
MOUNT BUANGOR STATE PARK
MANAGEMENT PLAN

National Parks Service

**DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENT**

VICTORIA

DECEMBER 1996

This Management Plan for Mount Buangor 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 May 1996. A total of 23 submissions were received.

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FOREWORD

Mount Buangor State Park protects significant natural areas which complement those in the statewide system of National and State parks. The Park has seen less disturbance than many other reserved areas in the region and offers good opportunities for recreation in a semi-remote setting.

Managed primarily for nature conservation purposes, the Park provides many opportunities for visitors to enjoy the natural environment. The Waterfalls on the upper section of Middle Creek have been a popular destination for many generations of visitors.

This Approved Plan establishes the long-term management framework to protect the important conservation and recreation values of the Park while ensuring it plays an important role in nature-based tourism in the region.

I thank those individuals and organisations who made submissions on the Draft Plan. The 23 submissions received were carefully considered in preparing this Approved Plan.

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

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

Hon Marie Tehan MP
MINISTER FOR CONSERVATION
and LAND MANAGEMENT

APPROVED MANAGEMENT PLAN

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

The Plan provides the basis for the future management of Mt Buangor State Park. It was finalised following consideration of the 23 submissions received on the Draft Plan.

Mark Stone
Director, National Parks Service

Paul Mainey
Regional Manager, South West

SUMMARY

Mount Buangor State Park (2400 ha) encompasses Mount Buangor and the southern face of the Mount Cole Range. The Buangor Reference Area and part of a proclaimed water catchment servicing the Rural City of Ararat are also within the Park.

The Park contains a variety of vegetation communities typical of the area, and also some significant species which require special protection. Management will concentrate on the conservation of the natural and scenic features of the Park while also providing for a range of recreational activities.

The Park is relatively free of pest plants and animals, although regular monitoring of populations will be required. Control programs will be undertaken in co-operation with adjoining landholders.

The Park provides a natural setting for a range of recreational pursuits which augment and complement activities in the rest of the region, including the adjoining Mount Cole State Forest. The Park currently receives 25 000 visitors annually, most of whom picnic or camp near Middle Creek. The enhancement of low-key facilities while maintaining the secluded feel of the Park will be a priority.

Major management directions are summarised below.

- Most of the Park will be maintained in its natural condition and special protection will be given to water catchments and sites of natural significance. The main visitor facilities will be confined to the south-east portion of the Park.

- Significant flora, fauna and other natural and cultural features will be protected.
- An ecologically-based fire management strategy will be developed through formalised monitoring and appraisal of all fires within the Park. Fire protection works will continue to be carried out, and will form a component of the Midlands Fire Protection Plan.
- Pest plants and animals will be controlled or eradicated where practicable.
- Roads and tracks may be seasonally closed due to weather conditions, or for maintenance. Some tracks will be permanently closed where they are not required for access and where they are sources of environmental problems.
- Visitor access and information will be improved. Visitor facilities will be upgraded and will include facilities for visitors with limited mobility. Camping will be improved by relocating the Ferntree camp sites to the Bailes Picnic Area.
- NPS market surveys will be used to better determine visitor needs and expectations.

CONTENTS

FOREWORD	iii
SUMMARY	v
1 INTRODUCTION	1
1.1 Location and planning area	1
1.2 Regional context	1
1.3 Significance of the Park	1
1.4 Creation of the Park	2
1.5 Legislation, LCC recommendations and guidelines	2
1.6 Park management aims	2
2 STRATEGIC DIRECTIONS	3
2.1 Park vision	3
2.2 Management directions	3
2.3 Zoning	3
3 RESOURCE CONSERVATION	6
3.1 Geological and landform features	6
3.2 Rivers and streams	6
3.3 Vegetation	6
3.4 Fauna	7
3.5 Landscape	8
3.6 Cultural heritage	8
4 PARK PROTECTION	10
4.1 Fire management	10
4.2 Pest plants and animals, and diseases	11
4.3 Soil conservation	11
5 THE PARK VISIT	13
5.1 The Park visitor	13
5.2 Visitor recreation activities and facilities	14
5.2.1 Vehicle access	14
5.2.2 Picnicking	15
5.2.3 Camping	15
5.2.4 Walking	20
5.2.5 Horse riding and camping	20
5.2.6 Hang gliding	21
5.2.7 Rock climbing and abseiling	21
5.2.8 Dogs	21

5.3	Visitor information and interpretation	22
5.4	Commercial tourism operations	22
5.5	Public safety	22
6	COMMUNITY AWARENESS AND INVOLVEMENT	24
6.1	Friends and volunteers	24
6.2	Community awareness and Park neighbours	24
6.3	Schools education	24
7	OTHER ISSUES	26
7.1	Authorised uses	26
7.2	Boundaries and adjacent uses	27
8	IMPLEMENTATION	28
	REFERENCES	29
	TABLES	
1	Park management zones	5
2	Summary of recreation activities	14
3	Management of vehicle roads and tracks	16
4	Management of walking tracks	19
5	Priority management strategies	28
	APPENDICES	30
I	Significant plant species	30
II	Species of biogeographical significance	30
III	Sites of botanical significance	30
	FIGURES	
1	Regional locality plan	End of Plan
2	Locations, facilities and authorised uses	End of Plan
3	Management zones	End of Plan

1 INTRODUCTION

1.1 Location and planning area

Mount Buangor State Park (2400 ha) is situated on the lower reaches of the Great Dividing Range 175 kilometres north-west of Melbourne (figure 1). The Park is on the south-western slopes of the Mount Cole Range and adjoins the Mount Cole State Forest.

This management plan covers Mount Buangor State Park and includes:

- the Mount Buangor Reference Area (70 ha);
- the area around Jenny Clayton Track recommended by the LCC (1982) as an education area.

The plan does not include the Ararat Reservoir which is excluded from the Park (figure 2).

1.2 Regional context

Mount Buangor State Park lies on the Midland Plains 60 kilometres west of Ballarat, close to the population centres of Ararat, Elmhurst and Beaufort. The close proximity to the Western Highway attracts visitors en route between Melbourne and Adelaide, and the Park receives approximately 25 000 visitors annually. It is estimated that one sixth of these camp in the Park (Tange 1994).

Mount Buangor State Park is an important native bushland area which contributes to the biodiversity of the Mount Cole Range. Recreational opportunities in the State Park are complemented by those in the adjoining Mount Cole State Forest.

Within the region there are a number of other parks, reserves and State Forests which complement Mount Buangor State Park and present a range of visitor experiences (figure 1). The activities provided for at Mount Buangor complement those of the following areas of public land:

- Mount Cole State Forest allows for a wide range of recreational pursuits, including bush walking, pleasure driving and horse riding. It has a number of picnic and

camping areas of varying sizes in a natural setting;

- Langi Ghiran State Park contains semi-remote recreational settings, as well as picnic and camping opportunities;
- Ararat Hills Regional Park accommodates picnickers and walkers;
- Enfield State Park provides opportunities for bushwalking and nature study in a relatively natural setting close to Ballarat;
- Lake Goldsmith Wildlife Reserve attracts bird observers, and duck hunters during the open season.

1.3 Significance of the Park

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

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

Mount Buangor has been popular with tourists and nature lovers since the 19th century. High granite rock faces and a dramatic rock overhang at Cave Hill give spectacular views. Because of the rugged terrain, most of the Park's tall stands of eucalypts, with relatively undisturbed understorey, have not been used for timber production. As a result a wide range of plant communities is represented in the Park, giving it high conservation value.

The Buangor Reference Area on the southern slopes of Mount Buangor, reserved to protect a relatively undisturbed Messmate and Blue Gum forest type (LCC 1982), is a reference point for the rest of the Park, and for the timber production areas of the Mount Cole range.

1.4 Creation of the Park

The Park is included on Schedule Two B of the National Parks Act. It was proclaimed on 27 October 1989 as a result of the *National Parks (Amendment) Act 1989* (Vic). Before its proclamation as a State Park it was declared under Section 50 of the *Forests Act 1958* (Vic.) as the Mount Buangor Forest Park.

1.5 Legislation, LCC recommendations and guidelines

Mount Buangor State Park is reserved and managed under Schedule 2B of the National Parks Act. The Act requires the Director to preserve and protect the natural condition of the Park and its natural and other features, and subject to this to provide for the use of the Park by the public for enjoyment, recreation and education. The Act also provides for appropriate research.

Mount Buangor State Park was recommended by the Land Conservation Council (LCC) Ballarat Study Area Final Recommendations (1982). The LCC recommended that the Park provide for public enjoyment, education and inspiration while including conservation of native flora and fauna as an essential feature of management. In addition, visitor facilities should be limited to a small portion of the Park and any activities should be largely passive, consisting of camping, sightseeing and observation of natural features.

A special investigation of historic places (LCC 1996) identified historic places for protection; these are indicative of the cultural heritage of the Park (section 3.6).

The Mount Buangor Reference Area, surrounded by the Park has been proclaimed under the *Reference Areas Act 1978* (Vic.), and is managed in accordance with the relevant NRE guideline.

The Park is managed in accordance with Department of Natural Resources and Environment (NRE) guidelines for the management of Parks (NPS 1995), with LCC recommendations and other Departmental guidelines and procedures and in conjunction with the Ballarat Regional Fire Protection Plan

(under revision) and the Code of Practice for Fire Management on Public Land (CNR 1995a).

1.6 Park management aims

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

Resource conservation

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

Park protection

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

The Park visit

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

Other

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

2 STRATEGIC DIRECTIONS

2.1 Park vision

A future visitor to Mount Buangor State Park finds a Park which is an important component of the recreation and conservation opportunities provided by the public land of the region. Visitors come to enjoy the granite rock faces, the tall forests, fern glades and sparkling waterfalls. These provide a diverse range of experiences which are based on low impact recreation and family activities. Visitor developments are sensitively located and managed to retain the distinctive landscape character of the Park, and information and interpretation of the Park's value give visitors an enhanced experience.

An ecologically-based fire management strategy enhances the wide variety of vegetation which varies from sub-alpine Snow Gum communities to fern gullies. The conservation of the indigenous flora and fauna, and the control of pest plant and animals, ensures that the Park will continue as an important conservation reserve for future generations.

2.2 Management directions

The major management directions for the Park are outlined below.

Resource conservation

- Areas of high conservation significance, in particular sites with significant flora, fauna and cultural features, will be given special protection.
- The native vegetation and the characteristic landscape of Mount Buangor will be maintained.
- Flora and fauna will be surveyed and monitored, particularly in relation to management actions such as fuel reduction burning and the control of pest species.

Park protection

- Pest plant and animal control will be undertaken. Emphasis will be placed on the eradication of pests that threaten park

values and on co-operative control programs with adjacent land holders.

- Fire protection will be undertaken in accordance with the Midlands Fire Protection Plan. Emphasis will be placed on expanding knowledge of the ecological impacts of fire on the flora and fauna.

The Park visit

- Existing visitor facilities will be improved.
- The existing walking track network will be improved and extended to create additional walking opportunities.
- The range of recreational opportunities will be maintained.
- A conservation ethic for visitors will be fostered and appropriate park use and visitor behaviour will be encouraged.
- Vehicle roads and tracks will be maintained to provide for appropriate public access and for pleasure driving except where there are unacceptable environmental impacts or conflicts. Roads may be closed seasonally or temporarily due to adverse weather conditions, or for maintenance purposes.
- An interpretation plan will be developed to improve visitor appreciation.

Community awareness and involvement

- Co-operation with local government and other public authorities, community groups and land owners in conserving flora, fauna and habitat within and adjoining the Park will be fostered.

2.3 Zoning

A Park management zoning scheme has been developed to:

- provide a geographic framework in which to manage the Park;
- indicate which management directions have priority in different areas of the Park;

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

Four management zones apply to the Park - Reference Area, Conservation, Conservation and Recreation, and Education.

Table 1 specifies park management zone characteristics, and the location of these zones is shown on figure 3.

TABLE 1 PARK MANAGEMENT ZONES

	ZONES			
	REFERENCE AREA	CONSERVATION	CONSERVATION & RECREATION	EDUCATION
AREA/ LOCATION	70 ha, 3% of Park. Comprises Buangor Reference Area.	107 ha, 4% of Park. Includes areas of high conservation value.	2053 ha, 86% of Park. Includes the majority of the natural areas of the Park as well as the picnic and camping areas and the hang glider's launching ramp at Mt Buangor.	170 ha, 7% of Park. Comprises the area bounded by the Jenny Clayton Track.
VALUES	Relatively undisturbed land types and associated vegetation.	Sensitive natural areas unable to sustain impacts from dispersed recreation.	Important natural values with scope for low impact recreation and low key facility development.	Area for education purposes.
GENERAL MANAGEMENT AIM	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 sensitive natural environments and provide for minimal impact recreation activities and simple visitor facilities subject to ensuring minimal interference to natural processes.	Protect less sensitive natural environments and provide for sustainable dispersed recreation activities and small-scale recreation facilities without significant impact on natural processes.	Provide primarily for environmental education in a relatively undisturbed area.

3 RESOURCE CONSERVATION

3.1 Geological and landform features

Mount Buangor is on the southern edge of a large granitic plateau. Volcanic activity associated with faulting several million years ago spilled lava over Victoria, forming extensive basaltic plains. The lava flow reached the foot of the Mount Cole Range, which had persisted after the erosion of overlying Ordovician sediments.

Mount Buangor (989 m) is the highest peak on the region's section of the Great Dividing Range. The Park also includes the granitic peaks of Mount Sugarloaf and Cave Hill. The ancient erosion processes which led to the protrusion of this range continue today, the surrounding slopes being built up from outwashed granitic sand. The low lying south-western portion of the Park is sometimes waterlogged.

Aim

- Minimise impacts from visitors on sensitive geological features, including Ferntree Waterfalls.

Management strategy

- *Monitor the impact of visitors on sensitive geological features, especially those close to high use areas, and implement management as required to protect these features.*

3.2 Rivers and streams

The vegetation and landform associated with the watercourses of Mount Buangor are major attractions for visitors to the Park. The ferns and waterfalls of Middle Creek, running from the steep north-eastern section of the Park through to the Middle Creek Camping Area, give much visitor enjoyment. Campers and day visitors use the water from Middle Creek for drinking.

McLeod Creek, the basis of Buangor's domestic water supply, also rises in the Park

with its headwaters principally within the Reference Area.

Spring Creek and Baranga Creek feed the Ararat Reservoir; the majority of the length of these creeks occurs within the Mount Cole State Forest. The proclaimed catchment for the reservoir falls partially within the Park and will be protected (sections 4.3, 7.1.3).

Aims

- Conserve the aesthetic and water quality of the creeks within the Park.
- Protect the water quality within the Ararat and Buangor catchments.

Management strategies

- *Provide a 40 m buffer between Middle Creek and the Bailes and Middle Creek Camping Areas.*
- *Prohibit any development or activity within the proclaimed catchments that may adversely affect water quality.*
- *Maintain walking tracks along creeks and through catchments to a high standard, to reduce any negative impacts on catchment values.*

3.3 Vegetation

The Park contains a variety of vegetation communities, ranging from sub-alpine Snow Gum communities on the high peaks to fern gullies along Middle Creek. The major vegetation communities, Messmate Stringybark and Blue Gum forests, create the overall character of the Park.

Out of a total of 324 recorded vascular plant species, there are 119 species that are of national, State, regional or biogeographical significance within the Park (Rankin & Cameron 1995). Four species are of national or State significance (appendix I) At least 16 species reach the geographic limits of their known distribution, in some cases by strikingly disjunct populations (appendix II). Another 60

species are near their geographical limits. A recently completed vegetation survey of Mount Buangor State Park (Rankin & Cameron 1995) identified seven significant vegetation types and six sites of botanical significance (appendix III). An undescribed species of grass, with affinities to Slender Tussock Grass, was recorded in sedge-dominated communities with Yarra Gum.

These significant species and their communities will be protected in the Conservation Zone (section 2.3).

The Reference Area, situated on the steep slopes below Mount Buangor Lookout, contains Messmate Stringybark and Blue Gum open forest in a relatively undisturbed condition.

The area around the Jenny Clayton Track in the southern neck of the Park has been heavily grazed and frequently burnt in the past. However, the recent vegetation survey found areas of senescing Messmate Stringybark open forest, indicating that at least some areas have been left unburnt for extended periods. These forests contrast with other areas of the Park where most of the over-mature age class forests have been eliminated.

The study of the ecological effects of planned and unplanned fires on the vegetation of the Park will be a major initiative of this plan (section 4.1).

Aims

- Protect the vegetation of the Park, with special protection given to rare or threatened species and communities.
- Increase knowledge of the effect of fire on the Park's vegetation.

Management strategies

- *Conduct vegetation surveys prior to any development works (e.g. section 5.2.2).*
- *Monitor the distribution and condition of significant species and protect as necessary.*

- *Determine the appropriate fire regimes for the conservation of the Park's flora (section 4.1).*
- *Rehabilitate and revegetate any degraded areas (sections 4.2, 5.2.2, 5.2.3) with local provenance indigenous species only.*
- *Manage all species listed under the Flora and Fauna Guarantee in accordance with approved action statements.*

3.4 Fauna

There is little data relating to the fauna of the Park. The Wildlife Atlas (NRE database 1997) holds records for only 20 mammals, 45 birds, 15 reptiles and two amphibian species at Mount Buangor. Species commonly encountered during daylight in the Park are Eastern Grey Kangaroos and Black-tailed and Red-necked Wallabies, and at night Common Brushtail and Common Ringtail Possums. The variety of birds likely to be seen is also a feature of a visit to the Park.

Koalas were first released at Middle Creek from French Island in 1958 and were supplemented by a release of 34 animals from Sandy Point in Westernport Bay in 1989. Koalas are occasionally sighted in the Park.

One significant species, the Peregrine Falcon, and two threatened species, Powerful Owl and the Brush-tailed Phascogale, have been recorded in the Park (CNR 1995b). It is also likely that the Mountain Brushtail Possum and Square-tailed Kite occur within the Park.

The ecological impacts of planned and unplanned fires on the fauna are poorly understood.

There is a large mob of Eastern Grey Kangaroos in the southern portion of the Park. Their impact on the native vegetation, and the surrounding farmland, is uncertain at this stage, and will be monitored. Controls within the Park are currently not warranted.

The Mt Cole Sanctuary was declared in 1923, primarily to protect deer. The Sanctuary includes all the nearby forested areas including the area that is now Park. Sambar Deer are present in the Park, and although an introduced

species, are declared wildlife under the Wildlife Act. While the deer are currently present in low numbers the population needs to be monitored. If erosion or vegetation damage due to their presence is recorded, control programs may be required.

Aims

- Increase knowledge of faunal populations and in particular their response to fire.
- Protect native fauna from adverse management and visitor activities.
- Maintain faunal populations at a sustainable level.

Management strategies

- *Survey the fauna of the Park to identify species present and their distribution.*
- *Monitor the distribution and condition of significant species and protect as necessary.*
- *Survey specific sites prior to any development works to identify the presence of species that may be threatened.*
- *Determine appropriate fire regimes for the conservation of fauna species (section 4.1).*
- *Monitor the impact of grazing by Eastern Grey Kangaroos.*
- *Monitor the Sambar Deer population to determine impacts on the natural values of the Park as the basis for determining future management.*
- *Manage all species listed under the Flora and Fauna Guarantee Act in accordance with approved action statements.*

3.5 Landscape

The steep vegetated hillsides of the Park contrast with the predominantly cleared surrounding grazing land. This contrast enhances the visual quality of the landscape for both travellers along the Western Highway and visitors to the Park. Lookout points within the Park give viewing and photographic

opportunities over the surrounding countryside. Potential impacts on the landscape include fuel reduction burning, logging and other adjacent land use activities.

Aims

- Maintain the essential landscape character of the Mount Buangor range.
- Minimise conflicts between Park values and surrounding land uses.

Management strategies

- *Maintain view points within the Park.*
- *Ensure that any developments within the Park are in keeping with the character of the range, and do not conflict with or encroach on the internal and external views of the Park.*
- *Liaise with the Rural City of Ararat and the Shire of Pyrenees regarding any planning permits on land adjacent to the Park which may affect the Park. The conditions of any permits should take into account the need to protect the landscape values of the Park.*
- *Liaise with the Forests Service on their need to protect and maintain internal and external views from the Park and its approach from the effects of logging and other management actions in the adjoining State Forest.*

3.6 Cultural heritage

Historically, the local Aboriginal people were the Beeripmo balug clan of the Djab wurrung tribe. They occupied an area around the Mt Cole ranges to the Fiery Creek (Clark 1993). There are many registered Aboriginal archaeological sites on the nearby plains, but as the Park has not been systematically surveyed, only two sites are known within the Park. A stone axe was found in 1978 near the Park boundary and there is evidence of tool-making activities consisting of surface scatter near Cave Hill. The sites do not lend themselves to on-site interpretation.

Historic places identified in the LCC's Historic Places Special Investigation (LCC 1996) are as follows:

- log chute
- Emery Sawmill, Macleod Creek
- cairn at the summit of Mt Buangor
- Ararat Reservoir
- a former logging area (bounded by the main Mt Cole Road; Cave Hill Track and the upper level walking track).

The first known European to sight Mount Buangor was Major Thomas Mitchell, returning from an expedition to trace the course of the Darling River in 1836. Within ten years the first European settlers arrived. The Campbell brothers, Colin and Alexander, claimed a large proportion of the vacant country around Mount Cole for pastoral purposes.

The timbered slopes, unsuitable for farming, were a source of fence posts and housing materials for setting up the early pastoral runs. Saw milling began in the 1840s with pit mills and hand saws. The first-steam operated mill, which was run by James Magee, was set up at Hickman Creek in 1856. Up to thirty sawmills were operating by the turn of the century, so depleting the timber supply that in 1904 the forest was closed to utilisation (Leonard & Holmes 1987). The sawmills are now only marked by relic pits or depressions in the forest floor. There is a pit remnant of Emery's sawmill along Saddle Track in Mount Buangor State Park.

The chutes used for sliding logs downhill showed at the time as a depression on the side of a hill. They are difficult to discern 100 years later but may be found amongst the undergrowth on the Mount Cole range. Kominsky's chute is near the top of the saddle and another log chute exists in the Park on a slope south of Cave Hill (Jacobs Lewis Vines 1980).

Alluvial gold deposits were discovered in creeks flowing out of the Mount Cole range in the 1850s. This sparked an influx of gold prospectors to the area, and Middle Creek was worked for a time during that period along with

some of Mount Cole's other watercourses (GFNC 1972). No remnants of this era remain.

In 1947 the forest was reopened for timber cutting but the timber was milled in the surrounding towns rather than at locations in the forest.

Aims

- Protect Aboriginal and European cultural sites.
- Continue to identify and record cultural sites.

Management strategies

- *Continue to liaise with the Ballarat Aboriginal Co-operative and Aboriginal Affairs Victoria in relation to all matters affecting the Aboriginal heritage within the Park.*
- *Encourage Aboriginal Affairs Victoria to undertake a systematic survey of the Park.*
- *Interpret Aboriginal occupation and use in a general sense, and avoid direct site interpretation.*
- *Determine the extent of the saw milling relics and include in general Park information.*
- *Identify and record cultural sites on the NRE Register of Historic Sites.*
- *Seek advice on conservation actions from Historic Places Section, NPS, particularly in relation to recommendations for places listed in the LCC's special investigation.*

4 PARK PROTECTION

4.1 Fire management

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

Fuel reduction burns have been carried out within the Park over the last 20 years as part of the Ballarat Regional Fire Protection Plan. Most of this burning has been undertaken in the strategic corridor along the western boundary of the Park. Fire protection measures in this management plan will form a component of the wider-reaching Midlands Fire Protection Plan, currently under review.

The last major fire within Mount Buangor State Park was in 1959, when about 200 ha was burnt. A number of lightning strikes have been recorded over the last few years, most of them burning only a very small area of the Park.

There is a statutory requirement to protect life and property from wildfire. Fire protection measures will be undertaken at strategic locations within the Park, principally in and around picnic and camping areas. No fuel reduction burning will be undertaken in the Reference Area Zone (section 2.3) or the steeper southern slopes of Mount Buangor until more is known about the ecological impacts of fire.

In accordance with the Code of Practice for Fire Management on Public Land (CNR 1995a) all opportunities will be taken to develop a better understanding of the responses of the flora and fauna of the Park to fire, and to then use that information in the formulation of an ecologically-based fire management plan. At this stage little is known about those ecological responses. The recently completed vegetation survey of the Park will form the base line for monitoring. Ecological burning or burns prescribed specifically for the investigation of ecological requirements may be undertaken, except in the Reference Area.

The shape of the Park and its location mean that Country Fire Authority brigades around the Park are likely to be involved in fire

suppression and NRE officers and equipment are likely to be involved in fire suppression on private land.

Aims

- Protect the Park and visitors from unplanned fire.
- Develop and maintain fire regimes appropriate to the conservation of native flora and fauna.
- Improve knowledge of the ecological effects of fire in the Park.

Management strategies

- *Ensure that the Park's values and boundary protection measures are considered in the review of the Midlands Fire Management Plan which will replace the Ballarat Region Fire Protection Plan.*
- *Maintain a network of MVO's, roads and tracks, as shown in figure 2, in a condition suitable for fire suppression vehicles.*
- *Continue to liaise with the Country Fire Authority in relation to fire management issues in and adjacent to the Park.*
- *Use earth moving equipment in the suppression of wild fires in accordance with the provisions of Section 2.4 of the Code of Practice for Fire Management on Public Land. Rehabilitate any areas disturbed by control lines or other suppression activities as soon as practicable.*
- *Develop a formal monitoring and appraisal system for the ecological assessment of all fires within the Park, with the aim of establishing an ecologically-based fire management strategy for the Park. Include in monitoring:*
 - *surveys of key flora and fauna attributes prior to burning;*
 - *quantitative assessment of fuel loads;*
 - *records of fire behaviour and weather conditions during the burn;*

- *maps of the area burnt and recording of conditions immediately post burn;*
- *repeat flora and fauna surveys for five years following the burn.*
- *Incorporate the results and recommendations of the fire monitoring program into the Midlands Fire Protection Plan. Carry out burns prescribed for the investigation of ecological requirements and implement an ecological burning program (to be implemented only once adequate information is gathered). No planned burning will be carried out in the Reference Area.*

4.2 Pest plants and animals, and diseases

The Park is reasonably free of pest plant species. The main threat is posed by Early Black Wattle, which was planted there early this century for the tanning industry. It is common in and around Middle Creek Camping Area. Early attempts to control this species by burning were unsuccessful, largely because of the mass germination of soil-stored seed following the fire and the inability to perform a follow-up burn because of the lack of fuel.

There are a number of other exotic species in the Park. Furze, Blackberry species, Willow, Poplar and Cootamundra Wattle have a limited distribution, and their growth form means that they could be eliminated from the Park. Cats Ear, Thistle species, and various introduced grasses are more widespread and their growth form means that they are virtually impossible to eradicate. All these exotic species invade disturbed sites, so it is important to limit any soil or vegetation disturbance.

There are a number of pest animal species in the Park, including rabbits, foxes, hares, cats, feral bee colonies and feral goats.

Rabbit and fox numbers are generally low in the Park area, but monitoring and control measures will continue to be undertaken in conjunction with adjacent landholders. Minimising adverse effects on native flora and fauna from the control programs will be a priority.

None of the other species poses a major threat to the integrity of the Park or to the surrounding land; however, populations need to be monitored and control programs implemented as required.

Honey fungus, a tree pathogen, is present in the adjacent Mount Cole State Forest where research work has been undertaken. The status of this fungus is unknown, although it is suspected to be present in the Park. Further investigation is required.

Aims

- Eradicate or control pest plants and animals.
- Monitor the effectiveness of control programs and modify as required
- Co-operate with adjoining landowners in the control of pest plants and animals.
- Prevent the spread of soil pathogens such as Honey fungus.
- Minimise the effect of control programs on native flora and fauna.

Management strategies

- *Prepare a pest plant and animal strategy for the Park which will detail priority species and areas for pest control and methods to be used.*
- *Work with adjoining landholders in implementing the pest plant or animal strategy using prescribed methods.*
- *Undertake fox and cat control programs as a priority if rabbit populations decline.*
- *Destroy feral bee colonies.*
- *Identify and map all areas infected with Honey fungus.*

4.3 Soil conservation

The Park is on the steep southern aspect of Mount Buangor, and has mainly granitic soils. The combination of the steep topography and the granitic soils makes the Park susceptible to erosion. It is essential to maintain vegetation cover on the steep slopes, and to site visitor

facilities on flatter areas only. The maintenance of road surfaces and drains is essential to minimise erosion. Temporary closures of roads and tracks may be necessary to protect them from damage during periods of adverse weather, or for maintenance.

Aim

- Prevent and control soil erosion caused by visitor and management activities.

Management strategies

- *Prohibit or control any activities which cause ground disturbance.*
- *Protect roads by temporary closure during wet weather conditions, and close for maintenance as necessary.*
- *Ensure adequate drainage of roads and tracks to reduce the potential for soil erosion.*

5 THE PARK VISIT

5.1 The Park visitor

Mount Buangor State Park is a natural setting for nature study and a range of recreational activities. The Park receives about 20 000 visitors per year. The majority of these visitors are concentrated in the eastern portion of the Park where the facilities and main attractions are situated.

A visitor survey conducted over Easter 1995 concluded that visitors come predominantly from the local and Ballarat catchments, but a significant number were also attracted from other areas such as Geelong, Warrnambool and South Australia. Most of the visitors set out specifically to come to the Park, although a number of casual visitors were attracted by the signs on the Western Highway. The Survey found that most visitors were attracted to the Park by the camping and picnic facilities set in natural and relatively undisturbed bushland.

Visitors engage in a range of recreational activities but most use the Park for walking, relaxing and pleasure driving during their stay. Horse and trail bike riding and 4WD touring are also popular.

The topography of the Park naturally confines facilities and visitor concentrations to the southern and eastern portions of the Park. The main picnic and camping areas are heavily used and are degraded to some extent through soil compaction and vegetation trampling.

Mount Buangor State Park is part the Grampians tourism product region which has a variety of natural and cultural features ranging from goldfield and other settlement features to the rugged natural grandeur of Grampians National Park. The Park is adjacent to the Mount Cole State Forest. With an area of about 11000 ha, the Forest offers a wide range of complementary recreational opportunities.

Providing for the visitor

Within the context of the region, the Park will provide for the more low impact recreational opportunities, with some scope for adventure-type activities in defined areas. To facilitate

this, visitor facilities will be upgraded and information about the Park and the surrounding areas will be available. Emphasis will be placed on the provision of high quality low-key facilities at existing or relocated sites which maintain the secluded feel of the Park. Existing and proposed visitor facilities are shown in figure 2.

Out and About Seniors, Natural Adventurers and Escape to Nature are the segments most likely to have an interest in the Park.

NPS market survey findings will be used to establish a profile of Park visitors and ensure that their needs and expectations are met.

Aims

- Provide a range of opportunities and quality services in accordance with the above overview which complement the opportunities available at other locations within the region.
- Develop an understanding of visitor profiles, attitudes, expectations and needs.

Management strategies

- *Permit recreational activities in accordance with table 2.*
- *Provide and maintain facilities and services which highlight, but are in keeping with, the area's distinctive character (section 5.3 and tables 3 and 4).*
- *Apply NPS 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.*
- *Encourage all visitors to adopt minimal impact techniques and to adhere to codes of conduct appropriate to their activity.*

TABLE 2 SUMMARY OF RECREATION ACTIVITIES

ACTIVITY	MANAGEMENT ZONES			
	1	2	3	4
Picnicking	No	Yes	Yes	Yes
Camping	No	No	YC	No
Walking	No	YC	YC	YC
Cycling	No	YC	YC	YC
Pleasure driving	No	YC	YC	No
Trail bike riding	No	YC	YC	No
Horse riding	No	YC	YC	No
Horse camping	No	No	No	No
Orienteering/Rogaining	No	No	No	No
Fishing	No	No	No	No
Firewood collecting	No	No	YC	No
Firewood removal	No	No	No	No
Hunting	No	No	No	No
Dogs	No	No	No	No
Hang gliding	No	No	YC	No
Rock climbing/abseiling	No	No	YC	No

1 Reference Area

2 Conservation

3 Conservation and Recreation

4 Education

Yes Appropriate

YC

conditional refer to relevant section for details

No Not appropriate

N/A

Not applicable

- *Monitor visitor numbers and use to ensure adequate provision of facilities consistent with appropriate types and levels of use.*

5.2 Visitor recreation activities and facilities

5.2.1 Vehicle access

Access to the Park from the Western Highway is via the formed gravel Ferntree Gully Road. A VicRoads sign indicates the way to the Park from the highway, but gives no other information.

There are a number of access roads and tracks within the Park, ranging from formed gravel all-weather roads to low-use unformed tracks. Through access can be gained from Ferntree Gully Road to Bayindeen School Road via Saddle Road.

The Park's roads and tracks are used by cyclists, trail bike riders and pleasure drivers.

The topography of the Park means that there are few north-south tracks, and that those that do exist are steep and often unsuitable for two-wheel-drive cars, particularly in wetter months. The cost of maintaining these steeper roads is a consideration. Those tracks not required for access or which are causing environmental damage will be closed to the public or to all vehicles, and revegetated.

Dead-end tracks can pose a public risk during a wildfire.

The adjoining Mt Cole State Forest provides extensive opportunities for trail bike riding and pleasure driving. The State Forest has more than 250 km of public roads and tracks.

Aims

- Provide quality public access to picnic and camping areas.

- Maintain a road network suitable for public access, pleasure driving and management requirements.
- Minimise the impact of vehicles on the Park's natural values and the cost of road maintenance.

Management strategies

- *Manage and permit the use of roads and tracks in accordance with figure 2 and table 3.*
- *Liaise with VicRoads to place more informative directional signs on the Western Highway.*
- *Apply temporary road closures if required to minimise environmental damage and ensure public safety (section 4.3).*
- *Liaise with the Rural City of Ararat and the Shire of Pyrenees on the maintenance of roads leading to the Park.*
- *Upgrade and maintain road and track signs in accordance with the NPS Signs Manual. Indicate on road signs if 'No through Road' or 'Suitable for 4WDs only' etc.*
- *Permit cycling on all roads, tracks and MVO tracks in accordance with table 3 and figure 2, but not on walking tracks.*
- *Permit trail bike riding (vehicle must be road-registered with a licensed rider) on roads and tracks, excluding MVOs and walking tracks as shown in table 2 and figure 2.*

5.2.2 Picnicking

Picnicking is the most popular use of the Park, particularly during weekends and holiday periods. The main picnic facilities are at Ferntree and Middle Creek (figure 2); Bailes has been used as a minor picnic site but will be improved (5.2.3). All these sites have toilets, barbecue fireplaces, tables and rubbish bins. There are single and group fire pits at all the picnic areas but firewood is not provided. The collection of firewood within the Park is depleting supplies and also degrading Park

values through the removal of ground cover and habitat.

The Ferntree Picnic Area is on a slope and is eroding despite the construction of terraces and low retaining walls. The picnic area is set under an attractive stand of mature messmate stringybarks, but its slope means that redevelopment of the site is necessary. The Waterfalls Nature Walk also starts there.

Sugarloaf Picnic Area is little used and poorly sited as it is too close to the busy and dusty main Mt Cole Road.

Aim

- Provide facilities for picnicking in the Park.

Management strategies

- *Upgrade and maintain facilities at Middle Creek around the existing shelter.*
- *Provide facilities in the picnic and camping areas at Middle Creek suitable for people with limited mobility (section 5.2.3).*
- *Remove fire pits at all picnic areas.*
- *Allow fires only in existing fireplaces in picnic and camping areas.*
- *Limit firewood collection to designated areas only and provide information in the picnic and camping areas about where to collect and how to minimise use of firewood.*
- *Remove all rubbish bins from the Park and promote a philosophy of minimal impact use.*
- *Retain Ferntree Picnic Area, upgrade the facilities and remove the erosion risk.*
- *Close and revegetate Sugarloaf Picnic Area.*

5.2.3 Camping

Camping is a popular activity in the Park, particularly during holiday periods. Facilities are provided at Ferntree, Bailes and Middle Creek (figure 2). The Ferntree Camping Area has five

TABLE 3 MANAGEMENT OF VEHICLE ROADS AND TRACKS

• ROAD OR TRACK	• CLASS	• COMMENTS/USES	• STATUS		• FUTURE MANAGEMENT
			• CURRENT	• PROPOSED	
• Ferntree Waterfalls Road	• 1	• Main access to Park from Western Highway	• O	• O	• Maintain to high standard suitable for 2WD vehicles.
• Un-named track north from Ferntree Waterfalls Road to Bee site PK9	• 2	• FPM - Dead end track to former gravel pit	• O	• MVO	• Maintain access to relocated apiary site.
• Un-named track from Ferntree Waterfalls Road	• 3	• West of Bee site PK9, dead-end tracks, unused and overgrown	• O	• C	• Not required, close and revegetate.
• Dairymaid Road	• 2	• Shortest access to Mt Cole SF and Main Mt Cole Rd. Not always suitable for 2WD.	• O	• O	• Upgrade to all-weather 2WD access.
• *Jimmy Smith Road	• 1, 3	• Access to Middle Creek Camping Area. *Road Reserve along CA's 47, 47A and 48A	• O	• O	• Unchanged
• Saddle Road	• 1, 2	• Access from western sections of Park. Section from Ferntree Waterfalls Rd to saddle is steep and the road surface is loose. Not always suitable for 2WD	• O	• O	• Upgrade to all-weather 2WD access.
• Buangor Common Track	• 1	• Access to western section of park from Anderson's Rd, linking with Saddle Road,	• O	• O	•
• Boundary Track	• 2, 3	• Follows south-western boundary of Park. Links with Blackwood Track in north and Jenny Clayton Track in south	• O	• O/MVO	• Access for landholders to be retained. Track may be seasonally or temporarily closed. MVO east of Buangor Common Track.
• Wallaby Caves Road	• 2	• Access to north-western section of Park and to Mt Cole SF.	• O	• O	• Unchanged
• Un-named track running east from Wallaby Caves Road to McLeod Creek	• 2	• FPM - Dead-end track, little used. Does not cross McLeod Ck. Formerly used as burn boundary, protecting Reference Area to north.	• O	• MVO	• Retain for fire protection purposes.
• Blackwood Track	• 1	• Links Wallaby Caves Rd and Rocky Rd	• O	• O	• Unchanged

Table 3 (cont.)

• ROAD OR TRACK	• CLASS	• COMMENTS/USES	• STATUS		• FUTURE MANAGEMENT
			• CURRENT	• PROPOSED	
• Rocky Road	• 2	• Access to north-western section of Park and Mt Cole SF	• O	• O	• Unchanged
• Reservoir Road	• 1, 2	• Forms boundary of Park and State Forest	• O	• O	• Unchanged
• Dutchman Road	• 2, 3	• Forms boundary of Park and State Forest	• O	• O	• Unchanged
• Un-named Road from Reservoir Road to north side of Reservoir	• 2	• Access to north side of Ararat Reservoir wall for maintenance purposes by Grampians Water and Rural City of Ararat. Has locked gate on track - FPM	• O	• O/MV O	• Retain for maintenance of water supply facilities.
• Baranga Creek Track	• 2	• Forms boundary of Park and State Forest	• O	• O	• Unchanged.
• Mt Buangor Track	• 1, 3	• Access to hang-gliding launch site and scenic lookout.	• O	• O/MV O	• MVO from Car Park to summit of Mt Buangor and beyond.
• Un-named track linking Mt Buangor Track and Mugwamp Track	• 3	• Steep, eroding track adjacent to Reference Area boundary. Forms boundary of Park and State Forest.	• O	• C	• Negotiate closure under Forests Act to protect Reference Area.
• Freemans Track	• 2	• Forms boundary of Park and State Forest. Section south of Mugwamp Track is dead end track leading to disused apiary site.	• O	• O/MV O	• Close track south of Mugwamp track, apiary site to be closed. Section of track is in Conservation Zone.
• Firebreak Track	• 3	• Forms boundary of Park and State Forest	• O	• O	• Unchanged. May be seasonally closed.
• Un-named track running south from Firebreak Tk	• 3	• Dead-end disused former logging track. Informally closed in past.	• MVO	• C	• Not required for park management purposes.
• Un-named cross -track from Boundary Track to Wallaby Caves Road	• 3	• FPM - Located on north side of McLeod Creek	• O	• MVO	• Originally a burn boundary track. Track waterlogs in winter. Maintain for fire protection.
• Cave Hill Track	• 3	• Access to Cave Hill; no through road. Requires maintenance to minimise impacts on significant flora, see section 3.3 and appendix 3.	• O	• O	• May be seasonally closed.

Table 3 (cont.)

ROAD OR TRACK	CLASS	COMMENTS/USES	STATUS		FUTURE MANAGEMENT
			CURRENT	PROPOSED	
Un-named track running north from Saddle Road	2	FPM - To V-notch weir on Macleod's Creek	O	MVO	Maintain access for Grampians Region Water Board.
Jenny Clayton Track	3	FPM - Loop track in education zone. Little used track, waterlogs in winter. Access from road reserve impassable in winter.	O	MVO	Forms walking track in education zone.
Un-named track running south from Saddle Road to top of saddle	2	Track is steep, badly eroded and not required for management purposes	O	C	Close and revegetate.
Un-named track running north from Ferntree Waterfalls Road, adjacent to Park boundary	3	FPM - Old, little used boundary track	O	MVO	Access required for environmental weed control and fire protection purposes.
Un-named track running east from Buangor Common water basin	3	Little used dead-end track	O	C	Not required for park management purposes. Close and revegetate.
Un-named track running south from Baranga Creek Track	3	Disused former logging track, informally closed	C	C	Not required for park management purposes. Close and revegetate.
Un-named track running west from Dairymaid Road	2	Leads to car park, links with Cave Hill Walking Track	O	O	

KEY:

C 1: All vehicle - all weather class

2 All vehicle - dry weather only

3 4WD - dry weather only

FPM - for park management

*Public road not part of Park

Status O - Open to public

:

MVO - Management vehicles only

C - Close and revegetate

TABLE 4 MANAGEMENT OF WALKING TRACKS

TRACK	CATEGORY	DISTANCE KM	COMMENTS
Waterfalls Nature Walk	A2	1.5	Brochure available
Middle Creek Walking Track	B, A2	3.3	Links Middle Creek, Bailes and Ferntree Picnic Areas
The Cave Walking Track	C, D	3.5	
Cave Hill Walking Track	C, D	0.5	Continues in Mount Cole SF
Upper Level Walking Track	C, D	1.5	Scenic views at Grevillea Lookout
Lower Level Walking Track	C, D	1.5	
Two-Mile Walking Track	B, C	1.7	
Freeman's Link Walking Track	C	2.5	
Sugarloaf Walking Track	C, D	3.3	Scenic Lookouts
Great Divide Walking Track	D	6.0	Continues in Mount Cole SF
Jenny Clayton Walking Track	B	6.0	Proposed loop walking track from Middle Creek Camp Area.
Around Middle Creek	A1	-	Proposed track for people with limited mobility on flatter areas around Middle Creek.

A1	Fully sealed surface or board walk, 1.5 to 2 m wide.
A2	Well drained, well defined track to 1.5 m wide.
B	Well defined track, benched and drained, to 1 m wide.
C	Track defined through use; may be benched and drained in sections.
D	Track defined through use; no basic construction.

individual sites immediately to the south of the picnic area and can only cater for tents. The sites are dispersed along the slope and access by vehicles can be difficult. They are some distance from water and toilet facilities. It is intended to close and rehabilitate these sites and establish new sites at Bailes. Middle Creek is a relatively large flat site which caters for all types of camping, including schools and other groups (section 6.3). Bailes is suitable for family and small group camping. Camping fees do not apply at present and the number of sites at Middle Creek is unrestricted. This has led to the expansion of the Middle Creek Camping Area through campers pushing back into the surrounding woodland, and the degradation of the site through accelerated, compaction and vegetation trampling.

A wide variety of camping experiences which complement the lower impact camping within

the Park is available in the adjacent Mount Cole State Forest.

Camping with horses is covered in section 5.2.5. Fires and firewood collection are covered in section 5.2.2 as is provision of facilities for people with limited mobility and rubbish.

Aim

- Provide a range of camping experiences in the Park.

Management strategies

- *Provide ten designated individual sites and one group site at Middle Creek Camping Area. Establish suitable screening vegetation to improve site amenity.*
- *Establish and promote a booking system for Middle Creek group camping site.*

- *Provide five designated sites at Bailes Camping Areas to replace camping at Ferntree. Design as discrete sites suitably screened and separated by vegetation.*
- *Close, rehabilitate and revegetate five sites at Ferntree.*
- *Investigate the introduction of a fee for camping to assist park maintenance and development.*
- *Remove all fire pits, except at the group camping site at Middle Creek Camping Area.*
- *Permit camping at designated sites only.*

5.2.4 Walking

There is an extensive walking track system (figure 2, table 4) within the Park which also links to tracks in the adjacent Mount Cole State Forest. Most of the tracks are in the east and north of the Park and present a range of walking opportunities from flat and easy to very steep and difficult.

There are opportunities to extend the track network to create additional loop walks of various lengths and difficulties from the picnic and camping areas. The Waterfalls Nature Walk, a self-guided walk that starts at the Ferntree Picnic Area, is well used and appreciated.

The area around Jenny Clayton Track contains a wide range of vegetation types. The location of the site lends itself to the development of an extended walking track accessed from the Middle Creek and Bailes Picnic and Camping Areas.

Aim

- Provide for a range of walking experiences within the Park.

Management strategies

- *Maintain the walking track network in accordance with table 4.*
- *Increase the range of walking facilities and experiences to include:*

- *a track for people with limited mobility in the flatter areas around Middle Creek;*
- *a medium length loop track along Jenny Clayton Track.*

5.2.5 Horse riding and camping

Horse riding, both casual and competitive, is a current recreational activity carried out in the Park and the adjoining Mt Cole State Forest. Organised endurance rides in the Mount Cole State Forest include some roads in the Park as part of the course. As riding is only carried out on roads and tracks, environmental damage is minimal, although the potential introduction of weed species through feed and droppings is a major concern. Manure can contaminate picnic and camping sites and its presence detracts from the experiences of other visitors to the Park.

Middle Creek Camping Area has been regularly used by horse riders for camping. Corralling, trampling, feeding methods, feed constituents, and manure adversely affect Park values and have led to the degradation of the site.

Chinaman's and Smith's Bridge Picnic and Camping Areas in the adjacent Mount Cole State Forest are suitable venues for limited overnight camping. Vehicular access with horse floats is reasonable and the areas provide suitable bases for horse riding in the Forest.

Aims

- Provide for horse riding within the Park, while minimising the impacts on Park values and other users.
- Protect the Park from the impact of camping of horses.

Management strategies

- *Provide for horse riding on roads open to public vehicles within the Park, excluding MVO's and walking tracks.*
- *Encourage recreational horse riders to keep to small groups.*
- *Encourage horse riders to adopt minimal impact practises in accordance with the*

Horse Riding Code adopted for horse riding in the Australian Alps National Parks.

- *Require groups organising endurance rides or other organised events to obtain a permit before the event.*
- *Prohibit camping, grazing, or feeding, of horses in the Park*
- *Direct visitors wishing to camp with horses to Chinaman's and Smiths Bridge, in the adjoining Mt Cole State Forest.*

5.2.6 Hang gliding

Hang gliding is a current use of the Park, and there is a launching ramp at the lookout below the road to the summit of Mount Buangor. There are four other launch sites located in the Mount Cole and Mount Lonarch State Forests and Ben More. The use of a site depends on the wind direction and strength on any particular day.

Aim

- Provide for hang gliding from the Park.

Management strategies

- *Allow hang gliding from the launch site on Mount Buangor. No other launch sites will be permitted in the Park.*
- *Ensure that the Victorian Hang Gliding Association maintains the launch ramp on Mount Buangor to a safe standard and in accordance with the licence conditions.*
- *Continue to liaise with the Victorian Hang Gliding Association in relation to the operation of the launching ramp and the conduct of the sport within the Park.*
- *Ensure that the Victorian Hang Gliding Association supplies and erects a sign at the site warning pilots of potential dangers and conflicts, and promoting environmental awareness.*
- *Require that, for all organised events, an appropriate permit is obtained. The supply*

of portable toilets at the site may be considered as a condition of the permit.

5.2.7 Rock climbing and abseiling

Rock climbing and abseiling are currently minor uses of the Park. The main site is at Cave Hill in the east of the Park.

The sport has a low impact on Park values provided that non-technical climbing practices are employed, and that other Park Regulations are followed.

Aim

- Provide for rock climbing and abseiling within the Park.

Management strategies

- *Allow rock climbing and abseiling only at the currently used site at Cave Hill.*
- *Liaise with climbing groups, in particular the Western Victorian Climbing Club and promote a policy of minimal impact climbing for rock climbers and abseilers using the Park.*
- *Seasonally close climbing and abseiling sites in the vicinity of any identified Peregrine Falcon breeding sites to prevent disruption of breeding.*

5.2.8 Dogs

The Park is managed for conservation and recreation. Dogs are not compatible with these uses and are not currently permitted in the Park. Dogs, under control, are permitted within the adjacent Mount Cole State Forest.

Aim

- Protect the natural values and visitor experiences in the Park by prohibiting dogs.

Management strategies

- *Continue to prohibit dogs from entering or remaining in the Park.*
- *Provide information on alternative areas for recreational activities involving dogs.*

5.3 Visitor information and interpretation

Visitor information and interpretation is an essential component of effective Park management. Information orientates visitors to the features and facilities of the Park, and interpretation gives them an insight into the complexity and functioning of natural and cultural features. Contact with a Ranger is also an important aspect of a Park visit for many people.

To facilitate the best possible experience for Park visitors, information and interpretation needs to be presented in a co-ordinated and cohesive manner. This will be accomplished through the production of a Park Interpretation Plan.

Aim

- Provide a high standard of visitor information and interpretation in a coordinated and cohesive manner.

Management strategies

- *Develop a Park Interpretation Plan which considers information and interpretation needs, publications, school education and the interpretation role of the Park within the regional context.*
- *Provide adequate visitor orientation information and safety messages only at key visitor nodes.*
- *Ensure that all interpretive facilities are well maintained.*
- *Update site information and publications produced for the Park as required.*
- *Maintain the existing interpretive walk on the Waterfalls Nature Walk (table 4).*
- *Provide quality customer service through Ranger contact during peak visitor periods and other times as appropriate.*
- *Upgrade and maintain Park signs in accordance with NPS Signs Manual.*

- *Regularly evaluate Park information and interpretive programs.*

5.4 Commercial tourism operations

There are currently no commercial tourism operators using the Park on a regular basis. There are opportunities for the development of tours that relate to the Park's natural values and recreational activities such as hang gliding. The Park could be developed as a nature-based tourism destination either on its own or within a wider regional itinerary.

Aim

- Provide for commercial tourism operations which are consistent with the conservation and private tourism uses of the Park.

Management strategies

- *Liaise with any commercial tourism operations using the Park to ensure that they are appropriately licensed and comply with permit conditions.*
- *Ensure Rangers liaise with any commercial tour operators to promote a low impact manner of operation that is consistent with the natural values of the Park and ensure that appropriate park messages are delivered.*

5.5 Public safety

The safety of visitors to the Park is a consideration in all aspects of management. There are always some risks involved with entering bushland areas, but they will be minimised through specific management actions including the maintenance of facilities to a high standard, continued fire protection measures, and continuation of an ongoing risk management program that removes identified hazards in areas where visitors congregate. Emergency contact information will be included in relevant Park information.

Aim

- Provide a safe and enjoyable venue for Park visitors.

Management strategies

- *Undertake fire protection measures as specified in section 4.1.*
- *Maintain facilities, including roads open to public vehicles, to a high standard.*
- *Erect a public safety sign at the hang gliding site on Mount Buangor in accordance with section 5.2.6.*
- *Identify and remove hazards within picnic and camping areas.*
- *Include emergency contacts on the information boards at the main Park entrances.*
- *Maintain an ongoing risk management program.*
- *Contribute to Displan planning for search and rescue within the Park.*

6 COMMUNITY AWARENESS AND INVOLVEMENT

6.1 Friends and volunteers

There are a number of organised groups which provide volunteer workers for the Park. The Western Victorian Climbing Club has recently helped with the construction of board walks and a walking track at Cave Hill. The Australian Trust for Conservation Volunteers has assisted in the past with walking track construction and maintenance. The Naturalists Club prepared a detailed submission for the reservation of the area as a Forest Park in 1973 (GFNC 1972). The Park would benefit from the formation of a Friends group. Academic institutions undertake research that contributes to park management.

Aims

- Extend the use of volunteer groups assisting with management of the Park.
- Encourage relevant research that will assist with the management of the Park.

Management strategies

- *Assist the formation of, and support, a Friends group for the Park.*
- *Liaise with interest groups and encourage them to undertake appropriate volunteer work.*
- *Liaise with local academic institutions and foster research which assists with developing knowledge relevant to management of the Park.*
- *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

A large proportion of the Park boundary is shared with the Mount Cole State Forest. The rest of the boundary abuts private property which is principally used for grazing. A number of issues requiring liaison and co-operation with adjoining landholders are

addressed elsewhere in the plan (sections 4.2, 7.2). It is important to involve Park neighbours in issues of mutual concern.

Aims

- Liaise with park neighbours on issues affecting the Park and adjoining land.
- Promote greater community awareness of Mount Buangor State Park.

Management strategies

- *Involve, and co-operate with adjoining landholders in joint pest control strategies under the Good Neighbour Program (section 4.2), and other issues affecting both Park and adjacent land.*
- *Apply and encourage the application of the 'Good Neighbour' policy to management issues on or near the boundary of the Park.*
- *Develop an ongoing community awareness and education program through local newspapers, schools and community groups.*
- *Maintain liaison with the Rural City of Ararat and the Pyrenees Shire on matters of mutual interest.*

6.3 Schools education

Local schools and other organised groups make considerable use of the Park's facilities, in conjunction with the facilities in the Mount Cole State Forest and visit on a regular basis.

Outdoor education is increasingly becoming an important part of school curriculum and may include hiking, nature study and other recreational activities. Passive learning activities will be provided for and encouraged in the Park.

The southern neck of the Park around the Jenny Clayton Track was recommended to be an education area by the LCC (1982). That recommendation was never invoked and the area was incorporated into the State Park when proclaimed in 1989.

The area around the Jenny Clayton Track contains many features that make it suitable for use by school and other educational groups. Its proximity to Middle Creek Camping Area, the variety of vegetation types and mixture of topography means the area can be used for interpretation and education purposes.

An Education Zone has been created to provide groups with opportunities for erecting removable structures such as a rope course or orienteering checkpoints. Education groups performing adventure-type activities in particular will be directed to this zone, and the activities carried out must be compatible with the conservation values of the area. The Education Zone is bounded by the Jenny Clayton Track (figure 3).

Aim

- Provide educational opportunities for schools in the Park through interpretation facilities and activities (section 5.3).

Management strategies

- *Provide a group camping area at the Middle Creek camping site for the use of school and other groups.*
- *Encourage school and other educational groups to adopt a philosophy low impact camping methods.*
- *Promote regional school use of Jenny Clayton Education Zone.*
- *Provide information and interpretation for school groups by arrangement.*
- *Implement a booking system for use of the Education Zone to allow the type of activity and the duration of site occupation to be regulated and coordinated.*
- *Allow adventure type educational activities to be conducted in the Education Zone.*
- *Establish monitoring techniques to assess the impacts of adventure type educational activities.*

7 OTHER ISSUES

7.1 Authorised uses

7.1.1 Apiculture

Bee keeping has been a traditional use at Mount Buangor State Park and has some economic importance to members of the community. The LCC (1982) recommended that honey production continue to be permitted. However, honey bees are not a native species and their presence in the Park can conflict with the nature conservation objective of excluding non-indigenous species where practicable (NPS 1995).

In consultation with local apiarists, the current five sites have been assessed with regard to access, overlap, past use and legislative requirements. Because of poor access and proximity to the Reference Area and the two formerly permanent sites, the number of sites will be reduced to two: one at Wallaby Caves Road and the other at Ferntree Gully Road (figure 2). Both these sites will be managed in accordance with NPS Guidelines 5.1P and 21.5PL.

Aim

- Provide for apiculture in the Park consistent with NPS Guidelines.

Management strategies

- *Continue to provide opportunities for apiculture by permitting two apiary sites: one at Wallaby Caves Road and the other at Ferntree Waterfalls Road (figure 2).*
- *Close the Rocky Road and Freemans Track apiary sites to protect the integrity of the Reference Area.*
- *Close the apiary site at Jenny Clayton Track because of its poor access and an overlap with the Ferntree Waterfalls Rd site.*
- *Convert the former Permanent Bee Sites (P7 and P11) to Temporary Apiary Rights (PK14 and PK15).*

- *Relocate the Ferntree Waterfalls Road site further north to the disused gravel pit.*

7.1.2 Military training

Military training exercises have been conducted in the Park in the past. In accordance with LCC recommendations the training has been phased out and is no longer permitted.

Aim

- Protect the Park from uses that conflict with the maintenance of Park values and visitor experiences.

Management strategy

- *Continue to prohibit all forms of military training within the Park.*

7.1.3 Water production

The north-western portion of the Park is part of a proclaimed catchment for the Rural City of Ararat's water supply. A reservoir servicing Ararat was built in 1883 in the northernmost corner of the Park. Following enlargements in 1903 and 1926 (Jacobs Lewis Vines 1980), and expansion of the retaining wall more recently in 1990, the reservoir now has a capacity of 88 megalitres. The Grampians Region Water Authority is the management authority for the reservoir and the land 100 metres above full supply level.

A V-notch diversion weir takes water from McLeod Creek which is piped to the Buangor Common Basin. The weir, pipeline and basin are licensed to the Grampians Region Water Authority.

A pipeline licensed to an adjoining landholder runs through the south of the Park.

The locations of the pipelines, reservoir and basin are shown in figure 2.

The protection of the catchments and the quality of the water yielded is of utmost importance.

Aim

- Protect the Park's water catchment values.

Management strategies

- *Liaise with Grampians Region Water Authority regarding joint management issues affecting the water supply catchments.*
- *Prohibit any activities or facilities which may adversely affect water quality (section 3.2). Road maintenance will be permitted.*
- *Ensure that all licences comply with the provisions of the National Parks Act.*

7.1.4 Gravel extraction

Minor gravel extraction has been carried out near Ferntree Waterfalls Road in the past for the construction of roads within the Park but is no longer a permitted use.

Aim

- Protect the Park from uses that conflict with the maintenance of Park values and visitor experiences.

Management strategy

- *Continue to prohibit gravel extraction within the Park.*

7.2 Boundaries and adjacent uses

The boundaries of the Park are well defined by private land in the south and west, and by Mount Cole State Forest to the north and east.

The plains surrounding the range are cleared and used predominantly for livestock grazing. Invasions of pest plants and animals from cleared land have the potential to impact on Park values.

There is an agreement between the Director, National Parks Service and the owner of the adjacent CA's 48c and 48b to allow access along Saddle Road for farming activities.

There is a boundary anomaly to the north of Rocky Road where a portion of the Park has been fenced into private land. The fenced area

has been cleared and is grazed. The conservation value of this land is low.

Management and works on adjacent land have the capacity to impact on Park values. It is necessary to liaise with adjacent landholders and other management authorities on issues of mutual interest. Liaison with the Forests Service will be maintained to ensure a co-ordinated approach to recreation, conservation and landscape management of the contiguous public lands.

Aims

- Liaise with Park neighbours on issues affecting the Park and adjoining land.
- Protect Park values from deleterious external land use activities.
- Consolidate the Park boundary.

Management strategies

- *Continue to honour the Saddle Road access agreement (File 90/2122, dated 25/9/90) between the owner of CA's 48c and 48b and the Director, NPS.*
- *Resolve the boundary issue north of Rocky Road.*
- *Liaise with adjacent land holders to address issues that may affect the Park (section 4.2).*
- *Liaise with the Rural City of Ararat and the Shire of Pyrenees about any planning permits on land adjacent to the Park which may affect the Park.*
- *Assess any land adjacent to the Park that becomes available for purchase with the aim of incorporation into the Park to consolidate the Park boundary and enhance its conservation and recreation value.*

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 5 as an initial step in this process.

TABLE 5 PRIORITY MANAGEMENT STRATEGIES

MANAGEMENT STRATEGY	SECTION IN PLAN
Resource conservation	
Confirm and protect breeding sites of the Peregrine Falcon	3.4, 5.2.7
Determine appropriate fire regimes for the conservation of flora and fauna	3.3, 3.4, 4.1
Protect the water quality of catchments	3.2, 4.3, 7.1.3
Park protection	
Control, and where possible eradicate, identified pest plants and animals	4.2
Undertake fire protection works adjacent to visitor areas	4.1
Develop an ecologically-based fire management strategy for the Park	3.3, 3.4, 4.1
Identify and map areas affected by fungal pathogens	4.2
The Park visit	
Develop an Interpretation Plan for the Park	5.3
Provide Park information and interpretation	5.3, 6.3
Maintain the current walking track network	5.2.4
Maintain the road network	4.3, 5.2.1, 5.5
Prepare site plans for Bailes, Ferntree and Middle Creek visitor areas	5.2.2, 5.2.3
Relocate Ferntree Camping Area to the existing Bailes Picnic Area	5.2.2, 5.2.3
Close and rehabilitate Ferntree Camping Area	5.2.3
Monitoring and research	
Develop a formal monitoring system for ecological assessment of fire	4.1
Monitor distribution and condition of significant plant and animal species	3.3, 3.4
Apply NPS market survey findings to assist in park management	5.1
Community awareness and involvement	
Liaise with academic institutions and foster research to assist management of the Park	6.1
Other issues	
Consolidate the Park boundary	6.2
Liaise with adjoining landholders in matters of mutual interest	7.2

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APPENDIX I SIGNIFICANT PLANT SPECIES

SCIENTIFIC NAME	COMMON NAME	STATUS*
<i>Eucalyptus yarraensis</i>	Yarra Gum	Rr
<i>Grevillea montis-cole</i>	Mt Cole Grevillea	Rr
<i>Helichrysum</i> aff. <i>rutidolepis</i>	Pale Swamp Everlasting	v
<i>Hibbertia humifusa</i>	Rising Star Guinea-flower	Rr
<i>Platylobium alternifolium</i>	Victorian Flat-pea	Rr
<i>Ranunculus papulentus</i>	Large-river Buttercup	

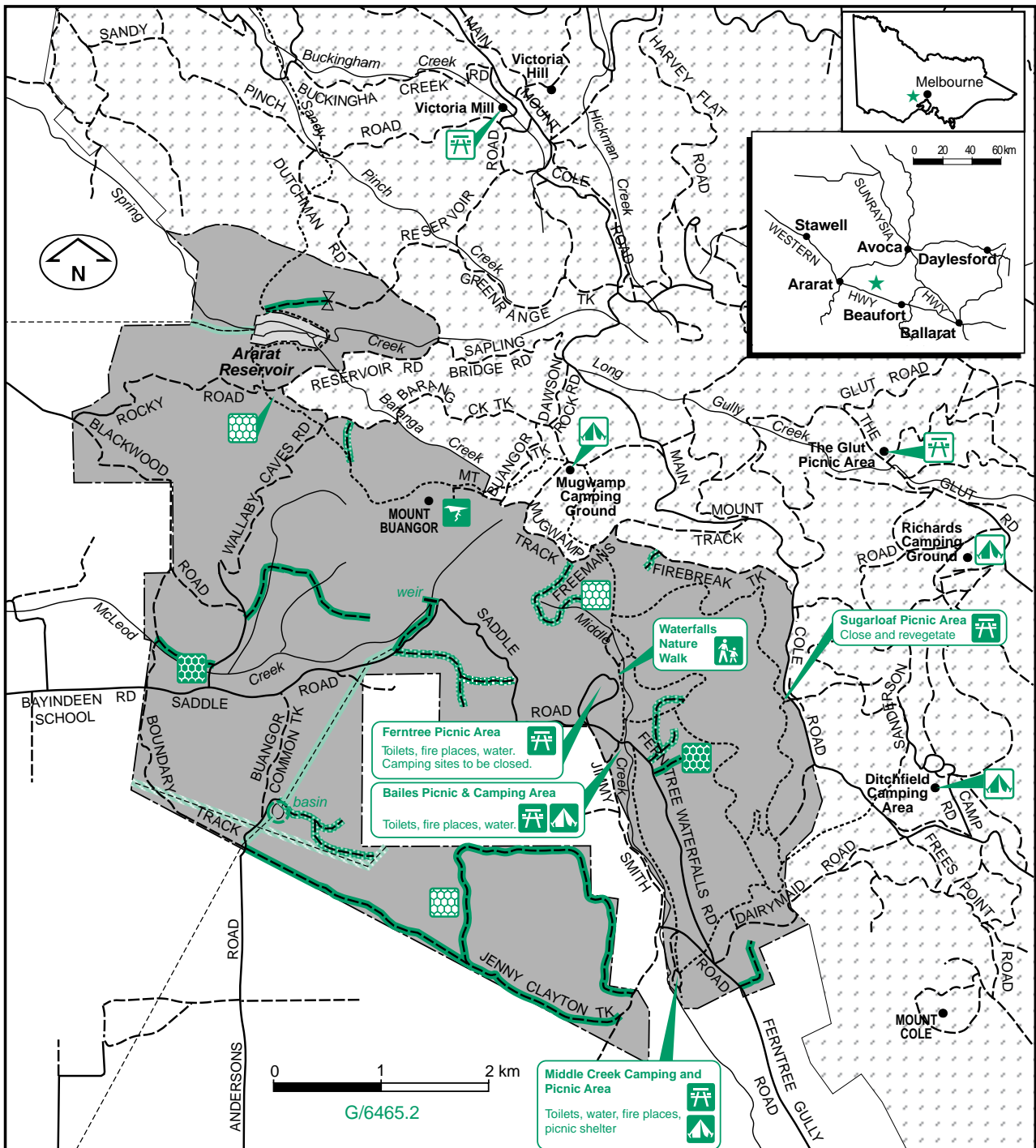
*R Rare in Australia r rare in Victoria v vulnerable in Victoria

APPENDIX II SPECIES OF BIOGEOGRAPHICAL SIGNIFICANCE

SCIENTIFIC NAME	COMMON NAME	BIOGEOGRAPHICAL SIGNIFICANCE
<i>Astroloma conostephioides</i>	Flame Heath	South-eastern limit of range
<i>Calytrix alpestris</i>	Snow Myrtle	Eastern limit of range
<i>Goodia lotifolia</i> var. <i>pubescens</i>	Golden-tip	Western limit of range
<i>Helichrysum rutidolepis</i> s.1	Pale Everlasting	Western limit of range
<i>Hibbertia humifusa</i>	Rising Star Guinea-flower	South-eastern limit of range
<i>Ixodia achillaeoides</i>	Ixodia	Eastern limit of range
<i>Melaleuca gibbosa</i>	Slender Honey-myrtle	Eastern limit of range
<i>Platylobium alternifolium</i>	Victorian Flat-pea	Eastern limit of range
<i>Poa tenera</i>	Slender Tussock-grass	Western limit of range
<i>Pterostylis furcata</i>	Forked Greenhood	Western limit of range
<i>Sambucus gaudichaudiana</i>	White Elderberry	Western limit of range
<i>Schoenus masculinus</i>	Leafy Bog-sedge	Western limit of range
<i>Senecio odoratus</i>	Scented Groundsel	Western limit of range
<i>Stipa rudis</i>	Veined Spear-grass	Western limit of range
<i>Urtica incisa</i>	Scrub Nettle	Western limit of range
<i>Xyris operculata</i>	Tall Yellow-eye	Western limit of range

APPENDIX III SITES OF BOTANICAL SIGNIFICANCE

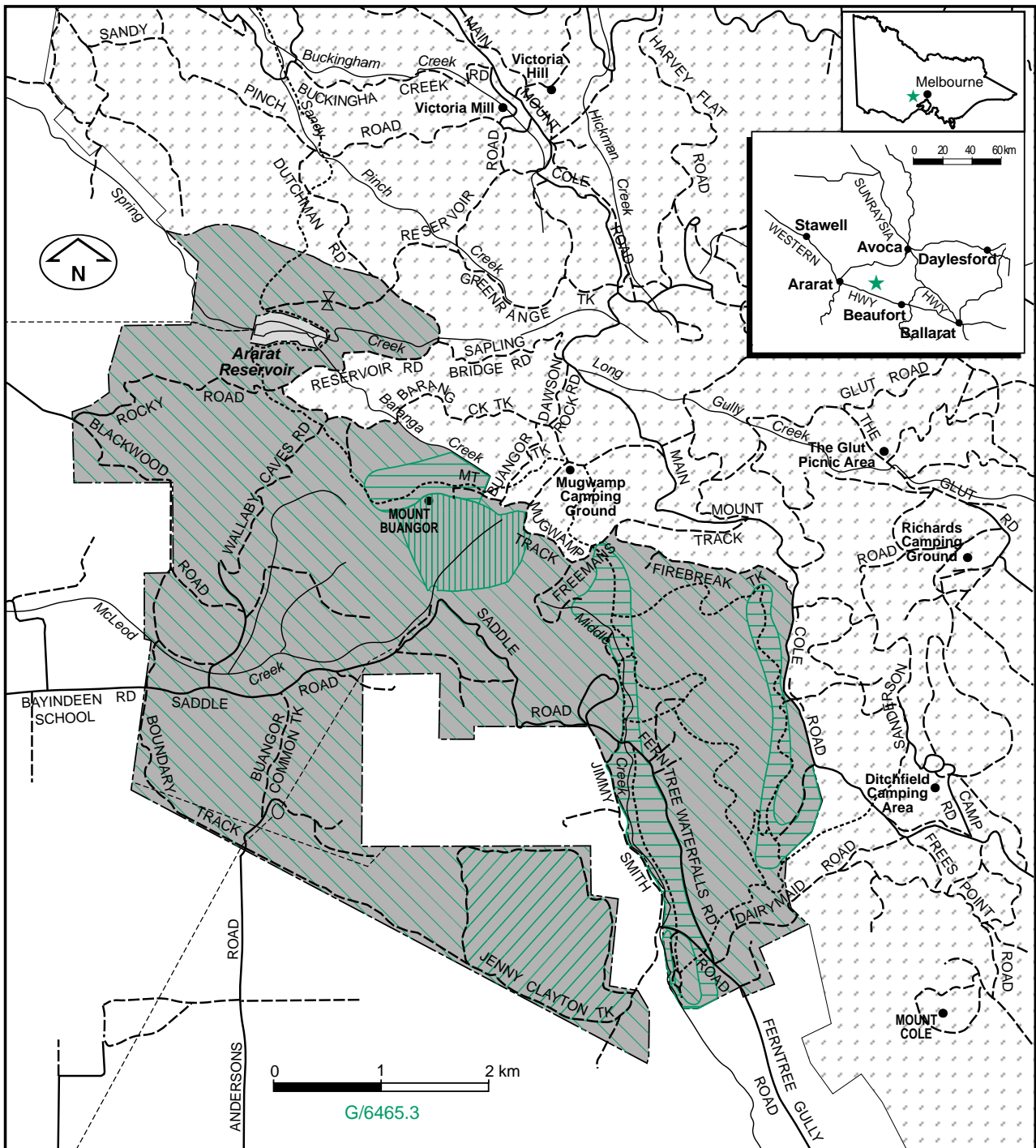
Grevillea Lookout
 Cave Hill Track
 Middle Creek Camping Ground
 Middle Creek
 Ferntree Waterfalls
 Mount Buangor



MT BUANGOR STATE PARK

FIGURE 2 : LOCATIONS, FACILITIES AND AUTHORISED USES

Minor road	—	1. Roads and tracks		3. Authorised uses	
Vehicular track	- - - -	Management vehicles only		Hang Gliding Site	
Walking track	- · - · -	Close and revegetate		Apiary sites	
Park boundary	- - - -			- Retain	
Mt Buangor State Park		2. Visitor facilities		- Remove	
Mt Cole State Forest		Camping area - Park		Weir	
Water Reserve		- Forest		Pipeline	
Gate		Picnic area - Park		- Grampians Water	
Pipeline	- · - · -	- Forest		- Private	
		Waterfalls Nature Walk			



MT BUANGOR STATE PARK

FIGURE 3 : MANAGEMENT ZONES

Minor road	———	Reference Area Zone	
Vehicular track	- - - - -	Conservation Zone	
Walking track	- · - · -	Conservation and Recreation Zone	
Park boundary	— · — · —	Education Zone	
Mt Buangor State Park			
Mt Cole State Forest			
Water Reserve			
Gate	⊗		
Pipeline	- - - - -		