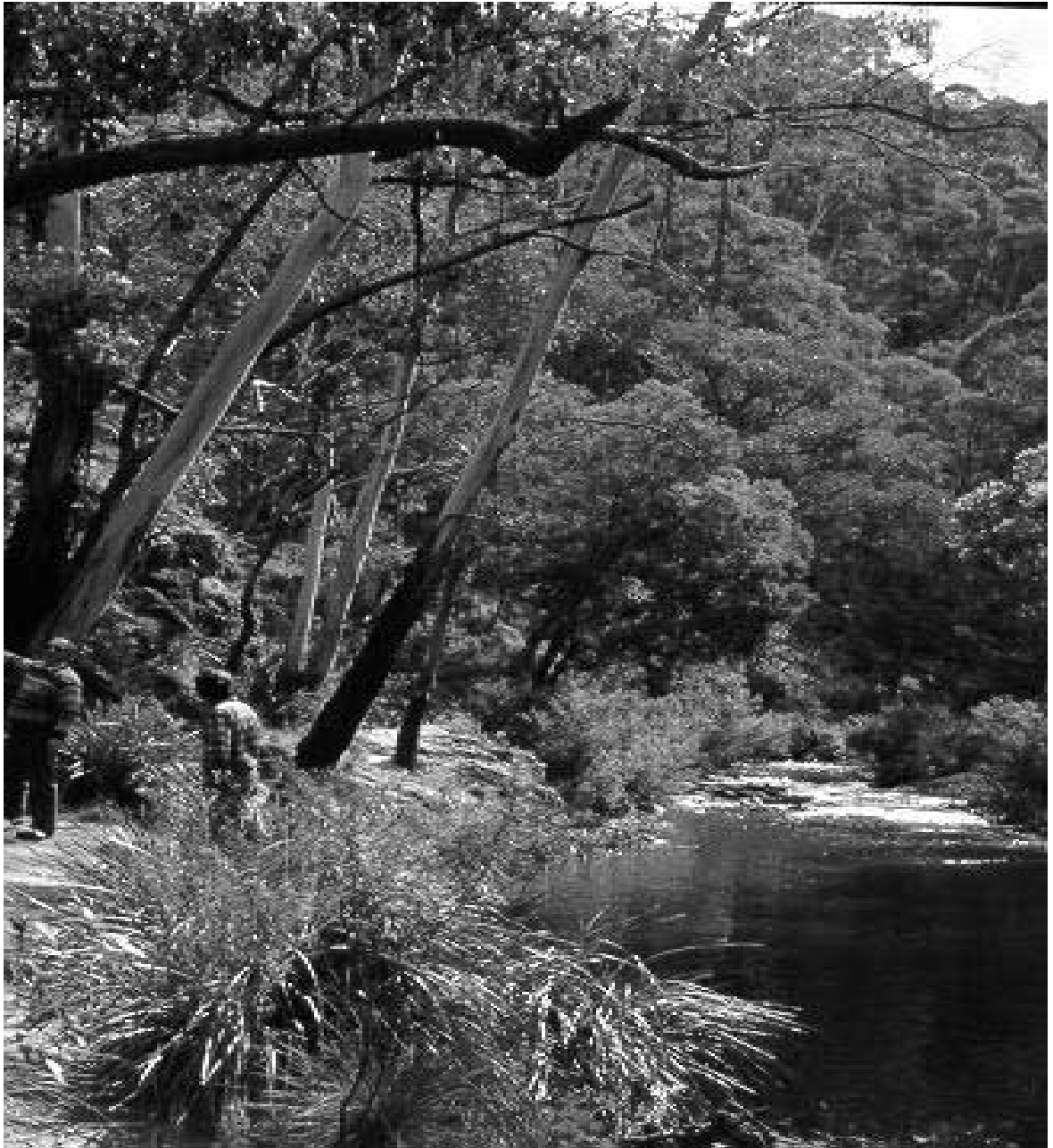


Lerderderg State Park and Werribee Gorge State Park

February 1999. Amended 2018



Management Plan



National Parks Act 1975

Amendment of Lerderderg State Park and Werribee State Park Management Plan

The management plan for Lerderderg State Park and Werribee State Park was amended in January 2018 following a risk assessment of camping at O'Brien's Crossing, Lerderderg State Park. The amendment prohibits camping at O'Brien's Crossing and directs that the area be managed as a day visitor area. The amendments to the plan are as follows:

Summary (page v)

Amend dot point to read: "Camping areas at Upper Chadwick Track will be developed in Lerderderg State Park."

Section 2.2 Management Directions (page 7)

Amend dot point in "The Park Visit" section to read: "Camping areas at Upper Chadwick Track will be developed in Lerderderg State Park."

Section 3.5 Landscape (page 15)

Amend paragraph 5 to read: "Plans to upgrade O'Brien's Crossing Picnic area ..."

Section 3.5 Landscape Management – Strategies (page 15)

Amend dot point 6 to read: "... upgrade picnic facilities at O'Brien's Crossing (section 5.2.3)."

Section 5.1 The Park Visit (page 20)

Amend paragraph 9 to read: "An upgrade of visitor facilities at O'Brien's Crossing ..."

Section 5.2.1 Vehicle access (page 22)

Amend paragraph 1 to read: "... visitors can access the picnic area ..."

Section 5.2.3 Camping (page 27)

Amend paragraph 1 to read: "The main camping area in the park is located at Upper Chadwick Track. The Upper Chadwick camping area is in a bush setting away from the watercourse and the camping is vehicle based. This is a bush setting well away from any large watercourse. Facilities at the site are minimal."

Delete paragraph 4: "O'Brien's Crossing has been ..."

Table 4: Existing and Proposed Recreation Activities (page 28)

Amend as follows:

- rename "O'Brien's Crossing Campground" to "O'Brien's Crossing"
- rename "Upper Chadwick Campground" to "Upper Chadwick (Lerderderg) Campground"
- amend "E" for Existing Facility to "R" for Remove Facility for the Camping column listing relating to O'Brien's Crossing.
- amend "N" for No Facility to "P" for Proposed Facility for the Toilets, Picnic Tables and Water Supply columns relating to Upper Chadwick (Lerderderg) Campground

Table 6: Priority Management strategies (page 39)

Amend table to read "Upgrade picnic facilities at O'Brien's Crossing" at 5.2.2, 5.2.3

Figure 3 Recreation Access and Adjacent Land Use (end of plan)

Rename "O'Brien's Crossing Campground" as "O'Brien's Crossing".

Rename "Upper Chadwick Campground" as "Upper Chadwick (Lerderderg) Campground".

This Management Plan for Lerderderg State Park and Werribee Gorge State Park is approved for implementation. Its purpose is to direct management of the Park until the Plan is reviewed. A Draft Management Plan was published in February 1998. Altogether of 325 submissions on the Draft Plan were received, including two petitions with a total of 265 signatures.

Copies of the Plan can be obtained from:

Parks Victoria
378 Cotham Road
KEW VIC 3101
☎ 13 1963

Parks Victoria Information Centre
35 Whitehorse Road
DEEPDENE VIC 3103
☎ 13 1963

NRE Information Centre
8 Nicholson Street
EAST MELBOURNE VIC 3002

Bacchus Marsh
Parks Victoria Office
Main Street Bacchus Marsh
BACCHUS MARSH VIC 3340

Further information on this Plan please contact:

Des Peters
Planner - Basalt Plains District
Parks Victoria
Bacchus Marsh Office
☎ (03) 5367 2922

Charles Dickie
Ranger In Charge
Lerderderg and Werribee Gorge State Parks
Parks Victoria
Bacchus Marsh Office
☎ (03) 5367 2922

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FOREWORD

Lerderderg and Werribee Gorge State Parks, renowned for their spectacular geological formations, are important areas for the conservation of native flora and fauna close to the residential areas of Bacchus Marsh. This Approved Plan explains how their scenic qualities and conservation values will be maintained, and how visitor impacts will be carefully managed.

Although they are managed primarily for nature conservation purposes, the Parks offer many opportunities for visitors to enjoy the natural environment in remote and semi-remote settings or at established picnic and camping areas.

This Plan establishes the long-term management framework to protect the values of the Parks while still ensuring that they play an important role in nature-based tourism in the Macedon Ranges and Spa Country region.

As a result of the Plan's implementation, I am confident that the special features of the Parks will be protected and visitors' enjoyment enhanced.

I acknowledge the community interest shown in the Draft Plan, and look forward to community support for the management of these Parks, significant parts of Victoria's outstanding parks system.

**Hon Marie Tehan MP
Minister for Conservation
and Land Management**

APPROVED MANAGEMENT PLAN

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

The Plan provides the basis for the future management of Lerderderg and Werribee Gorge State Parks. It was finalised following consideration of the 325 submissions, including two petitions with a total of 265 signatures received on the Draft Plan.

Rod Gowans
**Acting Director of
National Parks**

Mark Stone
**Chief Executive
Parks Victoria**

SUMMARY

Lerderderg State Park (14 250 ha) and Werribee Gorge State Park (575 ha) are in the headwaters of the Werribee River catchment. Each Park protects significant scenic and geological gorge formations and provides nesting sites for Wedge-tailed Eagles and Peregrine Falcons. The Lerderderg River is a proclaimed Heritage River, and many of Lerderderg State Park's geological features are of national and international significance. The geological features of Werribee Gorge are well known and of national significance.

A range of vegetation types, including a riparian Blue Gum and Manna Gum community of State significance and 23 significant plant species, is present in Lerderderg State Park, together with nine significant animal species. Werribee Gorge State Park encompasses one of the few remaining naturally vegetated areas along the Werribee River, and contains a unique range of vegetation communities and significant plant and animal species of limited distribution in the region.

Many visitors enjoy the rugged nature and peaceful setting of these Parks. Lerderderg State Park offers adventurous bushwalking for visitors seeking a remote recreational experience. Falcons Lookout in Werribee Gorge State Park is the closest site to Melbourne for challenging rock climbing opportunities.

Both Parks offer panoramic views across the western volcanic plains to Melbourne and the You Yangs. The range of recreational opportunities in both Parks is complemented by outstanding views into scenic gorges.

Management directions for both Parks are summarised below.

- Sites of national and international geological significance will be protected and their unique features interpreted at key visitor sites.
- The heritage river values of the Lerderderg River will be protected and the impacts of recreation minimised to ensure that the high scenic quality of the gorge environment is maintained.
- Significant plant and animal species and communities will be protected and studied through surveys and the development of an ecologically-based fire management program.
- The extent of Cinnamon Fungus infestations at Lerderderg State Park will be mapped, and spread of the fungus contained through the implementation of quarantine and hygiene measures.
- The vehicle track system within Lerderderg State Park will be rationalised to maintain the sensitive conservation values and remote and semi-remote settings of the gorge area. A scenic driving route will be developed to connect the Park to the adjacent Wombat State Forest.
- Picnic facilities in Lerderderg State Park at Mackenzie's Flat will be upgraded, visitor facilities enhanced at Shaws Lake and a walking track into the gorge from Mackenzies Flat picnic area redeveloped.
- Camping areas at O'Brien's Crossing and Upper Chadwick Track will be developed in Lerderderg State Park.
- Meikles Point picnic area in Werribee Gorge State Park will be relocated to a more suitable site above the river flood level and a self-guided walk along the Werribee River developed.
- In both Parks, visitor orientation and information will be enhanced at strategic locations, and directional signs from main access roads upgraded.

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1 INTRODUCTION

This Plan covers both Lerderderg State Park and Werribee Gorge State Park. The Parks have been considered together in the planning process, particularly in relation to regional issues, but there is a range of management aims and actions specific to each Park. This is reflected in the Plan format. Chapters 1 and 2 deal with both Parks, then the Plan is divided into separate parts dealing with each Park.

1.1 Location and planning area

Lerderderg State Park and Werribee Gorge State Park are in the headwaters of the Werribee River catchment and are approximately equidistant from Melbourne and Ballarat. Lerderderg State Park is 50 km west of Melbourne between the townships of Blackwood and Bacchus Marsh. Werribee Gorge State Park is about 65 km west of Melbourne and 8 km west of Bacchus Marsh (figure 1).

This Management Plan covers:

- Lerderderg State Park (14 250 ha), including:
 - Ah Kows Gully Reference Area (440 ha);
 - Ruths Gully Reference Area (200 ha);
 - approximately 45 km (5 090 ha), of the Lerderderg Heritage River Area;
 - the peak of Mount Blackwood, which is separate from the main body of Lerderderg State Park.
- Werribee Gorge State Park (575 ha).

1.2 Regional context

Lerderderg State Park, one of the largest parks near Melbourne, adjoins the Wombat State Forest. The Lerderderg–Wombat area is recognised as being important for nature conservation, as it is the largest and most varied of the isolated forests scattered through north-central Victoria. Wombat State Forest also provides a range of complementary opportunities for recreation in the region.

Werribee Gorge State Park is a relatively natural ‘island’ surrounded by cleared

agricultural land. The Park is important for the conservation of native flora and fauna, particularly the protection of breeding habitats of the Peregrine Falcon and Wedge-tailed Eagle.

The Lerderderg River and Werribee River gorges are the dominant features of the Parks, each offering rugged and dramatic scenery and an impressive setting for a range of visitor uses.

Both Parks comprehensively illustrate the geological, structural and geomorphological history of much of central and western Victoria, and play an important educational role in the region for geology, environmental studies and land management studies.

As they are close to major population centres, the Parks are an excellent destination for day visitors for walking and picnicking.

Within the region there are a number of other parks, reserves and State forests which offer a complementary range of visitor activities.

These include:

- Brisbane Ranges National Park—renowned for its diverse flora species, many of which are also found in Werribee Gorge State Park;
- Long Forest Flora Reserve—a small reserve east of Bacchus Marsh which is popular for short walks and highly significant for its Mallee-type vegetation;
- Macedon Regional Park—a popular weekend picnic area with spectacular views towards Melbourne;
- Hepburn Regional Park—in the popular Spa Country tourist area with many opportunities for walking, picnicking, visiting mineral springs and viewing historic mining relics;
- Lal Lal and Bungal State Forests—these offer a range of recreation and nature study activities and historical interest close to Ballarat.

1.3 Significance of the Parks

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

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

The original 207 ha of Werribee Gorge State Park, which encompasses the main gorge area, is listed on the Register of the National Estate. The listing recognises the area's outstanding values, especially the spectacular gorge and significant geological features and importance as part of our heritage.

Significant features of the Parks are summarised below.

Natural values

- Geological features at Lerderderg State Park, including Lower Ordovician sediments which are of State significance, and evidence of Permian glacial episodes of national and international significance.
- Highly scenic riverine and gorge landscape of the Lerderderg River, which is a proclaimed Heritage River and an important habitat for indigenous fish such as Freshwater Blackfish and Mountain Galaxias.
- A spectacular steep-sided gorge within Werribee Gorge State Park that exhibits around 500 million years of geological history, containing geological sites of national significance.
- Vegetation within Werribee Gorge State Park, and the Riparian Blue Gum and Manna Gum community within Lerderderg State Park, which are of State significance.
- Eleven threatened plant species and at least 12 regionally or locally significant plant species in Lerderderg State Park, and 10

threatened plant species and 20 regionally significant species in Werribee Gorge State Park.

- High diversity of fauna at Lerderderg State Park, including nine species regarded as threatened in Victoria, and regionally significant species such as the Greater Glider, Mountain Brushtail Possum and Red-browed Treecreeper.
- Important habitats for raptors such as Wedge-tailed Eagle, Peregrine Falcon and Powerful Owl in both Parks, and Barking Owl in Lerderderg State Park.

Cultural values

- Archaeological sites that show evidence of Aboriginal use of the area, in particular grinding grooves, scarred trees and surface scatters in Werribee Gorge State Park.
- A walking track following a former water race constructed during the gold mining era in Lerderderg State Park.
- Walking tracks and a shelter shed used for geological excursions during the early 1900s in Werribee Gorge State Park.
- A variety of prospecting and early pastoral industry relics throughout both Parks, including water races constructed in the early 1900s.

Tourism and recreational values

- Panoramic views across the western volcanic plains to Melbourne and the You Yangs.
- Spectacular views in both Parks of the gorges, which are of high scenic quality offering unique photographic opportunities.
- Adventurous bushwalking opportunities in Lerderderg State Park for visitors seeking a remote recreational experience.
- In Werribee Gorge State Park, challenging rock climbing opportunities at the closest site to Melbourne.

- Opportunities for visitors to undertake camping, walking, picnicking, fishing, swimming, nature study, sight-seeing, horse riding, cycling and pleasure driving in natural areas close to Melbourne.
- Nature-based destinations within the Macedon Ranges and Spa Country tourism area.
- Significant opportunities to interpret natural values, particularly geological values.

1.4 Creation of the Parks

Lerderderg State Park (13 340 ha) was initially reserved under Schedule Three of the National Parks Act on 21 June 1988, as a result of the *National Parks and Wildlife (Amendment) Act 1988* (Vic.). Further additions were made in 1991 (750 ha) and 1996 (150 ha). It was transferred to Schedule Two B (State Parks) in 1989.

Lerderderg State Park was created following Government decisions on the Land Conservation Council (LCC) Melbourne Study Area Final Recommendations (LCC 1977) and the Melbourne Area District 1 Review Final Recommendations (LCC 1987).

Werribee Gorge State Park (207 ha) was initially reserved under Schedule Three of the National Parks Act on 16 May 1978 as a result of the *National Parks (Amendment) Act 1978* (Vic.). Further additions were made in 1979 (168 ha) and 1995 (200 ha). It was transferred to Schedule Two B (State Parks) in 1989.

The LCC Melbourne Study Area Final Recommendations (LCC 1977) included Werribee Gorge in what was proposed as Brisbane Ranges State Park. This proposal was not adopted. Werribee Gorge was recognised as a separate State Park in the Melbourne Area District 1 Review Final Recommendations (LCC 1987).

1.5 Legislation and guidelines

Lerderderg and Werribee Gorge State Parks are reserved and managed under the provisions of the National Parks Act. The Act requires the Director to preserve and protect the natural environment of the Parks and their natural and

other features, and, subject to this, to provide for the use of the Parks by the public for enjoyment, recreation and education. The Act also provides for appropriate research.

The former Land Conservation Council (LCC 1977) recommended that emphasis be given to maintaining the diverse mammal fauna of Lerderderg State Park and the rich flora of Werribee Gorge State Park.

The former LCC (1987) also recommended that hunting and use of firearms not be permitted in the Parks and that significant historical relics of past mining activity be preserved in Lerderderg State Park.

The Ah Kows Gully and Ruths Gully Reference Areas (Lerderderg State Park) were recommended in the Melbourne Study Area Final Recommendations (LCC 1977). These were proclaimed under the *Reference Areas Act 1978* (Vic.) and are managed in accordance with Ministerial directives, guidelines and relevant plans. These areas form a reference for comparative study purposes, and natural processes are to be allowed to continue undisturbed in them.

Following the LCC's Rivers and Streams Special Investigation (LCC 1991), the Lerderderg River was designated as a Heritage River under the *Heritage Rivers Act 1992* (Vic.). This Act provides for the protection of heritage rivers and indicates particular uses which are, or are not, permitted in these areas. The former LCC (1991) also recommended part of the river as a Representative River, one of a series across the State representing the major river-catchment types in Victoria.

The Park is managed in accordance with Parks Victoria guidelines, LCC recommendations, and other plans and guidelines including:

- Code of Practice for Fire Management on Public Land (CNR 1995);
- Geelong Region Fire Protection Plan (DCE 1987);
- Lerderderg Heritage River Draft Management Plan (NRE 1997);
- Ah Kows Gully Reference Area Management Plan (FCV 1981);

- Ruths Gully Reference Area Management Plan (FCV n.d.).

Activities in relation to the Proposed Forest Management Plan for the Midlands Forest Management Area (NRE 1996) may also be relevant to Lerderderg State Park.

1.6 Park management aims

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

Resource conservation

- Preserve and protect the natural environment.
- Allow natural environmental processes to continue with the minimum of interference.
- Maintain biodiversity.
- Conserve features of archaeological, historical and cultural significance.

Park protection

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

The Park visit

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

Other

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

2 STRATEGIC DIRECTIONS

2.1 Park vision

A future visitor to Lerderderg State Park and Werribee Gorge State Park finds rugged and spectacular bushland areas where conservation of striking natural features is the focus of management. Access to the Parks is well signposted; within the Parks, visitors travel on well graded and maintained gravel roads to the main visitor sites. Safe walking access is available to major visitor interest points.

Visitors attracted by opportunities to escape the bustle of the nearby cities reflect on life in natural surroundings, their understanding and appreciation assisted by appropriate on-site interpretation. The proximity of Victoria's major population centres has led to a modest increase in visitor numbers but sensitive management and the provision of quality facilities and information ensure that the natural values of the Parks and the remote and semi-remote recreational settings of the Parks are not compromised.

The control of pest plants and animals in co-operation with adjacent landholders and the local community, and an increased understanding of the role of fire in ecological management, assist in the improved management of the natural resources. As a result the future of the natural and cultural values of these Parks is assured.

2.2 Management directions

Major management directions for the Parks are outlined below.

Resource conservation

- Protection of sites of national and international geological significance will be a key consideration of Park management.
- The high scenic quality of the gorge environment and heritage river values of the Lerderderg River will be protected by minimising recreation and management impacts in sensitive areas.

- Indigenous plant and animal species and communities will be protected and specific management undertaken for significant species and communities, including *Flora and Fauna Guarantee Act 1988* (Vic.) listed species.
- Management guidelines will be prepared to protect significant cultural features.
- The vehicle track system will be rationalised to protect the conservation values of Lerderderg State Park.

Park protection

- An ecologically-based fire management system for the Parks will be developed. Fire management will be undertaken in accordance with the Geelong Regional Fire Protection Plan.
- Control of pest plants and animals and rehabilitation of disturbed areas will continue in co-operation with adjoining landholders and volunteer programs.
- The extent of Cinnamon Fungus infestations will be mapped, and contained through the implementation of quarantine and hygiene measures.

The Park visit

- Access to the Parks will be promoted through improved signage on major access routes.
- Visitor facilities at Mackenzie's Flat picnic area (Lerderderg State Park) will be upgraded and enhanced.
- Picnic facilities for day visitors and vehicle and walking access to Shaws Lake (Lerderderg State Park) will be upgraded.
- Camping areas at O'Brien's Crossing and Upper Chadwick Track (Lerderderg State Park) will be developed.
- The remote and semi-remote settings along the Lerderderg River will be protected to retain the remote experience for visitors.

- Walking tracks, particularly circuits, will be maintained and upgraded. A walking track into the gorge from Mackenzies Flat picnic area will be redeveloped. A self-guided walk along the Werribee River (Werribee Gorge State Park) will be developed.
- Scenic driving routes to connect Lerderderg State Park with the adjacent Wombat State Forest will be established.
- Information and orientation, including interpretation of geological sites and public safety messages, will be developed at strategic locations throughout the Parks.
- The Meikles Point picnic area (Werribee Gorge State Park) will be relocated.

Community awareness and involvement

- A long-term volunteer strategy will be developed focusing on resource conservation and monitoring programs. Other appropriate park management projects, and the Friends groups for Lerderderg State Park and Werribee Gorge State Park, will be supported.
- A co-operative approach and sound land management and conservation on neighbouring private land will be encouraged.

2.3 Zoning

A park management zoning scheme has been developed to:

- provide a geographic framework in which to manage the Parks;
- indicate which management directions have priority in different parts of the Parks;
- indicate the types and levels of use appropriate throughout the Parks;

- assist in minimising existing and potential conflicts between uses and activities, or between these and the protection of park values;
- provide a basis for assessing the suitability of future activities and development proposals.

Lerderderg State Park

Three management zones apply to the Park—Reference Area, Conservation, and Conservation and Recreation (table 1).

Table 2 (section 5.1) summarises the recreational activities permitted in each management zone. Specific details or conditions relating to the sustainability of these activities are outlined in section 5.2.

In addition to protecting the sensitive natural environment of the most rugged section of the gorge, the Conservation Zone will also give the necessary protection to the remote and semi-remote recreational settings.

A Land Use Designation—Heritage River Area—and a Special Management Area for public utilities at Mount Blackwood, are used to summarise requirements additional to those of the underlying primary management zone.

Table 1 specifies the management zone and overlay characteristics, and figure 2 shows their location.

Werribee Gorge State Park

One management zone applies to the Park — Conservation.

A Special Management Area—Public Utilities—is applied as an overlay to the area traversed by the gas pipeline (figure 4) to allow for the special requirements of this area.

Table 1 specifies the management zone and overlay characteristics, and figure 4 shows their location.

TABLE 1 MANAGEMENT ZONES AND OVERLAYS

	ZONES			OVERLAYS	
	CONSERVATION & RECREATION	CONSERVATION	REFERENCE AREA	LAND USE DESIGNATION - HERITAGE RIVER AREA*	SPECIAL MANAGEMENT AREA-PUBLIC UTILITIES
AREA/ LOCATION	7410 ha 52% of Lerderderg State Park.	6200 ha, 43% of Lerderderg State Park.	640 ha, 5% of Lerderderg State Park. Ah Kows Gully (440 ha) and Ruths Gully (200 ha) Reference Areas.	5090 ha (approx.), Lerderderg Heritage River, Lerderderg State Park.	2 ha, Mt Blackwood, Lerderderg State Park.
VALUES	Important natural values and scope for recreation opportunities.	575 ha, 100% of Werribee Gorge State Park. Broad areas with sensitive natural environments which are unable to sustain the impact of significant levels of dispersed recreation activity and other uses.	Relatively undisturbed representative land types and associated vegetation.	Designated river significant for nature conservation, recreation, scenic or cultural heritage.	1 ha, easement, Werribee Gorge State Park. Public utilities: telecommunications (Mt Blackwood, Lerderderg State Park) and gas pipeline (Werribee Gorge State Park).
GENERAL MANAGEMENT AIM	Protect less sensitive natural environments and provide for sustainable dispersed recreation activities and small-scale recreation facilities without significant impact on natural processes.	Protect sensitive natural environments and provide for minimal impact recreation activities and simple visitor facilities subject to ensuring minimal interference with natural processes.	Protect viable samples of one or more land types that are relatively undisturbed for comparative study with similar land types elsewhere, by keeping all human interference to the minimum essential and ensuring as far as practicable that the only long-term change results from natural processes.	Protect the heritage values of the area.	Provide for management of public utilities.

*Part of the Lerderderg River is also a Representative River (LCC 1991)

LERDERBERG STATE PARK

3 RESOURCE CONSERVATION

3.1 Geological and landform features

The Park contains a range of significant geological and geomorphological features. About one million years ago, uplifting along the Rowsley fault caused down-cutting of the Lerderderg River. The resulting Lerderderg Gorge is an outstanding illustration of stream rejuvenation resulting from faulting (Rosengren 1988). Extensive sections of Lower Ordovician sediments are displayed throughout the gorge, and the more resistant sandstones form massive cliffs and rock bars.

The southern end of the gorge in particular is of international significance for the exposed rocks which show evidence of being covered by glaciers during the Permian, about 280 million years ago (Rosengren 1988). Rosengren (1988) recommended that outcrops and the southern end of the gorge in particular be protected.

The Park also contains examples of volcanic geological processes of the early Pleistocene period when Mount Blackwood and Mount Bullengarook spread olivine basalt over the plains and some valleys.

The steep slopes of the Park have shallow skeletal soils with fractured rock at the surface (O'Shea 1986). These soils have a high erosion potential, particularly if exposed through vegetation clearing.

Aims

- Protect and maintain the natural, aesthetic and scientific values of significant geological and geomorphological features.
- Prevent and control soil erosion.

Management strategies

- *Ensure that management activities, site development plans, upgrading of recreation facilities and interpretation plans are in accordance with the recommendations of Rosengren (1988) and consider the significance of geology and geomorphology in each case.*

- *Provide general interpretation material about the Park's geological and geomorphic features (section 5.3).*
- *Minimise soil disturbance during all management activities.*

3.2 Rivers and streams

The 63 km long Lerderderg Heritage River corridor begins in the Wombat State Forest north-west of Blackwood, and continues through the Lerderderg Gorge to the Werribee Valley above Bacchus Marsh. The majority of the corridor (45 km) passes through the Park. Its boundaries follow the rim of the gorge, with spurs and ridge lines linking gorge sections. There is a Draft Management Plan for the Lerderderg Heritage River (NRE 1997).

Significant values of the Lerderderg Heritage River corridor include:

- geological and geomorphological area of State significance (the Lerderderg Gorge);
- geological features of international significance (Permian glacial exposures near the gorge mouth);
- scenic landscapes along the Lerderderg River from Crowley Creek to the gorge mouth;
- Blue Gum and Manna Gum open forests, and the riparian forest transition along the entire corridor.

Part of the Lerderderg River in the Park is also a Representative River (LCC 1991), one of 16 in the State. These rivers are representative of a combination of geomorphic types and hydrologic regions, broadly based on runoff. The Lerderderg River is representative of the West Victorian dissected uplands volcanic plain geomorphic unit, within a comparatively dry hydrologic region. Management as a Representative River is consistent with its protection and management as a Heritage River.

Within the Park, Southern Rural Water maintains a weir on the Lerderderg River that

diverts water to Lake Merrimu, providing the domestic water supply for Melton and Bacchus Marsh (section 7.1.1). A fish ladder across the weir operates when water is diverted in order to minimise disruption to fish migrations.

The Lake Merrimu catchment (including the Lerderderg River and Goodman Creek) is declared a Special Water Supply Catchment under section 27 of the *Catchment and Land Protection Act 1994* (Vic.). Management of Special Water Supply Catchments is subject to Special Area Plans which include Land Use Conditions. A Special Area Plan has been prepared for the Goodman Creek catchment, but one is yet to be prepared for the Lerderderg River catchment.

Water catchment values and water quality would also be enhanced through the restriction of vehicle access (table 3) and certain recreation activities (table 2) within the Heritage River corridor and along Goodmans Creek (NRE 1997) (section 5.2.1).

Aims

- Protect and manage water catchments to ensure a continuing supply of high quality water.
- Protect and maintain habitat values of rivers and streams in the Park.

Management strategies

- *Minimise the effects of developments, management and visitor activities on river and stream quality.*
- *Protect water catchment values when planning and undertaking fire protection and suppression, constructing and maintaining roads and developing visitor facilities.*
- *Liaise with Southern Rural Water to ensure that environmental stream flows and other habitat considerations (including the fish ladder at the diversion weir) are taken into account in all water management activities.*
- *Liaise with Southern Rural Water regarding the preparation and*

implementation of the Special Area Plan for the Lerderderg River catchment.

- *Implement relevant strategies from the Heritage River Draft Management Plan (NRE 1997).*

3.3 Vegetation

Vegetation throughout the Park varies substantially. There is a striking transition of vegetation following a rainfall gradient from south to north. Dry Stringybark–Box forests near the gorge mouth, and Box–Ironbark woodlands along the high ridges of the south, grade into taller, damper Messmate–Peppermint–Gum forests along the northern boundary of the Park.

Vegetation associations in the Lerderderg Gorge supporting Blue Gum and Manna Gum have been assessed as being of State significance for their development and intact condition (LCC 1991).

More than 320 native plant species have been recorded in the Park. Eleven species regarded as either rare or threatened in Victoria have been located in the Park (appendix I). Buloke is listed under Schedule 2 of the Flora and Fauna Guarantee Act. The distribution and status of threatened plants within the Park are uncertain.

Many plant species in the Park are considered to be significant in the western part of the State. These include species such as Slender Saw-sedge, Tortuous Rapier-sedge and Dwarf Geebung that are localised, depleted, have disjunct occurrence or are at the edge of their range (appendix I).

Cinnamon Fungus in the Park has the potential to impact on susceptible vegetation, particularly along the heathy ridge tops where Grass-trees are dying in some areas (section 4.2).

Aims

- Conserve native vegetation communities in their natural condition, and maintain genetic diversity.

- Provide special protection, and enhance the long-term survival prospects, for significant vegetation communities and species.
- Encourage and facilitate increased knowledge of the distribution and management of significant plant species and communities.

Management strategies

- *Manage threatened plant species (appendix 1), communities and potentially threatening processes listed under the Flora and Fauna Guarantee Act according to approved action statements.*
- *Provide adequate protection for, and avoid physical disturbance of, known occurrences of significant plant species (appendix 1).*
- *Monitor Blue Gum and Manna Gum open forests, including the riparian forest transition along the Heritage River corridor, for any adverse impact, and prepare strategies to ensure protection of these communities where required.*
- *Facilitate flora surveys targeting Flora and Fauna Guarantee Act listed species, and add records of species distributions to the Flora Information System.*
- *Encourage research into the status, distribution and management requirements of native flora and vegetation communities, particularly significant species and communities.*

3.4 Fauna

The Park protects a diverse range of wildlife habitats from the riparian environment of the Lerderderg River, damp forest pockets and drier open woodlands to dry rocky outcrops along high ridges. The Atlas of Victorian Wildlife hold records in the Park for 125 native bird species, 28 native mammals, 21 reptiles and 16 amphibians. Several native fish species are also known to inhabit the Lerderderg River.

Nine fauna species found in the Park are regarded as threatened in Victoria (appendix 2). Three of these, Powerful Owl, Common Bent-

wing Bat and Brush-tailed Phascogale, are listed under Schedule 2 of the Flora and Fauna Guarantee Act. The population status of the Mountain Dragon, Freshwater Blackfish and Mountain Galaxias is insufficiently known.

The Park also supports fauna species which are at or close to the western limit of their ranges, such as the Greater Glider, Mountain Brushtail Possum and Red-browed Treecreeper.

Common native mammals in the Park include the Wombat, Echidna, Common Ringtail Possum, Koala, Black Wallaby and Eastern Grey Kangaroo. Peregrine Falcons and Wedge-tailed Eagles are among the many raptors that inhabit the rocky hills and deep valleys of the Park.

Apart from a comprehensive survey for Powerful Owls, carried out by NRE in 1995, little recent faunal survey work has been undertaken in the Park.

Fauna management is primarily achieved through the protection and maintenance of habitat, particularly the quality and diversity of vegetation. Specific management strategies have been developed for some fauna species listed under the Flora and Fauna Guarantee Act.

Aims

- Protect native fauna and maintain genetic diversity primarily by maintaining suitable habitat.
- Protect significant fauna from detrimental visitor and management activities.
- Increase knowledge of native fauna by research and monitoring.

Management strategies

- *Manage threatened fauna species (appendix 2) and potentially threatening processes listed under the Flora and Fauna Guarantee Act according to approved action statements.*
- *Facilitate fauna surveys targeting Flora and Fauna Guarantee Act listed species, and add records of species distributions to the Atlas of Victorian Wildlife.*

- *Encourage further research into the distribution and management requirements of the Park's fauna, particularly threatened species.*
- *Facilitate the survey of historic mine tunnels and other possible roosting sites for the Common Bent-wing Bat, and restrict public access to these where necessary.*

3.5 Landscape

Lerderderg State Park is within the Foothills landscape character type (Leonard & Hammond 1984). The Lerderderg River catchment has a strongly dissected mountainous terrain with numerous rock outcrops and cliffs. The whole river corridor has been assessed as having high scenic landscape value, from forested upper slopes to the spectacular scenery of the gorge (LCC 1991). Any significant development along the Lerderderg River or its immediate viewshed would have a detrimental effect on scenic quality.

The diversion weir across the Lerderderg River (figure 2), and associated access road managed by Southern Rural Water, have a significant impact on the scenic quality of the gorge. The Lerderderg Tunnel Access Track, which traverses a narrow spur leading into the river, is clearly visible from the Western Freeway, detracting from the view.

The volcanic peak of Mount Blackwood on the western rim of the Park is a prominent feature of the landscape. It adds to the Park's scenic diversity and gives views back into the gorge. There is a site at the summit for telecommunication facilities. Consolidation of any future communication structures on the peak into one tower would minimise the loss of scenic quality, particularly when viewed from vantage points within the Park (section 7.1.1).

O'Brien's Road in the northern section of the Park is recognised as an important and popular scenic drive. Road management activities and adjacent fuel reduction burning have the potential to reduce the visual amenity of the area. Erosion resulting from roads and tracks and recreational pressure has marred the

landscape in fragile and sensitive environments (NRE 1997).

Plans to upgrade O'Brien's Crossing picnic and camping area need to incorporate significant revegetation and careful placement of facilities to improve the scenic quality of this popular site (see also section 5.2.3).

Blue Gum Track, which traverses the Park from north to south, offers splendid views across the Lerderderg River catchment. Proposals to close and revegetate off-shoot tracks leading from the spurs into the catchment will benefit the scenic quality of the area.

Aims

- Protect and enhance the natural landscape quality.
- Minimise, rehabilitate, remove or ameliorate undesirable visual intrusions.

Management strategies

- *Investigate the need for remedial work to improve landscape values, as seen from key viewpoints, through revegetation of closed tracks and alteration of fire management practices where appropriate.*
- *Ensure that any future developments on Mount Blackwood create minimal impact on landscape values (section 7.1.1).*
- *Liaise with Southern Rural Water to ensure that the management of the diversion weir is compatible with the landscape values of the Park.*
- *Resurface visually intrusive sections of Lerderderg Tunnel Access Track with dark gravel or other suitable material.*
- *Ensure that all new developments are planned and designed to minimise their impact on the landscape values.*
- *Include revegetation plans in plans to upgrade camping facilities at O'Brien's Crossing (section 5.2.3).*

- *Ensure that road and track maintenance works create minimal impact on surrounding landscape values.*
- *Liaise with the Forests Service in relation to management activities which may impact on the landscape values of the Park.*

3.6 Cultural heritage

The Wurundjeri (or ‘Woiwurung’) and Wathaurung tribes are known to have lived in the area west of Melbourne. These tribes mostly camped and hunted across the plains south of the Park. However, it is likely that they would have visited the area to fish and hunt, as well as forage for food and other resources.

The rugged terrain of the Park, and past mining activities that have disturbed the soil, have made conditions difficult for archaeological survey. Three registered Aboriginal archaeological sites are recorded for the Park.

All Aboriginal material and sites are protected under the *Archaeological and Aboriginal Relics Preservation Act 1972* (Vic.) and the *Aboriginal and Torres Strait Islanders Heritage Protection Act 1984* (Cwlth).

In the 1830s, European settlers moved into the Bacchus Marsh area south of the Park to begin farming and agriculture. The Park area remained relatively undisturbed until the discovery of gold at Golden Point near Blackwood in 1854. Mining continued throughout the area until 1882, when alluvial mining had largely ceased. Some quartz mining continued until 1918. During this time, timber from the forest was cut intensively for fuel, power and mine support.

Evidence from the mining era can be found in most of the Park’s northern section, and relics of past extraction or fossicking are scattered throughout the rest of the Park, particularly along the Lerderderg River. Several places along the gorge bear the names of miners.

Historic sites in the Park include rock walls, sluice banks and gullies, water races and stone chimneys. While most of these sites are not significant individually, as a whole they form an important part of the history of the area.

Tunnel Point, a site where a tunnel was cut through a rock peninsula to divert water, is considered to be of local significance (O’Shea 1986).

The many historic mining sites along popular walking routes could form an important interpretation theme for the Park (sections 5.3 and 5.5). Part of Byers Back Track follows a former water race built during the gold mining era.

Aims

- Protect sites of archaeological and cultural significance.
- Interpret historic themes for visitor enjoyment and education.

Management strategies

- *Manage archaeological and historic sites in accordance with Parks Victoria guidelines. Prepare conservation plans for the management of significant sites.*
- *Identify, protect, manage and interpret Aboriginal sites in accordance with Parks Victoria guidelines and in consultation with Aboriginal Affairs Victoria, the Wathaurung Aboriginal Co-operative and the Ballarat Aboriginal Co-operative.*
- *Support further archaeological and historical studies to identify sites requiring management and protection.*

4 PARK PROTECTION

4.1 Fire management

The National Parks Act requires the Director of National Parks to ensure that appropriate and sufficient measures are taken to protect the Park from fire.

Fire management includes all activities associated with the management of fire-prone public land values, including the use of fire, to meet land management goals and objectives (CNR 1995).

Fire management works for the Park are planned in accordance with the Geelong Region Fire Protection Plan (DCE 1987) which is currently being revised.

The Park has a history of wildfire and has been burnt on average every 20 years. Almost all of the Park was burnt in 1983, and a number of minor fires have occurred since that time.

Strategic fuel reduction burning is undertaken south of the township of Blackwood and adjacent to private land in the north-east section of the Park.

The impact of fire on flora and fauna is recognised as an important consideration for the ecological management of the Park. Fire plays an essential role in the ecology of various species and communities, but little is known about specific fire requirements within the Park.

Fire management programs may also favour the spread of plant diseases.

Aims

- Protect human life, property and park values from injury by fire.
- Minimise the adverse effects of fire and fire suppression methods on park values.
- Maintain fire regimes appropriate to the conservation of viable populations of indigenous flora and fauna.

Management strategies

- *Publicise and enforce fire regulations and restrictions on the use of fire within the Park.*

- *Undertake fire protection works in accordance with the Geelong Region Fire Protection Plan (DCE 1987).*
- *Review the Park's fire protection strategy in conjunction with finalisation of the Draft Fire Protection Plan, or as new information becomes available.*
- *Incorporate strategies in the Fire Protection Plan to minimise the spread of Cinnamon Fungus (section 4.2).*
- *Rehabilitate fire control lines and other disturbed areas resulting from fires and fire suppression activities as soon as possible after a fire and in accordance with the Code of Fire Practice.*
- *Encourage research into the fire ecology of the Park's vegetation communities and associated fauna, with the aim of producing an ecologically-based fire management plan for the Park.*
- *Ensure that least-disturbance strategies are used in wildfire suppression and fuel reduction burning, giving preference to:*
 - *fireline construction by hand crews to minimise the use of earth-moving equipment;*
 - *air attack to drop water or foam in preference to chemical retardants;*
 - *using existing roads and tracks, or topographic features, as control lines;*
 - *avoid the use of earth-moving equipment to control wildfires in the Reference Area Zone and the Conservation Zone.*

4.2 Pest plants and animals, and diseases

Seventeen exotic plant species are recorded for the Park. The majority of these are confined to the damper environment of the gorge area, and Park boundaries. Weeds of most concern within the Park include Gorse, Bridal Creeper and Blackberry. Serrated Tussock, which

infests surrounding cleared land, poses the greatest potential threat to the ecology of the Park.

Rabbits, goats, foxes, feral cats and dogs, introduced birds and European Wasps have been recorded in the Park, and regular control programs are conducted in co-operation with adjoining landholders.

The invasive Cinnamon Fungus has been recorded at a number of sites within the Park. The fungus seriously affects native vegetation and causes the death of susceptible species. The disease spreads naturally but is accelerated though the transport of infected soil and gravel by road-making machinery and other vehicles. Quarantine and vehicle hygiene to limit the spread of the disease can only be achieved through an up-to-date knowledge of its distribution and by restricting access to uninfected sites.

Aims

- Control, and where possible eradicate, non-indigenous plants and animals.
- Minimise any adverse effects of control activities on park values.
- Minimise the spread of Cinnamon Fungus by natural processes, and avoid the transport of infected soil by human activities.

Management strategies

- *Prepare a pest plant and animal control strategy for the Park which details the priority species and areas for pest control, and the methods to be used.*
- *Continue to control pest plants and animals within the Park, and monitor and control new occurrences of pest plants before they have an opportunity to establish.*
- *Undertake pest plant and animal control on Park boundaries in co-operation with adjacent landholders (section 6.2).*
- *Monitor by ground reconnaissance and testing the occurrence of Cinnamon Fungus throughout the Park.*

- *Control visitor and management activities which have the potential to spread Cinnamon Fungus in the Park.*
- *Minimise soil disturbance during wildfire suppression, road maintenance and facility development works.*
- *Control visitor access within the Park, particularly on all tracks entering the Park's Conservation Zone, to minimise the spread of Cinnamon Fungus into uninfected healthy vegetation.*
- *Minimise the risk of spread of Cinnamon Fungus by implementing quarantine and hygiene measures in accordance with Parks Victoria guidelines and Peters (1998).*

4.3 Soil conservation

The Ordovician duplex soils of Lerderderg State Park are highly dispensible, making them extremely susceptible to erosion (Soil Conservation Authority & Land Conservation Council 1975).

The removal of vegetation and development of tracks and roads encourages sheet, gully and tunnel erosion (DCE 1991).

Landslips have occurred in the Park, particularly along the River walking track at Mackenzie's Flat as a result of the steepness of the gorge walls and undercutting erosion caused by the Lerderderg River (section 5.2.4).

Damage to tracks and soils from all recreational activities may exacerbate erosion and cause subsequent siltation of streams, particularly on the steeper slopes of the Lerderderg River and Goodman Creek. Careful planning, design, maintenance and use of roads and tracks within the Park will minimise impacts on soils and water quality.

Increase in sediment input into Victorian rivers and streams due to human activities is listed as a potentially threatening process under Schedule 3 of the Flora and Fauna Guarantee Act.

A Special Area Plan for the Goodman Creek Water Supply Catchment sets out specific requirements for earthworks within the Park, including the construction of roads and dams.

Aims

- Protect water supply catchments within the Park.
- Minimise and control soil erosion from visitor and management activities.
- Revegetate disturbed areas with indigenous species.

Management strategies

- *Liaise with relevant Regional Catchment and Land Protection Boards in regard to visitor and park management activities which may impact on the catchments and on water quality.*
- *Rehabilitate disturbed areas with indigenous species in accordance with Parks Victoria guidelines.*
- *Regularly maintain all roads and tracks to minimise soil erosion in accordance with plans and guidelines to prevent sediment input into rivers and streams.*

5 THE PARK VISIT

5.1 The Park visitor

Lerderderg State Park is an impressive natural setting for a range of visitor experiences close to large population centres. The riverine and gorge landscape offers opportunities for remote recreation experiences such as challenging overnight bushwalking.

Recreational activities such as walking, picnicking, nature study, swimming, fishing, horse riding, cycling and pleasure driving are popular at major visitor nodes in the north and south of the Park.

Vehicle counts (since 1992–93) at Mackenzie’s Flat and O’Brien’s Crossing have shown a yearly increase in the total number of visits to the Park. In 1996–97, the Park attracted an estimated 196 000 visits.

Most visitors to the Park are family groups travelling by car, mostly drawn from the Melbourne metropolitan area. The two main types of visitors are those taking scenic drives, either on day trips or staying overnight in the region, and more experienced bushwalkers and campers seeking remote experiences.

The proposed Great Dividing Trail from Daylesford to Bacchus Marsh plans to use existing walking tracks in the Park and adjacent State forest, and will appeal to backpackers and special interest tourists.

The Park is in Tourism Victoria’s Macedon Ranges and Spa Country product region, for which a regional tourism strategy has been prepared. There is an opportunity for Blackwood to further develop as a gateway to the Park.

The Park’s recreational setting is classified as either Remote, Semi-remote or Roded Natural according to the Recreation Opportunity Spectrum (DCE 1990). The areas classified as remote and semi-remote are included in, and will be protected under, the provisions of the Conservation Zone.

Providing for the visitor

Lerderderg State Park will continue to offer visitors opportunities to experience nature-

based recreation in a rugged bushland setting. Existing visitor services will be improved to facilitate high quality visitor experiences and also conserve and protect other park values. Increased visitor information will enhance visitors’ awareness and knowledge of the Park’s natural and cultural heritage values.

Mackenzie’s Flat will continue to be the major focus point for day visitors. The toilets and walking tracks into the gorge will be redeveloped. An upgrade of picnic and camping facilities at O’Brien’s Crossing will incorporate measures to rehabilitate the natural and scenic values of the area. Picnic facilities for day visitors, and vehicle and walking access to Shaws Lake, will be upgraded.

West Number Five Track will be upgraded to form a scenic all-vehicle dry-weather access route linking Lerderderg Tunnel Access Track to Blue Gum Track (figure 3).

The range of bush camping opportunities offered in the Park will be maintained.

Aims

- Provide opportunities and quality facilities and services for the use and enjoyment of the Park in a tranquil natural setting.
- Ensure that visitor use has minimal impact on the Park and park values.

Management strategies

- *Permit recreational activities in accordance with table 2.*
- *Provide facilities and services which highlight, but are in keeping with, the area’s distinctive character (sections 5.2 and 5.3).*
- *Encourage all visitors to adopt minimal impact techniques and to adhere to codes of conduct appropriate to their activity.*
- *Liaise with recreational groups to ensure that groups larger than 15 people obtain Ranger-in-Charge permission and advice so that*

TABLE 2 SUMMARY OF RECREATION ACTIVITIES

ACTIVITY	MANAGEMENT ZONES AND OVERLAY			
	1	2	3	4
4WD touring	YC (5.2.1)	No	No	YC (5.2.1)
2WD scenic driving	YC (5.2.1)	No	No	YC (5.2.1)
Picnicking	Y	Y	No	Y
Camping—designated sites (facilities)	Y	No	No	Y
Camping—dispersed (no facilities)	Y	YC (5.2.3)	No	YC (5.2.3)
Campfires*	YC (5.2.3)	No	No	YC (5.2.3)
Firewood collection	YC (5.2.3)	No	No	YC (5.2.3)
Walking	Y	Y	No	Y
Horse riding	YC (5.2.5)	No	No	YC (5.2.5)
Bicycle riding	YC (5.2.6)	No	No	YC (5.2.6)
Orienteering/Rogaining	No	No	No	No
Rock climbing/Abseiling	N/A	N/A	N/A	N/A
Fossicking/Prospecting	No	No	No	No
Fishing	Y	Y	No	Y
Hunting	No	No	No	No
Dogs	YC (5.2.8)	No	No	YC (5.2.8)

1 Conservation & Recreation Zone

2 Conservation Zone

Y Yes

No Not appropriate

* only in fireplaces provided

YC Conditional - refer to relevant section for details

N/A Not applicable

3 Reference Area Zone

4 Lerderderg Heritage River Overlay

conflicts with other users and impacts on park values can be minimised.

- *Establish a program to determine levels of recreational use consistent with protecting recreational experiences and park values.*
- *Continue monitoring visitor numbers and use to ensure adequate provision of facilities consistent with appropriate types and levels of use.*
- *Provide visitor orientation and information at the main picnic areas and major access routes indicating the range of picnic and camping opportunities within the Park and times and grades of walking tracks (sections 5.2.4 and 5.3).*

- *Liaise with local councils and regional tourism associations to ensure awareness of park values, encourage use of codes of conduct and contribute to regional tourism strategies to maximise benefits from the Park's natural assets, consistent with conservation objectives.*

5.2 Visitor recreation activities and facilities

5.2.1 Vehicle access

The north-western section of the Park is readily accessed from the township of Blackwood. There is public access to the Park boundary at the summit area of Mt Blackwood. Access to other areas of the Park is via three main routes:

- O'Brien's Road, an unsealed all-weather road branching from the Greendale–Trentham Road near Blackwood;
- Carroll Lane, from the Bacchus Marsh–Gisborne Road near Bullengarook, joins O'Brien's Road in the north-eastern section of the Park;
- Lerderderg River Road, a sealed road which gives access to Mackenzie's Flat Picnic Area and walking tracks in the southern section of the gorge.

From the river crossing on O'Brien's Road visitors can access the picnic and camping area and many walking tracks. O'Brien's Road is the only road crossing the Lerderderg River between Bacchus Marsh and Blackwood. It is in poor condition in several places, particularly near the river crossing.

Overall, access to and within the Park could be enhanced through the upgrading of directional signs.

Blue Gum Track traverses the eastern section of the Park from north to south. It is an unsealed track open only during the dry months, and the steep grades at the southern end are recommended for 4WD vehicles only. There is potential to provide dry-weather 2WD access through the Park on Blue Gum Track and Lerderderg Tunnel Access Track (currently maintained by Southern Rural Water). Such a route would be scenic and give visitors an alternative dry-weather access link between the major picnic areas and the adjacent Wombat State Forest. Lookout points, with small car parks, along this route would also enhance the visitor experience.

The majority of the remaining vehicle tracks were initially constructed for logging activities and are no longer required for management purposes. There are several tracks on the eastern site of the Park suitable for four-wheel driving, although the surface condition of these tracks requires regular maintenance.

Cinnamon Fungus infection is spreading along several ridge-top tracks in the Park. In order to minimise disease spread, the track system needs to be rationalised and vehicular

access controlled to protect the remaining areas of susceptible healthy vegetation which are at high risk of infection. These susceptible areas are largely within the Conservation Zone.

The isolated nature of the majority of the Lerderderg River corridor through the Park offers opportunities to develop remote and semi-remote natural areas relatively free of vehicle intrusion.

Aims

- Provide and maintain an appropriate access network for visitor use and management purposes compatible with other uses and values, and park zoning.
- Minimise the impact of vehicle use and track management on the Park's natural and cultural values, and opportunities for remote experiences.

Management strategies

- *Manage and permit the use of roads and tracks in the Park in accordance with table 3 and figure 3.*
- *Maintain Management Vehicle Only tracks to a standard suitable for 4WD tanker access (table 3).*
- *Close public vehicle access to all tracks in the Conservation Zone to protect the remote and semi-remote recreational settings and Heritage River values, and to minimise erosion and the spread of Cinnamon Fungus.*
- *Close and revegetate all tracks not essential for management requirements, including fire protection.*
- *Investigate establishing all vehicle - dry weather only access through the Park, and two scenic parking areas along the Lerderderg Tunnel Access Track (following consultation with Southern Rural Water), West Number Five Track and Blue Gum Track (figure 3).*
- *Upgrade directional signs to the Park from main access roads.*

TABLE 3 MANAGEMENT OF VEHICLE ROADS AND TRACKS

NO.	TRACK (SEE FIGURE 3)	CLASS		STATUS		FUTURE MANAGEMENT/ COMMENTS (unchanged unless indicated)
		CURRENT	PROPOSED	CURRENT	PROPOSED	
1	Ah Kows Track	3	-	MVO	W	Close track to all vehicles.
2	Ambler Lane Track	3	3	O(S)	O(S)	
3	Blackwood Ranges Track	3	3	MVO	MVO	Horse riding and cycling permitted (seasonal closures may apply), but the section within the Reference Area is closed to public access.
4	Track 1	3	3	O(S)	MVO	In Conservation Zone.
5	Blue Gum–Hogan Link Track	3	3	O(S)	MVO	In Conservation Zone.
6	Blue Gum Track	2	2	O(S)	O(S)/ MVO	Horse riding and cycling permitted on MVO section between Holts Road and West Number Five Track.
7	Blue Gum- O'Brien's Link Track	3	3	O(S)	O(S)	
8	Britton Track	3	-	O	C	Not required.
9	Bullet Track	3	-	O	C	Not required.
10	Cameron Road	1	1	O	O	
11	Champagne Track	3	3	O	MVO	In Conservation Zone.
12	Clifford Track	3	3	MVO	MVO	Horse riding and cycling permitted between Foxy Gully Track and Blackwood Ranges Track (seasonal closures may apply).
13	Cowan Track	3	3	O(S)	MVO	In Conservation Zone and forms part of popular walking circuit.
14	Deadmans Track	3	3	O(S)	MVO	Horse riding and cycling permitted (seasonal closures may apply).
15	Diggers Track	3	3	O	O	
16	East Number One Track	3	-	O(S)	C	Not required.
17	Firth Road	1	1	O	O	Managed by NRE Forests Service.
18	Foxy Gully Track	3	3	MVO	MVO	Horse riding and cycling permitted (seasonal closures may apply).
19	Golden Point Road	1	1	O	O	

Table 3 (cont.)

NO.	TRACK (SEE FIGURE 3)	CLASS		STATUS		FUTURE MANAGEMENT/ COMMENTS (unchanged unless indicated)
		CURRENT	PROPOSED	CURRENT	PROPOSED	
20	Grassy Gully Track	3	3	MVO	MVO	

21	Halls Track	3	-	O	C	Not required.
22	Hayden Track	3	3	O	MVO	Close to public vehicle access to protect Reference Area.
23	Hayden Number 2 Track	3	-	O	C	Close to protect Reference Area.
24	Hogan Track	3	3	O(S)	MVO	In Conservation Zone.
25	Hogan Number One Track	3	-	O(S)	C	Not required.
26	Holts Road	3	3	O(S)	O(S)	Monitor surface condition regularly.
27	Kangaroo Track	3	3	O(S)	MVO	In poor condition due to inappropriate vehicle use. Horse riding and cycling permitted between O'Brien's Rd and Websters Track (seasonal closures may apply).
28	Kenworthy Track	3	3	O	MVO	In Conservation Zone.
29	Lerderderg Track	3	3	O(S)	MVO	In Conservation Zone.
30	Lerderderg Tunnel Access Track	1	1	MVO	O(S)/MVO	Currently managed by Southern Rural Water. Open for public access from Park boundary to West Number Five Track.
31	Mill Track	3	-	O	C	Not required.
32	Morning Star Track	3	3	O	O	
33	Track 2	3	-	O	C	Not required.
34	New Nuggetty Track	3	-	O(S)	C	Not required.
35	Nolan Track	3	3	O	MVO	In Conservation Zone. Forms part of popular walking circuit.
36	Nuggetty Track	3	3	O(S)	O(S)	Monitor surface condition regularly.
37	Number One Firebreak Track	3	3	O(S)	O(S)	Rename to become extension of Ractliffe Track. Monitor surface condition regularly.
38	Number Two Firebreak Track	3	3	O(S)	MVO	The area is in poor condition due to inappropriate off track recreational use.
39	west branch	3	-	O(S)	C	Not required.

Table 3 (cont.)

NO.	TRACK (SEE FIGURE 3)	CLASS		STATUS		FUTURE MANAGEMENT/ COMMENTS (unchanged unless indicated)
		CURRENT	PROPOSED	CURRENT	PROPOSED	
40	south-west branch	3	-	O(S)	C	Not required.
41	south-east branch	3	-	O(S)	C	Not required.
42	O'Brien's Road	1	1	O	O	Requires upgrading in places.
43	Old Coach Road	3	3	O	O	
44	Possum Track	3	3	O(S)	MVO	The area is in poor condition due to inappropriate vehicle use. Horse riding and cycling permitted (seasonal closures may apply).
45	Ractliffe Track	3	3	O(S)	O(S)	Monitor surface condition regularly.
46	Razorback Track	3	3	O	MVO	In Conservation Zone.
47	Robson Track	3	-	O(S)	C	Not required.
48	Rum Track	3	3	O	MVO	In Conservation Zone.
49	Scotties Gully Track	3	3	O	O/MVO	Part of road reserve outside Park.
50	Seerey's Road	1	1	O	O	
51	Shaws Lake Track	3	1	O	O	
52	Square Bottle Track	3	3	O	MVO	In Conservation Zone.
53	Track 3	3	-	O	C	Not required.
54	Track 4	3	-	O	C	Not required.
55	Track 5	3	-	O	C	Not required.
56	Track 6	1	1	MVO	MVO	Access to communication towers.
57	Track 7	3	-	O	C	Not required.
58	Track 8	3	-	O(S)	C	Not required.
59	Trout Track	3	-	O(S)	W	North end currently a walking track. Close all of track to vehicles.
60	Tunnel Point Track	3	3	O	MVO	Close to public vehicle access to protect Reference Area.
61	Upper Chadwick Track	3	1	O	O	Improve access to picnic and camping area.
62	Vodka Track	3	3	O	MVO	In Conservation Zone.
63	Watties Track	3	3	O(S)	MVO	In Conservation Zone.
64	Watties Number One Track	3	3	O(S)	C	Not required.
65	Watties Number Two Track	3	3	O(S)	C	Not required.

Table 3 (cont.)

NO. TRACK (SEE FIGURE 3)	CLASS		STATUS		FUTURE MANAGEMENT/ COMMENTS (unchanged unless indicated)	
	CURRENT	PROPOSED	CURRENT	PROPOSED		
66	Websters Track	3	3	O(S)	MVO	Horse riding and cycling permitted (seasonal closures may apply).
67	West Number One Track	3	3	O(S)	MVO	In Conservation Zone.
68	West Number Two Track	3	3	O(S)	MVO	In Conservation Zone.
69	West Number Three Track	3	-	O(S)	C	In Conservation Zone.
70	West Number Four Track	3	-	O(S)	C	In Conservation Zone.
71	West Number Five Track	3	2	O(S)	O(S)	Upgrade to allow dry weather access.
72	Whisky Track	3	3	O	MVO	In Conservation Zone.
73	XL Track	3	3	O(S)	O(S)	

Class:

- 1 All vehicle - all weather
- 2 All vehicle - dry weather only
- 3 4WD - dry weather only

Status:

- MVO Management vehicles only (horses, cycles and walkers permitted)
- C Closed to all vehicles and walkers
- O Open to public vehicles
- P Private property access
- W Walkers only
- (S) Seasonal closures (may apply to horse riding and cycling)

- *Control illegal off-road use by vehicles and motor-cycles by patrol, enforcement, public education and improved signage.*
- *Close and rehabilitate tracks between Goodman Creek and Blue Gum Track that have developed from illegal off-track trail bike riding.*
- *Liaise as appropriate with the Victoria Association of Four Wheel Drive Clubs and other vehicle users in regard to road closures and other vehicle-related matters.*

especially in warmer weather when visitors can enjoy swimming in the Lerderderg River. Fireplaces are only provided in the main camping areas (section 5.2.3).

Vehicle access to Shaws Lake near Blackwood is poor and only limited facilities are offered. Shaws Lake can be reached by walking tracks from a neighbouring mineral springs and camping ground outside the Park.

There are many opportunities for informal dispersed picnicking without facilities in areas throughout the Park.

5.2.2 Day visits

Pleasure driving, walking and picnicking are popular activities for day visitors to the Park. Mackenzie’s Flat at the southern end of the gorge, and O’Brien’s Crossing in the northern section of the Park, are the focus of day visitor activities. These areas are provided with picnic facilities and are well used,

Aim

- Provide facilities to enhance visitor enjoyment of the Park, while minimising the impact of activities on park values.

Management strategies

- *Develop and maintain picnic facilities in accordance with table 4.*
- *Manage the picnic areas at Mackenzie's Flat, O'Brien's Crossing and Shaws Lake as the focus for visitor use.*
- *Maintain current levels of parking provisions at Mackenzie's Flat, and provide for parking at O'Brien's Crossing in line with the site concept plan (section 5.2.3).*
- *Upgrade toilet facilities at Mackenzie's Flat picnic area.*
- *Upgrade access to Shaws Lake, replace fireplaces with gas barbecues, and install a composting toilet, picnic tables, water supply and Park information.*

5.2.3 Camping

The main camping area in the Park is at O'Brien's Crossing, which has fireplaces and toilets. Vehicle-based camping occurs at Upper Chadwick Track, which has no facilities.

Camping has potential environmental impacts, and conflicts with day visitor use at Shaws Lake. Complementary camping opportunities for visitors are offered in adjacent State forest and a private caravan park and camping areas at Blackwood.

Dispersed camping also takes place throughout the Park along many of the access tracks. Dispersed walk-in camping is popular, particularly within the gorge. The steep slopes of the Lerderderg Gorge limit the areas suitable for developments such as campsites and picnic areas. Existing sites are often used beyond their intended capacity, and conflicts between day visitors and campers can occur because of the limited space available.

O'Brien's Crossing has been a major focus for picnic and camping activity for many years, but heavy use and demand for firewood have contributed to its degradation. A concept plan for redeveloping and upgrading the site has been prepared; it allows for six campsites downstream of the weir, and formalised car

parking and picnicking for day visitors in the remaining area.

Aim

- Provide opportunities for a modest range of camping experiences in the Park while minimising damage to the Park's natural and cultural values.

Management strategies

- *Develop and maintain camping facilities in accordance with table 4 and figure 3.*
- *Upgrade the picnic and camping area at O'Brien's Crossing to provide for six campsites in accordance with the existing site plan.*
- *Develop a site plan for the camping area at Upper Chadwick Track that includes improved access and provision for six campsites. Consider installing toilets when demand requires.*
- *Allow dispersed walk-in camping elsewhere in the Park away from picnic and camping areas.*
- *Permit solid fuel fires only in the Conservation and Recreation Zone in fireplaces provided. Encourage visitors to bring their own wood or portable non-solid fuel stoves.*
- *Permit portable non-solid fuel stoves to be used only in the Conservation, and Conservation and Recreation Zones.*
- *Allow firewood collection for use in fireplaces provided in the Park only in the Conservation and Recreation Zone and overlaying parts of the Heritage River.*

TABLE 4 EXISTING AND PROPOSED RECREATION FACILITIES

SITE	TOILETS	PICNIC TABLES	ELECTRIC OR GAS BBQS	FIRE PLACES	WATER SUPPLY	PARK INFO.	WALK TRACK	LOOKOUT	CAMPING
Mackenzie's Flat Picnic Area	E	E	E	N	E	P	E	N	N
O'Brien's Crossing Campground	E	E	N	E	E	P	E	N	E
Upper Chadwick Campground	N	N	N	P	N	P	E	N	P
Shaws Lake Picnic Area	P	P	P	R	P	P	E	R	R

E = existing facility; N = no facility; P = proposed facility; R = remove existing facility.

- *Prohibit the use of chainsaws for the collection of firewood for use in the Park. Monitor the effect of firewood collection and remove fireplaces if necessary.*
- *Provide information in campsites about where to collect firewood, and how to minimise its use.*

5.2.4 Bushwalking

The Park offers a variety of walking experiences, from short easy strolls to challenging overnight hikes in rugged and relatively isolated settings (figure 3). A three-day Lerderderg River walk from Blackwood to Mackenzie's Flat is highly valued for its remote experience. The most isolated and rugged section of the walk follows the river between Spanish Onion Track and the diversion weir and is not defined by a track. Other walking tracks (table 5) in the Park are generally well defined, although many have difficult sections and some carry thick regeneration from the 1983 bushfires. Several tracks leading into the gorge terminate in steep, eroding descents which require upgrading.

Day walks along the gorge from the two main picnic areas are the most popular. However, none of the walking tracks are suitable for visitors with limited mobility because of the

rugged and steep terrain of the gorge. The walking track into the gorge from Mackenzie's Flat picnic area is being undercut by the Lerderderg River and needs to be redeveloped. Few of the walking tracks are clearly signposted and none offer with interpretative information. Visitors also use roads and management vehicle tracks for walking, particularly where these complete a circuit walk.

The proposed Great Dividing Trail from Daylesford to Bacchus Marsh will follow walking and management vehicle tracks in the Park. The Trail has the potential to attract a larger number of walkers, including tourists from elsewhere in Australia and overseas. Careful consideration must be given to the Trail's route through the Park so that it does not compromise the conservation values and isolated nature of the Lerderderg Heritage River corridor. The Track must also be kept to the south-west of the Lerderderg River to ensure year-round access when water levels are high.

Aims

- Provide a range of opportunities for walking within the Park consistent with other park values and management objectives.

TABLE 5 MANAGEMENT OF WALKING TRACKS

CODE	NAME	CURRENT STANDARD	ADDITIONAL WORK REQUIREMENTS	FUTURE STANDARD
(see figure 3)				
A	10 km Circuit Walk (Graham Dam to Blackwood Ranges Track)	D: Steep and rocky in sections, not well defined in places.	Install additional markers to define track and sign circuit walk with Lerderderg Gorge Walk. Re-form, or re-route, lower steep section of track.	D
B	Ah Kows Path	D: Overgrown.	Close to protect Reference Area.	-
C	Ah Kows Track	D: Very steep and rocky and overgrown in places.	Re-form, or re-route, lower steep section of track.	D
D	Bears Head Range Track	D: Very steep and rocky.		D
E	Byers Back Track—upper and lower tracks from O'Brien's Crossing	C: Flat, well defined.	Drain and re-form poorer sections of track. Sign circuit walk.	C
F	Cowan Track to Lerderderg River	D: Moderately steep.		D
G	East Walk—O'Brien's Crossing to Spanish Onion Track	C: Some rocky sections.	Drain and re-form poorer sections of track.	C
H	Graham Dam to Lerderderg Tunnel Access Track	D: Steep and rocky, not well defined in some sections.	Install markers to define track. Re-form, or re-route, steep, eroding sections of track.	D
I	Gribble Track to the Tunnel	B: Old, wide vehicle track.	Allow to regenerate.	C
J	Hogan Track to Lerderderg River	D: Steep.		D
K	Kenworthy Track to Lerderderg River	D: Steep.		D
L	Lerderderg Gorge Walk to Graham Dam	A1/B: Mostly flat, well drained.	Re-develop access at beginning of track. Sign circuit walk.	A1/B
M	Lerderderg Track to Lerderderg River	D: Steep and overgrown in places.		D

Table 5 (cont.)

CODE	NAME	CURRENT STANDARD	ADDITIONAL WORK REQUIREMENTS	FUTURE STANDARD
(see figure 3)				
N	Long Point Track	D: Very steep and rocky.		D
O	Lower Chadwick Track	D: Very steep and rocky and overgrown in places.	Install markers to define track.	D
P	Mackenzie's Track	D: Very steep and rocky and overgrown in places.		D
Q	Moonlight Gully Walk (circuit from Shaws Lake)	D: Steep and rocky in sections.	Drain and re-form. Sign circuit walk.	C
R	Razorback Track to Lerderberg River—north track	D: Very steep and rocky and overgrown in places.		D
S	Razorback Track to Lerderberg River—south track	D: Very steep and rocky and overgrown in places.		D
T	Short Cut Track	B: Old, wide vehicle track.	Allow regeneration.	C
U	Spanish Onion Track	D: Steep and overgrown along most of track.	Install markers to define track.	D
V	Track from Byers Back Track—upper section, to O'Brien's Road	C	Close and revegetate.	-
W	Trout Track	B: Old vehicle track, section over Sardine Creek very steep and degraded.	Allow to regenerate.	C

Walking Track Standard

- Grade A1 Fully sealed surface or boardwalk, width 1.5–2 m.
 Grade B Track well defined, and benched and drained, up to 1 m wide.
 Grade C Track defined through use, may be benched, drained and cleared in sections.
 Grade D Track or footpath defined through use but with no basic construction.

- Minimise any environmental impacts caused by walking.

Management strategies

- *Upgrade and maintain walking tracks in the Park in accordance with table 5.*
- *Identify, sign and promote key circuit walks of differing grades (figure 3).*
- *Define and construct alternative routes for the steep eroding sections of Ah Kows Track, the lower end of the 10 km Circuit Walk, and the Graham Dam to Lerderderg Tunnel Access Track (figure 3).*
- *Develop an alternative standard A1/B walking track to the gorge from Mackenzie's Flat picnic area (section 4.3).*
- *Upgrade signposting of walking tracks including details of the length, degree of difficulty and time required for completion (section 5.3).*
- *Identify and upgrade key tracks around the major picnic areas to accommodate people with limited mobility.*
- *Allow pedestrian access to Mount Blackwood summit area and use appropriate signage to identify it as part of the Park.*
- *Monitor walking tracks in erosion-prone steep areas, and re-form or re-route where required.*
- *Liaise with the Great Dividing Trail Committee in the development of a walking route through the Park.*
- *Provide information, particularly for experienced walkers, on other potential circuit walks via existing tracks and the river.*
- *Promote circuit walks and minimal-impact walking codes, and incorporate this material into Park information and interpretation material (section 5.3).*

5.2.5 Horse riding

Horse riding is conducted at many locations throughout the region. It is at a low level at present but there is increasing use within the Park. Individuals and small groups mainly use the north-eastern section of the Park in conjunction with Wombat State Forest for recreational horse riding. In the past, the Victorian Endurance Riders Association were permitted to hold a yearly event under permit using vehicle tracks in the Park. The event began at Bullengarook and generally involved 50 to 60 riders.

Camping with horses does not generally occur in the Park, but there are opportunities for horse camping in neighbouring State forest areas.

Because of the risk of spreading Cinnamon Fungus, introducing weeds and damaging soils and native vegetation, access by horses needs to be controlled, particularly in sensitive areas.

The Blue Gum–Racliffe–Number One Firebreak Track loop and the Blue Gum–Nuggetty–Holts Road loop offer suitable riding routes in the eastern section of the Park. Elsewhere, public vehicle roads and tracks which link with the adjoining State forest, and some management vehicle only tracks within the Conservation and Recreation Zone, provide opportunities for horse riding (table 3).

For safety and soil conservation reasons, horse riding is not permitted off-track, on walking tracks or in fragile and sensitive environments.

Aims

- Provide opportunities for horse riding without compromising other park values and management objectives.
- Minimise any environmental impacts caused by horse riding.

Management strategies

- *Permit horse riding only on roads and tracks designated for public vehicles and*

specified management vehicles only tracks in accordance with table 3.

- *Liaise with the Forests Service, local government agencies and horse riding clubs to develop a strategy to achieve a co-ordinated regional approach to horse riding.*
- *Prohibit horse riding throughout the Park except in accordance with table 3.*
- *Prohibit camping with horses, and the grazing and feeding of horses, within the Park.*
- *Close and rehabilitate bridle trails between Goodman Creek and Blue Gum Track that have developed as a result of illegal off-track riding.*
- *Encourage riders to adopt minimal impact practices, and encourage use of the Horse Riding Code (CNR 1994b).*
- *Include information in Park brochures and information boards on suitable areas for horse riding in the Park.*
- *Monitor the impacts of horse riding activities in the Park to help establish sustainable carrying capacities and requirements for seasonal track closures.*

5.2.6 Cycling

Cycling has a low level of use in the Park but is gaining in popularity, and it is expected that the level of cycling will continue to increase in the future. Public vehicle access tracks in the Park offer extensive cycling opportunities and cycling is also permitted on some management vehicle only tracks (table 3). The adjoining Wombat State Forest offers further opportunities for cycling in a less sensitive environment.

Because of the risk of spreading Cinnamon Fungus, damaging soils and native vegetation and conflicting with other users, access for bicycles needs to be controlled, particularly in sensitive areas.

For safety and soil conservation reasons, cycling is not permitted off-track, on walking tracks or through fragile and sensitive environments.

Aim

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

Management strategies

- *Permit cycling only on vehicle roads and tracks designated for public vehicles and specified management vehicle only tracks in accordance with table 3.*
- *Liaise with the Forests Service, local government agencies and cycling clubs to develop a strategy to achieve a co-ordinated regional approach to cycling.*
- *Prohibit cycling throughout the Park except in accordance with table 3.*
- *Investigate the potential for promoting the Park as part of a cycling route linking Macedon, Trentham, Daylesford and Bacchus Marsh and rail links with Melbourne.*
- *Encourage use of the Mountain Bike Code.*
- *Monitor the impacts of cycling activities in the Park to help establish sustainable carrying capacities and requirements for seasonal track closures.*

5.2.7 Fishing

Fishing occurs along the Lerderderg River, particularly at Blackwood, O'Brien's Crossing and Mackenzie's Flat picnic area.

The presence of introduced trout poses a threat to the native fish populations, particularly the Mountain Galaxias.

Monitoring is necessary to establish the impact of fishing on the native fish species and communities, though at present this appears to be minimal.

A fish ladder at the diversion weir assists with the movement of fish along the river.

Aim

- Provide fishing opportunities but minimise conflict with park conservation values.

Management strategies

- *Permit recreational fishing in all areas of the Park except the Reference Area Zone.*
- *Facilitate monitoring of fish species and populations.*
- *Monitor levels of fishing and impacts on park values, and take appropriate action.*

5.2.8 Dogs

Domestic dogs pose a threat to native wildlife and can be a nuisance to Park visitors. Dogs on a leash are currently permitted throughout the Park except for the highly visited area at Mackenzie's Flat picnic area and the walking track from the picnic area to Graham Dam. Dogs are also permitted within the adjoining State forest.

It is proposed that dogs also be excluded from the Conservation Zone and Reference Area Zone to protect sensitive areas and the remote and semi-remote settings.

Aim

- Protect visitor experiences and the Park's natural values from the effects of dogs.

Management strategies

- *Allow dogs on leads except in the Conservation Zone, Reference Area Zone and Mackenzie's Flat picnic area, and the walking track from the picnic area to Graham Dam (track L on figure 3).*
- *Provide information on areas of the Park where dogs are allowed and promote responsible pet ownership in Park information.*

5.3 Visitor information, interpretation and education

Visitor information and interpretation are essential components of effective park

management. Current visitor information consists of a leaflet and map which are available from Parks Victoria offices and accredited information centres. The Friends of Werribee Gorge & Long Forest Mallee have produced a booklet which includes directions and maps for day walks in the Park.

An interpretation plan providing for information and orientation signs at strategic locations, and information about the Park's attractions, bushwalker safety and features and facilities, would result in enhanced visitor enjoyment and understanding of the Park. Improvement in the directional signs to and within the Park would also enhance visitors' enjoyment (section 5.2.4).

Interpretative themes for the Park include geological and cultural heritage features, native flora and fauna, and conservation values.

Aims

- Orientate visitors to the Park and its features.
- Enhance visitors' enjoyment and understanding of the Park's natural and cultural values.

Management strategies

- *Develop and implement an interpretation plan for the Park, including orientation at Mackenzie's Flat and O'Brien's Crossing, and interpretation covering themes outlined above at key visitor nodes as listed in table 4.*
- *Provide adequate visitor orientation information and safety messages at main picnic areas and major entrances to the Park.*
- *Establish and implement monitoring and maintenance schedules for all interpretative facilities.*
- *Develop a signage plan for the Park that highlights circuit walks and includes information on the times, grades and levels of fitness and experience requirements for walking tracks (sections 5.2.4 and 5.5).*
- *Provide signs and other interpretive material to educate visitors about Cinnamon*

Fungus and what they can do to minimise or prevent its spread.

- *Improve the Park information brochure and Park map by showing where recreational activities are permitted within the Park.*
- *Regularly evaluate information and interpretative programs related to the Park.*

5.4 Commercial tourism operations

Currently, there are eight operators licensed to use the Park on a commercial basis, mainly for bushwalking. The isolated and rugged nature of the Park gives scope for professionally led tours that interpret its natural features and cultural history.

Parks Victoria and the Victorian Tourism Operators Association have jointly developed accreditation, management and operational guidelines that aim to ensure economically and sustainable tourism use of public land and promote standards for quality and safe recreational experiences.

Aim

- Provide opportunities for commercial tourism operators consistent with park values and management objectives.

Management strategies

- *Manage commercial operators in accordance with Parks Victoria guidelines and ensure that they comply with Park regulations and permit conditions.*
- *Encourage commercial tour operators to promote park values and management activities, and provide them with appropriate information.*

5.5 Public safety

The topography of the Park, and opportunities for remote recreational experiences, present inherent dangers and risks to Park visitors in some situations. In particular, bushwalkers becoming lost or injured, or returning late because of the rugged terrain, have been significant problems. The safety of visitors to

the Park is a consideration in all aspects of management.

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

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

Aim

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

Management strategies

- *Ensure that safety messages for Park visitors, including necessary equipment and levels of skill and experience required, are included in Park information.*
- *Ensure that Park staff are sufficiently trained for, and have the ability to assist in, emergency situations, and co-operate with emergency service organisations.*
- *Encourage visitors to seek information on activities they intend to undertake in the Park.*
- *Implement a risk management strategy and monitoring program for the main visitor areas, recreation activities and historic mine shafts, in accordance with Parks Victoria guidelines.*
- *Ensure that there are no adverse impacts on bat habitat from any resulting management actions relating to mine shafts in the Park.*
- *Co-operate with the police, State Emergency Services and other emergency organisations to develop an emergency response plan for the Park.*

6 COMMUNITY AWARENESS AND INVOLVEMENT

6.1 Friends and volunteers

The Friends of the Lerderderg (FOLDERG) group has recently been established, to help contribute to Park management activities. Several school groups have assisted at various times with building and re-forming tracks. The State Emergency Services and the Australian Trust for Conservation Volunteers have also worked on tracks in the Park. Interested volunteers can make valuable contributions to park management projects.

Aim

- Encourage and assist volunteer groups to undertake appropriate management tasks in the Park.

Management strategies

- *Continue to support the Friends of the Lerderderg.*
- *Develop and evaluate a long-term volunteer strategy which incorporates the skills and interests of volunteer groups in park management activities.*

6.2 Community awareness and Park neighbours

The Park's neighbours to the south and east are generally involved in agriculture. This predominantly involves sheep and cattle grazing, and some orchid growing near Bacchus Marsh. Wombat State Forest adjoins the Park to the north (section 7.2).

Neighbouring farmers are primarily interested in issues relating to pest plants and animals, and fire management.

Smaller allotments adjoining the north-eastern section of the Park are popular with hobby farmers and those seeking a bush or rural retreat. These neighbours are generally interested in maintaining the undeveloped character of the Park.

Individuals and groups from Blackwood to the north-west of the Park have an interest in tourism issues (section 5.1).

Aims

- Increase public awareness of management activities, including fuel reduction burning, pest plant and animal control, and the conservation of threatened species.
- Encourage conservation and sound land management practices on private land adjoining the Park.

Management strategies

- *Liaise with local community groups, local councils and land owners, and as appropriate involve them in relevant aspects of planning and managing the Park.*
- *Apply, and encourage the application of, the Good Neighbour Policy to management issues on or near the boundary of the Park.*
- *Encourage the Shire of Moorabool to develop planning strategies for land adjacent to the Park, including consideration of overlay controls in their planning schemes to protect park values.*
- *Encourage private property owners adjoining the Park to protect existing native vegetation, particularly mature habitat trees and riparian vegetation, through such mechanisms as covenants on title, Section 173 agreements (Planning and Environment Act 1987 (Vic.)) and the Land for Wildlife Scheme.*

6.3 Schools education

The Park presents a range of opportunities for environmental education, including topics such as nature conservation, geology, geomorphology and water supply.

There are opportunities to develop the Park for educational studies in conjunction with the management of Werribee Gorge State Park and the preparation of the interpretation plan (section 5.3).

Aim

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

Management strategy

- *Investigate ways of assisting nearby schools education providers to use the Park for programs focusing on park management, recreation, nature conservation, geology and water supply.*

7 OTHER ISSUES

7.1 Authorised and other uses

7.1.1 Public utilities

Utilities and services are maintained and operated at a number of locations within the Park.

Telecommunications. There are telecommunication towers in an enclosure on the summit of Mount Blackwood. One tower also houses a fire lookout and other communication transceivers.

Water supply. Southern Rural Water (SRW) is responsible for water gauging stations and the diversion weir and associated tunnel on the Lerderderg River. Access to the diversion weir, which is maintained by Southern Rural Water, is restricted to walkers and management vehicles only.

Aims

- Minimise the impact of public utilities on park values.
- Ensure appropriate use and licensing of all approved public utilities within the Park.

Management strategies

- *Ensure that all approved public utilities are covered by section 27 consents.*
- *Encourage applicants wishing to establish new public utility structures, including communications towers, to seek sites outside the Park, or if this is not possible to co-locate at existing sites.*
- *Consult with the consentees to reduce the visual impact of telecommunication towers on park values and endeavour to consolidate facilities onto one tower.*
- *Liaise with SRW regarding issues of mutual concern and management of the Park in relation to protecting the water supply catchment.*
- *Liaise with SRW regarding management of the diversion weir and associated infrastructure on Lerderderg River.*

- *Ensure that any applications for additional public utilities include a full environmental impact assessment of the development on park values.*

7.1.2 Military training

The Australian Defence Force has conducted training activities within the Park. Adventure training, bushcraft and field navigation exercises have been undertaken by small groups several times a year. Impact on the Park is minimal.

Aim

- Allow military training in a manner that minimises effects on park values.

Management strategies

- *Permit military training activities, e.g. adventure training, bushcraft and field navigation exercises, in accordance with Parks Victoria guidelines.*
- *Ensure that military training exercises are planned in conjunction with Park staff to avoid conflicts with park values and other users.*

7.1.3 Other uses

Grazing of a small part of the Park did not cease when the Park was established. Grazing compromises conservation values and is not compatible with management objectives.

Aim

- Protect the Park's conservation values from the impacts of grazing.

Management strategies

- *Liaise with the current licensees to minimise the effects of grazing on park values.*
- *Phase out grazing of the Park by the end of 1998 to protect the conservation values of the Park.*

7.2 Boundaries and adjacent uses

The Park is bounded to the north by Wombat State Forest, which offers additional recreation opportunities such as hunting and fossicking that are not available in the Park. Timber harvesting of the forest will be an ongoing operation with possible landscape and recreational use implications to the Park. A Forest Management Plan has been prepared for the State forest in consultation with Park staff. Special protection zones have been designated to exclude timber harvesting in sensitive areas adjoining the Park. Special management zones have also been designated to conserve specific features adjoining the Park, while still catering for timber production under certain conditions (NRE 1996).

The residential development of Bacchus Marsh extends to near the Park boundary in the south, and the township of Blackwood abuts the Park boundary to the north-west. There is a small area of rural residential development adjacent to the Park north of Greendale. Small hobby farms adjoin the Park along the Greendale–Trentham and Mount Blackwood Road to the west and Camerons Road and Bacchus Marsh–Gisborne Road to the east. Larger size farming land still remains adjacent to the boundary in the south-west. Current land use practices have the potential to impact on the Park's ecological processes and landscape. Land use in the area is administered by the Shire of Moorabool, which is currently in the process of redeveloping the local planning scheme.

The boundary between the Park and private property in the vicinity of Mackenzie's Flat is poorly defined and requires survey and identification on the ground.

Access is provided across the Lerderderg River and through the Park to private property adjacent to Mackenzie's Flat picnic area.

Aim

- Minimise the adverse impacts of surrounding land-use on park values.

Management strategies

- *Continue to liaise with the Forests Service in relation to activities on adjacent State forest which may impact on or augment park values.*
- *Liaise with land owners and local authorities on land management issues of mutual concern to protect both private property and public land from hazards such as fire and pest plants and animals (section 6.2).*
- *Liaise with the Shire of Moorabool and private land owners on the operation of the planning scheme, guidelines, covenants and legal agreements to minimise adverse effects of private land use and developments on park values.*
- *Define the Park boundary in the area around Mackenzie's Flat in co-operation with adjoining land owners.*
- *Continue to allow existing practical access to private property near Mackenzie's Flat, but require land owners to maintain the causeway only as necessary to protect visitor safety and park values.*
- *Consult with Moorabool Shire Council to formalise walking, horse riding and cycling access links with the Park.*

8 IMPLEMENTATION

A three-year rolling implementation program will be prepared for the Park to ensure efficient implementation of this Plan. Priorities for management are identified in table 6 as an initial step in this process.

TABLE 6 PRIORITY MANAGEMENT STRATEGIES

MANAGEMENT STRATEGIES	SECTION IN PLAN
Resource conservation	
Protect sites of national and international geological significance.	3.1
Protect the heritage river and catchment values of the Lerderderg River.	3.2
Manage Buloke, Powerful Owl and Common Bent-wing Bat populations according to approved Action Statements.	3.3, 3.4
Facilitate flora and fauna surveys targeting Flora and Fauna Guarantee Act listed species.	3.3, 3.4
Resurface Lerderderg Tunnel Access Track.	3.5
Prepare conservation plans for the management of significant cultural sites.	3.6
Park protection	
Close public vehicle access in the Conservation Zone.	5.2.1
Undertake fire protection works according to the Geelong Regional Fire Protection Plan and in conjunction with this Plan.	4.1
Control pest plants and animals in accordance with the pest plant and animal control strategy.	4.2
Control pest plants and animals in conjunction with adjacent landholders.	4.2, 6.2, 7.2
Undertake measures to minimise the spread of Cinnamon Fungus.	4.2
The Park visit	
Redevelop the walking track to the gorge from Mackenzie's Flat picnic area.	5.2.4
Investigate establishing year-round access through the Park.	5.2.1
Upgrade toilets at Mackenzie's Flat picnic area	5.2.2
Upgrade picnic and camping facilities at O'Brien's Crossing.	5.2.2, 5.2.3.
Develop a site plan for camping at Upper Chadwick Track.	5.2.3
Upgrade vehicle and walking track access.	5.2.1, 5.2.4
Upgrade access and visitor facilities at Shaws Lake.	5.2.4
Develop and implement an interpretation plan.	5.3
Implement a risk management strategy.	5.5
Community awareness and involvement	
Support the Friends group.	6.1
Monitoring and research	
Encourage research into the native vegetation.	3.3
Encourage research into the fire ecology of the Park.	4.1
Monitor the occurrence of Cinnamon Fungus.	4.2
Monitor visitor activities to protect recreational experiences and park values.	5.1, 5.2.5, 5.2.6

WERRIBEE GORGE STATE PARK

9 RESOURCE CONSERVATION

9.1 Geological and landform features

The dominant feature of the Park is the Werribee Gorge, which is classified as being of national significance for its extensive outcrops of Permian sediments and exposed sub-glacial topography (Rosengren 1988). The almost 200 metre deep gorge is one of the deepest in Victoria and is unique because of its long cliff-walled sectors. These sectors reveal the geological history of much of central and western Victoria.

A long section of Ordovician sandstones, shales and slates dating from 500 to 400 million years ago is exposed. Graptolite fossils, numerous fold structures, igneous intrusions from the Devonian period and glacial deposits from the Permian period are also displayed in the cliffs.

Older Volcanics associated with earth movements and faulting can be seen in the north-east section of the Park. Iron-rich sediments built up in the beds of lakes formed by these earth movements and by lava accumulations. These sediments formed impure ironstone in which fossil leaves can be found.

Newer Volcanics from Mount Blackwood to the north filled the old valleys, including that of the ancestor of the present Werribee River. Following this period, movement along the Rowsley fault rejuvenated the streams, including the Werribee River, resulting in down-cutting through the fault scarp.

Aims

- Protect the natural, aesthetic and scientific values of the geological features within the Park.
- Minimise impacts from visitors on sensitive geological features.
- Provide opportunities for appropriate research into, appreciation of and education about geological and geomorphological sites and processes.

Management strategies

- *Manage recreational climbing in accordance with section 11.2.4.*
- *Maintain roads and tracks according to sections 11.2.1 and 11.2.3.*
- *Encourage the use of the Park as an educational resource, and allow scientific study and research in accordance with Parks Victoria guidelines (section 12.3).*

9.2 Rivers and streams

The Werribee River and the gorge through which it flows form the dominant feature of the Park. The flow of the Werribee River is controlled by Pykes Creek Reservoir about 10 km upstream of the Park. Before the reservoir was built, regular peak flooding used to scour the bottom of the river. Although this no longer happens, occasional severe flooding still occurs.

Aim

- Protect and maintain habitat and other values of rivers and streams in the Park.

Management strategies

- *Minimise the effects of developments, management and visitor activities on river and stream quality.*
- *Liaise with Central Highlands Water Authority to protect in-stream habitat for aquatic fauna and to maintain environmental flows in the river.*

9.3 Vegetation

The vegetation of the Park is considered to be of State significance (McDougall 1987). It is predominantly Stringybark–Box forest with abundant Red Stringybark, Red Box and associated Yellow Gum. The Ingliston block (southern section of the Park) contains some excellent stands of distinctive Box–Ironbark forest dominated by Red Ironbark. This forest was used in the past as a source for fence posts and firewood. The Box–Ironbark forest, and the Grey Box Woodland which occurs in the north-eastern section of the

Park, are of high conservation significance because of their limited distribution in the region.

Riparian vegetation is generally dominated by Manna Gum and Blackwood. The gorge area is extremely rocky and supports an understorey dominated by the rare Fragrant Saltbush.

To date, although little detailed botanical research into the distribution of plant species and communities has been undertaken in the Park, about 250 native vascular plant species have been recorded. Ten of these are considered threatened in Victoria, and 20 are regionally significant species (appendix 1). It is likely that the Park supports areas of Rocky Chenopod Open Scrub, which is listed as a threatened community under the Flora and Fauna Guarantee Act.

Some neighbouring properties support small stands of White Cypress-pine. These stands are isolated occurrences outside the usual distribution of this species. A small area has been planted in the Park using seed obtained from the one plant that stands within the Park above the gorge.

Although much of the Park's vegetation has been modified by past mining, timber cutting and grazing, the steepest sections remain in an essentially natural state. Some of the more recent land additions to the Park have been subject to quarrying or cropping in the past. During the last 10 years, Park staff and the Friends of Werribee Gorge & Long Forest Mallee have undertaken revegetation and erosion control on some of these degraded areas of the Park. Further work will be required in areas such as Hanson's Paddock and the erosion gully above the quarry.

Wildfire, fuel reduction burning and ecological burning can all influence the nature of vegetation communities. There has been no major wildfire in the Park since 1946 and no fuel reduction burning is undertaken. There is little knowledge of the long-term effects of fire on vegetation and plant species, particularly with regard to establishing appropriate fire regimes (section 10.1).

Aims

- Conserve native vegetation communities in their natural condition, and maintain genetic diversity.
- Provide special protection and enhance the long-term survival prospects for significant vegetation communities and species.

Management strategies

- *Manage threatened plant species (appendix 1), communities and potentially threatening processes listed under the Flora and Fauna Guarantee Act according to approved action statements.*
- *Facilitate flora surveys targeting Flora and Fauna Guarantee Act listed species, and add records of species distributions to the Flora Information System.*
- *Provide adequate protection for, and avoid physical disturbance of, known occurrences of significant plant species (appendix 1).*
- *Undertake a survey to determine the presence and extent of Rocky Chenopod Open Scrub community in the Park.*
- *Encourage research into the status, distribution and management requirements of native flora and vegetation communities, particularly significant species (appendix 1) and communities.*
- *Encourage research into the effects of fire on the vegetation communities and significant plant species of the Park (section 10.1).*
- *Develop and implement a long-term revegetation program for degraded areas of the Park.*

9.4 Fauna

There have been few recent investigations into the fauna of the Park. The Victorian Wildlife Atlas (NRE database 1998a) holds records for

79 native bird species, 17 native mammals, 13 reptiles and 10 amphibians in the Park. Of these, the Powerful Owl and Brush-tailed Phascogale are considered to be threatened in Victoria, and both are listed under the Flora and Fauna Guarantee Act.

The relatively dry climate and sparse ground cover of the Park supports a fairly low diversity and abundance of mammals (Callanan & Menkhorst 1977). However, those which are common in the Park include the Eastern Grey Kangaroo, Black Wallaby, Common Brushtail Possum, Common Ringtail Possum, Sugar Glider and Koala. Visitors to the Park may also see Platypus, which inhabit several pools in the Werribee River.

Peregrine Falcons nest on various cliffs of the gorge both within the Park and on adjacent private property. In the past, seasonal closures have been implemented to prevent public access to the Falcons Lookout cliff face during the breeding season. It has now been established that falcons no longer use this site for nesting. Monitoring of their breeding habits at other sites will continue so as to establish future management strategies. Likewise, the breeding habits of Wedge-tailed Eagles, which also nest in the gorge, require monitoring.

Aims

- Protect native fauna from management and visitor activities.
- Provide special protection for threatened and significant species.
- Increase knowledge of the Park's native fauna populations.

Management strategies

- *Manage threatened fauna species (appendix 2) and potentially threatening processes listed under the Flora and Fauna Guarantee Act according to approved action statements.*
- *Facilitate fauna surveys targeting Flora and Fauna Guarantee Act listed species, and add records of species distributions to the Atlas of Victorian Wildlife.*

- *Encourage research into, and survey of, the distribution and management requirements of the Park's fauna, particularly significant species (appendix 2).*
- *Facilitate monitoring of Peregrine Falcon populations to establish habitat management strategies, and encourage the development of a monitoring program for Wedge-tailed Eagle populations.*

9.5 Landscape

The landscape forms part of the West Central Hills character type (Leonard & Hammond 1984).

The Park exists as a small area of remnant native bushland almost completely surrounded by cleared agricultural land. The feeling of seclusion and closeness created by the unique rock formations and cliff faces of the gorge is therefore of immeasurable value. In contrast, the exposed escarpment and ridges offer spectacular views of both the river gorge and surrounding farmland. Railway travellers on the Melbourne to Ballarat line also enjoy glimpses of the cliff faces and deep valleys of the Park as they pass over the Ingliston bridge.

One of the major viewsheds from the Circuit Walk is to the north-west, overlooking the 'Island'. This is a steep, narrow, lava-capped ridge outside the Park at the junction of the Werribee River and Myrning Creek. Development on the Island and other areas around the Park could have a major impact on landscape values.

Aims

- Protect and enhance landscape quality.
- Minimise, rehabilitate, remove or ameliorate undesirable visual intrusions.

Management strategies

- *Investigate the need for remedial work to improve landscape values, as seen from key viewpoints, through further revegetation of degraded areas.*
- *Ensure that all management works are planned to minimise their impact on the landscape values.*
- *Exercise opportunities presented by planning scheme referrals to minimise the visual impacts on the Park of adjacent developments (section 13.2).*

9.6 Cultural heritage

The Wurundjeri (or ‘Woiwuring’) and the Wathaurung are Aboriginal tribes known to have lived in the area north and west of Melbourne (du Cros 1989). As the Werribee River formed a boundary between the tribal areas, both tribes may have spent some time in the gorge because of the availability of food and shelter.

The term ‘Werribee’ (or Wearibi) is thought to have derived from an Aboriginal word which means swimming place, or backbone and spine. The latter meaning may relate to the deeply cut meanders of the river, which resemble the twisting of a spine or a snake.

There are five registered Aboriginal archaeological sites in the Park, including grinding grooves and two scarred trees. There are no known occupation sites in the Park. The three registered Aboriginal archaeological sites on freehold land adjoining the Park include surface scatters and a stone workshop site (B. Lees pers. comm.).

All Aboriginal material and sites are protected under the *Archaeological and Aboriginal Relics Preservation Act 1972* (Vic.) and the *Aboriginal and Torres Strait Islanders Heritage Protection Act 1984* (Cwlth).

European occupation of the area commenced during the 1830s when squatters took up large pastoral runs around Bacchus Marsh. The discovery of the Ballarat gold fields in the 1850s pushed forward development of the area. Although no major gold deposits were

discovered in the gorge, the area was frequently prospected and mining relics such as filled-in shafts and dwellings can still be seen today. By the 1860s the south side of the Werribee River was taken up by settlers, and all but the steepest areas were cleared for agriculture.

Several geological surveys had been carried out in the gorge by the 1880s, and its geological importance as one of the earliest known occurrences of ancient glacial deposits was noted. Because of its outstanding scenery and geological scientific interest, the gorge was reserved for public purposes in 1881.

During the early 1900s many school students visited the gorge to study its geology and natural history. Walking tracks, and one of the shelters constructed in the Park between 1907 and 1925, remain today.

Remnants of a private irrigation water race, which was constructed on the south side of the river in 1906, can still be seen in the Park. A second water race, constructed by the State Rivers and Water Supply Commission in 1928 to supply water to Bacchus Marsh, is still more or less in place. The popular river section of the Circuit Walk follows this race for much of its length through the gorge.

Aim

- Protect and preserve sites of historical and archaeological significance.

Management strategies

- *Identify, protect, manage and interpret Aboriginal sites in accordance with Parks Victoria guidelines and in consultation with Aboriginal Affairs Victoria, the Wathaurung Aboriginal Co-operative and the Ballarat Aboriginal Co-operative.*
- *With expert assistance, survey, assess and prepare management and (where appropriate) interpretation guidelines for:*
 - *the remnants of the 1860s Hansen family’s house in the north-eastern corner of the Park;*
 - *the 100+ year old remains of the railway workers huts (also known as Chinamen’s Huts) at Ingliston;*

- *the Bacchus Marsh Progress Association's 1908 shelter shed above the gorge;*
- *the remains of the State Rivers and Water Supply Commission's 1928 water race.*
- *Manage historic sites in accordance with Parks Victoria guidelines and the Burra Charter (ICOMOS 1988).*

10 PARK PROTECTION

10.1 Fire management

Fire management includes all activities associated with the management of fire-prone public land values, including the use of fire, to meet land management goals and objectives (CNR 1995). Fire management works for the Park are planned in accordance with the Geelong Region Fire Protection Plan (DCE 1987), which is currently being revised.

The last recorded major fire was in 1946 and only small fires have occurred since. The most recent of these burnt a section of the Park east of Meikles Point picnic area in 1984.

The impact of fire on flora and fauna is recognised as an important consideration for the ecological management of the Park. Fire plays an essential role in the ecology of various species and communities; however, little is known about specific fire requirements within the Park.

Aims

- Protect human life, property and park values from injury by fire.
- Minimise the adverse effects of fire and fire suppression methods on park values.
- Maintain fire regimes appropriate to the conservation of viable populations of indigenous flora and fauna.

Management strategies

- *Undertake fire protection works in accordance with the Geelong Region Fire Protection Plan (DCE 1987).*
- *Rehabilitate fire control lines and other disturbed areas resulting from fires and fire suppression activities as soon as possible after a fire.*
- *Encourage research into the fire ecology of the Park's vegetation communities and associated fauna, with the aim of producing an ecologically-based fire management plan for the Park (section 9.3).*

- *Adopt least-disturbance strategies in wildfire suppression in the Park, giving preference to:*
 - *fireline construction by hand crews to minimise the use of earth-moving equipment;*
 - *air attack to drop water or foam in preference to chemical retardants;*
 - *the use of existing roads and tracks, or topographic features, as control lines.*

10.2 Pest plants and animals, and diseases

There are 68 exotic plant species recorded for the Park. The main weed problem in the Park and surrounding cleared land is Serrated Tussock. A regular control program is undertaken by spraying the worst affected areas. The Friends group has assisted in control by revegetating the treated areas with local provenance native species.

Unsuccessful attempts have been made in the past to remove the Willows that clog the Werribee River in the vicinity of Meikles Point picnic area. These trees restrict the flow of the river and have caused flooding of the picnic area at times of peak flow.

Other weeds of concern in the Park include Patersons Curse, Teasel, Horehound, Briar Rose and Pepper trees.

Rabbits, foxes and feral cats have all been recorded in the Park, and regular control programs are conducted in conjunction with adjoining landholders.

Poor boundary fencing in some areas allows domestic stock, including goats, sheep and cows, to enter the Park from time to time.

Aims

- Control, and where possible eradicate, non-indigenous plants and animals.
- Minimise any adverse effects of control activities on park values.

Management strategies

- *Develop a pest plant and animal control strategy for the Park that details the priority species and areas for pest control, and the methods to be used.*
- *Continue to control pest plants within the Park, and control and monitor new occurrences of pest plants before they have an opportunity to establish.*
- *Continue to undertake pest animal control within the Park, giving priority to rabbits and foxes.*
- *Undertake pest plant and animal control on Park boundaries in co-operation with adjacent landholders.*
- *Liaise with relevant adjacent land owners to ensure that the Park is adequately fenced and protected from damage by domestic stock.*

10.3 Soil conservation

Landslips have occurred in the Park, particularly above the river walking track, as a result of the steepness of the gorge walls and undercutting by the Werribee River during periods of peak flow.

Rabbits and past sheep grazing have initiated tunnel and gully erosion in many areas of the northern region of Park. Control measures, including ripping and tree planting of these sites, are ongoing.

Aim

- Minimise soil erosion.

Management strategies

- *Consider the potential for soil erosion in the planning and performance of all management activities.*
- *Rehabilitate disturbed areas with indigenous species.*

11 THE PARK VISIT

11.1 The Park visitor

Werribee Gorge State Park is an impressive setting for a range of self-reliant visitor experiences, including bushwalking and nature study. Falcons Lookout, on the southern side of the Park, is a popular venue for rock climbing. The Park has a long history of visits by school and university students studying geology and natural history. There are opportunities for picnicking and swimming along the Werribee River.

Estimates based on vehicle counts over the past four years indicate that the Park attracts between 15 000 and 30 000 visits per year. Visits are relatively evenly spread throughout the year, with a small rise in summer when picnicking and swimming in the Werribee River are popular. Although details of visitor profiles are not well known, it is likely that most visitors are drawn from the local area and metropolitan Melbourne.

The range of opportunities for recreation in the Park is restricted by the Park's relatively small size and steep, rugged terrain.

The Park is in Tourism Victoria's Macedon Ranges and Spa Country product region.

Providing for the visitor

Park management will continue to provide visitors with opportunities to enjoy an attractive setting for nature-based recreation, at the same time conserving and protecting the Park's natural and cultural heritage values.

Existing facilities and services will be improved, and greater provision made where appropriate. Significant developments will include:

- establishing the Werribee Gorge Circuit Walk as the major visitor experience of the Park;
- developing a self-guided nature walk;
- upgrading of facilities, information and interpretation at the Quarry and Meikles Point picnic areas;

- improving signage on major access routes and visitor orientation at Park entrances.

Aims

- Provide for visitors in accordance with the above overview of future management for visitors.
- Provide a basic range of opportunities in accordance with the needs of target visitor groups.

Management strategies

- *Permit recreational activities in accordance with table 7.*
- *Provide facilities and services which highlight, but are in keeping with, the area's distinctive character (sections 11.2 and 11.3, and table 8).*
- *Apply current market survey findings on visitor profiles, patterns of behaviour, expectations and preferences to assist in park management.*
- *Establish a program to determine appropriate levels of recreational activity consistent with protecting visitor experiences and park values.*
- *Continue monitoring of visitor numbers and use to ensure adequate provision of facilities consistent with appropriate types and levels of use.*
- *Encourage all visitors to adopt minimal impact techniques and to adhere to codes of conduct appropriate to their activity.*

11.2 Visitor recreation activities and facilities

11.2.1 Vehicle access

The Park is accessible from the Western Freeway via a sealed road giving entry to the picnic areas, walking tracks and Werribee River. The Ingliston block and southern sections of the Park, including the climbing

TABLE 7 SUMMARY OF RECREATION ACTIVITIES

ACTIVITY	PERMITTED
4WD driving	Not applicable
2WD scenic driving	Yes— only on Myers Road
Picnicking	Yes
Camping	No
Walking	Yes—conditional only on designated walking tracks (section 11.2.3)
Rock climbing/Abseiling	Yes—conditional (section 11.2.4)
Fishing	Yes
Orienteering/Rogaining	No
Horse riding	No
Bicycle riding	Yes— only on Myers Road
Fossicking	No
Firewood collection	Yes—conditional (only for in-Park use) (section 11.2.2)
Firewood removal	No
Hunting	No
Dogs	No
Swimming	Yes

TABLE 8 EXISTING AND PROPOSED RECREATION FACILITIES

SITE	TOILETS	PICNIC TABLES	ELECTRIC OR GAS BBQS	FIRE PLACES	WATER SUPPLY	PARK INFO.	WALK TRACK	CAMPING
Top entrance Car Park	N	N	N	N	N	P	E	N
Quarry Picnic Area	E	E	N	E	E	E	E	N
Meikles Point Picnic Area	E	E/P	N	P	E	P	E	N
Ingliston Block Car Park	N	N	N	N	N	P	E	N

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

area at Falcons Lookout, are reached via the Ballan–Ingliston Road, which is mostly unsealed. Promotional signage and information on major approach roads to the Park is currently low-key. Image signs would create a stronger Park identity and knowledge of facilities.

The only track within the Park suitable for public vehicles is Myers Road (figure 4). It is sealed from the Park entrance to the Quarry picnic area, then unsealed to Meikles Point picnic area on the Werribee River. The latter section of road is quite steep, narrow and winding, and unsuitable for large vehicles. Other vehicle tracks within the Park are used

for management purposes only, and generally form part of walking circuits.

Aim

- Provide and maintain an appropriate access network for visitor use and management purposes.

Management strategies

- *Liaise with VicRoads to develop and provide image directional signage at appropriate 'gateway' locations on major roads leading to the Park.*
- *Upgrade Myers Road to Meikles Point picnic area for visitor access (all vehicle, all weather standard).*
- *Allow cycling only on Myers Road.*

11.2.2 Day visits

Picnic facilities and car parking are provided in the Park at the Quarry picnic area and Meikles Point (on the Werribee River), and small car parking areas at the top entrance and Ingliston Block (table 8). The picnic area at Meikles Point has been subject to severe flooding during the past few years and requires relocation.

Fireplaces are currently provided at the Quarry picnic area. The popularity of the Park has placed high demands on the supply of firewood.

Visitor experiences could be enhanced by providing visitor orientation and information at the top entrance, Ingliston Block and Meikles Point.

Aims

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

Management strategies

- *Improve visitor areas in accordance with table 8.*

- *Establish the Top Entrance as an appropriate entry/gateway and orientation focus for the Park.*

- *Manage the main visitor areas at the Quarry and Meikles Point as the focus of visitor use.*

- *Relocate Meikles Point picnic area to higher ground on the east side of the existing car park.*

- *Permit fires only in fireplaces provided.*

- *Encourage visitors to bring non-solid fuel stoves or clean firewood for cooking to reduce their use of firewood from within the Park.*

11.2.3 Bushwalking

A variety of walking experiences is available in the Park. A popular walk follows the Werribee River from Meikles Point picnic area. This walk gives visitors an impressive view of both the river and the cliff faces of the gorge. It leads to popular swimming holes, historic sites and other Park features. The track is difficult in places and requires a reasonable degree of fitness. A longer day walk can be made by completing the Circuit Walk up the hill from Meikles Point picnic area and returning along the River Walk. Tracks are generally well marked but the degree of difficulty, length and time required for completion of the walk are not currently shown.

Aims

- Provide a range of opportunities for walking within the Park in keeping with the Park's values.
- Minimise any environmental impacts caused by walking.

Management strategies

- *Maintain and develop walking tracks in accordance with table 9 and require visitors to keep to tracks.*
- *Provide information about all walking tracks in the Park, including details of the*

length, degree of difficulty and time required for completion (section 11.3).

- *Develop a self-guided interpretative walk to enhance visitor experiences in the Park (section 11.3).*

11.2.4 Rock climbing and abseiling

Rock climbing and abseiling have been popular activities at the Falcons Lookout (figure 4) since the late 1960s. Regular use of the cliff face by both commercial and private groups has resulted in areas at the top and base becoming eroded.

Access to the cliff is via a walking track through private property by agreement with the landholder. Formalisation of this agreement is required (section 13.2). Car parking adjacent to the railway line is haphazard.

Visitor surveys are currently under way to determine climber attitudes and expectations in consideration of future management of the site and of rock climbing in the Park (section 9.1).

Aims

- Preserve the recreational quality of the rock climbing experience at the Falcons Lookout cliff site.
- Prevent further erosion and degradation of the Falcons Lookout cliff site.

Management strategies

- *Liaise with Moorabool Shire and V/Line to formalise car parking at the Falcons Lookout.*
- *Develop a site plan for the Falcons Lookout climbing site including erosion stabilisation.*
- *Encourage user groups to use clean climbing techniques.*
- *Monitor rock climbing and abseiling to ensure that they do not affect sites of geological significance.*

- *With assistance from the Victorian Climbing Club and under the direction of Park staff, carry out maintenance and restoration works in accordance with the site plan for the Falcons Lookout.*

11.2.5 Dogs

Domestic dogs pose a threat to native wildlife and can be a nuisance to Park visitors. Dogs have never been permitted in the Park but are permitted in the nearby Wombat State Forest and in parts of Lerderderg State Park.

Aim

- Protect visitor experiences and the Park's natural values from the effects of dogs.

Management strategy

- *Continue to prohibit dogs in the Park.*

11.3 Visitor information and interpretation

A leaflet for the Park is available at local Parks Victoria offices and visitor information centres. On-site information is provided at the information shelter at the Quarry Picnic Area. Interpretation for group activities or interested individuals or groups is conducted by a contracted Instruction Operator.

There is an opportunity to develop an interpretation trail to introduce visitors to the many features of the Park. The interpretation should focus on geology, and natural and cultural history.

Aims

- Orientate visitors to the Park and its features.
- Enhance visitors' enjoyment and understanding of the Park's natural and cultural values.

TABLE 9 MANAGEMENT OF WALKING TRACKS

NAME	DISTANCE (ONE WAY)	CURRENT STANDARD	ADDITIONAL WORK REQUIREMENTS	FUTURE STANDARD
Circuit Walk (east of Myers Road)	1.1 km	D: Moderately steep.	Upgrade.	C
Circuit Walk (Myers Road to Picnic Point)	2.4 km	C: Moderately steep in sections.	Upgrade.	C
Circuit Walk (Picnic Point to Blackwood Pool)	0.8 km	D: Steep and rocky.	Upgrade.	C
Circuit Walk - River Walk (Blackwood Pool to Meikles Point)	3.3 km	C: Track follows Werribee River and is subject to flooding and rockslips in places. Eastern end of track follows old aqueduct.	Develop a self-guided interpretative walk.	C
Short Circuit Walk (southern section from end of MVO track)	1.4 km	D: Easy grade along gully then contour of Kelly's Creek to bridge.	Install additional markers to define track along gully. Bench section above Kelly's Creek.	C
Western Bluff Track	0.7 km	D: Steep and rocky. Track poorly defined in places.	Install additional markers to define track.	D
Ironbark Gorge Track	0.3 km	D: Steep and rocky.	Nil.	D
Falcons Lookout Track	2.5 km	D: Mostly outside the Park (section 13.2).		D
Ingliston Gorge Circuit Track	3.1 km	C: Moderately steep and rocky in sections. Creek section ill defined in places.	Install additional markers to define track along Whitehorse Creek. Signpost northern exit from creek.	C
Sloss's Gully Walk	0.8 km	D		D

Standard

Grade C Track defined through use; may be benched, drained and cleared in sections.

Grade D Track or footpath defined through use but with no basic construction.

Management strategies

- *Improve visitor orientation and information at the picnic areas and main Park entrances (figure 4).*
- *Provide adequate visitor orientation information and safety messages at the main car parks (figure 4).*
- *Update and improve information about, and interpretation of, the Park's natural and cultural features.*
- *Promote the Circuit Walk and develop a self-guided interpretative trail on the River Walk (table 9).*
- *Ensure that bushwalking safety messages, including necessary equipment and levels of skills and experience required, are highlighted in Park information.*
- *Establish and implement monitoring and maintenance schedules for all interpretative facilities.*
- *Regularly monitor and evaluate information and interpretative programs related to the Park.*

11.4 Commercial tourism operations

There are currently 26 commercial operators with an interest in Werribee Gorge State Park, most of whom conduct rock climbing and abseiling activities. Other operators provide nature-based educational tours, primarily for school groups.

Parks Victoria and the Victorian Tourism Operators Association have jointly developed accreditation, management and operational guidelines that aim to ensure economically and environmentally sustainable tourism use of public land by commercial operators.

Aim

- Provide opportunities for commercial tourism operators consistent with park management objectives.

Management strategies

- *Manage commercial operators in accordance with Parks Victoria guidelines and ensure that they comply with Park regulations and permit conditions.*
- *Encourage commercial tour operators to offer guided education services based on the circuit walk.*
- *Ensure that commercial tour operators offer accurate and up-to-date Park information.*
- *Ensure that operators and their customers adopt a responsible attitude to assist in the protection and interpretation of park values.*

11.5 Public safety

The topography and geology of the Park present inherent dangers and risks to Park visitors in some situations. The Werribee River is occasionally subject to floods which make the River Track impassable for walkers. The safety of visitors to the Park is a consideration in all aspects of management (section 11.3).

Aim

- Promote and encourage safe practices among Park users and staff.

Management strategies

- *Encourage visitors to seek information on activities they intend to undertake in the Park (section 11.2.3).*
- *Ensure that Park staff are sufficiently trained for, and have the ability to assist in, emergency situations, and co-operate with emergency service organisations.*
- *Assess risks at key sites and tracks, and implement a risk management strategy in accordance with Parks Victoria guidelines.*
- *Co-operate with the police, State Emergency Services and other emergency organisations to develop an emergency response plan for the Park.*

- *Continue to liaise with the Victorian Climbing Club regarding rock climbing access and safety issues at the Falcons Lookout.*

12 COMMUNITY AWARENESS AND INVOLVEMENT

12.1 Friends and volunteers

The Park receives valuable support and contributions to management from the Friends of Werribee Gorge & Long Forest Mallee and other volunteers. The Friends group has contributed to many aspects of the Park, including the construction of Kelly's Bridge at Meikles Point picnic area, the information shelter at the Quarry, track maintenance, revegetation programs and publishing of interpretative material.

Volunteers from rock climbing clubs have been involved in the maintenance of the walking track at the Falcons Lookout.

Aim

- Encourage and assist volunteer groups to undertake appropriate management tasks in the Park.

Management strategies

- *Continue to support the Friends of Werribee Gorge & Long Forest Mallee and other volunteers.*
- *Develop and evaluate a long-term volunteer strategy which incorporates the skills and interests of volunteer groups in park management activities such as flora and fauna research, and rehabilitation programs using local seed stock.*

12.2 Community awareness and Park neighbours

The Park is an 'island' of natural bushland surrounded by agricultural land which is mostly used for stock grazing. The Park's neighbours have a common interest with the Department in management issues such as fire and control of pest plants and animals. Development of relationships through a Good Neighbour Policy with Park neighbours will ensure consistent and co-operative management of the Park and adjoining land.

Aims

- Increase public awareness of management activities, including pest plant and animal control and the conservation of threatened species.
- Encourage conservation and sound land management practices on private land adjoining the Park.

Management strategies

- *Maintain liaison with local community groups and land owners, and as appropriate involve them in relevant aspects of planning and managing the Park.*
- *Continue to apply the Good Neighbour Policy to management issues on or near the boundary of the Park.*

12.3 Schools education

Many secondary and tertiary education institutions use the Park as a focus for education including geography, geology, ecology and land management issues. The Park, along with nearby Parwan Valley, is the main focus of 'From land despair to landcare' (Lubczenko 1994), an educational project for use by senior secondary students.

Some educational excursions into the Park are conducted by a contracted Instruction Operator.

Aim

- Encourage use of the Park as an educational resource.

Management strategies

- *Continue to support a range of interpretation and information services to school groups and other educational institutions.*
- *Assist school groups in planning educational activities within the Park.*

13 OTHER ISSUES

13.1 Authorised uses

13.1.1 Public utilities

A gas pipeline traverses the Ingliston Block south of the Melbourne–Ballarat railway line partly across an unused road reserve (figure 4). Maintenance of the line, the responsibility of Westar Pty Ltd, includes clearance of trees and shrubs above and adjacent to the line.

Aims

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

Management strategies

- *Investigate including the pipeline easement in the Park.*
- *Ensure that all public utilities are covered by a section 27 consent, in accordance with Parks Victoria guidelines.*
- *Ensure that any applications for additional public utilities include a full environmental impact assessment of the works or use on park values.*

13.1.2 Military training

The Australian Defence Force conducts occasional rock climbing exercises at the Falcons Lookout. All activities are conducted by small groups during daylight hours with minimal impact.

Aim

- Allow the continuation of military training in a manner that minimises the effect on park values.

Management strategies

- *Permit rock climbing exercises by the*

Defence Force with small groups during daylight hours.

- *Permit military training activities in accordance with Parks Victoria guidelines.*
- *Ensure that military training exercises are planned in conjunction with Park staff to avoid conflicts with other users.*

13.1.3 Apiculture

There are two sites available for apiculture in the Ingliston Block of the Park.

Neither site in the Park has ever been used and the more accessible sites on adjacent land are preferred by local bee keepers. There is potential for conflict with sites currently in use on adjacent freehold land if sites in the Park are used.

Aim

- Minimise the effects of apiculture on park values.

Management strategy

- *Permit use of two sites for apiculture in accordance with Parks Victoria guidelines, subject to sustainable use of sites currently in use on adjacent land.*

13.2 Boundaries and adjacent uses

The Park is surrounded by cleared grazing land. It has a long and irregular boundary which leaves it susceptible to effects from activities on surrounding land.

An unused road reserve cuts through the Ingliston Block of the Park (figure 4).

The Ballarat–Melbourne Railway traverses a section in the south-west of the Park which is not part of the Park.

Access to the Falcons Lookout is through private property by agreement with the land owner and partially on an unused road reserve

(figure 4). Future access to the site needs to be formalised.

Several important cliff and vegetated areas of the gorge are currently private land, including the main Peregrine Falcon nesting sites.

Preservation of remaining native vegetation on private land enhances the conservation value of the Park. Revegetation of degraded adjacent areas with local provenance native species will further augment habitat values.

The location and topography of the Park mean that adjacent land use can have a major impact on visual amenity and other values. A Rifle Range on the Ballan–Ingliston Road impacts on the serenity of the Park when it is in use.

Future residential or other developments overlooking the gorge could have adverse impacts on the Park and need to be carefully planned in conjunction with Parks Victoria to ensure that park values are not compromised.

Aims

- Minimise conflict between adjacent land uses and park values.
- Consolidate the Park boundary.

Management strategies

- *Liaise with the Moorabool Shire to ensure that legislation and planning controls for adjacent land complement park management.*
- *Investigate closure and incorporation of the unused road reserve in the Ingliston Block of the Park.*
- *Liaise with V/Line in relation to minimising impacts of the Ballarat–Melbourne railway line on the Park.*
- *Formalise the access to the Falcons Lookout with the adjoining land owner, in consultation with NRE.*
- *Encourage adjacent land managers to retain and replant native vegetation and to place covenants on land with conservation values.*
- *Encourage complementary management of adjacent private land, in particular the area around Daintrees Cliff.*

14 IMPLEMENTATION

A three-year rolling implementation program will be prepared for the Park to ensure efficient implementation of this Plan. Priorities for management are identified in table 10 as an initial step in this process.

TABLE 10 PRIORITY MANAGEMENT STRATEGIES

MANAGEMENT STRATEGIES	SECTION IN PLAN
Resource conservation	
Facilitate flora and fauna surveys targeting threatened species, and record species distributions in the Flora Information System.	9.3, 9.4
Develop and implement a long-term revegetation program for degraded areas of the Park.	9.3
Assess and prepare management and (where appropriate) interpretation guidelines for cultural sites.	9.6
Park protection	
Develop a pest plant and animal control strategy.	10.2
Rehabilitate disturbed areas.	10.3
Liaise with the local shire regarding planning controls for adjacent land.	13.2
The Park visit	
Relocate Meikles Point picnic area.	11.2.2
Upgrade appropriate sections of the circuit walk.	11.2.3
Develop a self-guided interpretive walk.	11.2.3, 11.3
Stabilise eroded areas at Falcons Lookout.	11.2.4
Improve visitor orientation and information.	11.2.3
Community awareness and involvement	
Develop a volunteer strategy.	12.1
Maintain liaison with local communities.	12.2
Monitoring and research	
Facilitate monitoring of Peregrine Falcon populations and encourage development of a monitoring program for Wedge-tailed Eagle populations.	9.4
Encourage research into the effects of fire on flora and fauna.	9.3, 10.1

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APPENDIX 1 SIGNIFICANT FLORA

SCIENTIFIC NAME	COMMON NAME	STATUS
LERDERDERG STATE PARK		
<i>Allocasuarina luehmannii</i>	Buloke	d, L
<i>Anogramma leptophylla</i>	Annual Fern	g
<i>Arthropodium fimbriatum</i>	Nodding Chocolate-lily	g
<i>Beyeria viscosa</i>	Pinkwood	r
<i>Bossiaea obcordata</i>	Spiny Bossiaea	g
<i>Caleana major</i>	Large Duck-orchid	g
<i>Callitris glaucophylla</i>	White Cypress-pine	d
<i>Danthonia longifolia</i>	Long-leaf Wallaby-grass	g
<i>Gahnia microstachya</i>	Slender Saw-sedge	g
<i>Grevillea repens</i>	Creeping Grevillea	R, r
<i>Lepidosperma tortuosum</i>	Tortuous Rapier-sedge	g
<i>Leucopogon microphyllus</i> var. <i>pilibundus</i>	Hairy Beard-heath	r
<i>Olearia pimeleoides</i>	Pimelea Daisy-bush	g
<i>Persoonia chamaepeuce</i>	Dwarf Geebung	g
<i>Platylobium alternifolium</i>	Victorian Flat-pea	R, r
<i>Prostanthera decussata</i>	Dense Mint-bush	r
<i>Prostanthera nivea</i>	Snowy Mint-bush	g
<i>Pseudanthus divaricatissimus</i>	Tangled Pseudanthus	R, r
<i>Pterostylis pusilla</i>	Ruddy-hood	g
<i>Pultenaea weindorferi</i>	Swamp Bush-pea	R, r
<i>Rhagodia parabolica</i>	Fragrant Saltbush	r
<i>Stipa breviglumis</i>	Cane Spear-grass	R, r
<i>Westringia glabra</i> var. <i>bacchi</i>	Violet Westringia	g
WERRIBEE GORGE STATE PARK		
<i>Atriplex stipitata</i>	Kidney Saltbush	v
<i>Caladenia dilatata</i>	Green-comb Spider-orchid	g
<i>Callitris glaucophylla</i>	White Cypress-pine	d
<i>Correa glabra</i>	Rock Correa	g
<i>Cymbototus lawsonianus</i>	Bear's Ear	r
<i>Cyperus lucidus</i>	Leafy Flat-sedge	g
<i>Enneapogon nigricans</i>	Pappus Grass	g
<i>Eremophila deserti</i>	Turkey-bush	d
<i>Eucalyptus microcarpa</i>	Grey Box	g
<i>Grevillea steiglitziana</i>	Brisbane Range Grevillea	R, r
<i>Hibbertia exutiaces</i>	Guinea Flower	g
<i>Lysiana exocarpi</i>	Harlequin Mistletoe	g
<i>Maireana aphylla</i>	Leafless Bluebush	r
<i>Myoporum viscosum</i>	Sticky Boobialia	g
<i>Myosotis australis</i>	Austral Forget-me-not	g
<i>Pelargonium rodneyanum</i>	Magenta Stork's-bill	g
<i>Pleurosorus rutifolius</i>	Blanket Fern	g
<i>Pomaderris ferruginea</i>	Rusty Pomaderris	g
<i>Prostanthera decussata</i>	Dense Mint-bush	r
<i>Prostanthera nivea</i>	Snowy Mint-bush	g
<i>Pseudanthus divaricatissimus</i>	Tangled Pseudanthus	R, r
<i>Pterostylis alatas</i>	Striped Greenhood	g

Appendix 1 (cont.)

SCIENTIFIC NAME	COMMON NAME	STATUS
<i>Ptilotus spathulatus</i>	Pussy-tail	g
<i>Rhagodia parabolica</i>	Fragrant Saltbush	r
<i>Sclerolaena uniflora</i>	Two-spined Bassia	r
<i>Scutellaria humilis</i>	Dwarf Skullcap	gg
<i>Senecio lautus</i>	Variable Groundsel	gg
<i>Senecio odoratus</i>	Scented Groundsel	gg
<i>Solanum laciniatum</i>	Kangaroo Apple	gg
<i>Stuartina muelleri</i>	Spoon Cudweed	gg

Sources:

NRE (database 1998b), O'Shea, B. (1986), DCE (1991).

Status (Gullan, Cheal & Walsh 1990):

- d Depleted: not considered rare or threatened in Victoria, but significantly depleted and/or in decline.
 - g Regionally significant (Beaglehole 1983).
 - R Rare in Australia: rare but overall not currently considered Endangered or Vulnerable.
 - r Rare in Victoria: not considered otherwise threatened.
 - v Vulnerable in Victoria: rare, not presently endangered but likely to become so soon due to continued depletion.
- L Listed under the Flora and Fauna Guarantee Act.

APPENDIX 2 THREATENED FAUNA

SCIENTIFIC NAME	COMMON NAME	STATUS
LERDERDERG STATE PARK		
Mammals		
<i>Miniopterus schreibersii</i>	Common Bent-wing Bat	Vul, L
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale	Vul, L
Birds		
<i>Falco subniger</i>	Black Falcon	End
<i>Lophoictinia isura</i>	Square-tailed Kite	End, N
<i>Ninox connivens</i>	Barking Owl	End, N
<i>Ninox strenua</i>	Powerful Owl	End, L
Reptile		
<i>Tympanocryptus diemensis</i>	Mountain Dragon	DD
Fish		
<i>Gadopsis marmoratus</i>	Freshwater Blackfish	DD
<i>Galaxias olidus</i>	Mountain Galaxias	DD
WERRIBEE GORGE STATE PARK		
Mammal		
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale	Vul, L
Bird		
<i>Ninox strenua</i>	Powerful Owl	End, L

Sources: NRE database (1998a), CNR (1994a).

Status (NRE 1998):

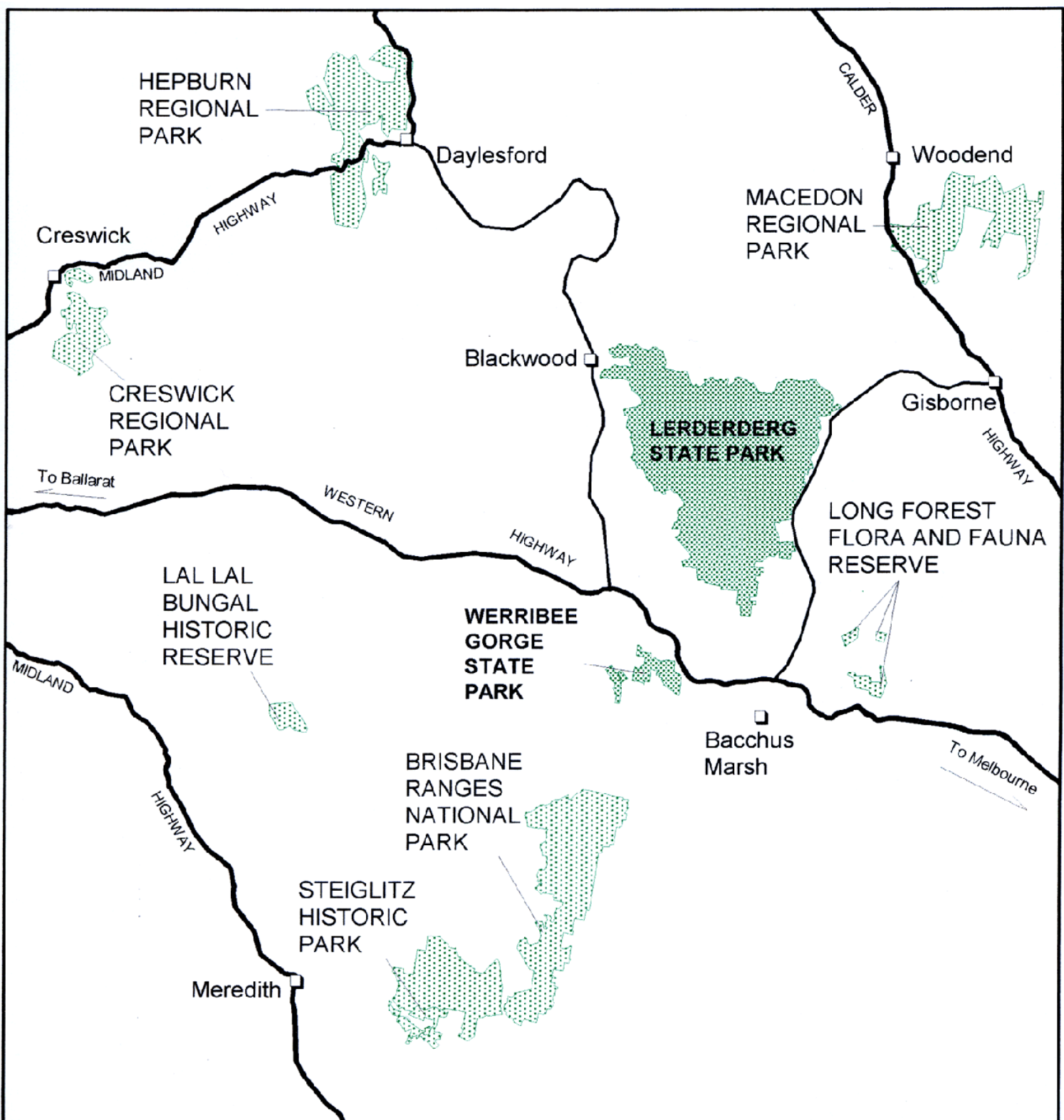
DD data deficient

End endangered in Victoria

Vul vulnerable in Victoria

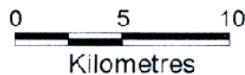
L listed under the Flora and Fauna Guarantee Act

N nominated for listing under the Flora and Fauna Guarantee Act

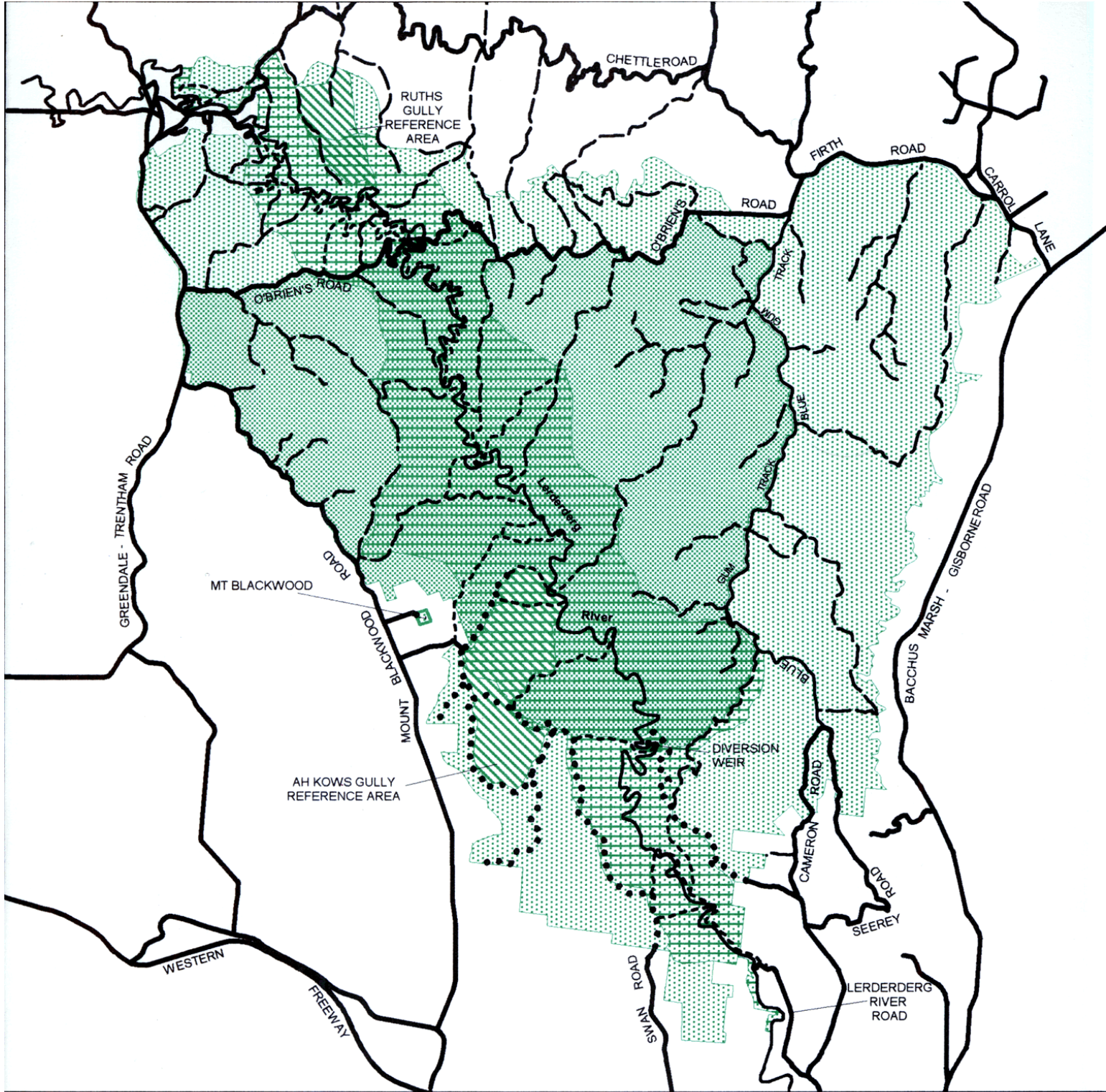


LERDERDERG STATE PARK AND WERRIBEE GORGE STATE PARK

FIGURE 1: LOCATION GUIDE

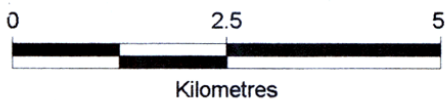


Map prepared by Centre for Environmental Management
University of Ballarat



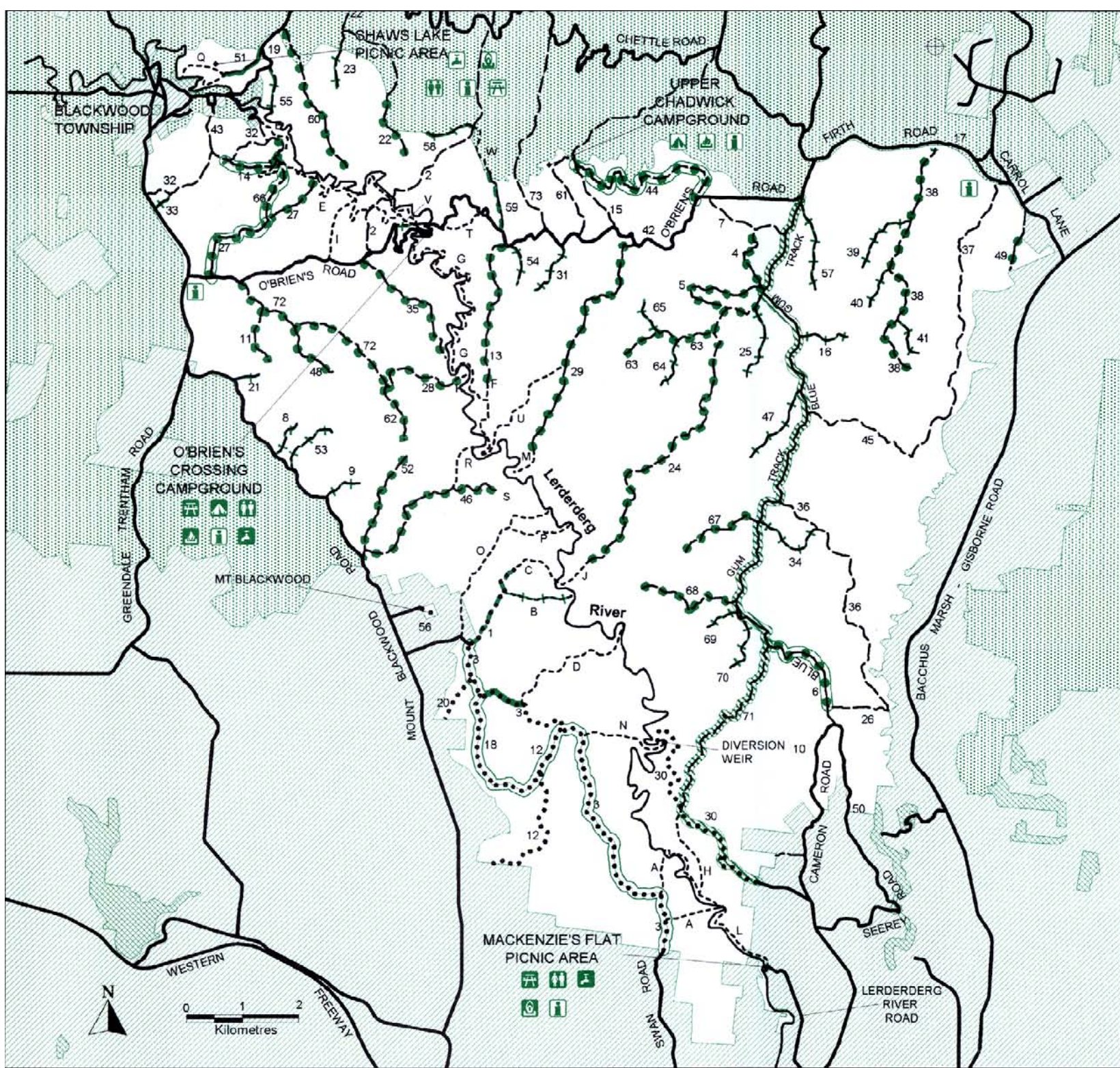
LERDERDERG STATE PARK
FIGURE 2: MANAGEMENT ZONES

- | | | | |
|-------|------------------------|--|--|
| ————— | All weather road (2WD) | | Conservation and Recreation Zone |
| ————— | Dry weather road (2WD) | | Conservation Zone |
| ----- | 4WD track | | Reference Area |
| | MVO track | | Heritage River Area |
| ----- | Walking track | | Special Management Area - Public utilities |



LERDERBERG STATE PARK

FIGURE 3: RECREATION, ACCESS AND ADJACENT LAND USE



- Lerderberg State Park
- State Forest
- Other reserves
- Private land

Current

- All weather road (2WD)
- Dry weather road (2WD)
- 4WD track
- MVO track
- Walking track
- Picnic area
- Fireplace
- Camping
- Toilets
- Gas BBQ
- Tap Water

Proposed

- Close to all vehicles and walkers
- MVO and walkers
- MVO - horse riding and cycling permitted
- Reference Area - closed to walkers
- Walkers only
- Proposed scenic route - Dry weather road (2WD)
- Camping
- Fireplace
- Information
- Toilets
- Picnic area
- Tap water
- Gas BBQ

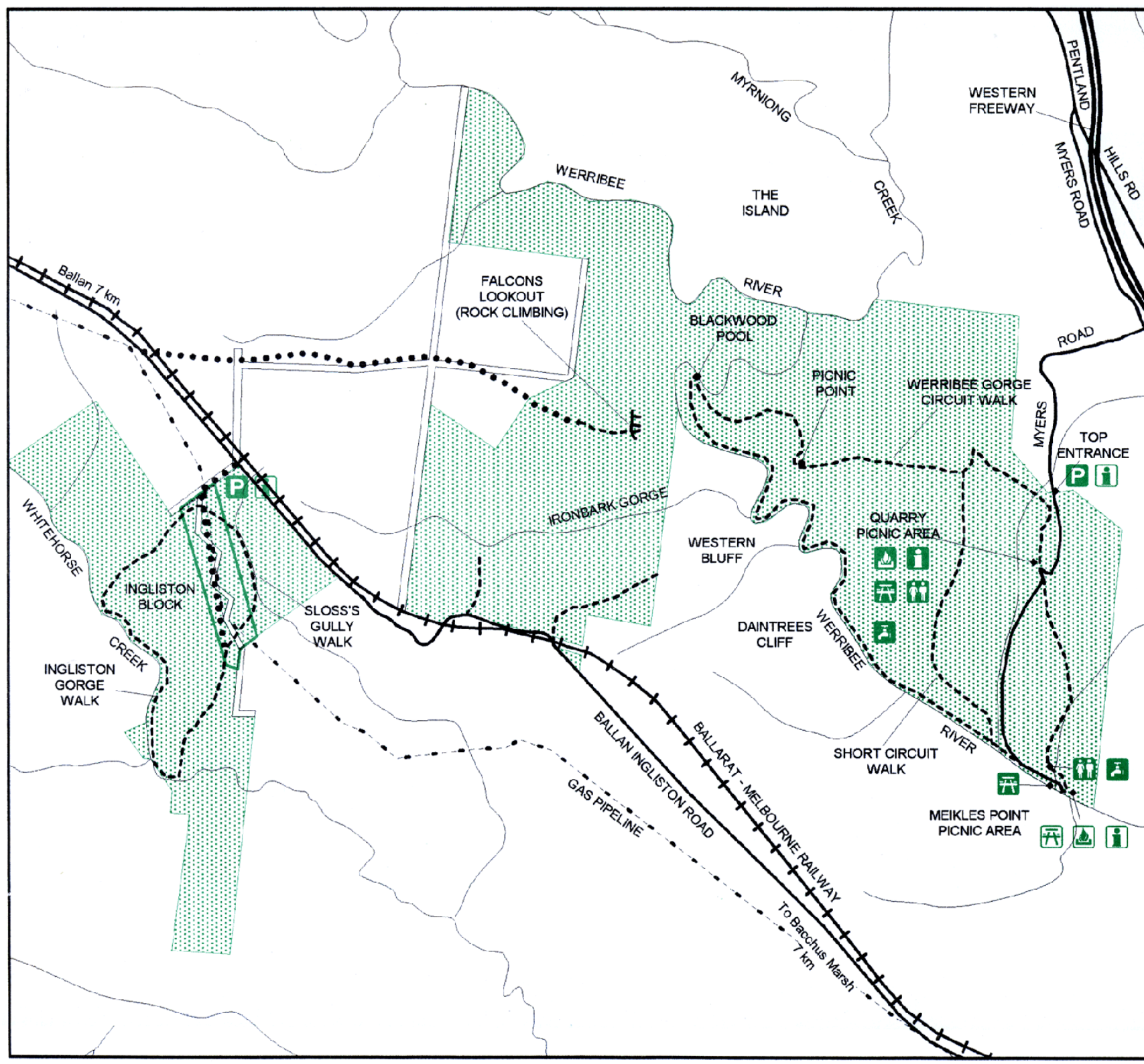
All weather road (2WD)
 (Refer to table 3 for vehicle track numbering and where seasonal closures may apply, and table 5 for walking track codes.)



Figure 4

WERRIBEE GORGE STATE PARK

MANAGEMENT ZONES AND VISITOR FACILITIES



- Highway
- Road
- Unused road
- MVO track
- Gas pipeline
- Railway line
- River or stream
- Walking track
- Conservation Zone
- Special Management Area

Visitor Facilities

- | | Existing | Proposed |
|-------------|----------|----------|
| Picnic area | | |
| Fireplace | | |
| Information | | |
| Toilets | | |
| Parking | | |
| Tap Water | | |

