settlement and townships.

The oldest rocks in the park are the Early Palaeozoic Castlemaine Group (about 480 million years old). These sandstones and mudstones were deposited as thousands of alternating sedimentary layers in a deep ocean that lay east of the ancient Australian mainland (then part of Gondwana). The age of the rocks is known from fossil graptolites (small floating marine organisms) that are well preserved in thin horizons of black shale. The Castlemaine region is world-renowned for its fossil graptolites and several geological age divisions such as the Castlemaine, Chewtonian and Yapeenian are named after local towns.

Gold was formed in the Castlemaine Group during the closing stages of a period of folding, faulting and uplifting, about 440 million years ago. The gold is contained in quartz veins, which usually occur in or close to faults, enclosed by sandstone and mudstone layers.

About 368 million years ago an intrusion of granodiorite (Harcourt Granodiorite) pushed its way up through the Castlemaine Group, metamorphosing the surrounding rock into a hard spotted rock called hornfels. The hornfels forms a prominent high ridge in the park's north-east, beyond which are the undulating rocky granitic hills near Mount Alexander.

While only a small portion of the park covers the hornfels zone, its presence is significant because it provided the source for 'Castlemaine slate' that was widely used as paving stone in Melbourne and Castlemaine during the 19th century. The rocks underlying the park have also been a source of building stone, road metal, brick clay and mineral water.

Extensive alluvial gold deposits were formed after a long period of tectonic stability and continental erosion. The deposits were formed

by the action of streams that carved their way into the folded sandstones and mudstones and deposited gold-bearing gravels in the valleys and gullies. Over the past six million years, basaltic lava buried some of the older gold-bearing alluvium, which was mined for 'deep lead' gold in the 19th and 20th centuries. Modern streams continue to erode the gold-bearing bedrock, shedding gold into the present-day gully system.

There are a number of important geological sites within the park (appendix 3) which demonstrate some of the key geological structures, stratigraphy (rock layers) and gold workings in the park. There are also sites outside the park that have educational value in relation to the park's geological and mining history.

Degradation by natural processes, inappropriate human activity and management actions are some of the major threats to the integrity of the park's geological and landform features.

Landforms and features of the park are an intrinsic element of *Country* for the Traditional Owners. According to Indigenous tradition, geomorphological features of the landscape result from the activities of ancestral spirits in the Dreamtime.

Aim

- Protect and encourage study of significant geological and geomorphological sites.

Management strategies

- *Identify landforms and features that have special significance to the Traditional Owners and protect them in cooperation with the relevant Indigenous communities.*
- *Consider the significance of landform features to the Traditional Owners in planning and implementing works and interpretation programs (sections 4.1 and 6.1).*
- *Provide general interpretive material about the park's geological and landform features to enhance their protection and visitor appreciation. Include sites outside*

the park that provide insight into the geology of the park (section 6.1).

- *Maintain adequate walking access to significant geological and geomorphological sites for educational purposes, consistent with the protection of these values.*

5.2 Rivers and catchments

The park lies within the Loddon River Catchment that is within the North Central Catchment Management Authority's (NCCMA) area of responsibility.

The Loddon River Catchment covers an area of 1.5 million hectares extending from the Victorian central highlands to the River Murray in north central Victoria. The catchment has a population of approximately 150 000, with 70% of residents located in the urban centres of Bendigo, Swan Hill, Kerang, Daylesford, Castlemaine and Maryborough (NCCMA 2000). Only 15% of the catchment is covered in remnant vegetation, most of which is on public land set aside for nature conservation, recreation and timber production. The remaining 85% of the catchment has been cleared for agriculture and urban development (NCCMA 2000).

The Loddon River is the major waterway in the catchment and flows through the park from Glenluce to downstream of Vaughan Mineral Springs. This section of the Loddon River (Loddon Reach 10) is one of only a few in the North Central Region rated as being in good condition. It is therefore recognised as a priority for protection and enhancement in the North Central River Health Strategy (NCCMA 2006). Natural values of this reach of the Loddon include aquatic fauna, riparian vegetation and a passage for fish migration (J. Alexander pers. comm. 2005).

A number of creeks flow through the park that eventually enter the Loddon River. These include Forest, Nuggetty, Porcupine, Sailors and Tarilta. Other waterways that either flow in part through the park or receive flows from gullies draining the park include Salters Creek, Moonlight Creek, Wattle Gully, Mopoke Creek, Kennedys Gully and Spring Gully Creek.

The major threats to remnant vegetation and waterways in the catchment include pest plant

invasion, agricultural and urban runoff, damage by domestic stock, instream barriers, pest animals, soil erosion and altered water regimes (NCCMA 2003; J. Alexander pers. comm. 2005).

Aim

- Protect, maintain and improve the ecological condition of streams and stream catchments in the park.

Management strategies

- *Ensure appropriate erosion control measures are undertaken during all relevant park works.*
- *Ensure that fire management activities do not adversely affect the ecological condition of streams and stream catchments in the park (section 5.5).*
- *Support NCCMA strategies and projects that aim to improve and protect the park's natural values and implement the park's vision and direction.*
- *Work with the NCCMA to implement key, activities of the North Central River Health Strategy along Loddon River and other waterways, including Fryers Creek and Kangaroo Creek within the park.*
- *Consistent with the protection and retention of cultural landscapes and sites, progressively restore indigenous vegetation to cleared areas along Forest Creek, the Loddon River and other waterways in the park (sections 4.2 and 5.3).*
- *Liaise and coordinate pest plant and animal control efforts with neighbouring land managers, the Department of Primary Industries and the NCCMA (section 5.6).*

5.3 Vegetation

Vegetation communities

Heathy Dry Forest, Box Ironbark Forest, Valley Grassy Forest, Grassy Dry Forest, Streambank Shrubland and Alluvial Terraces Herb-rich Woodland are the primary Ecological Vegetation Classes (EVCs) identified within Castlemaine Diggings National Heritage Park. All of these vegetation communities are depleted, vulnerable or

endangered within the Goldfields Bioregion except for Heathy Dry Forest (DSE 2005b).

Heathy Dry Forest covers 77% of the park and is found on the exposed slopes and ridge tops. Red Stringybark and Red Box dominate the tree canopy, with Red Ironbark and Long-leaf Box as frequent codominants. The shrub layer commonly includes Slender Rice-flower, Gorse Bitter-pea and Daphne Heath. The ground layer is sparse and dominated by Silvertop Wallaby-grass.

About 7% of the park is covered by Box Ironbark Forest, which occurs on the undulating rises and low hills on the western boundaries and north of Chewton. Red Ironbark and Grey Box dominate the tree canopy, with Yellow Gum also present at lower moister sites and Red Box on drier upper slopes. There is an open shrub layer of Golden Wattle, Twiggy Bush-pea, Gold-dust Wattle, Shiny Everlasting and Drooping Cassinia. The ground layer is sparse and commonly includes Wattle Mat-rush, Black-anther Flax-lily, Bristly Wallaby-grass and Cranberry Heath.

Valley Grassy Forest covers 6% of the park. The majority of this community is found south of Vaughan Mineral Springs on creek flats and in gully heads. The tree canopy is dominated by Yellow Box and Long-leaf Box. Silver Wattle often forms a tall shrub layer and the ground layer commonly includes Weeping Grass, Small St John's Wort, Small Poranthera, Stinking Pennywort and Common Woodrush.

Grassy Dry Forest covers only 1% of the park and is found on the upper slopes and ridge tops of low hills in the south of the park and north of Chewton. Grassy Dry Forest is depleted in the Goldfields Bioregion and tends to occur on southerly and easterly aspects. Yellow Box, Red Stringybark and Red Box dominate the tree canopy. The shrub layer is sparse or absent and the ground layer is characterised by Grey Tussock-grass, Stinking Pennywort, Cotton Fireweed, Small St John's Wort and Common Woodrush.

Streambank Shrubland covers only 1% of the park and is found along the Loddon River. This community is dominated by shrubs including Woolly Tea-tree, River Bottlebrush, Sweet Bursaria, Shiny Cassinia and Hop

Goodenia. Sedges, grasses and herbs form the sparse ground layer.

Alluvial Terraces Herb-rich Woodland covers only 1% of the park and occurs along shallow or ephemeral drainage lines on lower slopes. The open tree canopy is dominated by Yellow Box and Grey Box. Silver Wattle often forms a tall shrub layer and the ground layer commonly includes Small St John's Wort, Sow Thistle, Tall Sedge, Grassland Wood-sorrel, Slender Dock and Bristly Wallaby-grass.

The Plains Grassy Woodland, Grassy Woodland and Heathy Woodland EVCs have also been identified in the park. The total area of these EVCs cover less than 1% of the park. Plains Grassy Woodland and Grassy Woodland are endangered within the Goldfields Bioregion and Heathy Woodland is vulnerable. In addition, approximately 6% of the park is largely devoid of native vegetation as result of past land uses, including gold mining, timber harvesting and grazing. Areas most affected occur along natural watercourses, including Forest Creek and the Loddon River.

Prior to European settlement the park's vegetation communities were most likely dominated by large, wide-crowned, hollow-rich and widely spaced trees (ECC 2001). As a result of timber harvesting and gold mining few areas of large trees remain in the park. This substantial change in structure and deficit of large trees has reduced the habitat diversity of the vegetation (ECC 2001). The park does however contain some large old tree sites totalling 340 ha, which provide important habitat for hollow-dependent fauna including the threatened Brush-tailed Phascogale (ECC 2001). Many of these remaining large trees are Yellow Box that were conserved for apiculture (section 4.2) (R. McDonald pers. comm. 2005).

In accordance with government-approved ECC recommendations, an Ecological Management Strategy has been developed to achieve a reserve system that more closely resembles the pre-European forests. As part of the strategy, an ecological thinning trial is being carried out in four Box-Ironbark parks and reserves, including Castlemaine Diggings National Heritage Park. The area where the trial is being undertaken in the park is shown as an overlay, Special Management Area – Research (table 1,

figure 2). The primary objective of the trial is to investigate whether ecological thinning can be used to achieve a more appropriate balance of juvenile, intermediate and mature trees and increased fauna habitat diversity. The findings from this research program will provide the basis for deciding whether or not to implement an ecological thinning program in the park in non-mining related areas.

Disturbances associated with past timber harvesting, stock grazing and gold mining have directly or indirectly inhibited the recruitment of indigenous woody and herbaceous species. 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 5.5).

Flora species

The park's vegetation communities support over 520 native vascular flora species. Of these species, Buloke, Fringed Midge-orchid, Fryerstown Grevillea, Fryers Range Scent Bark, Lanky Buttons, Midlands Spider-orchid, Emerald-lip Greenhood, Scented Bush-pea, Southern Swainson-pea, Veined Spider-orchid, Arching Flax-lily, Clover Glycine and Woodland Plume-orchid are threatened in Victoria (appendix 4). Three of these species are listed as threatened under the *Flora and Fauna Guarantee Act 1988* (Vic.) (FFG) and one species, Clover Glycine is also listed under the Environment Protection and Biodiversity Conservation (EPBC) Act.

Of note the Midlands Spider-orchid is endemic to Victoria and the park contains the largest known population of the species in the state. However, grazing pressure from native and introduced herbivores, trampling, mechanical damage by vehicles and illegal collection may threaten the long-term viability of the species in the park due to its small isolated populations.

The Monk and Little Specimen Gully are floristically important as they support an abundant and diverse array of native herbs that could be compromised by visitation, authorised uses or park management activities.

The Flora and Fauna Guarantee Act establishes a legal framework for the conservation of listed flora and fauna species or communities

and the regulation of activities relating to them.

Little is commonly known about the Indigenous knowledge relating to the flora of the park. The Traditional Owners have an interest in the flora and may seek materials for teaching traditional customs to their children.

Further information concerning the distribution of native flora species, the ecological processes influencing these distributions, factors affecting their survival and their response to various active management regimes is required to guide future vegetation management in the park.

Aims

- Maintain or enhance indigenous flora and vegetation communities, particularly significant species and communities.
- Increase knowledge of significant flora and vegetation communities.

Management strategies

- *Consistent with the protection of cultural sites and landscapes, promote the natural regeneration of woody and herbaceous species in the park's vegetation communities (section 4.2).*
- *Reduce priority risks to threatened flora species including Midlands Spider-orchid, Fryerstown Grevillea and Scented Bush-pea to help maintain viable populations.*
- *Protect Midlands Spider-orchid populations in the park from grazing pressure, trampling and damage by recreational or park management activities.*
- *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 (appendix 4).*
- *Publicise park regulations concerning the protection of native flora.*
- *Use standardised monitoring in areas of high floristic diversity and abundance at The Monk and Little Specimen Gully Special Protection Areas, to ensure they are not compromised by visitation,*

authorised or unauthorised uses or park management activities.

- *Encourage surveys and research on significant plant and vegetation communities to improve knowledge of their distribution, management requirements and traditional Indigenous uses.*
- *Reflect Indigenous knowledge of vegetation in management practices as appropriate.*
- *Respect the cultural obligations of Traditional Owners in relation to plants and their significance in all management and visitor activities.*
- *Where appropriate, refine flora management practices according to the latest research and monitoring findings.*
- *Continue to undertake the ecological thinning trial in the Special Management Area – Research as shown on figure 2.*
- *Maintain interpretive material that explains the ecological thinning trial (section 6.1).*
- *Develop and implement an induction program on the natural values of the park for park staff, community groups, licensed tour operators, gold miners and contractors to enhance their interpretation and protection of the park (section 6.11).*
- *Work cooperatively with neighbouring landholders and with government and non-government organisations to coordinate and initiate sympathetic management of remnant vegetation surrounding the park under their control (sections 7.4 and 8.3).*

5.4 Fauna

The vegetation communities in the park support a wide variety of fauna including 17 threatened species (appendix 5).

Approximately 100 bird species have been recorded in the park including the endangered Swift Parrot and vulnerable Powerful Owl. In addition, a number of member species of the Flora and Fauna Guarantee (FFG) Act listed Victorian temperate-woodland bird community have been recorded in the park such as the Brown Treecreeper and Black-chinned Honeyeater.

A number of mammal species have been recorded in the park, including the Brush-tailed Phascogale, Fat-tailed Dunnart, Black Wallaby, Echidna, Eastern Grey Kangaroo, Platypus, Koala and several species of bat. Of these species the most significant is the Brush-tailed Phascogale, which is vulnerable in Victoria and is listed under the FFG Act.

A total of three reptile, three amphibian and three fish species have been recorded in the park, including the Garden Skink, Striped Marsh Frog and the FFG listed Murray Cod. To date the park has not been intensively surveyed for reptiles, amphibians and fish and it is likely that further species will be identified as additional surveys are undertaken.

Little is known of the diversity and abundance of native invertebrate species in the park. However, the Eltham Copper Butterfly (endangered in Victoria) was recently recorded in the park. The butterfly relies upon Sweet Bursaria for habitat and a symbiotic relationship with a species of ant (*Notoncus*). The Eltham Copper Butterfly has been recorded only at two other locations in the State, therefore the protection and enhancement of the populations in the park are essential to the conservation of the species.

Threats to native fauna recorded in the park include:

- predation by introduced species such as foxes, cats and dogs (section 5.6)
- habitat modification caused by inappropriate fire regimes, removal of fallen timber, loss of tree hollows and weed invasion
- disturbance to feeding, movement and reproductive patterns
- competition for foraging, breeding or roosting resources or alteration of natural plant pollination and regeneration processes by introduced species.

In addition, the fragmentation of the park's habitats by roads and cleared private property may restrict the movement of fauna between local populations, increasing the risk of their local extinction (section 6.2). There are opportunities to mitigate the impacts of fragmentation by increasing linkages between the park and surrounding remnant vegetation on public and private land. DSE provide

strategic direction in relation to these revegetation efforts through Bioregional Action Plans (NRE 2002a).

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

Aims

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

Management strategies

- *Maintain tree hollows for dependent fauna, including stumps and coppice bases.*
- *Enhance the existing woodland habitat of ground-foraging birds, reptiles and mammals by retaining all fallen timber.*
- *Maintain viable populations of threatened fauna species.*
- *Enhance Eltham Copper Butterfly habitats in the park by protecting *Notoncus ant* populations and increasing populations of *Sweet Bursaria*.*
- *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 (appendix 5) including support for ongoing monitoring of the Brush-tailed Phascogale population by DSE.*
- *Control pest plants, giving priority to pest plants that reduce the habitat of significant fauna species (section 5.6).*
- *Display park regulation signs in prominent positions to discourage illegal firewood collection.*
- *Encourage surveys and research on significant fauna species and faunal habitat to improve knowledge of their management requirements and traditional Indigenous uses.*

- *Reflect Indigenous knowledge of fauna in management practices as appropriate.*
- *Respect the cultural obligations of Traditional Owners in relation to fauna and their significance in all management and visitor activities.*
- *Where appropriate refine fauna management practices according to the latest research findings.*
- *In conjunction with DSE and community groups, regularly observe nest boxes in the park to improve understanding of the distribution and management requirements of native fauna.*
- *Work cooperatively with neighbouring landholders or with relevant government and non-government organisations to coordinate and initiate sympathetic management of threatened fauna habitat surrounding the park under their control.*
- *Increase linkages between the park and surrounding remnant vegetation on public and private land by supporting DSE's 'Bioregional Action Planning (NRE 2002a)'.*
- *In conjunction with DSE and the Mount Alexander Shire, promote responsible pet ownership (section 8.3).*

5.5 Fire management

The National Parks Act requires the Secretary to DSE to ensure that appropriate and sufficient measures are taken to protect the park from injury by fire. Fire management in the park is governed by the *North West Region: Bendigo Fire District Fire Protection Plan* ('Bendigo Fire Protection Plan') (DSE 2003b), the *Bendigo District Fire Operations Plan* (DSE 2004a) and the *Code of Practice for Fire Management on Public Land* (DSE 2006c). Fire protection measures on adjacent freehold land are outlined in the Municipal Fire Prevention Plans developed by Councils.

The *Bendigo Fire Protection Plan* (DSE 2003b) is a strategic work plan to prevent, prepare for, suppress and recover from wildfire on public land in the Bendigo Fire District. The plan applies the following three fuel management zones to the park:

- Zone 1 – strategic fuel reduction corridors to protect human life, property and highly valued public land assets and values (around the townships of Castlemaine and Chewton).
- Zone 2 – strategic fuel reduction corridors to provide barriers to the spread of wildfire (south of Vaughan township running east–west through the park).
- Zone 3 – broad area fuel reduction (the majority of the park).

The *Bendigo District Fire Operations Plan* (DSE 2004a) is reviewed annually and contains a schedule and maps for prescribed burns planned over the following three years. Consultation on the proposed fire operations plan allows agencies and community groups to raise concerns about specific park values that may require protection from prescribed burns.

The *Code of Practice for Fire Management on Public Land* (DSE 2006c) 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 practical, from the harmful effects of wildfire and inappropriate fire regimes.

The fire history of the park prior to settlement, particularly the use of fire by Indigenous communities, is not documented. Indigenous communities are likely to have used fire in open grassland areas to promote the fresh growth of yams and other plant tubers that were a food source and the fresh growth of grasses to attract game (B. Nelson pers. comm. 2005).

Only two small wildfires have been recorded in the park, totalling 118 hectares or less than 2% of the park — one in 1965 south of Fryerstown and the second in 1991 south-west of Chewton. Potential causes of wildfire include lightning strikes, campfires, discarded cigarettes and fuel reduction burns within and adjacent to the park.

Regular fuel reduction burns have been carried out in the park since 1984 and have burnt approximately 1350 hectares or 18% of the park. The vast majority of the vegetation in the park is therefore long unburnt. Heathy Dry Forest, Box Ironbark Forest and Valley Grassy Forest, which cover 90% of the park, contain a

high proportion of species that require a fire event for regeneration and are therefore vulnerable to long periods of fire exclusion. The potential impacts of long periods of fire exclusion on these vegetation communities include the decline in the cover and abundance of species that require a fire event for regeneration and an increase in cover and abundance of longer-lived and fire sensitive species (NRE & PV 2002) (section 5.3).

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

Aims

- Protect park values from the deleterious effects of wildfire or inappropriate fire regimes.
- Cooperate with relevant agencies and land managers in the protection of human life, neighbouring properties and assets.
- Identify and implement fire regimes appropriate to the conservation of native species and communities.

Management strategies

- *Protect historic and cultural features, and threatened species from damage by wildfire and prescribed burning where practical (sections 4.1 and 4.2).*
- *Work with DSE to brief all firefighters about protecting the natural and cultural values prior to all fire management activities.*
- *Map and signpost fire water supply dams in the park.*
- *Undertake prescribed burning in accordance with the Bendigo Fire Protection Plan and the Bendigo District Operations Plan. Frequency of fuel reduction burning is to depend on the rates of fuel accumulation, which will be monitored using DSE’s ‘Overall Fuel Hazard Guide’ (Victorian Government 2003).*

- *Publicise and enforce fire regulations, restrictions and management activities within the park.*
- *Promote ecological studies on the need for and effects of fire on vegetation and habitat and conduct ecological burns where appropriate to conserve native species and communities in accordance with the Bendigo Fire Protection Plan and the Bendigo District Fire Operations Plan.*
- *Refine ecological and prescribed burning regimes to reflect latest monitoring and research findings.*
- *Develop and ensure the application of guidelines on the preferred methods for suppression of wildfire in the park.*
- *Ensure the revision and implementation of the Bendigo Fire Protection Plan and the Bendigo District Fire Operations Plan is consistent with the protection of park values.*
- *Encourage research and recording of the pre-settlement occurrence and Traditional Owners' knowledge relating to fire, including traditional uses of fire.*

5.6 Pest plants and animals

Key pest plants species recorded in the park include Gorse, Blackberry, Broom and Bridal Creeper. These species have mainly invaded disturbed areas along creek lines, gullies, vehicle tracks and freehold land boundaries. Soil disturbance assists many weeds to spread within the park. Smaller infestations of Paterson's Curse, willows, pine wildings, Poplar, Cootamundra Wattle, cotoneasters, Hawthorn and European Olive also occur in the park. Weeds that compete with indigenous herbaceous species include Large Quaking-grass, Lesser Quaking-grass, Quicksilver Grass, Delicate Hair-grass, Soursob, veldt grasses and brome grasses. Pest plant infestations in the park are preventing the regeneration and establishment of native plant species, degrading landscape values, reducing habitat for native fauna, providing harbour for pest animals, increasing fuel loads available to wildfire and degrading cultural landscapes, places and sites. Several species of exotic and non-indigenous plants have been planted in the park, most often as part of 'designed landscapes' (section 4.2). These trees and the

stories behind their plantings have cultural heritage value (sections 2.3 and 4.2).

A variety of introduced animals have been recorded in the park including goats, hares, rabbits, foxes, wild dogs and feral cats. Hares, rabbits and goats are thought to infest only a small proportion of the park and are having a low impact on cultural values and the structure and composition of vegetation. However, grazing pressure from introduced and native herbivores may threaten the long-term viability of the Midlands Spider-orchid in the park due to its small isolated populations.

The impact of fox, wild dog and feral cat predation on native fauna in the park is largely unknown. However, it may pose a significant threat to the following categories of native fauna:

- small mammals, including the Fat-tailed Dunnart and the threatened Brush-tailed Phascogale
- bird species that spend much of their time at or near the ground nesting and/or feeding, including the threatened Brown Quail, Spotted Quail-thrush, Brown Treecreeper and Hooded Robin
- reptiles and amphibians, including the Garden Skink and Striped Marsh Frog.

Aims

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

Management strategies

- *Monitor weeds, foxes, wild dogs, feral cats, rabbits, hares and goats, using approved monitoring techniques. Undertake control programs to meet annual targets.*
- *Priority for pest plant and animal management will be given to:*
 - *controlling new pest plant infestations*

- *pest plants with a high potential for invasion in particular, Gorse, Blackberry, Broom, Bridal Creeper, Paterson's Curse and willows*
- *minimising soil disturbances when undertaking management or recreational activities or authorised uses*
- *controlling pest plant infestations and introduced herbivores around populations of the threatened Midlands Spider-orchid*
- *controlling pest plant infestations and introduced herbivores around the habitat of the threatened Eltham Copper Butterfly and at the Monk and Little Specimen Gully special Protection Area.*
- *the eradication of new pest animal populations as they are identified, particularly at the Monk and Little Specimen Gully Special Protection Areas*
- *controlling foxes, wild dogs and feral cats*
- *controlling rabbits, hares and goats.*
- *Protect the integrity of cultural landscapes, places and sites from pest plants and animals and from pest management activities.*
- *Liaise and coordinate pest control efforts with park neighbours and neighbouring land managers (sections 7.4 and 8.3).*
- *Use local seed to restore indigenous vegetation to areas where pest plants have been eradicated, where consistent with cultural values management.*
- *Inform visitors and adjacent landholders about relevant control programs.*
- *Consider recruitment of new seedlings from historic plantings of exotic and non-indigenous trees as pest plants and manage as part of pest plant programs.*

6 STRATEGIES FOR VISITORS

6.1 Information, interpretation and education

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

Parks Victoria delivers information, interpretation and education to visitors by various means, including its website, ranger patrols, Park Notes, signage, tourism brochures and other publications, displays, and licensed tour operators. These services may be developed and provided in collaboration with other organisations. The primary location in Castlemaine for visitors to obtain information about the park is the Tourism Visitor Information Centre.

The Castlemaine Diggings National Heritage Park offers unique opportunities to develop interpretive themes integrating the heritage and culture of the Traditional Owners, the built fabric of former gold towns, archaeological evidence of the gold rush and ongoing mining, geological exposures and the environmental transformation of the Box-Ironbark forests and woodlands, for interpretation.

Eureka Reef, Forest Creek, Pennyweight Flat Cemetery, Vaughan Springs, Herons Reef, Garfield Waterwheel, Spring Gully, Butchers Gully, Wattle Gully Mine and Escott Grave have great potential as sites for interpretation of the gold rush theme using visual landscape reconstruction developed from historic artworks and writings.

Current information and interpretive material includes signs and information boards at key visitor sites and walking tracks, the Mount Alexander Diggings Trail guidebook and interpretive trails at Forest Creek Gold Diggings, Garfield Waterwheel, Eureka Reef and Kalimna Point.

Park staff, tour operators and community groups currently deliver interpretive programs relating to the park's natural and cultural values.

The park complements other tourist destinations in the area. Improved promotion of the park in conjunction with local attractions could increase visitation and help support the tourism industry.

Aims

- Promote and encourage visitor discovery, enjoyment and appreciation of the park's natural and cultural values, in a safe and appropriate manner through information, interpretation and education.
- Provide creative interpretation opportunities for people to learn about and understand the park's historic and cultural features and values, including Indigenous cultural heritage.
- Support the local community to deliver interpretive programs relating to the park's cultural and natural values.

Management strategies

- *Continue to support Castlemaine's Tourism Visitor Information Centre as the key distribution point for pre-visit information about the park.*
- *Provide access to pre-visit information about the park through:*
 - *Park Notes*
 - *Parks Victoria's website*
 - *Parks Victoria Information Centre*
 - *Castlemaine Tourism Visitor Information Centre and other accredited information centres*
 - *Education Notes*
 - *community and user groups.*
- *Ensure information relating to safety issues and potential hazards in the park is available as pre-visit park information (section 6.12).*
- *Provide visitor signage at key locations (table 4) and main entrance points (table 3) in the park to assist with orientation and provide information about park features, walks, prospecting and other recreational*

opportunities and park regulations as appropriate.

- *In consultation with community and user groups, develop and provide creative interpretation and/or education opportunities relating to the park's cultural and natural values, including:*
 - *visual landscape reconstructions at identified sites*
 - *cultural events*
 - *school materials*
 - *Indigenous-themed displays*
 - *individual heritage site guide notes.*
- *Promote the protection of Indigenous and historic places and objects in information, interpretation and education programs (sections 4.1 and 4.2).*
- *Provide visitor information, interpretation and educational material relating to Indigenous places and objects within the park and the Traditional Owners' tradition which relates to the park in collaboration with the Traditional Owners (section 4.1).*
- *Ensure infrastructure to support interpretive programs does not intrude on cultural landscapes, sites and places.*
- *Develop and implement an induction program on the cultural and natural values of the park and park management practices for park staff, community groups and licensed tour operators (chapters 4 and 5).*
- *Host a series of familiarisation visits for regional tourism stakeholders to explore the role Castlemaine Diggings National Heritage Park can play in complementing regional tourism products and experiences (section 6.1).*
- *Support tourism initiatives that profile the park to local, national and international visitors.*

6.2 Vehicle access

The park is accessed by a number of major arterial roads that connect the historic townships of Castlemaine, Chewton, Fryerstown, Vaughan, Campbells Creek and Guilford. These roads include the Midland

Highway, the Pyrenees Highway, Vaughan Springs Road, Campbells Creek Fryers Road, Vaughan Chewton Road and Chewton Sutton Grange Road (figures 3a, 3b and 3c).

Approximately 150 km of formal vehicle tracks traverse the park, which are managed by either Mount Alexander Shire, VicRoads or Parks Victoria (table 3 and figures 3a, 3b, 3c). Many of these vehicle tracks were constructed for mining, timber extraction and fire protection prior to the park's reservation, with little consideration of drainage patterns. As a result, a number of vehicle tracks are now affected by soil erosion. In addition, roads and tracks in the park contribute to habitat fragmentation (section 5.4), and several roads and tracks either duplicate other routes or are not required for visitor activities, such as no-through roads to private property adjoining the park.

A number of popular scenic driving trails have been developed as part of the Mount Alexander Diggings Trail. The driving trails direct visitors to 19 heritage sites in and around the park, which are described and interpreted in an accompanying guidebook. The driving trails are also part of a signed VicRoads tourist route. In addition to roads and tracks suitable for two-wheel-drive vehicles, the park also provides opportunities for four-wheel-drive touring.

Vehicles access Garfield Waterwheel and Pennyweight Flat Cemetery heritage sites in the park via bridges. These bridges are restricted to vehicles of less than 15 tonnes. Consequently, large tourist buses are unable to gain access to the sites. In addition, vehicle access to the southern side of the Loddon River at Vaughan Mineral Springs is restricted to small passenger vehicles, due to the two tonne limit of the bridge.

The park is used regularly by visitors for trail-bike riding. This activity includes both legal riding on public roads and illegal riding off roads and on unregistered vehicles. The noise associated with this activity can be a disturbance to wildlife, visitors and local residents. Illegal riding off roads causes loss of native vegetation and accelerated soil erosion.

TABLE 3 MOTOR VEHICLE ACCESS MANAGEMENT

ROAD / TRACK	CURRENT CLASSIF'N	PLANNED CLASSIF'N	CURRENT & PLANNED MOTOR VEHICLE USE	ROAD AUTHORITY AND FUNCTION /COMMENTS
MANAGED BY PARKS VICTORIA				
Ajax Track	5D	5D	M2	PV Road for park and other access, no change.
Amandas Track Network	5E	5E	M4 / MV	PV fire management access.
Arthurs Track	5D	5D	M2 / MVP	PV Road for management and private access.
Break Neck Hill Track	5D	5D	M2 / MVP	PV Road for management and private access.
Bridge Track	5D	5D	MV	PV Road for management access, no change.
Butchers Gully Track	5E	5E	M2	PV Road for visitor access, no change.
Chinamans Point-Garfield Track	5E	5E	M4	PV Road for visitor access, no change.
Chokem Flat Track	5C	5C	M2	PV Road for visitor access, no change. Access to campground.
Cox Track	5E	5E	M2	PV Road for visitor access, no change.
Crocodile Reservoir Track	5D	5D	M2	PV Road for park and other access, no change.
Damper Track	5D	5D	M2	PV Road for park and other access, no change.
Dead Cat Mine Track	5D	5D	M4	PV Road for visitor access, no change.
Devils Track	5D	5D	M2 / MVP	PV Road for management and private access. No through road. Provides access to apiary site.
Dingo Park Road	5D	5D	M2	PV Road for park and other access, no change. Eureka Road to Spring Gully Road.
Evanmore Track	5E	5E	M2 / MV	PV Road for management access, protection of a cultural heritage site.
Firebreak Track	5D	5D	MV	PV Road for management access, no change, fire management track.
Folly Track	5D	5D	M2	PV Road for visitor access, no change.
Garfield Track	5D	5C	M2 / MV	PV Road for management access, management track.
Glenluce Springs Track	5D	5D	M2	PV Road for visitor access, no change, provides access to mineral springs. Provide and maintain sign.
Green Gully Access Track	5D	5D	M2	PV Road for park and other access, no through road, provides access to private property (off Green Gully Track). Provide and maintain sign.
Green Gully Track	5C	5C	M2	PV Road for park and other access, no change. Provide and maintain sign.
Grogshop Gully Track	5D	5D	M2	PV Road for park and other access, no change.
Grogshop Gully Track (east branch)	5D	5D	M2 / MVP	PV Road for management and private access. No through road.
Gurrs Track	5E	5E	M2 / MV	PV Road for management access.
Helge Track	5D	5D	M2	PV Road for visitor access, no change. Provide and maintain sign.

Table 3 cont'd

ROAD / TRACK	CURRENT CLASSIF'N	PLANNED CLASSIF'N	CURRENT & PLANNED MOTOR VEHICLE USE	ROAD AUTHORITY AND FUNCTION /COMMENTS
Hunters Track	5D	5D	M2	PV Road for park and other access, no change.
Irishtown Track	5D	5D	M2	PV Road for park and other access, no change.
Italian Hill Track (east branch)	5C	5C	M2 / MVP	PV Road for management and private access.
Italian Hill Track (west branch)	5E	5E	M2 / MVP	PV Road for management and private access.
Jacobs Track	5D	5D	M2	PV Road for park and other access, no change.
Kays Dam Track	5D	5D	M2 / MV	PV Road for management access, fire management track.
Kemps Bridge Road	5D	5D	M2	PV Road for park and other access, no change.
Loop Track	5D	5D	MV	PV Road for management access, no change, fire management track.
Monks Hill Road	5D	5D	M2	PV Road for visitor access, no change.
Morgan Track	5D	5D	M4	PV Road for visitor access, no change.
Morgan Track (north branch)	5E	5E	M4 / MVP	PV Road for management and private access. No through road.
Morris Track	5C	5C	M2 / MV	PV Road for park and other access, no through road. Provides access to stone quarry.
Old Coach Road (north branch)	5D	5D	M2 / MVP	PV Road for management and private access. No through road.
Old Coach Road (south branch)	5D	5D	M2 / MVP	PV Road for management and private access. No through road.
Porcupine Ridge Road	5C	5C	M2	PV Road for park and other access, no change, two sections managed by PV. The first starts from Crown Allotment 25A (freehold land) southwards to the intersection of Lancaster Track. The second starts at the Loop Track intersection to Green Gully Track then to the park boundary where it again intersects with Loop Track. Other sections of the road are managed by MAS. Provide and maintain sign.
Pound Lane	5E	5E	M2	PV Road for visitor access, no change.
Pound Lane (south-east branch)	5D	5D	M2 / MVP	PV Road for management and private access access. No through road.
Poverty Gully Reservoir Track	5D	5D	M2	PV Road for park and other access, no change.
Poverty Gully West Branch Track	5D	5D	M2 / MVP	PV Road for management and private access access. No through road.
Quartz Hill Track	5D	5D	M2	PV Road for visitor access, no change.
Rons Track	5D	5D	M2	PV Road for visitor access, no change.
Ross Drive Extension	5D	5D	M2 / MVP	PV Road provides access to Telstra communication tower, which has no public access.
Salters Creek Track	5E	5E	M2 / MVP	PV Road for park and other access, no through road. Provides access to private property.

Table 3 cont'd

ROAD / TRACK	CURRENT CLASSIF'N	PLANNED CLASSIF'N	CURRENT & PLANNED MOTOR VEHICLE USE	ROAD AUTHORITY AND FUNCTION /COMMENTS
Scout Camp Track	5D	5D	M2	PV Road for park and other access, no change. Provides access to scout camp.
Smuttas Track	5D	5D	M2	PV Road for visitor access, no change.
Spring Gully Track	5C	5C	M2	PV Road for park and other access, no change.
Steep Track	5E	5E	M2	PV Road for visitor access, no change. Provide and maintain sign.
Stephensons Track	5D	5D	M2	PV Road for park and other access, no change.
Telecom Track	5E	5E	M2 / MV	PV Road for management access, provides access to underground telecommunication lines.
The Monk Track	5D	5D	M2	PV Road for visitor access, no change.
Tobys Track	5D	5D	M2 / MV	PV Road for management access.
Vaughan Mineral Springs Rd	5A	5A	M2	PV Road for visitor access, provide and maintain sign. Dogs and horses not permitted.
Weewak Track	5D	5D	M2 / MV	PV Road for management access.
Welsh Road	5C	5C	M2	PV Road for park and other access, no change.
MANAGED BY DSE				
White Gum Track	5C		M2	DSE Road for park and other access.
MANAGED BY VICROADS				
Campbells Creek–Fryers Road	5A		M2	VR Major road between towns, provide and maintain sign within the park.
Chewton Sutton–Grange Road	5A		M2	VR Major road between towns.
Golden Point Road	5A		M2	VR Major road between towns, provide and maintain signs within the park.
Midland Highway	5A		M2	VR Major road between towns.
Pyrenees Highway	5A		M2	VR Major road between towns, provide and maintain signs within the park.
Vaughan–Chewton Road	5A		M2	VR Major road between towns, provide and maintain signs within the park.
Vaughan Springs Road	5A		M2	VR Major road between towns.
Managed by Mount Alexander Shire				
Adelaide Street	5B		M2	MAS Major road.
Ammans Road	5C		M2	MAS Road for park and other access, provides access to private property.
Ball and Welsh Lane			M2	
Blakeley Road	5B		M2	MAS Major road.
Broads Road	5C		M2	MAS Road for park and other access.
Burgoyne Street	5C		M2	MAS Road for park and other access.
Castlemaine Street	5C		M2	MAS Road for park and other access.

Table 3 cont'd

ROAD / TRACK	CURRENT CLASSIF'N	PLANNED CLASSIF'N	CURRENT MOTOR VEHICLE USE	ROAD AUTHORITY AND FUNCTION /COMMENTS
Chinamans Point Road	5D		M2	MAS Road for park and other access.
Colles Road	5B		M2	MAS Road for park and other access.
Cornish Town Lane	5D		M2	MAS Road for park and other access, provides access to private property.
Dingo Park Road	5C		M2	MAS Road for park and other access, from Spring Gully Rd to Campbells Creek Rd.
Doveton Street	5C		M2	MAS Road for park and other access
Drummond –Vaughan Forest Road	5B		M2	MAS Major road.
Eureka Road	5C		M2	MAS Road for park and other access. Provide and maintain sign within the park.
Fairbairn Street	5C		M2	MAS Road for park and other access.
Garfield Water Wheel Track	5D		M2	MAS Road for visitor access. Allow management access.
Greville Street	5A		M2	MAS Road for park and other access. Provide and maintain sign within the park.
Happy Valley Road	5C		M2	MAS Road for park and other access.
Henry Street	5C		M2	MAS Road for park and other access.
Kalimna Road	5C		M2	MAS Road for park and other access.
Kalimna Tourist Road	5C		M2	MAS Road for park and other access. Provide and maintain sign within the park.
Kemps Bridge Road	5B		M2	MAS Road for park and other access, provides access to private property.
Landys Track	5D		M2	MAS Road for park and other access, provides access to private property.
Llewellyn Road	5C		M2	MAS Road for park and other access.
Morscript Street	5C		M2	MAS Road for park and other access.
New Years Flat Road	5D		M2	MAS Road for park and other access.
North Street	5A		M2	MAS Road for park and other access.
Old Coach Road SG Township	5C		M2	MAS Road for park and other access.
Porcupine Ridge Road	5C		M2	MAS Road for park and other access, from Vaughan Springs Road southwards for 2.6 km (to the end of freehold land boundary—Crown Allotment 25A). It changes to PV management responsibility where the park is on both sides of the road.
Rabbages Road	5D		M2	MAS Road for park and other access.
Railway Street	5C		M2	MAS Road for park and other access. Provide and maintain sign within the park.
Shicer Gully Road	5B		M2	MAS Road for park and other access. Provide and maintain sign within the park.
Specimen Gully Road	5C		M2	MAS Road for park and other access.

Table 3 cont'd

ROAD / TRACK	CURRENT CLASSIF'N	PLANNED CLASSIF'N	CURRENT MOTOR VEHICLE USE	ROAD AUTHORITY AND FUNCTION /COMMENTS
Spring Gully Road (part)	5B		M2	MAS Road for park and other access.
Spring Gully Road (part)	5C		M2	MAS Road for park and other access.
Vaughan–Tarilta Road	5C		M2	MAS Road for park and other access.
Welsh Street	5C		M2	MAS Road for park and other access
MANAGED BY HEPBURN SHIRE COUNCIL				
Loop Track	5D		M2	HS Road for visitor access, from northern intersection with Porcupine Ridge Road to southern intersection with Porcupine Ridge Road.
Porcupine Ridge Road	5C		M2	HS Road for park and other access, two sections. The first from the Lancaster Track intersection to Loop Track intersection. The second from the southern end to Loop Track intersection, southwards to Leslies Rd. Provide and maintain sign within the park.
Green Gully Road	5C		M2	HS Road for park and other access.
Rusconis Road	5C		M2	HS Road for park and other access.

Key:

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.

Road authority:

- PV Parks Victoria
- VR Vic Roads
- MAS Mount Alexander Shire
- HS Hepburn Shire

Note:

Walkers, cyclists and horse riders are permitted on all open M2, M4 and MV vehicle tracks except where indicated.

Motor vehicle use:

- M2 Visitors in 2WD and 4WD motor vehicles and trail bikes
- M4 Visitors in 4WD motor vehicles and trail bikes
- MV Management vehicles only
- MVP Management vehicles and private access only

The vehicle tracks in the park also provide opportunities for organised events including car rallying. Organised car rallies run under the auspices of the Confederation of Australian Motor Sports (CAMS) are permitted in the park on open vehicle tracks subject to permit conditions and management zoning.

Aims

- Provide and maintain a safe and sustainable network of vehicle tracks appropriate for visitor use and management.

- Minimise the impact of vehicle and track management on the park's cultural and natural values.
- Provide a range of opportunities for recreational driving while minimising the impact on park values.

Management strategies

- *Manage park vehicle tracks in accordance with table 3 and the park's management directions (figures 3a, 3b and 3c). Allow tracks not identified in table 3 to revegetate over time.*
- *Liaise with the Mount Alexander Shire to ensure the maintenance of vehicle tracks in the park under their control is compatible with the protection of park values (table 3).*
- *Support and promote the scenic driving trails developed as part of the Mount Alexander Diggings Trail in consultation with the Mount Alexander Diggings Committee.*
- *Liaise with the Mount Alexander Shire to seek improved vehicle access to Garfield Waterwheel, Pennyweight Flat Cemetery and the northern side of the Loddon River at Vaughan Mineral Springs by increasing bridge weight limits.*
- *Encourage trail-bike riders to adopt minimal impact guidelines outlined in the Trail Bike Riding Code (DSE 2003c).*
- *Support projects aimed at curtailing illegal off-road trail bike riding in the park in collaboration with Councils, Police, agencies, industry and the local community (section 8.3).*
- *Promote the Four Wheel Drive Victoria's Code of Ethics (ANFWDC 1999) and the 4WD Touring Code (DSE 2004b) for the use of 4WD vehicles in the park.*
- *Permit CAMS-approved car rallies in the park on open vehicle tracks subject to permit conditions and management overlays (table 2).*
- *Issue permits for CAMS-approved car rallies subject to conditions that ensure minimal impact on park values.*

- *Ensure conditions included in permits for CAMS-approved car rallies are followed and reviewed as appropriate.*
- *Work with CAMS to establish a method(s) for advising the wider community of event programs and locations to reduce user conflicts.*

6.3 Visitor site activities

Picnicking and exploring the numerous heritage sites in the park are among the most popular day visitor activities.

Picnic facilities are located at Kalimna Point, Vaughan Mineral Springs, Garfield Waterwheel, Spring Gully Historic Mine and Eureka Reef (table 4, figures 3a, 3b and 3c).

Vaughan Mineral Springs attracts the most day visitors of all the visitor sites in the park, particularly for picnicking. Vaughan Mineral Springs was formerly a large gold rush township called 'The Junction' and became a favoured alluvial gold and market gardening locality for Chinese miners. Today visitors enjoy walking along the Loddon River and sampling the mineral waters (section 6.3). Facilities at the site include toilets, barbecues, a lookout and a playground.

The Mount Alexander Diggings Trail, a community-based initiative, takes visitors to 19 heritage sites in and around the park including Forest Creek Gold Diggings (section 6.2). The interpretive walks, opportunities to pan for gold and guided tours attract many school groups and families to this site. Toilet facilities are proposed for the site.

Expedition Pass Reservoir is popular with locals for swimming, fishing and boating. However, the car park and vehicle track can be congested during busy periods, which poses a safety risk to visitors.

Treated drinking water is only provided at one site in the park (Forest Creek Gold Diggings), therefore visitors should ensure they bring their own drinking water with them.

Aim

- Establish and maintain visitor facilities that enhance visitor enjoyment and are consistent with the protection of park values.

TABLE 4 MANAGEMENT OF RECREATION FACILITIES

SITE	TOILET	PICNIC TABLE	FIRE PLACE*	BBQ	WATER SUPPLY	PARK INFO	SHELTER	CAR/BUS PARK	CURRENT LOS	PLANNED LOS
Campgrounds										
Vaughan Mineral Springs	E	E	N	E	N	E	E	E/E	Mid	Mid
Warburtons Bridge	N	N	P	N	N	N	N	E/E	Very basic	Basic
Chokem Flat	N	N	P	N	N	N	N	E/E	Very basic	Basic
Other visitor sites										
Butchers Gully	N	N	N	N	N	N	N	E/N	Basic	Basic
Central Spring	N	N	N	N	N	N	N	E/N	Basic	Basic
Chinese Cemetery	N	N	N	N	N	N	N	E/E	Basic	Basic
Escott Grave	N	N	N	N	N	N	N	E/N	Basic	Basic
Eureka Reef	N	E	N	N	N	U, pros	N	E/E	Basic	Mid
Expedition Pass	N	N	N	N	N	U, pros	N	E/N	Very basic	Basic
Forest Creek Gold Diggings	P	E	N	N	E	U, pros	P	E/E	Mid	Mid
Garfield Waterwheel	N	E	N	N	N	U, pros	N	E/E	Basic	Mid
Glenluce Spring	N	P	N	N	N	N	N	E/N	Very basic	Basic
Hérons Reef	N	N	N	N	N	pros	N	N/N	Basic	Basic
Kalimna Point	N	N	N	N	N	N	E	E/N	Basic	Basic
Pennyweight Flat Cemetery	N	E	N	N	N	U	N	E/E	Basic	Basic
Red Knob	N	N	N	N	N	N	N	E/N	Basic	Basic
Specimen Gully	N	N	N	N	N	N, pros	N	N/N	Very basic	Very basic
Spring Gully Historic Mine	N	E	N	N	N	pros	N	E/E	Basic	Basic
Vaughan Mineral Springs Picnic Area	E	E	N	E	N	U, pros	E	E/E	Mid	High
Wattle Gully Mine	N	N	N	N	N	U	N	E/E	Basic	Basic

Key:

- E Existing facility
- N No facility
- P Provide facility
- U Upgrade/update facility
- Pros Provide prospecting information on sign

LOS – Levels of Service Framework

- High: high level of visitor facilities and amenities provided.
- Mid: moderate level of visitor facilities and amenities provided.
- Basic: limited visitor facilities and amenities provided.
- Very basic: little or no visitor facilities provided.

* The collection of firewood in the park is prohibited

Management strategies

- *Develop and maintain visitor facilities as indicated in table 4.*
- *Liaise with VicRoads and the Mount Alexander Shire to improve traffic flow and visitor safety at Expedition Pass Reservoir.*
- *Liaise with the relevant Indigenous and historical communities and agencies to identify and protect Indigenous and cultural and historical values within visitor sites (sections 8.2 and 8.3)*

6.4 Bush walking

The park provides a diverse range of walking opportunities, from short heritage and nature trails, to extended overnight walks along remote sections of the park. The distance and grade of existing walking tracks is provided in table 5.

As part of the Mount Alexander Diggings Trail, a number of short interpretive trails at heritage sites in the park, including Forest Creek Gold Diggings, Garfield Waterwheel and Eureka Reef, have been developed. These popular walks take visitors through 150 years of mining history and help visitors to see the forest through the eyes of the Traditional Owners, alluvial gold diggers and quartz miners.

Kalimna Circuit Track is a popular spot for locals to walk. It is located on a prominent ridgeline north-east of Castlemaine township. The 1.6 km track meanders through Box-Ironbark forest and during spring wax-flowers, wattles, chocolate lilies and waxlip-orchids put on a spectacular show. Walking notes identifying points of interest along the track have been produced by the Castlemaine Field Naturalist Club and the Mount Alexander Shire Walks and Trails Advisory Committee, and can be obtained from the Visitor Information Centre in Castlemaine.

Totalling 260 km, the Great Dividing Trail stretches along the top of the Great Dividing Range between Bendigo, Ballarat and Bacchus Marsh, providing walkers with a unique combination of cultural heritage and bushland experiences. The Dry Diggings and Leanganook sections of the trail pass through the park. These sections of the Great Dividing Trail offer the opportunity for both short and

long-distance walks running the length of the park from Porcupine Ridge in the south to Specimen Gully in the north (figures 3a, 3b and 3c). The trail also offers opportunities for cyclists (section 6.6).

There is a network of informal walking tracks in the park, some of which are located at Kalimna Point and Expedition Pass Reservoir. These informal walking tracks impact on natural values by promoting soil erosion, habitat fragmentation and weed invasion.

Aim

- Provide a sustainable network of high-quality walking tracks to enhance visitors' enjoyment of the park and promote health and wellbeing in communities, while minimising impacts on park values.

Management strategies

- *Encourage walking on designated walking tracks and vehicle tracks in the park as shown on figures 3a, 3b and 3c and listed in tables 3 and 5.*
- *Maintain a sustainable network of existing walking tracks to proposed standards and undertake works in accordance with table 5.*
- *Provide information to the public on the location and description of walks within the park (section 6.1).*
- *Provide information to encourage walkers to stay on designated tracks to reduce off-track impacts and to protect walkers from potential risks (section 6.12).*
- *Work with the Great Dividing Trail Association, the Federation of Victorian Walking Clubs and the Mount Alexander Shire to promote and manage walking within the park and surrounds.*
- *Promote Parks Victoria's 'Bushwalking Code', available on ParkWeb (section 6.1).*
- *Monitor the impact of walking activities and close and rehabilitate informal walking tracks where necessary to protect park values.*
- *Link the Great Dividing Trail with key sites in the park using existing walking and vehicle tracks where possible.*

TABLE 5 MANAGEMENT OF WALKING TRACKS

TRACK	LENGTH (KM)	GRADE CURRENT	GRADE PLANNED	OTHER USE CURRENT	OTHER USE PLANNED	MANAGEMENT ACTIONS/COMMENTS
Central Spring	1.4	3	2	–	–	Upgrade track.
Chinamans to Expedition Pass	3.0	3	3	D	D*	
Eureka Reef	1.6	2	2	D	D	
Expedition Pass	1.5	3	3	D	–	Dogs are not permitted as the track is part of the Special Protection Area (figures 2 and 3a).
Forest Creek Gold Diggings	0.5	2	2	D	D	
Forest Creek Trail	0.14	3	3	B, D	B, D	
Garfield Waterwheel	1.0	3	3	D	D	
Glenluce Mineral Spring	0.02	3	3	D	D	
Great Dividing Trail	31.6	3	3	B, D	B, D	Alternative cycling routes to be identified and provided.
Kalimna Circuit	1.6	4	3	B, D	B, D	Upgrade track. Dogs permitted on walking tracks
Kalimna Point	0.7	4	3	B, D	B, D	Upgrade track.
Spring Gully Historic Mine	0.6	4	3	B, D	B, D	Provide additional signposting.
Vaughan Mineral Springs to Glenluce Springs	3.0	4	4	–	–	New walking track not yet signed. Provide signage.
Vaughan Springs	0.3	3	2	–	–	Provide additional signposting.
Wattle Gully Mine	0.14	2	2	D	D	
Welsh Village	0.9	4	3	D	–	Dogs are not permitted as the track is part of a Special Protection Area (figures 2 and 3a). Upgrade track.

Key:

Australian Standards Classification for walking tracks (AS 2156.1—2001)

Grade 2 For a large number of visitors to walk easily in a natural environment with frequent encounters and a moderate to high level of interpretation and facilities.

Grade 3 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.

Grade 4 For visitors to explore and discover relatively undisturbed natural environments along defined and distinct tracks with few encounters and no interpretive signage.

Other Use:

B Cycling and mountain bike riding

D Dog walking on leash

– No uses in addition to walking

6.5 Camping

Camping in the park is a popular activity, and is associated with bushwalking, prospecting and vehicle-based touring. Most camping occurs during summer and the park provides a range of camping experiences, from campgrounds with basic facilities to dispersed bush camping. State Forest adjacent to the park also provides camping opportunities.

Vaughan Mineral Springs is the most popular campground in the park. The campground has designated campsites and basic facilities including toilets, picnic tables and electric barbecues. To provide camping opportunities for large groups, a campground has recently been developed at Chokem Flat. Camping is also available for self-sufficient campers at Warburtons Bridge. Fireplaces for campfires will be provided at Chokem Flat and Warburtons Bridge (table 4).

Some visitors prefer self-sufficient camping away from designated campsites. This type of camping is either vehicle-less or vehicle-based dispersed camping. Dispersed camping has potential to damage park values or conflict with other park users. Vehicle-less dispersed camping is allowed throughout the park and vehicle-based dispersed camping is provided for in the park to the south of the Loddon River, subject to measures to minimise any impacts on the park.

Although most visitors collect and use firewood for campfires in a responsible fashion, the depletion of fallen timber degrades fauna habitat (section 5.4) and is therefore an unacceptable practice in the park. Firewood for campfires must be supplied by visitors. There may be opportunity for campfire firewood collection areas to be established in nearby State forest areas.

Aim

- Provide opportunities for a range of camping experiences consistent with the protection of park values.

Management strategies

- *Provide and maintain campground facilities in accordance with table 4.*
- *Permit vehicle-less dispersed camping throughout the park except within the Special Protection Area, Special*

Management Area (figure 2), 20 m of any stream and 1 km of designated campgrounds or within picnic areas.

- *Permit vehicle-based dispersed camping south of the Loddon River except within the Special Protection Area (figure 2), 20 m of any stream and 1 km of designated campgrounds or within picnic areas.*
- *Promote Vaughan Mineral Springs as the main campground in the park.*
- *Promote Chokem Flat as the main campground in the park for self-sufficient large groups through a permit system.*
- *Permit campfires only in designated fireplaces (table 4 and figure 3b) in accordance with National Park (Park) Regulations 2003.*
- *Prohibit the collection of firewood within the park.*
- *Provide information to campers about the need to bring their own firewood from outside the planning area, and investigate with DSE if there are opportunities to provide campfire firewood collection areas in nearby State forest.*
- *Encourage the use of liquid or gas fuel stoves in areas designated for camping and picnicking (table 4).*
- *Provide fireplaces at Warburtons Bridge and Chokem Flat and provide information, including signs indicating that firewood must not be collected from within the park.*
- *Promote Parks Victoria's 'Camping Code', available on ParkWeb (section 6.1).*
- *Encourage the Mount Alexander Shire and the Castlemaine Tourism Visitor Information Centre, to promote available camping and accommodation facilities outside the park (section 6.1).*
- *Regularly evaluate the condition of camping sites to ensure visitor experiences and park values are not compromised and manage accordingly.*

6.6 Cycling and mountain bike riding

The park provides extensive opportunities for cycling and mountain bike riding.

Cycling is permitted on all open roads and vehicular tracks, management vehicle tracks and designated shared walking tracks including most of the Great Dividing Trail (tables 3 and 5, figures 3a, 3b and 3c). There are some sections of the Great Dividing Trail that are steep, narrow or difficult for cyclists to traverse (table 5 and figures 3a, 3b and 3c).

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

Aims

- Provide opportunities for cycling and mountain bike riding.
- Protect park values and avoid conflicts with the activities of other park visitors.

Management strategies

- *Permit cycling and mountain bike riding on all open roads and vehicular tracks, management vehicle tracks and designated shared walking tracks in the park in accordance with tables 3 and 5.*
- *Maintain shared walking tracks to ensure rider and pedestrian safety.*
- *Design and promote official mountain bike routes in the park based on the existing road and track network, in consultation with the Great Dividing Trail Association, local mountain bike clubs, the Traditional Owners and the scheduled Aboriginal community.*
- *Encourage bike riders to adhere to the 'Mountain Biking Code'.*
- *Involve cycling and walking groups in monitoring and assessing tracks, resolution of cycling issues and the implementation of restoration projects.*

6.7 Dog walking

Dogs on leads are permitted in areas of the park to provide opportunities for local residents to walk dogs. Dog walking most

commonly occurs in areas of the park which are close to townships.

Dogs can have impacts on bird populations and other wildlife. Their presence, scent and noise may disturb birds and prevent roosting and feeding. Some visitors, particularly small children, may be annoyed or intimidated by unrestrained dogs. Droppings are a potential source of pollution and can reduce the amenity of visitor sites.

Dogs are considered incompatible with the aims and objectives of areas managed under the National Parks Act, and are generally prohibited from these areas. However, a number of parks have areas set aside to allow dog walking, provided dogs are leashed, under control and restrained from causing annoyance to people and wildlife or damage to property. 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 this activity on park values and other visitor's enjoyment of the park.

To minimise the impacts of dogs on wildlife and other visitors, dogs are not permitted in Special Protection Areas of the park and in Vaughan Springs.

Aims

- Provide opportunities for walking dogs on a leash.
- Protect park values and avoid conflicts with the activities of other park visitors.

Management strategies

- *Permit dogs in the park subject to the following conditions:*
 - *dogs must be on a leash at all times*
 - *dog walking is permitted on all roads in the park (table 3) and on walking tracks designated for dog walking (table 5)*
 - *dogs are not permitted within the Herons Reef, Arthurs, The Monk, Little Specimen Gully, Welsh Village and Expedition Pass Special Protection Areas and at Vaughan Mineral Springs (tables 1 and 5, figures 2 and 3b).*

- *Provide information for visitors about opportunities for dog walking in the park and conditions.*
- *Promote and encourage responsible dog walking practices through information and education programs and enforce regulations where appropriate (section 6.1).*
- *Work cooperatively with the Mount Alexander Shire to provide information on areas outside the park where dogs are permitted on and off-leash.*

6.8 Horse riding

Horse riders use the park regularly, although not in large numbers. Horses are permitted on all open roads and vehicle tracks in the park except roads and tracks within Vaughan Mineral Springs (table 3).

Horse riding and camping with horses is also permitted in State Forest adjacent to the park.

Horse riding, particularly in groups, can conflict with other visitor activities and result in damage to tracks, accelerated soil erosion and the introduction and spread of weeds from horse hooves and manure. To reduce the potential impact of horses, camping with horses is not provided for within the park.

Aims

- Provide opportunities for horse riding.
- Protect park values and avoid conflicts with the activities of other park visitors.

Management strategies

- *Permit horse riding on all open vehicular roads and tracks and management vehicle tracks in the park, except roads and tracks within Vaughan Mineral Springs (table 3, figure 3b). Prohibit horse riding elsewhere in the park on and off road.*
- *Identify and promote a 'horse trail' in the park on existing vehicle tracks in consultation with local riding groups and organisations. Encourage local horse riding groups and organisations to maintain the 'horse trail' and apply for grants for approved works.*
- *Allow organised groups of horse riders or horse riding events in the park through the*

issue of a permit with conditions (section 7.3).

- *Prohibit overnight camping with horses in the park.*
- *Provide appropriate information on horse riding, including information on feeding horses on 'weed free feed' for 48 hours prior to entering the park and encourage riders to adopt minimal impact practices and to adhere to the 'Horse Riding Code' (Parks Victoria 2006) available on ParkWeb (section 6.1).*

6.9 Orienteering and rogaining

Orienteering and rogaining events are permitted in the park except within the Special Protection Area, areas where natural and cultural impacts would be unacceptable and areas that attract high visitor numbers such as Vaughan Mineral Springs.

Aims

- Provide opportunities for orienteering and rogaining events in the park.
- Protect park values and avoid conflicts with the activities of other park visitors.

Management strategies

- *Allow orienteering and rogaining events in the park, except within the Special Protection Areas and Special Management Areas (figure 2) and areas that attract high visitor numbers subject to permit conditions and in accordance with Parks Victoria operational policies.*
- *Work with event organisers and representative organisations to ensure they are aware of potential safety issues and potential risks in proposed event areas.*
- *Work with event organisers and representative organisations to identify and protect sensitive values or features in proposed event areas.*
- *Apply a set of standard conditions for events with provision for additional special conditions to address individual situations.*

6.10 Prospecting

Prospecting is a popular activity in the park and provides a continuing link to its gold mining history (section 2.3).

Prospecting should not be confused with ‘treasure hunting’ or ‘fossicking’, the search for archaeological relics (coins, bottles etc.), 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 in cooperation with prospecting clubs and organisations in a manner that protects the natural and cultural features of the park.

Recreational prospecting is permitted in the park under section 32D of the National Parks Act subject to the holding of a Miner’s Right or Tourist Fossicking Authority (TFA). Only non-mechanical hand tools are permitted for prospecting, excavations must be backfilled and vegetation must not be disturbed.

To protect significant cultural and natural values in the park from disturbance and to avoid conflicts with the activities of other park visitors, prospecting is not permitted in the Special Protection Areas – Cultural and Natural Values, the Special Management Area – Research and other areas of the park listed in table 1 as areas where prospecting is excluded (section 3.2 and figure 2).

The Prospectors and Miners Association of Victoria (PMAV) has developed a Prospectors and Miners Code, which sets out guidelines for safe prospecting and methods to minimise the impacts of prospecting on park values.

Aims

- Provide opportunities for prospecting in the park.
- Protect park values and avoid conflicts with the activities of other park visitors.

Management strategies

- *Permit prospecting in the park subject to the holding of a Miners Right with the exception of areas outlined in table 1 and shown on figure 2 as areas where prospecting is excluded.*

- *Work cooperatively with the PMAV to encourage prospectors to adhere to the ‘Prospectors and Miners Code’.*
- *Produce a Park Note for prospecting and include a map of the park that clearly identifies areas where prospecting is permitted, in consultation with the PMAV, and make it available on ParkWeb (section 6.1).*
- *Provide signage at visitor sites regarding prospecting in the park (table 4).*
- *Monitor the impacts of prospecting on cultural and natural values of the park and where impacts are identified work with the PMAV and other relevant stakeholder groups to identify and address the causes.*

6.11 Tourism services

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.

There are currently six licensed tour operators that undertake commercial activities within the park. These activities include bushwalking, 4WD tours, coach and bus tours, prospecting and spotlight (night) walks.

The Traditional Owners and other Indigenous communities could add to the tourism experience in the park by developing and delivering interpretive and educational tours on Indigenous cultural heritage.

In addition, the significant gold-related heritage values of Herons Reef could provide further opportunities for licensed tour operators to conduct guided tours.

Close and ongoing coordination between licensed tour operators and park management will ensure that the services provided by commercial operators are consistent with the aims for the park.

Parks Victoria encourages licensed tour operators to manage their activities in accordance with the Adventure Activity Standards (ORC 2005) that provide voluntary guidelines for the undertaking of 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 criminal penalties, 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

- *Ensure all licensed tour operators using the park are licensed and promote awareness of Adventure Activity Standards and Minimal Impact Guidelines.*
- *Develop and implement a licensed tour operator induction program on the history, cultural and natural values of the park to enhance their protection and interpretation.*
- *Continue to work with licensed tour operators to minimise potential impacts on park values, and to facilitate the delivery of appropriate messages relating to park values and their protection.*
- *Encourage licensed Indigenous tour operators to add to the tourism experience in the park by developing and delivering interpretive and educational tours on Indigenous culture and history.*
- *Host a series of familiarisation visits for licensed tour operators to explore the opportunity for guided tours to include Herons Reef.*

6.12 Public safety

Areas previously mined in the park present inherent risks to visitors and park staff due to the presence of open cuts, glory holes, shafts, stopes and mining relics. These features often contribute to the historic significance of a site and therefore their integrity needs to be maintained where possible.

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

The fall-out zone for the Castlemaine Gun Club is located in the north-west of park. To

date no visitor safety problems have been identified, but a Special Management Area is applied to minimise the potential risk to visitors (figure 2). In addition, wildfire during dry times and extremes in weather conditions present possible hazards and risks to visitors.

Visitors need to be aware of potential hazards in the park to ensure that they enjoy a safe visit. Public information and education programs are one of the most effective ways to promote safety (section 6.1). Safety messages are presented to visitors through signs, Park Notes and ranger patrols.

Parks Victoria is not the lead agency for most emergency response situations. Depending on the type of emergency, the lead agency will often be the Victoria Police, the State Emergency Service, the Department of Sustainability and Environment or the Country Fire Authority. Parks Victoria will often be called upon to provide support to these agencies in the management of emergency incidents.

Aims

- Promote visitor safety and awareness of safety issues and risks within the park associated with access and use.
- Promote and observe safe practices, and cooperate with emergency services.

Management strategies

- *Increase visitor awareness of safety issues and potential risks in the park through the use of Park Notes, ParkWeb, information brochures and signs (section 6.1).*
- *Cooperate with and support responsible agencies in emergency response and ensure that Parks Victoria staff have adequate levels of training in emergency procedures.*
- *Provide and maintain safety and information signage at key locations in the park (section 6.1).*
- *Develop an Emergency Management Plan for the park, and ensure staff and licensed tour operators are aware of the plan.*
- *Monitor risks to visitor safety at key visitor sites and nodes and where necessary*

undertake appropriate works for the protection and safety of visitors.

- *Audit identified risks and hazards within the park on a regular basis.*
- *Provide information on and encourage visitor behaviour consistent with codes of practice for their activity.*
- *Liaise with Mount Alexander Shire to ensure that the Municipal Emergency Response Plan makes adequate provision for likely incidents in the park.*

7 STRATEGIES FOR AUTHORISED AND ADJACENT USES

7.1 Infrastructure

There are a range of public utilities within the park, including:

- a network of channels managed and operated by Coliban Water for supplying water to irrigation, stock and domestic customers outside the park
- telephone cables and a communication tower managed and operated by Telstra
- electrical transmission lines managed and operated by Powercor Australia
- a high-pressure gas pipeline maintained by Gasnet Australia Pty Ltd in accordance with a Governor-in-Council Order under Section 25 of the *Pipelines Act 1967* (Vic.)
- a sewerage mains managed and operated by Coliban Water.

The operation of public utilities in the park is subject to permission from the Secretary to DSE with conditions to minimise effects on the park and visitors.

Section 27 of the National Parks Act and Parks Victoria's operational policies 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.

On a local scale, care must be taken to ensure that developments near key visitor sites have no adverse impact on the visual integrity of the area (section 4.2).

Aim

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

Management strategies

- *Seek Section 27 consents under the National Parks Act for all existing public authority installations and services, including conditions to ensure construction, operation and maintenance are consistent with protection of the park's natural and cultural values and amenity of visitors.*

- *Ensure that conditions in authorisations are followed and reviewed as appropriate.*
- *Ensure any new proposals for public authority installations and services in or adjacent to the park are assessed for their impacts on park values.*
- *Ensure park management activities are consistent with the protection and safe operation of public utilities.*
- *Liaise with Powercor Australia to ensure the clearing and pruning of vegetation under the electrical transmission lines is in accordance with relevant legislation and codes of practice.*

7.2 Occupancies

A number of lease and licence agreements authorising certain uses apply to the park. These are reviewed periodically to ensure that the protection and conservation of park values is not compromised.

Mining

One gold mining licence and two work authorities (a slate and sandstone quarry) occur at least partly within the park, and several exploration licences collectively cover almost the entire park.

In relation to minerals, the park is 'restricted Crown land' for the purposes of the Mineral Resources (Sustainable Development) Act (section 2.5).

Exploration and mining within the park requires the consent of the Minister responsible for the National Parks Act (as Minister responsible for administering the Act under which the park is controlled or managed). The searching for stone or the granting of any work authority for the extraction of stone under the *Extractive Industries Development Act 1995* (Vic.) also requires the consent of the Minister responsible for the National Parks Act.

Because the park is reserved to a depth of 100 metres, mining and exploration below this depth is outside the park and the provisions for exploration and mining on unrestricted Crown land under the Mineral Resources (Sustainable

Development) Act apply (section 2.5). Mining under the park may require surface infrastructure such as air shafts and vents, which are subject to an approved work plan, which includes an assessment of potential impacts on park values. Works in the park would require the consent of the Minister responsible for administering the National Parks Act.

Apiculture

The area included in the park has been used for apiculture since early settlement (section 2.3). The park has 27 apiary sites, for which permits for use by apiarists may be issued under Section 21(1)(b) of the National Parks Act for a period not exceeding six months. The government accepted ECC recommendations to allow for apiculture to continue in the park on licensed sites, subject to the outcome of research into the ecological impacts of this industry and park management requirements (ECC 2001). The location of some apiary sites may need reviewing to minimise conflict with park values or recreational use in the park.

Water supply

Approximately 22 privately managed and operated channels occur within the park. These channels are connected to Coliban Water's channel system (section 7.1) and are used to convey water to private property for irrigation, stock and domestic purposes. Licences for these channels, and any new such works to convey water across the park, will be authorised under section 30G of the National Parks Act.

A total of three water supply licences occur within the park, allowing licence holders to maintain and operate a dam which pre-existed the park. These annual and five-year licences were previously issued under the Land Act and the Forests Act. These pre-existing dams will be authorised under licences granted under section 30H of the National Parks Act for a period not exceeding three years. No new private dams are permitted in the park.

Miscellaneous

There are a number of miscellaneous occupancies within the park which were previously authorised under the Land Act. A review of these occupancies and appropriate tenure arrangements is required.

There are three school pine plantations located within the park, at Chewton (near Forest Creek), Vaughan Springs and Spring Gully Mine. The government noted the Castlemaine Primary School has a pine plantation at Chewton and indicated that the plantation could be harvested in future provided the site is adequately rehabilitated with Box-Ironbark species consistent with the park values (Government of Victoria 2002).

In accordance with the National Parks Act grazing ceased in the park in October 2005.

Aim

- Manage authorised occupancies in accordance with the relevant legislation, and minimise their impacts on park values.

Management strategies

- *Ensure that all permitted occupancies are appropriately licensed under the National Parks Act, and, in consultation with authorised users, are used and operated in a manner that does not conflict with park values.*
- *Review miscellaneous licences within the park to ensure that the use is in accordance with the National Parks Act and does not conflict with the park's management objectives.*
- *Ensure all mineral exploration, mining and extractive industry activities are conducted in accordance with relevant legislation, Government-accepted ECC recommendations (Government of Victoria 2002) and the relevant codes of practice.*
- *Ensure plant and equipment used for exploration will minimise potential impacts on cultural and natural values.*
- *Ensure surface infrastructure required for mining under the park, such as air shafts and vents, are kept to a minimum and are located to minimise impacts on park values.*
- *Permit apiculture in the park at not more than 27 sites and in accordance with the government-accepted ECC recommendations and Parks Victoria's operational policies.*

- *Relocate bee sites where necessary in consultation with the Victorian Apiarists Association (VAA) and relevant apiary permit holders.*
- *Permit school pine plantations within the park to be harvested and rehabilitated with indigenous species, and as a minimum in accordance with the Code of Forest Practices for Timber Production (NRE 1996).*

7.3 Occasional uses

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

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

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

The park is receiving an increasing number of requests to hold major events and functions including car rallies (section 6.2), athletics carnivals and weddings.

Aim

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

Management strategies

- *Permit Defence Force training or field navigation exercises in the park in accordance with Parks Victoria's operational guidelines and relevant permit conditions.*

- *Manage commercial filming and photography, in accordance with Parks Victoria's operational policies.*
- *Permit and encourage events and functions that:*
 - *do not damage cultural or natural values of the park*
 - *do not unduly disturb and disadvantage other visitors*
 - *do not unduly increase liability risk exposure*
 - *can be appropriately managed with available resources.*
- *Favour events and functions that provide community benefits or complement park values.*
- *Ensure the Traditional Owners are consulted and involved in the planning and participation of relevant events.*

7.4 Park boundaries and adjacent uses

Freehold land and State forest border the park. The freehold land has been largely cleared for agriculture. However, there is an increasing amount of residential development bordering the park associated with the historic townships of Castlemaine, Chewton, Fryerstown, Vaughan, Campbells Creek and Guildford, which are adjacent to or are surrounded by the park.

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

Land use and development on land surrounding the park is regulated by the Mount Alexander Shire Council through the local planning scheme. Land surrounding the park is predominantly zoned rural. Other zones that have been applied to land surrounding the park include rural living and township. Before deciding on an application to use or develop land within these zones, the Mount Alexander Shire Council must consider the likely impacts of the proposal.

The park has a number of boundary anomalies. Specimen Gully in the north and Shicer Gully in the west are not contiguous with the rest of the park and there are a number of private land enclaves.

Aim

- Cooperate with adjoining landholders and the Mount Alexander Shire to manage boundary and adjacent land use issues.

Management strategies

- *Liaise with local community groups and landholders and involve them in relevant aspects of the park's planning and management.*
- *Apply and encourage the application of the Good Neighbour policy to management issues on or near the boundary of the park including the protection of cultural and natural values.*

- *Encourage landholders to use covenants and support initiatives such as Landcare and Land for Wildlife to enhance conservation values on adjacent land.*
- *Encourage landholders to maintain fences along the park boundary.*
- *Liaise with DSE to promote complementary management of adjoining State forest.*
- *Liaise with the Mount Alexander Shire to seek the application of appropriate zoning and overlays on land surrounding the park, to better ensure development and land use changes are compatible with the protection of park values.*

8 STRATEGIES FOR COMMUNITY AWARENESS AND INVOLVEMENT

8.1 Community awareness

Raising the community's awareness of the park's values is an essential step in developing its sense of custodianship for the park and engagement in the area's management. The community is more likely to develop a sense of custodianship for the park if its views and values are respected and park-related social networks are encouraged and supported.

A strong connection with the park among visitors and in the local and wider community assists in broader public education, raising awareness and reaching others in the community. The park has special significance to local communities and there are opportunities to celebrate, protect and enhance the park's values and the connections that communities have with the park.

Education and interpretation programs (section 6.1) play an important role in raising the awareness of the park in the wider community.

Existing community networks, particularly those with a strong commitment to the park, provide avenues for Parks Victoria to increase the awareness of others in the community about the park and its values.

Aims

- Increase community awareness and understanding of the park's values and management activities.
- Encourage communities to act as custodians and advocates for Box-Ironbark parks.
- Value and celebrate traditional community ties to the park.

Management strategies

- *Build broader community awareness of the power of individual responsibility and individual capacity to make a difference through direct involvement (section 8.2), and information, interpretation and education (section 6.1).*

- *Host an annual 'Park Information' day/evening to provide information to park-related communities and park neighbours on the annual work program and the implementation of the management plan, and to celebrate the achievements of Friends, volunteers and community groups in the park.*
- *Increase public awareness and understanding of significant park management activities, including the management and interpretation of cultural heritage sites, fire management and fuel reduction burning, pest plant and animal control, ecological thinning trials and the conservation of threatened species through a newsletter or a regular article/column in a local newspaper.*
- *Communicate to the broader community the work of Friends, volunteers and community groups.*
- *Liaise with the park-related communities and the Mount Alexander Shire to enhance community understanding of responsible pet ownership, planting of indigenous vegetation and problems associated with pest plants.*

8.2 Community participation

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

The Traditional Owners have considerable interest in and aspirations for the park as part of *Country* and are an important potential source of knowledge about the area that has yet to be documented. 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.

Volunteers and community groups make a valuable contribution to park management

projects. Other groups, such as local historical societies, naturalist groups and individuals provide important resource information on the park. Volunteers introduce increased capacity, diversity in skills and great enthusiasm to the planning, use and care of parks.

Volunteers, community groups and former and current park users have a long history of involvement in the management and protection of cultural heritage sites and natural values now incorporated in the park. The Castlemaine Pioneers and Old Residents Association was appointed trustees of Pennyweight Flat Cemetery in 1918. They also managed other areas now included in the park. Friends of Kalimna Park have been actively involved in management of the Kalimna area for over 30 years and are committed to ongoing involvement in the management of this part of the park.

Other organisations, such as the Friends of Mount Alexander Diggings, Friends of Box-Ironbark Forest and several local Landcare groups have also involved themselves with the management and interpretation of the park's flora and fauna, history, mining relics, geology and scenery. In addition, the broader community has drawn inspiration from the park's cultural heritage and natural values for art works, performances, exhibitions, cultural events and books.

Aims

- Support and encourage community groups and volunteers to actively participate in the planning, use and care of the park.
- Increase awareness and support for the park and maintain good relations with neighbours and the local community.

Management strategies

- *Continue to build strong relationships with the Traditional Owners and other Indigenous communities with an interest in the park, and explore means to involve and work with the Traditional Owners in reflecting their knowledge, interests and aspirations in the management of the park (section 4.1).*
- *Establish and maintain strong and collaborative relationships with Friends groups, volunteers and community groups*

with particular interests in the park to ensure sustainable and rewarding volunteer experiences.

- *Support and encourage the activities of existing Friends and volunteer groups, including the Friends of Mount Alexander Digging and the Great Dividing Trail Association. Support the establishment of new Friends and volunteer groups as appropriate.*
- *Support capacity-building initiatives through appropriate training, tools and support to better enable volunteer participation in the planning, use and care of parks.*
- *Coordinate community engagement that captures the diversity of people, ideas and opinions present in the community.*
- *Encourage community involvement in regular observation and standardised monitoring and recording programs for pest plants and animals, threatened flora and fauna, and cultural values using standard methods.*

8.3 Agency partnerships

Although Parks Victoria is directly responsible for management of the park, a number of other agencies have key responsibilities for planning, management, or regulation over all or parts of the park. All activities relating to the park that are carried out by Parks Victoria or other agencies need to accord with all legislation and government policy and, as far as practicable, be consistent with agencies' policies and guidelines. To ensure this occurs, park staff must work closely with staff of relevant agencies and collaborate in implementing activities where appropriate.

The Department of Sustainability and Environment (DSE) provides strategic direction and policy advice for management of the park, including fire management, flora and fauna values, threatening processes, statutory planning and catchment protection. Parks Victoria is a support agency, operating at the direction of DSE for emergency responses.

The Minerals and Petroleum Division (MPD) of the Department of Primary Industries regulates and promotes the exploration and

development of Victoria's extractive, mineral and petroleum resources.

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

The North Central Catchment Management Authority (NCCMA) works to improve the health of the natural environment of the catchment. It has responsibility to ensure the protection and sustainable development of land, vegetation and water resources within the region, including preparation of the Regional Catchment Strategy to specifically address impacts of land use and management on the catchment (section 5.2).

Coliban Water is responsible for providing retail, urban and rural water customers with water and wastewater services in central and north central Victoria. The park contains a network of channels managed and operated by Coliban Water for supplying water to irrigation, stock and domestic customers outside the park (section 7.1).

The Mount Alexander and Hepburn Shire Councils administer the planning schemes for land adjacent to the park, including assessment of developments with the potential to impact on park values and tourism and recreation services. Parks Victoria provides input through DSE into planning applications to ensure the protection of park values (section 7.4). In addition, the Shires manage numerous roads which pass through the park (table 3, section 6.2).

VicRoads is responsible for the management of seven roads which pass through the park (table 3, section 6.2).

The Victorian Mineral Water Committee (VMWC) is responsible to the Minister for Environment for ensuring the preservation of Victoria's natural mineral water resources.

Through Aboriginal Affairs Victoria (AAV), the Department of Victorian Communities has responsibility for administering legislation protecting cultural heritage (section 4.1). AAV and the North West Cultural Heritage Unit advise Parks Victoria on Indigenous matters.

Heritage Victoria provides information and advice about places listed on the Victorian Heritage Register and Archaeological

Inventory. It supports the Heritage Council through research, recommends additions to the Register and issues permits for alterations to heritage places.

Tourism Victoria is the State Government authority responsible for developing and marketing Victoria as a tourist destination, including the Goldfields Tourism Region, which includes the park.

Victorian agencies work cooperatively with the Commonwealth Department of the Environment and Heritage on the management of bioregional ecosystem and heritage conservation issues.

Aim

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

Management strategy

- *Work collaboratively with all agencies to implement the plan's vision and directions. In particular, work with:*
 - *DSE regarding future planning and management, including protection of flora and fauna from potentially threatening processes and fire management*
 - *MPD to seek relevant advice for future mining and exploration licences in the park to ensure they are consistent with the protection of park values*
 - *NCCMA to reduce the impacts of land use and management on the park and to ensure that the management objectives of the park are considered in the Regional Catchment Strategy*
 - *CFA to minimise adverse affects of fire and fire suppression methods on the park's values*
 - *AAV and the North West Cultural Heritage Unit on issues regarding Indigenous affairs and compliance with relevant legislation*
 - *Heritage Victoria regarding the Memorandum of Understanding, Victoria's Heritage – Strengthening*

- our Communities (Heritage Victoria 2006), heritage management advice and compliance with the Heritage Act (section 4.2)*
- *Coliban Water to ensure the management and operation of the channel network in the park is consistent with the protection of park values*
 - *Tourism Victoria to promote the park in regional visitor information centres and regional tourism strategies*
 - *Commonwealth Department of the Environment and Heritage on the management of regional ecosystem conservation issues*
 - *VMWC to minimise any impacts on the natural mineral water resources in the park*
 - *Mount Alexander and Hepburn Shire Councils regarding roads that provide access to the park, and input into developments that may impact on the park*
 - *VicRoads to minimise impacts associated with the management of roads which pass through the park, particularly from road works and signage.*

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

At the end of each year, progress towards implementing strategies in 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 the annual reports on the National Parks Act and Parks Victoria.

During implementation of the plan, Parks Victoria will work in partnerships with the Traditional Owners and the scheduled Aboriginal community. Ongoing collaborative activities with the Traditional Owners, 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.

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 (section 8.2). Park open days and community and volunteer forums will offer similar opportunities for reporting and discussions about annual programs.

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

Parks Victoria will also report on 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 the Parks Victoria's website, will also include information on management performance in the park.

9.2 Plan amendment

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

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
- an activity, development or use which conflicts with the provisions of the plan is approved by government (such as native title outcomes)
- significant changes in visitation or use
- a change in policy that calls into question plan objectives
- new legislation (such as significant boundary changes).

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 cultural values

- Minimal impact to sites and landscapes of historical or cultural significance from human interference, pest plant invasion and tree disturbance.
- Overall progress towards working with Traditional Owners and Indigenous communities in all aspects of park management, particularly protection of Indigenous places and interpreting cultural heritage.
- Natural evolution of the park's Box-Ironbark forest and woodland landscapes modified by mining and forestry.
- Timely management intervention to avoid damaging activities and threats.
- Meeting community expectations as a good manager of historic places.

Protecting natural values

- An increase in the cover of native ground and shrub layers in the park through a decrease in weed cover.
- Increasing the level of fallen timber to improve woodland habitat for ground-foraging birds, reptiles and mammals.
- Improved habitat for the Eltham Copper Butterfly through an increase in the population of Sweet Bursaria and protection of the *Notoncus* ant.
- Progress towards restoring the structure of vegetation in the non-mining landscape areas of the park to a more appropriate balance of juvenile, intermediate and mature trees, consistent with the protection of cultural sites and landscapes.
- Minimal impact of permitted uses.
- Compliance with park regulations.

Managing recreation and visitor use

- Maintaining the levels of information and interpretation (section 6.1).
- Meeting and maintaining the levels of service for facilities (table 4).
- Park facilities meet public safety standards and the majority of facilities have more than five years life expectancy.
- Meeting agreed road and track standards (tables 3 and 5).
- Managing impacts from visitors, including individuals and school and tour groups.
- Increasing number of licensed tour operators offering a range of activities with responsible park management messages.
- Maintaining visitor satisfaction with recreation opportunities.
- Meeting community expectations in relation to Parks Victoria's management of the park.
- Improving community and visitor awareness.

Providing for research and promoting understanding

- Improved identification and understanding of heritage values, in particular those that

have special significance or require special protection.

- Improving understanding of the application of ecological thinning in managing the park's vegetation and the management requirements of threatened flora and fauna.
- Progress towards reflecting Traditional Owners' views and aspirations in the park's planning and management.
- Ongoing partnerships with responsible agencies, and participation by Traditional Owners and other communities in park research, monitoring and management.

Methods for evaluating the benefits of the plan are likely to be refined over time. Parks Victoria has introduced a range of structured monitoring practices to collect standardised and scientifically robust information. In particular these will improve understanding of the outcomes of pest management on natural values and allow improved reporting and assessment of performance. Parks Victoria also partners with 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 and cultural values. 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

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

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

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

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

Continental erosion – erosion on a large scale causing large volumes of landscape to be weathered away.

Crown land – land belonging to the State.

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

Dreaming – the primordial creative world of the spirit ancestors (the Dreamtime) and the continuing reality for their totem ancestors.

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

Freehold land – see private land.

Glory hole – a large pit created by miners working upwards from an underground ore body to the surface.

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

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

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

Indigenous people – people who are descendants of Aboriginal Australians.

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

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

Matters of National Environmental Significance – defined by the Environment Protection and Biodiversity Conservation Act to include: World Heritage Properties; Ramsar wetlands; nationally threatened species and communities; migratory species protected under international agreements; the Commonwealth marine environment; and nuclear actions.

Mound – Raised areas of soil formed by the slow build-up of cultural material deposited by Aboriginal people living there over a long period of time. Mounds often contain charcoal, burnt clay or stone heat retainers from cooking ovens, animal bones, stone tools, and sometimes Aboriginal burials.

Nature-based tourism – tourism that provides a range of experiences that rely on attractions directly related to the natural environment.

Open cuts – a large pit created by miners quarrying an ore deposit down from the surface.

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

Pioneering quartz mining – the first period of quartz mining in Victoria when miners experimented with a range of grinding and crushing machinery. The quartz rock or ore was often roasted in kilns prior to crushing or grinding.

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

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

Public land – refer to Crown land.

Pump sluicing – when miners undertaking hydraulic sluicing used certain types of machinery, e.g. a gravel pump or jet elevator, to dispose of waste material.

Relevant Indigenous communities – includes the Traditional Owners, and the scheduled Aboriginal community for areas included in the park.

Rock well – depression in a rock created by manual abrasion for collecting water.

Scar tree – scars on a tree as a result of Aboriginal people removing bark for the manufacture of utensils, shields, canoes or shelters. Aboriginal

people also chopped small notches into trees to provide hand and toe holds to aid climbing. This allowed them to use trees as lookouts, hunt for arboreal animals and cut bark higher up the tree.

Scheduled Aboriginal community – body/s scheduled under the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cwlth) relating to the park.

Seed grinding grooves – depressions in a rock created by manual abrasion from grinding up seeds.

Shafts – narrow vertical excavation dug by miners from the surface.

Shallow alluvial mining – the mining of alluvial gold from creeks, gullies and flats.

Shell midden – large deposits of shells left by Aboriginal people.

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

Stope – an underground excavation for the removal of gold bearing ore.

Susso – the term given to unemployed men during the 1930s Depression. The unemployed men were given assistance by the Government to look for gold.

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

Traditional Owners – the Jaara Jaara 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.

Abbreviations

AAV – Aboriginal Affairs Victoria

DSE – Department of Sustainability and Environment.

ECC – Environment Conservation Council

MPD – the Minerals and Petroleum Division of the Department of Primary Industries

NCCMA – North Central Catchment Management Authority

NRE – former Department of Natural Resources and Environment (now DSE)

VMWC –Victorian Mineral Water Committee

APPENDIX 1 MANAGEMENT OBJECTIVES FOR NATIONAL HERITAGE PARKS

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.

Part 8 of Schedule Four of the National Parks Act provides that the Objects included in Sections 4(b) and 4(c) of the Act (as listed below) apply to the Castlemaine Diggings National Heritage Park.

Section 4 Objects of the Act

- (b) in respect of parks described in Schedule Three –
- (i) to make provision, insofar as is appropriate to each such park, for the protection and preservation of indigenous flora and fauna and of features of scenic or archaeological, ecological, historic or other scientific interest; and
 - (ii) subject to such provision as is made under sub-paragraph (i), to make provision for the public to observe, experience or otherwise become acquainted in those parks with the countryside and rural skills activities and pursuits and for carrying on, in those parks and for those purposes, agricultural, horticultural, or other agrarian projects and botanical, biological, ecological, geological, zoological, or other scientific studies or projects; and
 - (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 18 Other Parks

- (2) The Secretary shall, subject to this Act –
- (a) ensure that each park [described in Schedule 3] is controlled and managed in accordance with the objects of the Act in a manner that will, insofar as is appropriate to the park –
 - (i) preserve, protect and re-establish indigenous flora and fauna in the park;
 - (ii) preserve and protect features in the park of scenic, archaeological, ecological, geological, historic or other scientific interest;
 - (iii) enable the park to be used by the public for the enjoyment, observation and study of the countryside and its pursuits, its flora and fauna, its ecology and geology and other features; and
 - (iv) control exotic flora and fauna in the park;
 - (b) ensure that proper and sufficient measures are taken to protect each park referred to [in Schedule 3] from injury by fire;
 - (i) promote and encourage the use and enjoyment of parks referred to in [in Schedule 3] by the public; and
 - (ii) prepare a plan of management in respect of each park referred to [in Schedule 3].

APPENDIX 2 SUBMISSIONS ON THE DRAFT MANAGEMENT PLAN

A total of 44 submissions were received on the Draft Management Plan (July – September 2005), from the following organisations and individuals. Three submissions were marked confidential.

ORGANISATION	SUBMISSION No.	NAME	SUBMISSION No.
Submissions from groups		Submissions from individuals	
	Total: 24		Total: 20
Australian Trail Horse Riders Association	28	Kellie Brown-Kenyon	6
Bendigo Four Wheel Drive Club	40	F. Caesar-Gordon	7
Bush Users Group	37	Kate and John Caraher	23
Castlemaine Field Naturalists Club	24	Frances Cincotta	27
Central Victorian Rocky Riders Mountain Bike Club	35	Confidential	1
Department of Primary Industries	39	Confidential	14
DSE	4	Confidential	30
DSE North West Region	44	Russell and Anne Deal	10
Friends of Box-Ironbark Forests – Mount Alexander Region	16	Marie Jones	11
Friends of Kalimna Park Inc.	33	Daydd Kelly	8
Friends of Mount Alexander Diggings	22	Michael Kennedy & Carla McKerron	26
Friends of Mount Alexander Diggings	38	Clyde Leatham	13
Great Dividing Trail Association	25	Colin and Marie Murley	2
Mount Alexander Shire Council	42	Trish Nott	34
North Central Catchment Management Authority	41	Ern Perkins	9
Prospectors and Miners Association of Victoria	19	Lesley Perkins	12
Sporting Shooters Association of Australia (Victoria) Ltd.	36	Richard Piesse	3
Victorian Apiarists' Association Inc. Resources Committee	18	Mrs E. J. Preece	43
Victorian Gem Clubs Association Inc.	31	Deirdre Slattery	21
Victorian Metal Detector and Prospectors Association Inc.	5	Joe Wilson	15
Victorian National Parks Association	20		
Victorian Seekers Club Inc.	17		
Victorian Seekers Club Inc.	32		
VicWalk (Federation of Victorian Walking Clubs)	29		

APPENDIX 3 GEOLOGICAL SITES OF SIGNIFICANCE AND INTEREST

SITES OF SIGNIFICANCE	DESCRIPTION
Folded Castlemaine Group	This sluiced exposure on the east side of the Campbells Creek – Fryers Road was mined in the 1930s by the Bradfield family. Typical cleavage and fold styles of the Castlemaine Supergroup are well exposed in the hinge zone of a north-plunging anticline.
Forest Creek Gold Diggings	The three layers seen in the open pit show the typical succession from lower gravel, middle pebbly sandstone and upper conglomerate. The river that deposited the gravels was the ancient Forest Creek which was located 500 m south and 20 m higher compared to the modern course.
SITES OF INTEREST	
Old Red Hill Fault	The fault can be seen where gravels have been removed by sluice mining. The fault has locally distorted the Castlemaine Group.
Open-cut workings – Quartz Hill	The open cut contains masses of white spurry quartz mostly of low grade. The richest gold was in a narrow zone along a narrow fault which runs along the east side of the open cut.
Old river gravels in open pit	The open pit also shows the three layers of lower gravel, middle pebbly sandstone and upper conglomerate. Most of the deposit has been removed by hydraulic sluicing. Evidence of the mining methods can be seen, including outlet tunnels and dams.

APPENDIX 4 RARE AND THREATENED FLORA

SCIENTIFIC NAME	COMMON NAME	CONSERVATION STATUS		
		AUSTRALIA	VICTORIA	FFG STATUS
<i>Allocasuarina luehmannii</i>	Buloke		-	L
<i>Caladenia reticulata</i> s.s.	Veined Spider-orchid		v	
<i>Caladenia</i> sp. aff. <i>concolor</i> (Midlands)	Midlands Spider-orchid		v	
<i>Corunastylis ciliata</i>	Fringed Midge-orchid		k	
<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	Arching Flax-lily		v	
<i>Eucalyptus</i> aff. <i>aromaphloia</i>	Fryers Range Scent Bark		e	
<i>Glycine latrobeana</i>	Clover Glycine	VU	v	L
<i>Grevillea obtecta</i>	Fryerstown Grevillea		r	
<i>Leptorhynchus elongatus</i>	Lanky Buttons		e	
<i>Pterostylis</i> sp. aff. <i>plumosa</i> (Woodland)	Woodland Plume-orchid		r	
<i>Pultenaea graveolens</i>	Scented Bush-pea		v	L
<i>Pterostylis smaragdina</i>	Emerald-lip Greenhood		r	
<i>Swainsona behriana</i>	Southern Swainson-pea		r	

Sources: DSE 2006a

Conservation status

Australian status:

Environment Protection and Biodiversity Conservation Act
1999 (Cwlth) (EPBC Act)

VU vulnerable

Victorian status:

e endangered

v vulnerable

r rare

k species poorly known

FFG -Flora and Fauna Guarantee Act status:

L listed as threatened

APPENDIX 5 RARE AND THREATENED FAUNA

SCIENTIFIC NAME	COMMON NAME	CONSERVATION STATUS			
		AUSTRALIA	VICTORIA	FFG STATUS	FFG ACTION STATEMENT
Mammals					
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale		Vul	L	No. 79
<i>Miniopterus schreibersii</i> (group)	Common Bent-wing Bat		End	L	
Birds					
<i>Accipiter novaehollandiae</i>	Grey Goshawk		Vul	L	
<i>Aythya australis</i>	Hardhead		Vul		
<i>Cinclosoma punctatum</i>	Spotted Quail-thrush		LR		
<i>Coturnix ypsilophora</i>	Brown Quail		LR		
<i>Ninox strenua</i>	Powerful Owl		Vul	L	No. 92
<i>Nycticorax caledonicus</i>	Nankeen Night Heron		LR		
<i>Phalacrocorax varius</i>	Pied Cormorant		LR		
Members of the FFG-listed Victorian temperate-woodland bird community					
<i>Chthonicola sagittata</i>	Speckled Warbler		Vul	L, TWB	
<i>Climacteris picumnus</i>	Brown Treecreeper		LR	TWB	
<i>Grantiella picta</i>	Painted Honeyeater		Vul	L, TWB	No. 193
<i>Lathamus discolor</i>	Swift Parrot	EN	End	L, TWB	No. 169
<i>Ninox connivens</i>	Barking Owl		End	L, TWB	No. 116
<i>Melithreptus gularis</i>	Black-chinned Honeyeater		LR	TWB	
Fish					
<i>Maccullochella peelii peelii</i>	Murray Cod	VU	End	L	
Insect					
<i>Paralucia pyrodiscus lucida</i>	Eltham Copper Butterfly		Vul	L	No. 39

Source: DSE 2006b.

Conservation status

Australian status:

Environment Protection and Biodiversity Conservation Act 1999 (Cwlth) (EPBC Act)

EN endangered

VU vulnerable

Victorian status

CEn Critically endangered

End Endangered

Vul Vulnerable in Victoria

NT Near threatened

FFG - Flora and Fauna Guarantee Act status:

L listed under the Flora and Fauna Guarantee Act

TWB member species of the FFG listed Victorian Temperate-woodland Bird Community

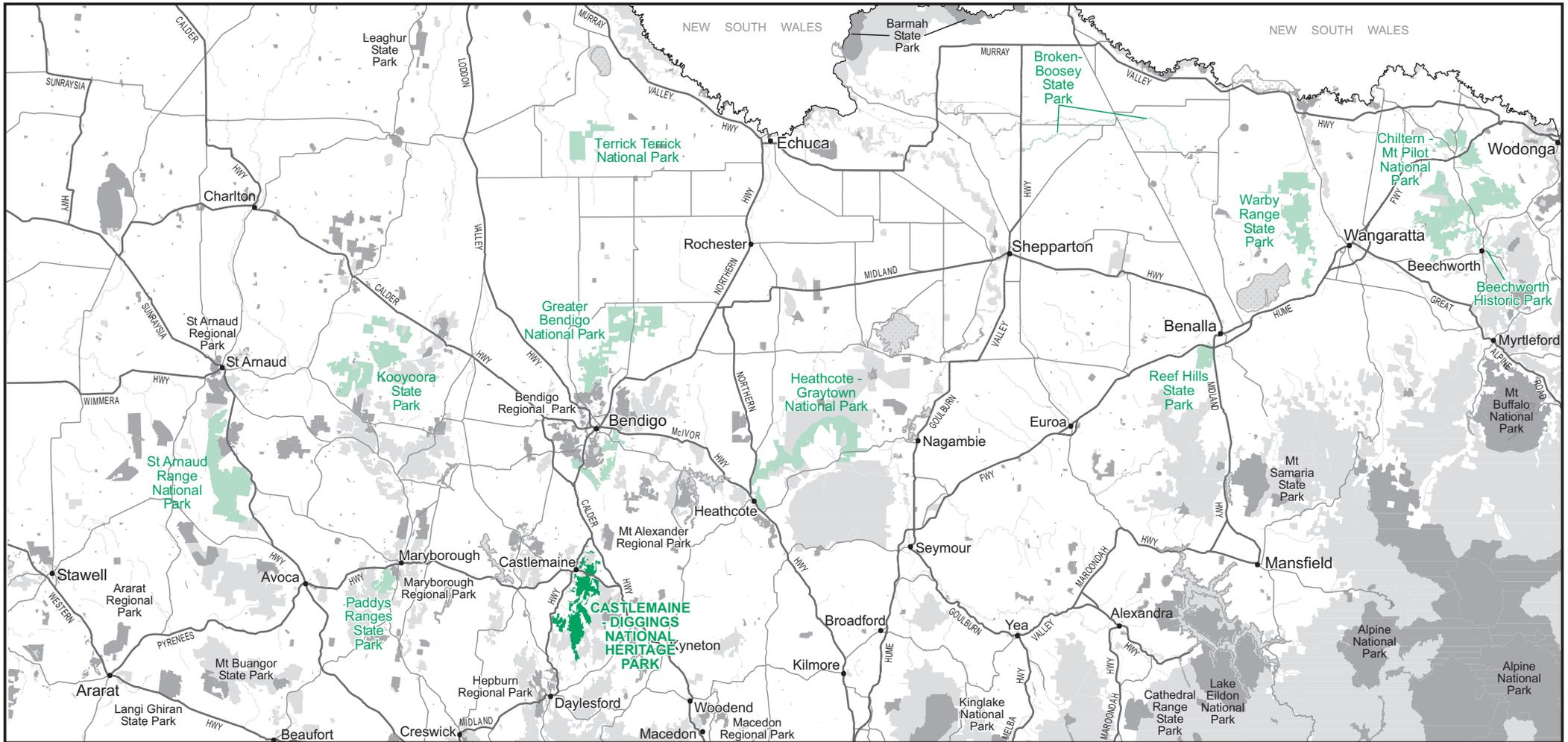
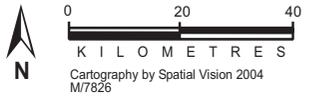
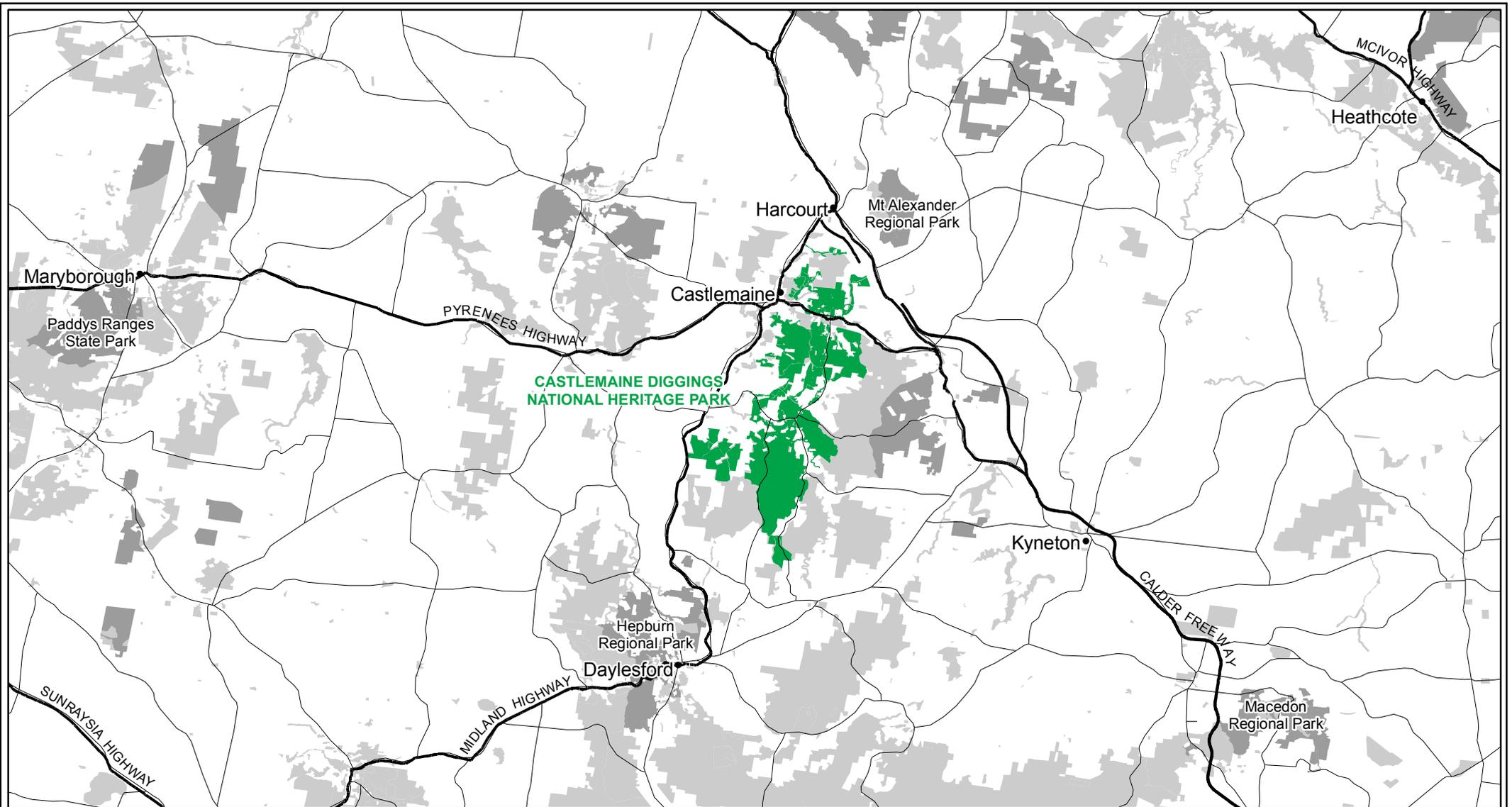


Figure 1 REGIONAL LOCALITY PLAN
CASTLEMAINE-DIGGINGS NATIONAL HERITAGE PARK

-  Freeway/Highway
-  Other major road
-  Castlemaine-Diggings National Heritage Park
-  Other Box-Ironbark Parks
-  Other Parks & Reserves
-  Other Public Land
-  Waterbody

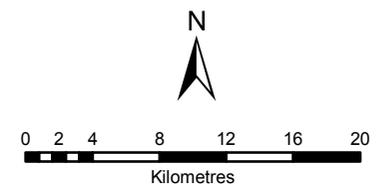




CASTLEMAINE DIGGINGS NATIONAL HERITAGE PARK

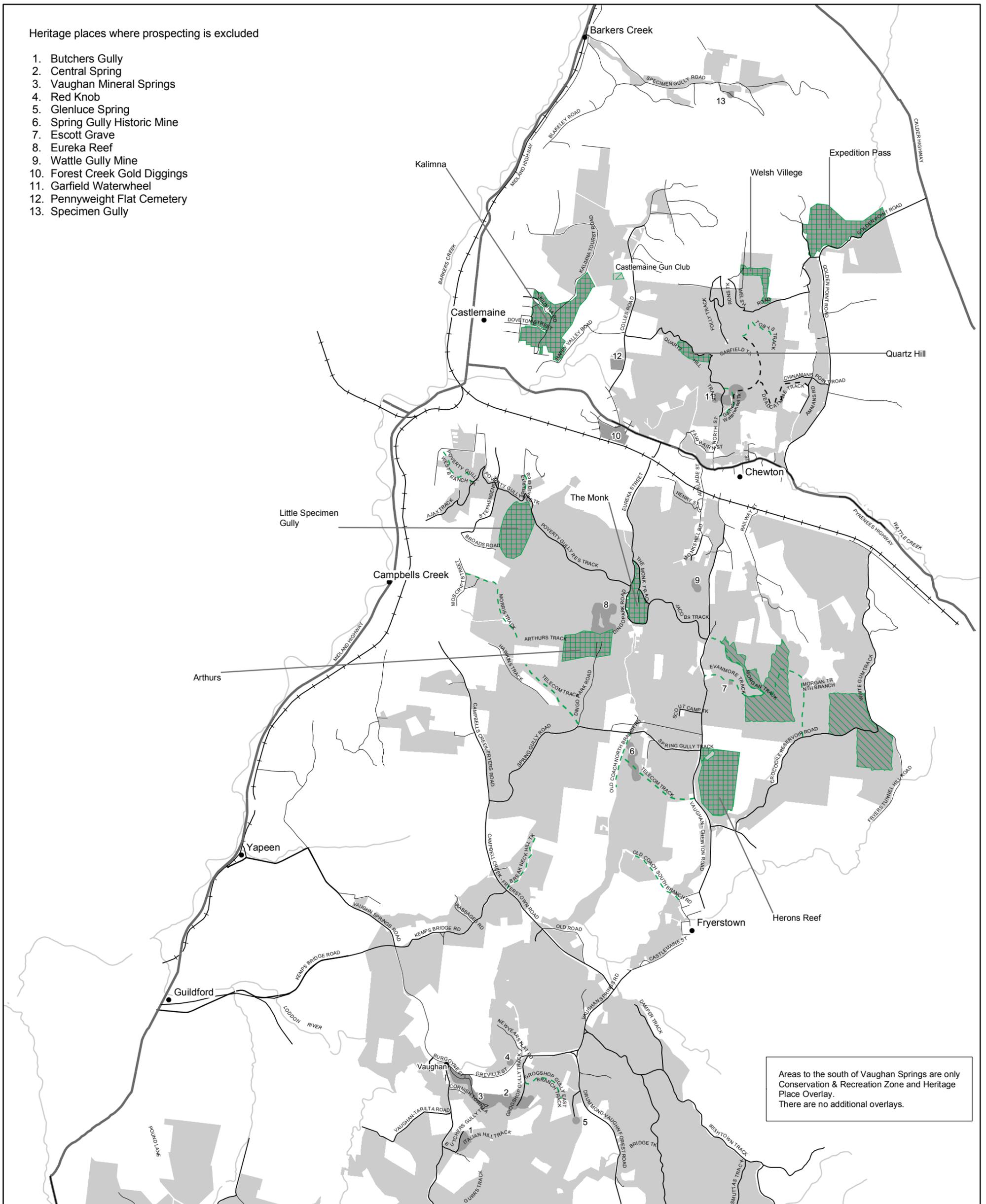
Figure 1a Local area plan

- Town
- Main road
- Minor road
- Castlemaine Diggings National Heritage Park
- Other parks and reserves
- Other public land



Heritage places where prospecting is excluded

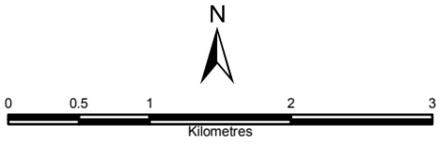
1. Butchers Gully
2. Central Spring
3. Vaughan Mineral Springs
4. Red Knob
5. Glenluce Spring
6. Spring Gully Historic Mine
7. Escott Grave
8. Eureka Reef
9. Wattle Gully Mine
10. Forest Creek Gold Diggings
11. Garfield Waterwheel
12. Pennyweight Flat Cemetery
13. Specimen Gully



Areas to the south of Vaughan Springs are only Conservation & Recreation Zone and Heritage Place Overlay.
There are no additional overlays.

CASTLEMAINE DIGGINGS NATIONAL HERITAGE PARK

Figure 2 Management Zone & Overlays



Management zone and overlays

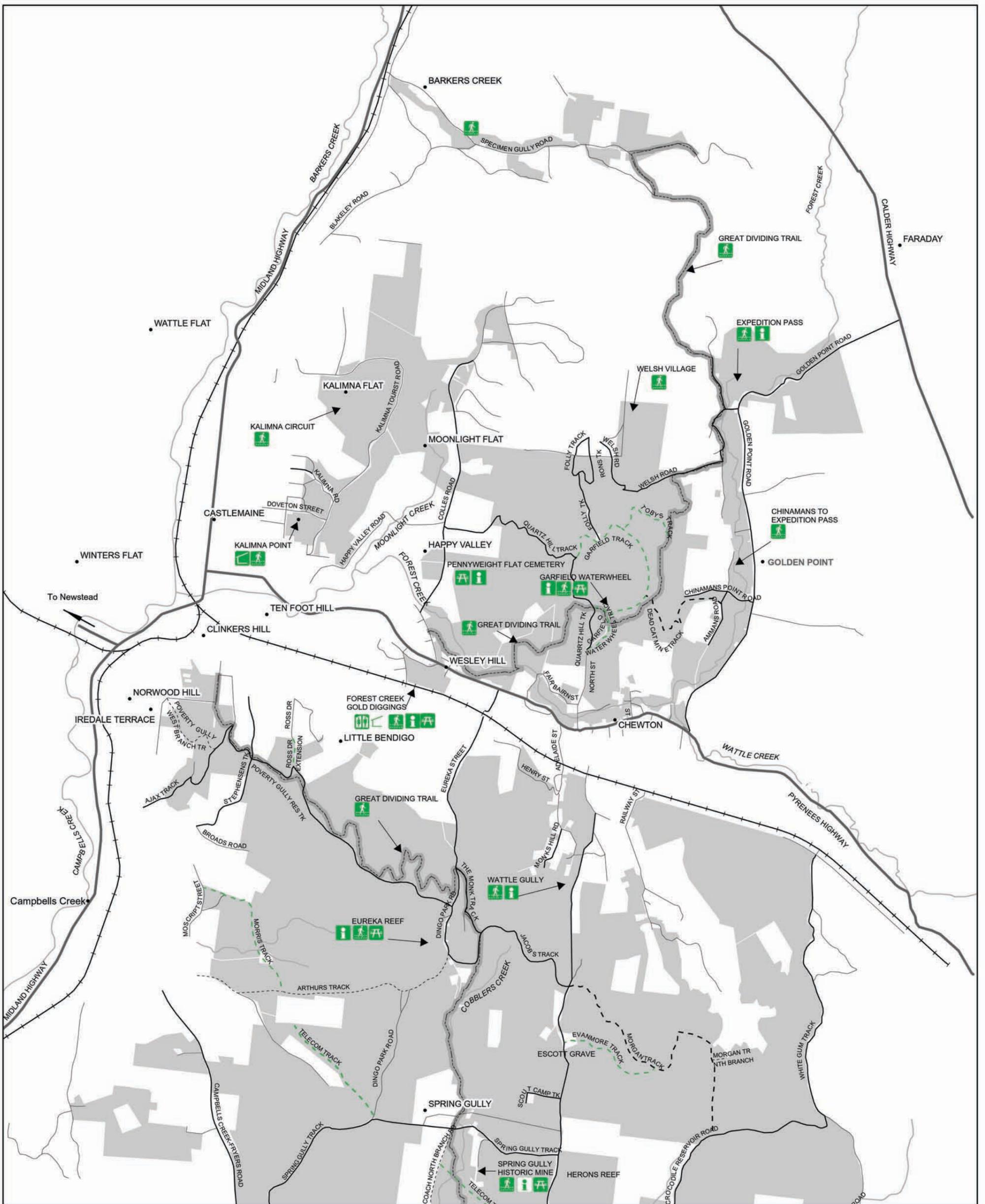
- Land use designation overlay
- Prospecting excluded
 - Conservation and recreation zone & Heritage Place overlay
- Special Protection Area overlay
- Cultural and natural values
- Special Management Area overlay
- Research
 - Public safety

Roads and tracks

- Location
- Highway
- 2 WD road
- 4 WD road
- Management vehicle road
- Railway
- River/stream

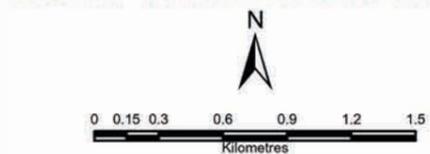
Location map





CASTLEMAINE DIGGINGS NATIONAL HERITAGE PARK

Figure 3a
Visitor facilities and access



Location map



Roads and tracks

- Highway
- 2WD road
- 4WD road
- Management vehicle
- Management and private access vehicle
- Great Dividing Trail
- Location
- River/Stream
- Railway
- Castlemaine Diggings National Heritage Park

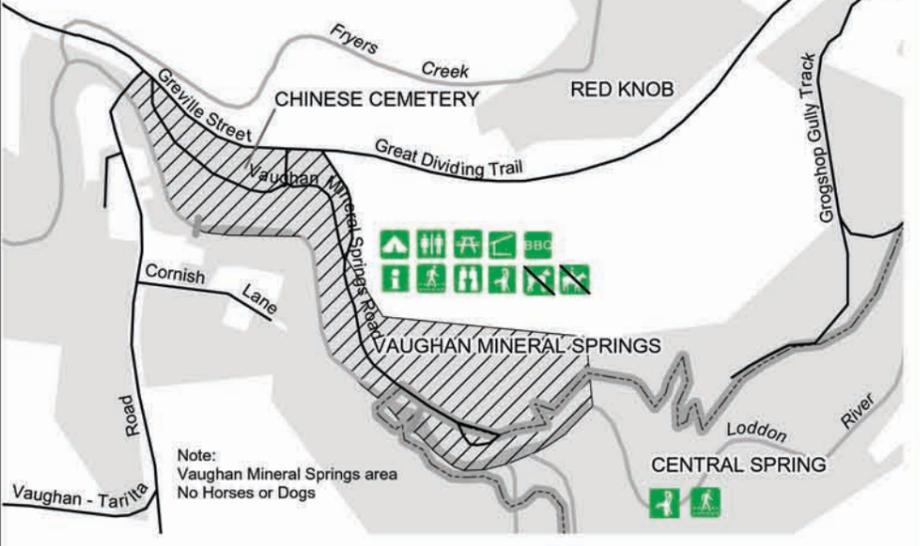
Existing facilities

- Electric BBQ
- Camping
- Walking track
- Mineral springs
- Picnic table
- Shelter
- Park information
- Lookout
- Toilet

Planned facilities

- Toilet
- Park information
- Fireplace
- Shelter
- Picnic table

Mineral Springs



CASTLEMAINE DIGGINGS NATIONAL HERITAGE PARK

Figure 3b
Visitor facilities and access



- Roads and tracks**
- Highway
 - 2WD road
 - 4WD road
 - Management vehicle
 - Management and private access vehicle
 - Great Dividing Trail
- Other features**
- River/Stream
 - Railway
 - Castlemaine Diggings National Heritage Park
 - Location

Existing facilities

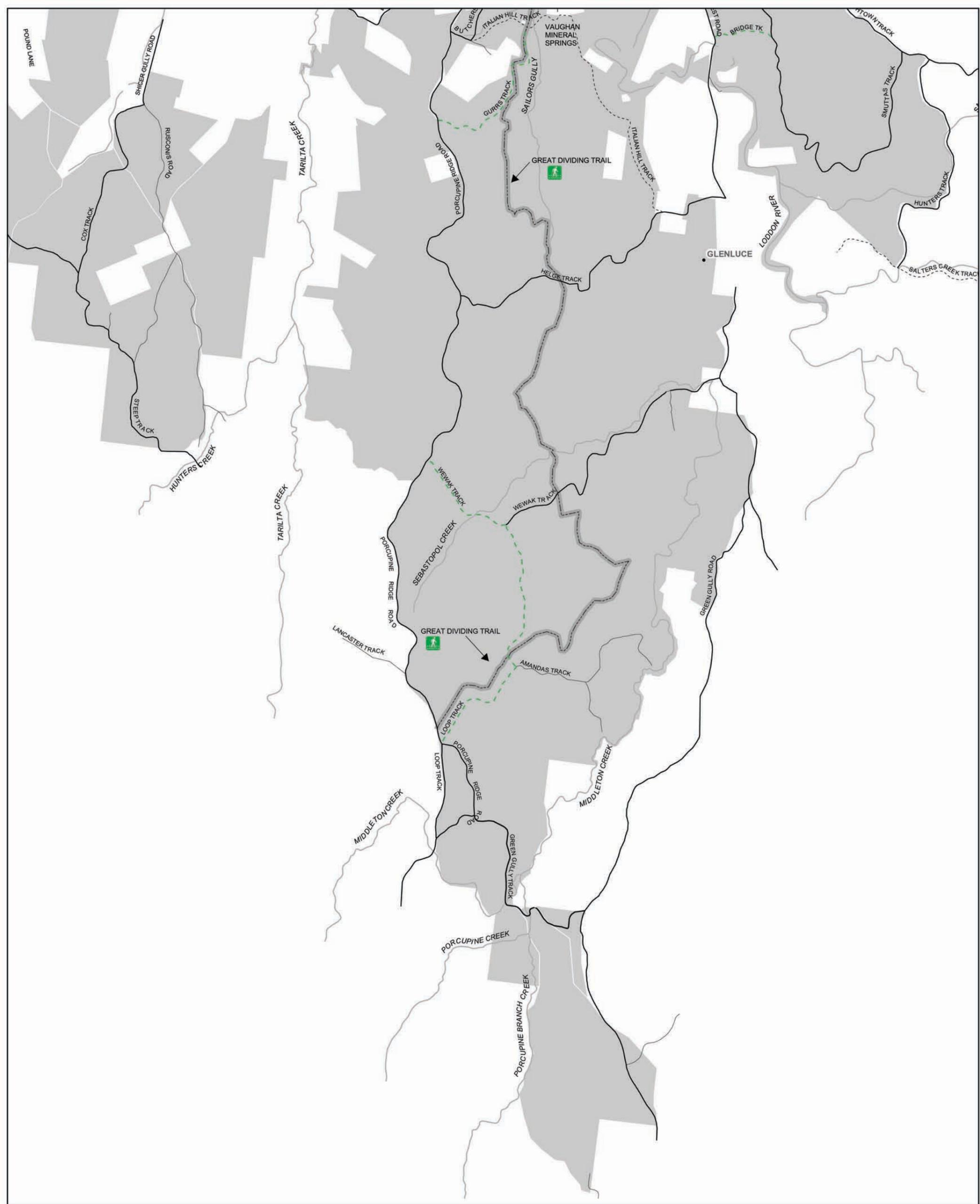
- Walking track
- Picnic table
- Toilets
- Shelter
- Park information
- Electric BBQ
- Lookout
- Camping
- Mineral water
- No dogs
- No horses

Planned facilities

- Park information
- Toilet
- Fireplace
- Picnic table

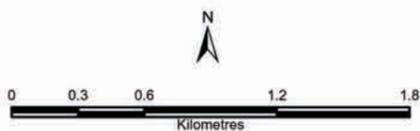
Location map





CASTLEMAINE DIGGINGS NATIONAL HERITAGE PARK

Figure 3c
Visitor facilities and access



Location map



Roads and tracks

- Highway
- 2WD road
- 4WD road
- Management vehicle
- Management and private access vehicle
- Great Dividing Trail

- Location
- River/Stream
- Railway
- Castlemaine Diggings National Heritage Park

Existing facilities

- Electric BBQ
- Camping
- Walking track
- Mineral springs
- Picnic table
- Shelter
- Park information
- Lookout
- Toilet

Planned facilities

- Toilet
- Park information
- Fireplace
- Shelter
- Picnic table