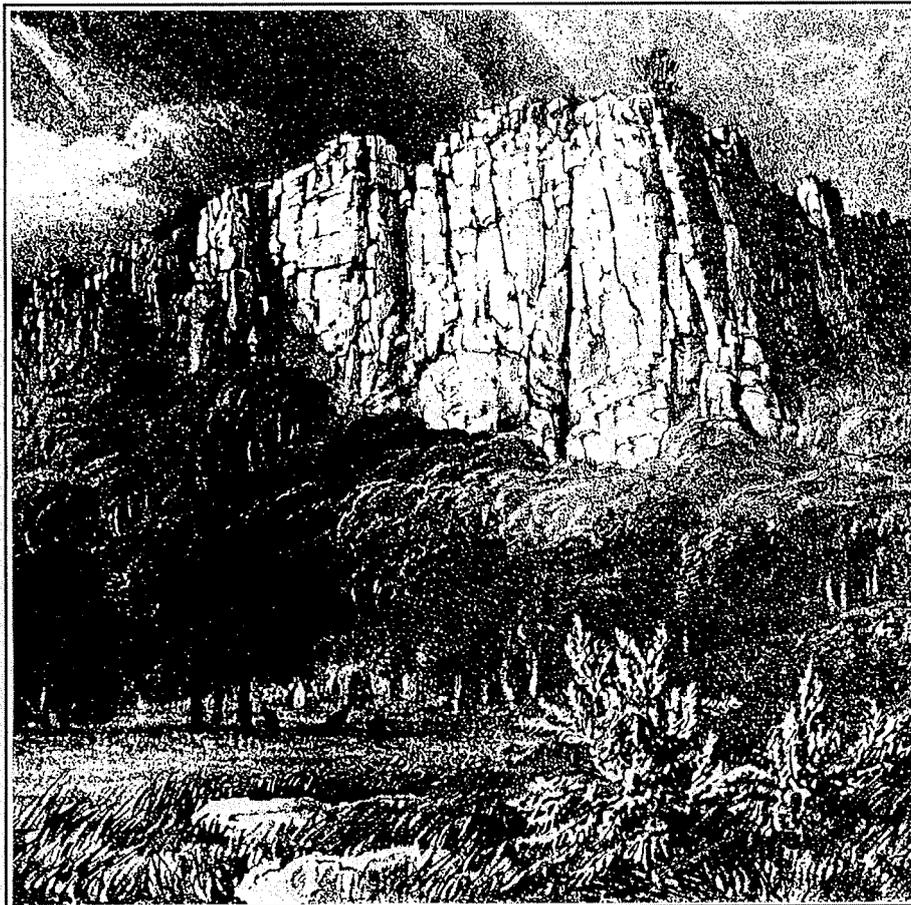


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Horsham Region  
National Parks and Public Land Division

**Mount Arapiles - Toon State Park**  
**Mt Arapiles Management Unit**  
**Management Plan**

June 1991



Department of Conservation & Environment - Victoria

This Management Plan for the Mt Arapiles section of the Mount Arapiles-Toosan State Park is approved for implementation. Its purpose is to direct all aspects of management in the Park until the Plan is reviewed.

A proposed plan for the Park was published in December 1987. A total of 47 submissions were received.

Copies of this plan can be obtained from:

The Regional Manager  
Horsham Region  
Department of Conservation & Environment  
21 McLachlan Street  
Horsham VIC 3400

Department of Conservation & Environment  
Information Centre  
240 Victoria Parade  
East Melbourne Vic 3002

Further information on this plan can be obtained from the Horsham Region, DCE (053 811 255)

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COVER: Sir Thomas Mitchell, 1792-1855

Western extremity of Mount Arapiles

Lithograph

In T. L. Mitchell, *Three expeditions into the interior of Eastern Australia ...* Vol. 1. London : T. & W.

Boone, 1838, p. 191

Ferguson Collection F2553

National Library of Australia

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**MOUNT ARAPILES-TOOAN STATE PARK**  
**MT ARAPILES MANAGEMENT UNIT**  
**MANAGEMENT PLAN**

**Horsham Region**

**National Parks and  
Public Land Division**

**DEPARTMENT OF CONSERVATION  
& ENVIRONMENT**

**VICTORIA**

**June 1991**

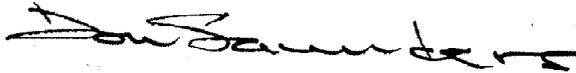
## APPROVED MANAGEMENT PLAN

This approved Management Plan for the Mt Arapiles section of the Mount Arapiles-Toosan State Park contains a summary of Park resources, a review of present and possible future use, management objectives and detailed management strategies.

A proposed Plan for the Park was released for public comment in December 1987 and 47 submissions were received. These submissions, and other comments made in meetings and discussions with interested parties, have been carefully considered in preparing this approved Plan.

We would like to acknowledge in particular the contribution of the Mount Arapiles-Toosan State Park Advisory Committee to the development of the Plan.

The approved Management Plan will now become the basis for all aspects of management of the Park.



Don Saunders  
Director of National Parks and Public Land



Don Spence  
Regional Manager, Horsham

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## 1 INTRODUCTION

The Mount Arapiles-Toooan State Park of 5060 ha is located approximately 340 km by road west of Melbourne and falls within Victoria's Wimmera Region. The nearest major population centre is the City of Horsham (35 km east). The township of Natimuk is 10 km east, on the road from Horsham (Wimmera Highway). The location and extent of the Park are shown in figure 1.

For management purposes the Park has been divided into two sections of widely differing character and management requirements. Mt Arapiles and Mitre Rock are included in the Mt Arapiles Management Unit which is also referred to in this Plan as 'the Unit' (figure 2). The Tooan Scrub forms the Tooan Management Unit.

This Management Plan deals only with the Mt Arapiles Management Unit. The Tooan Management Unit will be dealt with in a future management plan. The impact of uses on the Mt Arapiles Management Unit necessitates the early completion of a plan, and to jointly plan the areas would have greatly slowed the preparation of the plan.

### CREATION OF THE PARK

The Land Conservation Council (LCC) Final Recommendations for the South-Western Area, District 2, of May 1982 proposed the creation of a Mount Arapiles-Toooan State Park. This recommendation was adopted by the Government and the Park was enacted on 27 May 1987, by amendment to the National Parks Act 1975 (Vic.).

The Park incorporates the area previously reserved as the Mt Arapiles Forest Park and the area known locally as the Tooan Scrub. The LCC final recommendations for the Wimmera Study Area (LCC 1986) recommended the addition of Mitre Rock to the proposed Park. Mitre Rock was added to the Park by enactment on 6 June 1989.

In 1982 the LCC recommended that the Park be used to:

- '(a) provide opportunities for recreation and education associated with the enjoyment and understanding of natural environments
- (b) conserve and protect natural ecosystems
- (c) apiculture be permitted
- (d) grazing be phased out within 10 years following the adoption of these recommendations
- (e) the Fisheries and Wildlife Division prepare plans for the conservation of wildlife in consultation with the management authority and that, after agreement, these be incorporated into the management plan (particular attention should be given to the protection of the Peregrine Falcon)
- (f) adequate access should continue to be provided throughout the area.'

The LCC also made the following comments of relevance to the preparation of this Plan:

'The fire lookout and communications installation on Mount Arapiles - and a minimal area around them - should continue to be managed by the relevant department and access to them permitted. It is possible that some expansion of the communications facilities may be required in order to improve the television reception in the region. Council cannot make specific provision for this work until a definite proposal is made.

'Council recognises that Mount Arapiles is an important recreational venue for large numbers of people. The management authority should continue to provide for recreational activities such as rock-climbing, vehicular access to camping and picnic sites and to viewing points, and facilities for the large numbers of campers that use the area.'

## **PARK MANAGEMENT**

The Park is managed by the Horsham Region of the Department of Conservation & Environment (DCE), according to plans and prescriptions approved under the National Parks Act.

### **Mt Arapiles Management Unit**

The Mt Arapiles Management Unit of about 1510 ha (figure 2) is surrounded entirely by cleared freehold land. It is an area of State geological significance and an outstanding landscape feature. Although of limited area, the Unit has outstanding conservation and recreation values. Approximately one seventh of the indigenous plant species in Victoria are found there, including a number of rare and significant species. In addition, the Peregrine Falcon nests on the rock faces. The Unit has historic significance associated with European exploration of the Wimmera Region.

The Mt Arapiles Management Unit is increasing in value as a recreation area for both tourists and local residents. The varied landscape encourages a variety of recreation activities, including camping, picnicking, walking, sightseeing, photography, nature study and pleasure driving. It should be recognised that Mt Arapiles is one of Australia's premier rock climbing areas, offering more than 2 000 different climbs.

### **Toosan Management Unit**

The Toosan Management Unit of about 3550 ha (which is not dealt with in this plan) is surrounded mainly by freehold land but adjoins three areas of uncommitted Crown Land and a Lake Reserve. It contains examples of woodland species now uncommon in the Wimmera Region. Several bird species are at the southern limit of their range in Victoria and the endangered Red-tailed Black-Cockatoo occurs there. The Unit has limited recreation use and no facilities are provided.

## **THE MANAGEMENT PLAN**

Background information on resources and uses provided in this Management Plan is restricted to that necessary to define the planning issue. Greater detail including references is given in 'Mount Arapiles-Toosan State Park, Mt Arapiles Management Unit, Inventory of Resources and Uses' (CFL 1987).

At the outset a statement of principal management directions is presented. The bulk of the Plan sets the long-term directions for management by establishing a coherent framework of objectives, a zoning scheme and management aims and strategies. The Plan is completed by a summary of management proposals.

### **Plan Period**

The Plan is intended to guide management for a period of 5 years when the need for a review of the plan will be considered. The Plan will remain in force until reviewed. The Plan may be amended if, after adequate investigation, there is justification for the alteration of management based on additional resource data or new techniques. In this context it is important to appreciate that a plan of management is part of a continuous planning process. Consultation will be carried out through the Park Advisory Committee prior to amendment of the Plan in relation to issues which will have a significant impact on Park users.

## **2 PRINCIPAL MANAGEMENT DIRECTIONS**

Priority is given to the protection and conservation of the natural environment of the Mt Arapiles Management Unit particularly the rare and significant animal and plant species. A balance is set between recreational use and the conservation of the natural environment. Potential conflicts between recreation and conservation are mostly avoided by zoning. Potentially damaging activities such as gravel extraction, firewood removal and grazing which occurred in the past have already been phased out.

The distribution and abundance of rare and significant animal and plant species will be determined, and impacts upon them will be assessed and minimised before works are undertaken.

Protection of diurnal raptors will be given particular consideration where conflict arises between birds and climbers. Restrictions on climbing in the vicinity of active nesting sites during the breeding season may be necessary to protect eggs and birds from disturbance.

Visitors numbers, particularly those associated with rock climbing, are expected to continue to increase. Opportunities for recreational experience in a largely undeveloped environment will be maintained. Existing visitor focal points, developed over a long period of time, will be improved and may be enlarged to cater for the increased numbers, rather than developing new areas. Visitor sites are concentrated mainly in the north-eastern section of the Unit, on the summit and on the fringes of Mt Arapiles. The central plateau area is largely undisturbed and will remain as the primary conservation area.

Rock climbing will continue to be encouraged as a major recreation activity. An additional camping area adjacent to the present one will be developed for rock climbers and other visitors. The simple character of existing camping facilities will be maintained, to preserve the experience of camping in the bush.

Increased emphasis will be given to public education and interpretation. Natural and historic features at the major visitor sites will be highlighted and explained.

The Department will continue to co-operate with the State Electricity Commission (SEC), Country Fire Authority (CFA), Telecom, Shire of Arapiles and other authorities with an interest in the management of the Mt Arapiles Management Unit and adjacent land. The existing fire spotting tower on the summit will be rebuilt. The communications functions it serves for a variety of organisations will be retained. The joint funding for staffing of the tower by the Department and the CFA will be maintained.

### **3 MANAGEMENT OBJECTIVES**

The following management objectives establish the primary long-term directions for use and management of the Mt Arapiles Management Unit, and form the basis of the management strategies in the Plan. They also help the manager to make decisions on issues that arise in day to day management that have not been specifically addressed in the Plan.

The management objectives established for the Mt Arapiles Management Unit of the Mount Arapiles-Toosan State Park are:

- preserve and protect the natural environment, including landscape, flora and fauna;
- allow natural processes to continue with a minimum of disturbance;
- maintain fire regimes appropriate to the ecological management of natural communities;
- preserve and protect historical and archaeological features;
- provide a range of opportunities for use and enjoyment of the Unit by the Public with special attention to the needs of the disabled, consistent with the above management objectives;
- provide for rock climbing as a major use;
- promote a better understanding of the natural and cultural environments through the provision of appropriate interpretation and environmental education programs and facilities;
- protect the Park, its visitors and adjacent landowners from wildfire;
- control introduced plants and animals;
- take adequate precautions for the safety of visitors;
- provide for and encourage scientific research and survey that is compatible with conservation objectives, particularly scientific research related to management problems.

## 4 ZONING

Zoning is a method for defining broad patterns of management by delineation of geographical areas in which certain management objectives are emphasised. Zoning assists management in ensuring that the patterns of management implement the management objectives, particularly the protection of areas of high conservation value and the provision of a range of recreation activities, with a minimum of conflict.

### 4.1 DERIVATION OF THE ZONES

The zones have been derived from consideration of:

- natural values and their sensitivity to damage
- landscape values
- historic sites
- opportunities for recreation and tourism
- predicted future visitor levels
- government approved LCC recommendations
- traditional resource uses, including authorised uses, firewood collection and apiculture.

Creation of small isolated zones based on small areas of significance, such as historic sites and areas containing rare plant species have been avoided. Specific sites requiring greater protection than their zoning classification affords them should be identified and managed according to their need for protection.

The three zones for the Unit are shown in figure 3 and their main attributes are described below.

#### Zone 1

Zone 1 includes areas that are least disturbed because accessibility is limited by both the terrain and the dense understorey vegetation. Conservation is of primary importance. The main objectives for the zone are to protect conservation values, maintain the area in a natural condition and to provide opportunities for recreation in a semi-remote setting.

Management guidelines include:

- no new vehicular access, except for management or emergency purposes to maintain opportunity for recreation in areas relatively isolated from human sight and sound;
- provide for rock climbing as a major use;
- control level of visitor use to avoid unplanned track development;
- no visitor facilities;
- no camping;
- no firewood collection;
- minimal on-site management;
- no bee sites.

#### Zone 2

Zone 2 includes areas where there is much greater evidence of human activity. Conservation is a major objective but opportunities for a wider range of recreation activities than in Zone 1 are acceptable.

Management guidelines include:

- management of conservation values, particularly of the main rock climbing face (north-eastern escarpment), to be to the same standard as Zone 1, consistent with the following guidelines;
- vehicle access permitted on specified roads and tracks;
- provide opportunity for recreation in a predominantly unmodified environment;
- bee sites permitted.

### **Zone 3**

Zone 3 includes areas that have been subjected to considerable disturbance from recreation and other uses. Conservation values are generally low. Structures and facilities not related to recreation, eg. fire tower; Telecom repeater station, are included. The zone is suitable for moderate to intensive recreation. It is readily accessible by road and contains sites suitable for development to meet present and future recreational demand for developed camping areas, picnic areas and walking tracks.

Management guidelines include:

- recreation is of primary importance;
- provide for moderate to intensive recreation in 'semi-developed' settings;
- sign-posting and developed interpretative facilities may be provided;
- structures and facilities not related to recreation, should be included in the zone where possible.

## **5 MANAGEMENT STRATEGIES**

Chapters 6 to 11 set out the issues involved in managing the Mt Arapiles Management Unit, define specific management aims for the resolution of groups of related issues and present management strategies to achieve these aims. In some cases more detailed management actions to implement strategies are included.

In Chapter 12 the management proposals are summarised and given a priority ranking of high, medium or low depending on their importance and urgency for the protection, maintenance or development of the Unit. The relative time required to complete the projects is also listed as short, medium, long or ongoing.

This Plan will be implemented in conjunction with the following:

- National Parks Act and regulations thereunder;
- Parks Policy and Procedure Manual;
- Horsham Regional Profile;
- Horsham Regional Fire Protection Plan;
- Land Protection Division, Pest Animals General Manual (Vermin Pac);
- other Departmental policies relevant to Parks.

## 6 MANAGEMENT FOR RESOURCE CONSERVATION

### 6.1 CONSERVATION OF NATIVE VEGETATION

The Mt Arapiles Management Unit contains more than 500 plant species including 93 exotic species. A comprehensive plant list is provided in the Inventory of Resources and Uses (Department of Conservation, Forests and Lands 1987). There are no endemic species but 29 species recognised as endangered, rare or locally significant are present. Six native vegetation communities have been mapped (figure 4) and are described in the Inventory of Resources and Uses (Department of Conservation, Forests and Lands 1987).

The vegetation has been affected by grazing (both domestic stock and introduced pests such as rabbits), burning (both pre and post European settlement) and extractive industries such as, firewood and gravel removal. Grazing, firewood removal and gravel extraction have not been permitted for many years. Cinnamon Fungus (*Phytophthora cinnamomi*) is a potential threat. It has not been identified in the Unit but is a major problem on similar soil types in the nearby Grampians National Park.

The aims for management of vegetation are to:

- protect plant species and communities recognised as being of special significance;
- maintain vegetation communities as far as practicable in their natural condition;
- control and if possible eradicate exotic plant species, particularly where they seriously affect native species;
- rehabilitate disturbed areas;
- control grazing pressure caused by introduced animals;
- guard against introduction of *Phytophthora cinnamomi*.

#### 6.1.1 Vegetation community management

Successful vegetation management involves minimising the disturbances associated with human activities, introduced herbivores and plant species, and the restoration of natural environmental conditions (particularly an appropriate fire regime).

Vegetation management, particularly using fire, is a complex task. The effects of fire on vegetation vary according to the intensity, frequency and season of burning, and weather conditions during and following the fire. Managers can influence the frequency, season of burning and fire intensities.

More than half the Mt Arapiles Management Unit has remained unburnt for decades and much of it has high fuel levels. The potential exists for a severe wildfire on relatively large areas which is undesirable given the Unit's small size and isolation from similar habitats.

Long unburnt areas have special conservation values, however the continued absence of fire in some communities may lead to a reduction in population and perhaps eventually to the disappearance of some species dependent on fire for their regeneration. At present not enough is known about the role of fire in maintaining the viability of the vegetation communities of the Unit to prescribe burning for vegetation conservation purposes.

The River Red Gum Open Forest Community needs special management because it occupies only one small area which is adjacent to Centenary Park, which is the focus of recreation activity in the Unit. Protection from vehicles has already been provided by installing log barriers.

#### Management strategies

- Protection will be provided for communities likely to be affected by grazing animals, introduced plants and human activities.

- The River Red Gum Open Forest Community will be protected by prohibiting camping (a new camping area will be established further to the north, see Section 8.4), excluding firewood collection (see Section 9.1) and by using techniques other than fire to reduce the quantities of fine fuels.
- All pits proposed for use as a source of gravel for the Park will be tested for the presence of *Phytophthora cinnamomi* prior to their use as a source. Machinery known to have been at infected sites will be disinfected before it enters the Park.
- Machinery hygiene will be practised to prevent the spread of introduced plants.
- No prescribed burning for vegetation conservation purposes, other than experimental, will be undertaken until an ecological requirement for fire has been demonstrated.
- Ecological studies of the effects of fire on the Unit's vegetation will be promoted, and the effects of fire will be monitored. Experimental burns require approval of the Regional Manager and Director.
- Appropriate burning regimes for vegetation conservation purposes will be planned if fire ecology studies demonstrate that particular plant communities would benefit from fire. Planning for all prescribed burns will take into consideration the values of that area, including wildlife habitat and historic and cultural features. Special consideration will be given to the maintenance of a range of vegetation age classes within each community. Implementation of such burning regimes requires the approval of the Regional Manager and Director.

### 6.1.2 Significant plant species

There are 29 species of endangered, vulnerable, rare and locally significant plants recorded for the Unit. Existing and potential threats to these species include rabbits, illegal collection and damage resulting from recreation use and management action. The current distribution and population sizes of these species are not well known.

Table 1 contains plant species regarded as endangered, vulnerable or rare by Gullan et al. (1990). Table 1 also lists plants considered of significance because there are few Victorian records or locally significant because of the isolated nature of the recording, based on information provided by F. J. C. Rogers, A. C. Beaglehole, R. F. Parsons and others.

#### Management strategies

- The location of significant species will be identified and threats will be evaluated.
- Protection will be provided from identified threats.
- The locations of significant species will not be publicised.
- The status of all significant species will be monitored.
- Ecological studies of the effects of fire on the significant species will be promoted, and the effects of fire will be monitored.

### 6.1.3 Revegetation

Particular areas need revegetation to control erosion or re-establish native vegetation. Amenity planting can enhance developed recreation sites.

#### Management strategy

- Amenity planting will be undertaken in association with development of the camping area at Centenary Park.

TABLE 1 SIGNIFICANT PLANTS

## Threatened plants

<i>Acacia rupicola</i>	Rock Wattle	r
<i>Callitriche cyclocarpa</i>	Western Water Starwort	r
<i>Comesperma polygaloides</i>	Small Milkwort	v
<i>Cyphanthera anthocercidea</i>	Large-leaf Ray-flower	r
<i>Goodia medicaginea</i>	Western Golden-tip	r
<i>Isolepis congrua</i>	Slender Club-sedge	v
<i>Prostanthera spinosa</i>	Spiny Mint-bush	r
<i>Psilotum nudum</i>	Skeleton Fork-fern	r
<i>Ptilotus erubescens</i>	Hairy-tails	e
<i>Pultenaea patellifolia</i>	Mt Bryon Bush-pea	r
<i>Quinetia urvillei</i>	Quinetia	r
<i>Senecio hypoleucus</i>	Pale Fireweed	r
<i>Stipa mundula</i>	Neat Spear-grass	r
<i>Stipa sectacea</i>	Corkscrew Spear-grass	r
<i>Tripogon loliiiformis</i>	Rye Beetle-grass	r
<i>Vittadinia megacephala</i>	Giant New Holland Daisy	v

## Significant plants

<i>Bromus arenarius</i>	Sand Brome
<i>Caladenia latifolia</i>	Pink Fairies
<i>Calomeria amaranthoides</i>	Incense Plant
<i>Crassula sp. *</i>	Crassula
<i>Cyphanthera myosotidea</i>	Small-leaf Ray-flower
<i>Danthonia monticola</i>	Hill Wallaby-grass
<i>Eriostemon verrucosus</i>	Fairy Wax-flower
<i>Howittia trilocularis</i>	Blue Howittia
+ <i>Lepidium pseudohyssopifolium</i>	Pepper-cress
+ <i>Lepidium pseudotasmanicum</i>	Shade Pepper-cress
<i>Scaevola aemula</i>	Fairy Fan-flower
<i>Stipa curticoma</i>	Short-crown Spear-grass
<i>Stipa macalpinei</i>	Annual Spear-grass

e Endangered in Victoria: rare and at risk of disappearing from the wild state if present land use and other causes continue.

v Vulnerable in Victoria: rare, not presently endangered but likely to become so soon due to continued depletion.

r Rare in Victoria but not considered otherwise threatened. This category does not necessarily imply that the plants are substantially threatened but merely that there are relatively few known stands.

\* *Crassula sp.* (sensu Beaglehole) - Beaglehole has identified an unusual form of *Crassula* which is most closely associated with *C. helmsii* (Swamp *Crassula*). Further taxonomic assessment is required to determine taxonomic status.

+ Recorded at Mitre Rock but not at Mt Arapiles.

- The possibility of revegetation planting at the base of the eastern cliffs from the Bluff to Melville Cave to provide protection for the cliff face fern growth will be examined.

- All revegetation and amenity plantings will use stock grown from seed collected from indigenous species growing within the Unit, except where non-persistent exotic species are essential for erosion control (see Section 7.4).

#### 6.1.4 Plant collection and removal

The collection of plant material, including seed, is often desired for research, monitoring, horticultural use and rural revegetation projects. In general the amount of material removed is minimised to reduce the impact of this practice. Unless carefully controlled, vegetation clearance near SEC power lines and other utilities can adversely affect vegetation and landscape values.

##### Management strategies

- The collection of plant material for horticultural purposes and research outside DCE will be controlled and authorised under permit.
- Removal of vegetation associated with works by public authorities will be subject to the conditions of a consent under Section 27 of the National Parks Act. Conditions will specify the area to be cleared, and will include or refer to guidelines for revegetation (see Section 6.1.3).
- The Department will consult with the SEC to establish guidelines for clearing vegetation near power lines, to meet the Commission's requirements under the SEC (Clearance of Lines) Act 1983 (Vic.), while maintaining landscape and vegetation values.

#### 6.1.5 Research, survey and monitoring

The Unit has considerable potential for vegetation research because of the diversity of communities and the variety of species represented.

##### Management strategies

- Research directly relevant to the management of the area will be encouraged.
- The vegetation map and descriptions will be upgraded.
- Surveys will be undertaken to determine the distribution and abundance of endangered, rare and locally significant plant species, threats to their existence and protection required.
- The effectiveness of vegetation management will be monitored.
- Vegetation changes related to fire (or its absence) will be monitored.
- Vegetation will be monitored to detect the introduction of plant diseases and other damaging agents.

## 6.2 WILDLIFE MANAGEMENT

A variety of mammal, bird and reptile species, as well as invertebrate species about which little is known are recorded for the Unit. No species of mammals, birds, reptiles or amphibians recorded for the unit are included in the various categories of threatened wildlife in Baker-Gabb (1990).

Native Habitat within the Unit is an isolate surrounded by cleared plains.

Effective wildlife management involves habitat management including control of disturbance from humans (both the public and management) and introduced predators. Habitat type and quality govern the species present. The availability of food, water, breeding sites and refuge, and the presence of competitors and predators, influence the abundance of a species within a habitat.

The aims of wildlife management are to:

- maintain the diversity of wildlife by the maintenance of suitable habitat;
- protect and conserve any species of wildlife recognised as being of special significance;
- control or eradicate introduced plants and animals, particularly those seriously affecting native species.

### 6.2.1 Habitat management

The condition of vegetation in an area is a major influence on the continued survival of all wildlife species. Some species have particular requirements independent of vegetation (e.g. rock faces for Peregrine Falcon eyries) but all are ultimately reliant on the vegetation for other aspects of their survival.

Although fire influences both the vegetation and wildlife present, no particular requirement for an applied fire regime has yet been demonstrated for wildlife management in the Unit.

Habitat management is dealt with below in terms of the various vegetation communities present (figure 4) and other clearly defined habitat types. Vegetation management is discussed more comprehensively in Section 6.1.

#### Management strategies

- No prescribed burning for wildlife management purposes will be undertaken unless a need is demonstrated (see Section 6.1.1).
- Experimental burning carried out for vegetation management purposes will be monitored to assess the effects on wildlife.

**Forest and Woodland Communities.** These communities are particularly rich in wildlife species. Together they form the most extensive habitat type in the Unit. Standing and fallen dead trees provide important habitat for a variety of species, including perching and nesting sites for birds and cover for small mammals, reptiles and invertebrates. Rabbits have depleted the understorey and continue to threaten regeneration.

- The diversity of the woodland understorey will be conserved. Control of the rabbit population is essential (see Section 7.2).
- Tree hollows and fallen trees and branches important for wildlife will be protected. Firewood collection for visitor use in the Park will be confined to specified areas (see Section 9.1).
- Any fuel reduction burning will be conducted with care to minimise destruction of habitat.

**Grassland.** The areas of native grassland form significant wildlife habitat.

- Native grasslands will be protected from overgrazing by rabbits, and from exotic plant species.

**Sandstone Ranges.** The cracks and crevices of rocky areas provide important habitat for reptiles and invertebrates. Common Ringtail Possums also use these areas as living sites and Peregrine Falcons nest on the cliffs.

- Disturbance of habitat of special significance for reptile and invertebrate species will be minimised.
- Protection measures will be considered for areas containing active Peregrine Falcon eyries (see Section 6.2.2).

### 6.2.2 Notable wildlife species

One bird and one mammal species could be considered as notable.

#### Peregrine Falcon

The Peregrine Falcon is one of the most widely distributed raptors in the world and numerous subspecies are recognised. The severe decline of this species in Europe and North America up to the 1970s, has been attributed to the effects of pesticide residues on reproductive success. Populations have shown increases since the 1980s.

Human disturbance at nesting sites can be a significant threat but possibly disturbance during courtship could be more significant and affect nest site selection. However, this did not appear to be the case in 1989 when a pair of birds nested on the main climbing face and raised at least one young to flight stage.

Disturbance at nesting sites of other raptors may affect their breeding success.

#### Management strategies

- The need for seasonal voluntary climbing closures should be assessed annually at the commencement of breeding to protect the nesting sites of all diurnal raptors. Conditions of any closure will be negotiated between the Department and the Victorian Climbing Club, after consultation with the Park Advisory Committee.
- The Victorian Climbing Club and other key user groups will be advised in writing of the dates of any closures and re-openings. Signs advising of any closure will be erected in the Park.
- No walking tracks or other facilities will be constructed near known raptor nesting sites.
- A program will be developed to promote the awareness among rock climbers of the need to protect Peregrine Falcons (and other raptors whose breeding may be affected) and to seek their co-operation in protecting the birds. Appropriate information will be provided. A code of conduct will be developed in conjunction with interested climbing groups, covering all aspects of environmental protection (see Section 8.1.1).
- The number of resident Peregrine Falcons, the location of nests and nesting success will be monitored. Particular emphasis will be placed on detecting disturbance and assessing its effect on nesting and breeding success.
- Surveillance of any closures will be undertaken. If voluntary measures prove inadequate, legally enforced closures will be introduced.

#### Red-necked Wallaby

Although the Red-necked Wallaby is abundant in some areas of the State, its dramatic decline in many other areas is a cause for concern. It has not been recorded from Mt Arapiles since 1974 and may no longer be present.

#### Management strategies

- The presence or absence of the Red-necked Wallaby will be verified by survey. If absent, the feasibility of re-introduction will be assessed, including suitability of habitat and threats to survival.
- If considered feasible, a program for the re-introduction of the Red-necked Wallaby will be planned. Implementation of such a program requires the approval of the Regional Manager and the Director.

### 6.2.3 Research, survey and monitoring

An essential part of wildlife management is the collection of relevant information on species requirements and the monitoring of distribution and abundance.

#### Management strategies

- Fauna surveys (vertebrate and invertebrate) will be conducted to identify and monitor the distribution and abundance of species. Emphasis will be given to identifying any additional species of significance.
- Information will be obtained on the habitat requirements of species and the presence of threats to survival.
- Competition for nest hollows by Common Starlings and feral bees will be monitored.
- The effects of visitor use on wildlife will be monitored.
- Research on the ecological role of fire will be encouraged and monitoring of the effects of fires (wildfire or prescribed) will be undertaken.
- Any population of Red-necked Wallaby introduced to the Unit will be monitored.

### 6.3 ABORIGINAL AND HISTORIC SITES

A few features of historical interest are recorded for the Unit. Little is known of the Aboriginal history and archaeology of the Unit.

The management aims for aboriginal and historic sites are to:

- fully investigate the historic and archaeological significance of the area;
- preserve, protect and restore, if necessary, all sites of historic and archaeological significance, as appropriate;
- raise public awareness of the area's historic and archaeological significance, and interpret features for public appreciation and education.

#### 6.3.1 Aboriginal sites

The Unit has not been systematically surveyed but sites including rock art sites are known to exist.

#### Management strategies

- A systematic survey of the Park will be undertaken with the assistance of the Victoria Archaeological Survey (VAS) to locate Aboriginal sites and determine their significance.
- The VAS will be consulted on management decisions relating to any Aboriginal sites discovered.
- The VAS will be informed of any proposed works that may threaten archaeological sites.
- Departmental staff will be trained in the recognition of Aboriginal sites.
- Goolum Goolum Aboriginal Co-operative, Horsham will be consulted on the management of known Aboriginal sites.

### 6.3.2 Historic sites

Mt Arapiles is significant in the history of exploration of the Wimmera Region by Major Mitchell. On 22 July 1836, Mitchell camped on the gentle slopes west of the Mount and the following day he climbed to the summit. Subsequently he made several sketches of the area and named several features. Most of the sites described below are associated with his visit (figure 2). Several plaques in the Park commemorate the exploration. There are also some plaques marking the sites of rock climbing deaths.

#### Management strategies

- All sites associated with European history will be surveyed, and their relative importance determined to establish priorities for protection in consultation with the Arapiles Historical Society.
- Existing plaques will be retained. No additional plaques will be erected without the approval of the Director.
- Interpretative material for a self-guiding tour of historic sites will be prepared (see Section 8.5).

**Major Mitchell Cairn.** The cairn was erected in 1970 and is currently not sign-posted. It is located approximately 30 m from the track along the western boundary of the Unit.

- A sign-post pointing to the cairn will be erected on the track.
- The walking track from the car park to the cairn will be maintained.
- The site will be interpreted to the public.

**The Bluff.** A plaque commemorating Mitchell's discovery of the area was erected in 1913.

- Interpretative material on Major Mitchell's discovery will be provided.

**Centenary Park.** This is the major camping and picnicking area in the Unit, and for many years was managed by a local Committee of Management. The pine trees in the camping area were planted by local identities in 1936 as part of the Centenary celebrations of Mitchell's expedition. Memorial Gates were erected at the former entrance to Centenary Park in the same year, but were later removed.

- Pines and other introduced plants of historic significance or recreational value will be allowed to remain until they die or become unsafe. They will then be removed and any revegetation programs will use indigenous species (see Section 6.1.3). All pine regeneration will be eradicated.
- The historic gates will be replaced but the gateway will not be used as an entrance.

## 6.4 LANDSCAPE

Mount Arapiles and Mitre Rock are outliers of the Grampians sandstones characterised by rugged and spectacular rocky escarpments. Mt Arapiles rising abruptly to a height of nearly 200 metres above the surrounding flat Wimmera Plains is an outstanding landscape feature complemented by excellent stands of forest and woodland. The Mt Arapiles Management Unit contributes to the visual diversity for travellers along the Wimmera Highway providing a sharp contrast to predominantly cleared grazing land. Extensive views of the surrounding flat countryside are available from a number of lookout points within the Unit.

Management activities can have an effect on landscape values. Guidelines for field management based on the Department's Visual Management System (Leonard & Hammond 1983) have been developed to ensure these values are maintained. The System is based on the identification of areas of relatively high visual importance (Landscape Management Areas) and provides Visual Quality Objectives for these areas. The Unit is located in the Murray Basin Plains Landscape Character Type, Subtype (b) Wimmera, and Mt Arapiles is defined as high scenic quality. The two Landscape Management Areas identified for the Unit are shown in figure 5 and the Visual Quality Objectives applying to them are summarised below. Most of the Unit is classified as Area A ('Highest concern for visual resources') because of the high scenic quality combined with a high level of sensitivity to change.

**Visual Quality Objectives:**

- Area A (Highest concern for visual resources) Alterations should be visually inevent (from critical observation points such as roads and lookouts) or temporarily apparent (no greater than one year). Some alterations may not be acceptable under any circumstances.
- Area B (Moderate concern for visual resources) Alterations may be apparent but must harmonise with the surroundings. Alterations may be visually dominant for a period of no greater than two years.

Management activities and structures such as roads, walking tracks, tree felling and buildings have the potential to impact visually on the landscape and should conform to the Visual Quality Objectives for each Landscape Management Area. In some areas landscape modifications resulting from past management practices do not meet the desired Visual Quality Objectives; the Telecom Repeater Station and the Fire Spotting Tower are particular examples.

The aims for management of landscape are to:

- protect and preserve the landscape;
- minimise the visual impact of management activities in all landscapes.

**Management strategies**

- Alterations to the landscape must be in accordance with the Visual Quality Objectives given above for each of the Landscape Management Areas.
- To assist with planning, a more detailed Landscape Features Map will be prepared identifying critical landscape elements such as the dominant forms and lines in the landscape (horizon lines, drainage lines and ridge lines, for example), the principal features, landmarks, nodes and viewshed characteristics and sites requiring rehabilitation.
- Staff supervising works which could have a marked visual impact will be trained in landscape management.
- The visual impact of existing sites and facilities will be reduced where possible. Rehabilitation plans will be prepared if required.
- The Visual Quality Objectives will be taken into account when a replacement fire tower is being planned and built.

## 7 MANAGEMENT FOR PARK PROTECTION

### 7.1 FIRE MANAGEMENT

Fire management involves both protection of the Park and surrounding areas from damage by wildfire, and the use of fire to conserve vegetation or to maintain or regenerate habitat for particular wildlife species. Fire management for vegetation and wildlife were considered in Sections 6.1.1, 6.1.2 and 6.2.1. Protection requirements are identified in the Department's Horsham Regional Fire Protection Plan.

The Department has statutory duties to 'carry out proper and sufficient work for the prevention and suppression of fire in every State Forest, and National Park, and on all protected public land' (Section 62, Forests Act 1958), and (as agent of the Director of National Parks and Public Land) 'to ensure that proper and sufficient measures are taken to protect the Park ... from injury by fire' (Section 18, National Parks Act). This is taken to include protection from damage that might be caused by burning to protect other values.

The aims of fire management in the Unit are to:

- protect human life and property from fire;
- control all wildfires and confine them to a minimum area using control techniques which cause the least damage to Park values;
- protect recreation facilities, historical features and adjoining land from fire;
- minimise the impact of fire on important natural features, particularly rare or threatened plants and animals;
- maintain fire regimes consistent with maintaining the diversity of flora and fauna;
- maintain a core of unburnt vegetation within the Unit.

#### 7.1.1 Fire management

Fire management for the Mt Arapiles Management Unit is conducted in accordance with the Horsham Regional Fire Protection Plan which was released in July 1989.

Fire prevention and pre-suppression measures for the Unit are detailed below.

#### Fire prevention

**Public education.** Centenary Park is used by climbers from a range of countries around the world, many with a poor command of the English language. The Region will investigate the production of multilingual leaflets, signs and cassette tapes as a means of informing these people about fire restrictions particularly Total Fire Ban days. Information including fire regulations will be displayed on information boards. Total Fire Ban signs will be erected at Centenary Park and on the Lookout Road on days of Total Fire Ban.

**Supervision and enforcement.** Regular patrols by Departmental officers will be maintained to assist members of the public with information including fire regulations, and to ensure the regulations are observed.

#### Fire pre-suppression

**Fuel reduction burning.** Mt Arapiles is designated as a Priority 4 Burning Zone - the lowest priority for protection burning. Burning in a Priority 4 Zone is based on the need to:

- protect and conserve natural and cultural features;
- achieve other management and biological objectives;
- supplement other higher priority works.

Burning will only be carried out at Mt Arapiles for vegetation and ecological management purposes or for wildfire control.

**Firebreaks.** Cultivated firebreaks have been maintained in the past in the vicinity of the northern and western boundaries, but these will be replaced by graded access tracks adjacent to the fenceline.

Peripheral firebreaks will be located on the unmade, unused road reserve along the northern and western boundaries of the Park. Breaks will be adjacent to the fenceline where this can be achieved with minimal tree clearance, or as near to the fence as possible where heavy vegetation occurs. Existing tracks or roads in close proximity to the boundary will be utilised where practicable. Breaks will be a maximum width of six meters which includes a fire access track. The possibility of breaks being maintained by the use of chemical control will be investigated.

**Roads and tracks.** The road and track system as detailed in Section 8.3 (figure 6) is considered to be adequate for fire control purposes within the Park. In addition, access tracks will be incorporated in the peripheral breaks for rapid access to boundary locations being threatened by fire from outside the Park. These additional fire access tracks will be closed to visitor vehicles.

**Grazing.** Grazing was discontinued at Mt Arapiles several years ago in accordance with Land Conservation Council recommendations.

**Slashing.** The slashing or mowing of grass will be carried out in camping and picnic areas where the terrain permits.

**Water points.** The two dams within the Park will be maintained as water storages for fire-fighting purposes.

**Air support facilities.** The Region's air support facilities are detailed in the Fire Protection Plan.

**Fire equipment.** Several four wheel drive vehicles with slip-on fire fighting units are located at Natimuk with one allocated for the use of the ranger. All fire equipment will be inspected before and after the fire season and will be maintained in good working condition at all times.

**Communications.** The Region will continue to maintain a VHF and HF radio network for local and statewide communications for fire suppression and other purposes. The fire lookout at Mt Arapiles summit will be maintained and staffed during the fire season. A radio on Country Fire Authority (CFA) frequencies will be provided in the tower.

During the fire season a single telephone number at the Horsham Regional Office will provide direct contact to the Duty Officer so that any fire calls will be promptly acted on at any time.

**Liaison.** Departmental officers from the Horsham and Natimuk Work Centres will liaise with officers of CFA Region 17 and local CFA brigades, the Shire of Arapiles, Municipal Fire Prevention Committee, Mt Arapiles Fire Tower Committee, and other relevant bodies.

**Preparedness.** Fire-fighters from Natimuk and other work centres and support staff from the Horsham office are rostered on standby outside working hours and at weekends to provide an adequate suppression force throughout the fire season. Procedures are in place to ensure the Department responds promptly to any wildfire in the Park.

**Fire suppression.** Fire suppression includes all activities connected with extinguishing a wildfire following its detection. Suppression of wildfires in the Park threatening life or property will be given priority over all Departmental activities.

Upon detection of a fire in the Park, suppression action will be fast, determined and thorough with the primary objective of safeguarding life and controlling the fire in the shortest possible time. The use of Phoschek will be avoided where possible. Suppression strategy is fully detailed in the Region's Fire Suppression Manual.

**Rehabilitation and assessment.** Following any wildfire rehabilitation works as appropriate will be carried out. Post wildfire assessments of the impacts of fire will be undertaken following major fires.

### 7.1.2 Fire tower

The Fire Tower on the summit of Mt Arapiles is vital for the detection of fire and to house radio-communication facilities. However, it lacks security and is most unattractive, degrading the landscape at this very popular vantage point.

#### Management strategies

- A draft summit development plan will be prepared and referred to the Mount Arapiles-Toosan State Park Advisory Committee for consideration.
- The existing fire tower will be replaced with a more secure, more attractive and less visually intrusive tower. The new tower will be planned as part of the overall summit development plan (including the surrounds of the Telecom Repeater Station), in consultation with authorised tower users, and Telecom.
- The new fire tower will primarily provide facilities to detect fires and satisfy emergency service requirements.
- Contributions towards the construction of the replacement tower will be sought from the CFA and other Emergency Services that use the existing tower.
- Development and management of the new building will be the responsibility of the Department in consultation with other emergency service users, primarily the CFA.

## 7.2 INTRODUCED ANIMALS

Eight introduced (non-native) pest animals species are recorded for the Unit. Five are declared vermin (Fox, Rabbit, Hare, Common Starling and Sparrow); the Cat, Black Rat and House Mouse are not declared. Rabbits, Foxes and Cats pose the greatest potential threat to the Unit. Goats are not known to be present but should be regarded as a potential management problem.

The Vermin and Noxious Weeds Act 1958 (Vic.) and the National Parks Act require the Department to exterminate or control introduced fauna within a Park. Domestic dogs including guide dogs are allowed into the Park under certain conditions. Honey bees may also be brought into the Park for apicultural purposes (see Section 9.2).

The aims for management of introduced fauna are to:

- control and if possible eradicate, rabbits, foxes and cats;
- monitor and, where necessary, control other introduced fauna;
- allow entry of guide dogs, and other domestic dogs under appropriate conditions;
- co-operate with adjoining landholders, organisations and Shires in the control of introduced animal species;
- develop cost-effective control programs which minimise adverse environmental effects and protect the public;
- prevent the introduction of other pest species.

#### Management strategies

The control methods to be used are presented below, in order of the priority for control of the animal.

**Rabbits.** 1080 poisoning using baits laid in trails has been the major rabbit control method used in the past. Although reducing rabbit numbers, the 1080 program failed to control numbers to acceptable levels. In addition, there are a number of problems associated with trails, including the creation of unwanted tracks, the possibility of increased erosion and the spread of introduced plants.

While myxomatosis outbreaks spontaneously occur in the Unit from time to time, the rabbit population has developed resistance to the current field strains. The rabbit flea has also been introduced to aid the spread of myxomatosis but its effectiveness is limited by the dry conditions.

There is an urgent need to modify present techniques so that non-target kills are minimised whilst developing alternative methods.

- A rabbit control program will be prepared. This program may include continued use of 1080 under modified conditions whilst investigating suitable alternative control techniques. The modified conditions may include bait stations, hand cut trails, more selective placing of baits, etc.
- Any use of 1080 poisoning will be based on Parks Policy 2.6.5P and the following guidelines:
  - the guidelines given in Vermin Pac;
  - for public safety reasons poisoning will not be used near camping and picnic areas (e.g. Centenary Park);
  - increase the effectiveness of control by identifying rabbit feeding areas prior to each application and poisoning only in those areas;
  - the use of ground broadcasting or, if desirable, hand-cut trails may assist in overcoming erosion, weed and other problems often associated with baiting along machine-cut trails;
  - minimise the chances of non-target species being affected by avoiding areas where possums and small mammals may feed upon baits and by using other techniques, such as bait stations.

**Foxes.** Fox numbers in the general area are currently low.

- Foxes will be monitored.
- If fox numbers increase or foxes become a problem in the general area, a poisoning program following the guidelines in Vermin Pac will be considered.

**Cats.** The number and the effects of cats within the Unit are not well known.

- The presence of cats will be monitored and if control is necessary the guidelines in Vermin Pac will be followed. Cage traps or shooting will be used in the first instance.

**Hares.** Specific control measures have not been necessary in the Park. Control measures will be considered if hares become a threat to vegetation or wildlife.

**Other introduced animals.** The impact of black rats, mice, sparrows, starlings and bees will be monitored and control measures will be implemented as necessary.

**Dogs.** It has been traditional for many campers and day visitors to bring dogs into the Park.

Dogs cause disturbance to wildlife. Dogs can also cause inconvenience and annoy other Park users, and there have been numerous complaints from Mt Arapiles about uncontrolled dogs.

- Guide dogs are permitted in the Park when acting as a guide for a blind person.
- All areas of the Park are set aside as areas in which dogs, other than guide dogs acting as a guide, are not permitted, except the following areas in which dogs are permitted:
  - Centenary Park (part of Zone 3), except in camping areas;
  - Zone 2 only in the vicinity of Centenary Park;
  - on the Lookout Road and the summit car park, only if retained in vehicles.

- All dogs must be under control, on a leash, and restrained from causing annoyance, damage or interference.

#### **Other Domestic Animals.**

- Horses. (see section 8.1 for conditions for horse riding).
- Other domestic animals including pets are prohibited.

### **7.3 INTRODUCED PLANTS**

Introduced plants have the potential to compete with and disturb the native vegetation. The problem is usually more pronounced in disturbed areas, such as roadsides, ploughed fire breaks and mineral extraction sites. Not all of the 93 introduced plant species in the Unit are considered problem species. Undoubtedly Bridal Veil Creeper represents the greatest introduced plant problem in the Unit.

In the past chemical sprays have been used to effectively control a number of introduced plants in the Unit, but alternative control methods are now being given greater consideration. For example, introduced plants on disturbed sites can often be effectively controlled by establishing native species on the area.

The possibility exists for further introductions and spread of exotic plant species, by seeds and other plant parts brought in by people, vehicles, animals or the wind. Regular monitoring is essential to detect new introductions, and to ensure the effectiveness of control methods.

Pines planted in Centenary Park camping and picnic areas in 1937 by the Centenary Park Committee of Management to provide shade or as ornamentals have historical significance and currently provide shade and shelter for campers. However, their presence conflicts with the nature conservation objectives for the Unit (see Section 6.3.2) and the pines will become a danger as they age, shed limbs and die.

The aims for management of introduced plants are to:

- control or eradicate introduced plants except those of historical significance, or which enhance recreation sites for visitors without threatening natural values;
- replace introduced plants with indigenous plants in the long-term;
- adopt management practices that favour indigenous plants;
- minimise further establishment of introduced plants;
- co-operate with adjoining landholders, other organisations and Shire Councils in the control of introduced plants.

#### **Management strategies**

- Control of introduced plants will be in the following order of priority:
  - Bridal Veil Creeper, Horehound and Boxthorn
  - Skeleton Weed and Stinkwort
  - Saffron Thistle, Slender Thistle.
- The following control methods will be used, as appropriate:
  - the establishment of native species to exclude introduced species, to be used wherever possible (see Section 6.1.3);
  - biological control, where available;
  - hand pulling, cutting or seed removal;
  - chemical sprays, for selected introduced plants, in accordance with Parks Policy 2.7.1P.
- Special attention will be given to the eradication of any occurrences of introduced plants established away from the main areas of infestation.

- New species introductions will be detected by regular monitoring, and eradicated as soon as possible.
- The distribution and abundance of weeds and the effectiveness of control measures will be monitored.
- Introduced plants with historic significance or which enhance the site for visitors without threatening natural values, will be retained until they die or are considered a hazard. Any regeneration from the parent plants will be eradicated.

#### **7.4 EROSION PREVENTION AND REHABILITATION**

In general, steep slope and the skeletal nature of soils create a high erosion potential. Existing erosion is generally associated with gravel stripped areas, or tracks. It is localised and of minor severity, and can be readily controlled.

The aims for management of soil erosion prevention and rehabilitation are to:

- rehabilitate existing eroding sites;
- prevent any future soil erosion.

##### **Management strategies**

- The location of eroding sites within the Unit will be mapped and priorities and methods of erosion control will be determined.
- Indigenous vegetation will be used for revegetation work where possible (see Section 6.1.3). Any exotic species used should not be capable of existing for more than one or two seasons.
- Erosion control works will be carried out in accordance with guidelines for landscape (see Section 6.4) and Aboriginal sites (see Section 6.3.1).
- Control works will be monitored to determine their success.
- All future works will be designed to minimise the risk of soil erosion.
- Existing walking tracks will be modified and new tracks will be designed to minimise the likelihood of erosion, e.g. by the use of steps, stone paving, water turns etc where required.

## 8 MANAGEMENT FOR TOURISM AND VISITOR USE

### 8.1 TOURISM AND VISITOR USE ACTIVITIES

Mt Arapiles and Mitre Rock are spectacular, picturesque areas attracting many visitors. Mt Arapiles is recognised internationally as a premier climbing area. The natural beauty of the area, the soundness of the sandstone rock faces, the large number of climbs (over 2000 described climbs), and the wide range in degree of difficulty of climbs, from beginners to the most difficult in Australia, attract many visitors from interstate and overseas. The beauty of the area, the lack of development and the opportunity to watch climbers working on the cliffs also attracts many local day visitors to the Park, and increasing numbers of tourists travelling by bus and car.

A small but significant section of the Major Mitchell Trail passes through Mt Arapiles.

Recognised as regional tourist attractions Mt Arapiles and Mitre Rock are part of a sign-posted circuit from Horsham to Mount Arapiles and Mitre Rock, through the Little Desert National Park, Wail Forest and back to Horsham. Information is available from the Wimmera Tourism Office, Horsham. The circuit is increasingly popular with tourist and holiday bus lines as an alternative route to the highway.

Mt Arapiles is popular for camping, picnics and barbecues and use by school groups is increasing. A short steep climb from the summit car park at Mt Arapiles provides access to spectacular views over the Wimmera Plains and lakes to the Little Desert National Park in the distance, or the Grampians and Black Range in the opposite direction. The steep climb prevents access by visitors with disabilities.

Mitre Rock is also increasingly popular, both with climbers and local residents for picnics and barbecues.

Visitor usage is estimated to be increasing at about three per cent per annum with in excess of 50 000 visitor days per year and about 14 000 camper nights. Recreation is a legitimate use of the area but must be managed to protect Park values, maintain the range of recreational settings and experiences, and minimise conflicts with other uses.

Water supply could be a future management problem. At present the existing bore is providing sufficient water for the current level of Park usage. The aquifer is known to be limited in volume and its potential to provide additional water is uncertain. This must be taken into account when considering future Park use. Water is not available from other sources, except at very high cost.

The aims for management of recreation activities are to:

- provide a range of recreation opportunities for tourists and other visitors;
- minimise the impact of recreation on other Park values;
- minimise the conflict between different activities;
- promote tourism in association with Wimmera Tourism;
- provide for and regulate appropriate commercial recreational use.

#### Management strategies

- Manage, in accordance with the Unit objectives (Chapter 3) and the zoning scheme (Chapter 4), to provide or maintain an appropriate range of recreational opportunities.
- Prohibit the following activities in the Unit:
  - dispersed camping (camping outside of defined camping areas)
  - para gliding
  - hang gliding
  - off-road driving.

- Investigate construction of a circuit walking track.
- Develop a lookout at a suitable location with access for people with disabilities.
- Rehabilitate the previously grazed area abutting the eastern boundary of the Unit for development in the long-term as a camp ground with a toilet block.
- Assist Wimmera Tourism in the development of appropriate tourist publications describing the circuit drive linking Horsham and the Unit and the attractions of the Unit for tourists.
- Permit major recreation activities as shown in table 2 subject to the following conditions.

**TABLE 2 MAJOR RECREATION ACTIVITIES IN EACH ZONE**

Recreation Activity	Zone		
	1	2	3
Camping	No	No	Yes
Picnicking	Yes	Yes	Yes
Rock climbing	Yes	Yes	Yes
Bush walking	Yes	Yes	Yes
Pleasure driving	No	Yes	Yes
Cycling	No	Yes	Yes

Camping - Permit only at Centenary Park camping area (not in the picnic area). Fires (except gas appliances) in constructed fire places only.

Picnicking - Allow in all Zones; facilities provided only in Zone 3. Fires (except gas appliances) in constructed fire places only.

Rock climbing - (see Section 8.1.1).

Bush walking - Permit in all areas.

Horse riding - Permit on roads and tracks open to public vehicles and on fire breaks along the western and north-western boundary of the Unit. Monitor the impact on park values and other recreational activities and further restrict horse riding if appropriate. Prohibit camping with horses or corralling. Horses are not permitted in camp grounds.

Pleasure driving - Permit on all open, defined roads in registered vehicles driven by licensed drivers. The circuit track will be seasonally closed in winter. Prohibit on closed roads designated for management vehicles only (see Section 8.3).

Cycling - Permit on all open, defined roads.

Orienteering - Consider potential environmental and recreational impacts on the Park, if an application is received. Assess impacts after events.

### **8.1.1 Rock climbing and abseiling**

Mt Arapiles is one of Australia's premier rock climbing sites, and both rock climbing and abseiling are popular recreation activities.

Rock climbing can affect the Park in a number of ways. Disturbances in the vicinity of raptor nesting sites, from immediately prior to nesting and through the breeding season, may have a detrimental effect on nesting success. The notable species Peregrine Falcon is particularly susceptible to disturbance in such periods.

Plants growing in cracks on cliff faces, such as the rare plant Skeleton Fork-fern (*Psilotum nudum*), can be destroyed. Permanent fixtures (bolts in particular) and practices such as wire brushing and chipping can damage rock formations and be visually displeasing. The use of chalk as an aid to climbing can result in the formation of unattractive deposits. With cooperation from climbers, these impacts can be minimised without the need to unduly restrict rock climbing.

Many operators run rock climbing instruction courses in the Unit. A permit for a period, with conditions and fees payable is required for such commercial recreation activities. Permits are granted by the Director of National Parks and Public Land. Where the period exceeds six weeks, the Minister determines the fees and conditions.

### **Management strategies**

- Rock climbing is permitted throughout the Unit, with the exception of any areas seasonally closed to rock climbing for the protection of Peregrine Falcon (see Section 6.2.2).
- Rock climbing groups will be invited to participate in the preparation of a code of conduct for climbers. The code will cover minimising the use of permanent fixtures, discouraging the use of wire brushing and chipping, encouraging the use of chalk coloured to match the rock face, protecting the Peregrine Falcon and other raptors (see Section 6.2.2), protecting vegetation on rock faces and other Park values. The code will be on display on Park notice-boards and readily available to climbers.
- Operators of commercial rock climbing instruction courses will require a permit under section 21(1)(c) of the National Parks Act.
- Organisers of events likely to attract more than 40 people will be requested to consult with the Regional Manager, prior to events.

## **8.2 MONITORING RECREATIONAL USE**

Limitations on past monitoring of recreation use have created difficulties in planning for future use. Knowledge of the types, locations, levels and impacts of recreation activities, and of the expectations of users greatly facilitates planning.

### **Management strategies**

- A survey will be conducted to assess the needs and expectations of Park visitors.
- A traffic counter will be installed on the road to the summit of Mt Arapiles (Lookout Road). Vehicle counts will be made for at least 12 months to gauge the level of use throughout the year.
- The impact of all recreation activities will be monitored.
- Numbers of camps in the Centenary Park camping area will be sampled, at least fortnightly for a full year with more frequent counts in holiday periods, to identify peak usage levels and provide data for future planning for the replacement camping area (see Section 8.4).

### 8.3 VEHICLE ACCESS

The road and track system within the Unit (figure 6) is considered to provide adequate access for recreation, management and emergency purposes, but several vehicle tracks are no longer required or are inappropriate. Some tracks can become unsuitable for conventional vehicles in the wetter months of the year.

Roads to the Mt Arapiles Management Unit are managed by the Vic Roads and the Shire of Arapiles. There are no road reserves within the Unit and all internal roads are the responsibility of the Department.

The aims for management of vehicle access are to:

- provide access to recreation sites where appropriate;
- provide for pleasure driving;
- provide access for management and emergency vehicles;
- maintain other Park values.

#### Management strategies

- No new roads or tracks will be constructed in the Unit.
- The road to the summit of Mt Arapiles (Lookout Road) will be maintained. Disturbance to existing road fringing vegetation will be minimised.
- The internal ring road will be maintained to provide conventional vehicle access for most of the year. Seasonal closure will apply during winter.
- The existing car park and turning area at the base of the walking track to the Summit Lookout will be maintained.
- Other roads and tracks will be maintained at their current standard.
- Any track may be temporarily closed to the public if necessitated by track conditions, or other substantial reasons.
- Temporarily closed tracks will be open to management and emergency vehicles.
- The following vehicle tracks (indicated in figure 6) will be permanently closed.
  - The access road on the north side of pines camp ground will be closed to unauthorised vehicles.
  - The access road on the west and south sides of the pines camp ground will be closed to all vehicles. The track will be ripped and planted with indigenous vegetation. The drainage gutter along the west side will be maintained with a contour drain to be continued south into the gully.
  - Gravel extraction tracks linking Natimuk Golf Course and Lookout Road, west of the former wildflower reserve.
  - The duplicated sections of access tracks in the south-west, north-west and north-east corners of the Unit.
  - The track from Centenary Park to Declaration Crag and Lookout Road.
- Tracks identified for closure but required for fire/emergency vehicle access will be maintained and locked gates will be installed. All other closed tracks will be revegetated.
- Erosion control works will be carried out on tracks identified for closure.
- Bicycle riding will be permitted on all vehicle tracks open to public vehicles.

## 8.4 VISITOR FACILITIES

Recreation opportunities can often be considerably enhanced by the provision of simple visitor facilities such as access tracks, barbecues and lookouts.

All developments at recreation sites should comply with the zoning scheme and guidelines for the protection of landscape values.

Recreation sites (figure 2) include picnic areas, camping areas, lookouts, historic sites and tracks. General strategies for site development are presented, followed by strategies and actions for development at specific sites. Management of the few walking tracks within the Unit is also addressed.

The provision of visitor facilities in relation to historic sites is detailed in Section 6.3.

The aims of management for the provision of visitor facilities are to:

- increase the enjoyment of visitors;
- provide suitable recreation opportunities for visitors;
- minimise the impact of recreational activities on other Park values.

### Management strategies

- Recreation sites will be developed in accordance with zoning and will consider other Park values. Most development will be located in Zone 3.
- Facilities in Zone 3, in particular camping areas and new toilet facilities, will be designed to be accessible to people with disabilities.
- Developments proposed below will be assessed for environmental impact on Aboriginal sites, significant flora and other Park values, and will be designed to be compatible with landscape values.

**Centenary Park.** Centenary Park is the major recreation facility within the Unit, providing both for camping and picnicking. The layout of the camping area is unsatisfactory and, with increasing numbers of climbers coming to the Unit, its capacity is insufficient in busy periods.

### Camping

- The existing area available for camping at Centenary Park will be better defined. Areas where camping is not permitted will be clearly indicated. The pines area will be fenced inside the outer row of pines to restrict vehicles.
- Adequate space for group camping will be provided away from other campers.
- Basic camping facilities only will be maintained. (Facilities, such as powered sites and showers, are available at Natimuk Lake see figure 1).
- Existing type of fireplaces will be retained and two communal pit fireplaces will be installed at suitable camping locations one for use by school groups.
- The possibility of charging camping fees will be investigated.

- A new camping area with basic facilities will be developed on the 2.5 ha area of cleared land previously held under grazing licence located in the north-east corner of the Unit adjacent to Centenary Park following revegetation of the area. Centenary Park camping area will be phased out as the replacement camping area is developed. The possibility of continuing to provide camp-sites in appropriate locations in Centenary Park at Easter and Christmas holiday periods will be investigated at the appropriate time. A development plan for the camping area will be prepared giving due consideration to environmental impact, adequacy of site drainage and capacity of the existing bore to supply an additional storage tank.
- The new camping area will include:
  - an additional toilet block, sites suitable for school groups and provision for caravans; no showers, powered sites or other non-basic facilities will be provided; the number of camping sites will be determined by the availability of a sustainable water supply;
  - some sites for visitors confined to wheelchairs and other disabled visitors and link pathways to other facilities in the camping area;
  - locally occurring native species planted to screen sites and provide shade and shelter. (Quick growing species, e.g. Golden Wattle, Mt Arapiles form, will be used to provide short-term temporary shelter).

### **Picnicking**

- Picnicking facilities will be maintained at the existing site; the picnic shelter and facilities will be retained; a public notice board will be installed in the shelter; and the feasibility of replacing the five existing wood fire barbecues with a sufficient number of electric barbecues will be investigated.
- A new picnic area will be developed to replace the existing picnic area following the senescence or death of a high proportion of the existing pine trees; this is unlikely to occur within the period of this Plan.
- Pine trees will be lopped or removed as necessary to maintain public safety. Any revegetation program will use indigenous species (see Section 6.1.3).
- Strategies and actions for the use of firewood in the Park in Section 9.1 will be implemented to reduce the use of firewood and minimise the impact of its collection. Firewood for camp-fires may be supplied for peak usage periods. Wood should be supplied to a central point and be made available in large pieces.

**Melville Cave.** Melville Cave is a popular site on the way to Summit Lookout. The area is suitable for development and is zoned accordingly (Zone 3).

- The access track from Lookout Road will be maintained in a condition suitable for conventional vehicle access.
- The existing, single picnic table, barbecue and rubbish bin will be maintained.
- Stabilisation work on the walking track to the cave will be carried out as required.
- Interpretation of the possible use of the area by the bushranger Captain Melville will be provided at the cave site.

**Summit Picnic Area.** This is one of the main picnic areas and offers panoramic views without persons having to leave their vehicle.

- Access to the picnic area from Lookout Road will be maintained in a condition suitable for conventional vehicles.
- Existing barbecues, rubbish bins and picnic tables will be maintained. Consideration will be given to minor changes to improve the accessibility of the site to visitors with disabilities.
- The lookout at the northern end of the picnic area will be modified to provide safe access for people with disabilities without any substantial change to the character of the area.

**Summit Lookout.** The lookout is adjacent to the Mt Arapiles fire spotting tower, and is one of the focal points of recreation in the Unit.

- Existing picnic tables, barbecues and rubbish bins will be maintained.
- The existing information board and brochure box will be maintained and the display will be reviewed, regularly. Information including fire regulations will be kept current.

**Mitre Rock.** Mitre Rock attracts substantial numbers of visitors.

- The access track to Mitre Rock from the Goroke-Natimuk Road will be maintained to provide comfortable access for conventional vehicles.
- A development plan including car park, picnic facilities and making provision for rehabilitation of the eroded area will be prepared. Implementation of the plan will require approval of the Regional Manager and Director (figure 7).

**Declaration Crag.** This area is also known as Taylors Rock and is popular as a climbing instruction area.

- The access track from Centenary Park will be closed to vehicles other than management and emergency vehicles.

### **Walking Tracks**

- Existing walking tracks will be assessed and erosion control works will be carried out as required.
- Walking tracks will be sign-posted. Track routes will be shown on the information boards at Centenary Park and Summit Lookout.
- A tracks brochure will be prepared detailing length, degree of difficulty, time required and self-guiding notes for each walk;
- The need for additional walking tracks, including the desirability and feasibility of a long loop walking track suitable for family groups will be investigated.
- DCE design standards for construction and maintenance of walking tracks will be applied to all track design and construction works.

## 8.5 INFORMATION, INTERPRETATION AND EDUCATION

Interpretation (explanation of natural and cultural features, their relationships, significance and implications for management) can greatly enhance public enjoyment through developing a keener awareness, appreciation and understanding of the Unit. Basic information such as the location, access, size, features and controls on use is essential for the enjoyment of visitors and the protection of the Park. Direct communication between a Ranger and Park users is the most effective and flexible means of interpretation. Non-personal services including information boards, displays, publications and self-guided walks or drives are generally cheaper on a per visitor basis, but have several disadvantages including loss of flexibility and reliance on the visitor's initial interest. The levels of vandalism and illegal activity can also be higher. The education potential of the Unit is considerable, offering opportunities for the study of geology, botany, history, recreation and other related fields.

The aims for management of information, interpretation and education are to:

- provide information and interpretative services to encourage appropriate uses and enhance visitor enjoyment;
- provide educational opportunities for all Park visitors, particularly school, tertiary and community groups;
- provide educational materials and services to enhance educational opportunities;
- assist the development of educational programs focused on the Unit by schools and others by assisting in the development of educational materials which reflect a standpoint both environmentally sensitive and balanced in respect of the inherent conflict between increasing visitor use and protection of the environment.

### Management strategies

- Existing interpretative facilities (pamphlet and information boards) will be retained and revised as appropriate.
- Additional interpretative material will be prepared for:
  - self-guide notes on the sites of historical significance or interest;
  - Park note on the geological features of interest;
  - self-guide notes on walking tracks.
- Ranger-guided activities such as guided walks, spotlighting and camp-fire nights will be provided as appropriate.
- Departmental staff will be made available to talk to visitor groups where practicable.
- Develop resource materials on the Unit's flora, fauna and geology in consultation with education groups.
- Education activities will be encouraged in Zone 2 and 3 areas. The impact of educational usage of Zone 1 will be monitored.
- Signs advising of the Park Regulations 1984 and restrictions on dogs will be erected in Zone 3 picnic areas and the camping area.
- Appropriate directional, warning and feature signs conforming to the guidelines contained in the Departmental Signs Manual will be provided.

## 8.6 PUBLIC SAFETY

The Department has a responsibility for Public safety in the Unit. There is potential for visitors to be injured by falling tree limbs and accidents associated with rock climbing, bush walking and driving vehicles. Search and rescue operations may be necessary when such accidents occur.

There is a telephone in the Park at the entrance to Centenary Park. Surrounding farmland provides suitable helicopter landing sites close to the Unit boundary. Protection of visitors from fire is dealt with in Section 7.1.

The aims for management of public safety are to:

- avoid the exposure of visitors to hazards through careful design of facilities;
- promote and encourage Public awareness of hazards and safe use of the Park.

#### **Management strategies**

- Search and rescue operations will be controlled by the Police. The Department of Conservation & Environment will take initial action and provide assistance as required.
- Ambulance access to some sections of rock face is via management gates. Keys will be provided to the local Doctor, the CFA, the State Emergency Service and the Horsham Ambulance station.
- A sign will be erected in Centenary Park advising of facilities and procedures in case of accident.
- The existing telephone booth located at the entrance to Centenary Park will be retained.
- The ranger will be trained in first aid procedures.
- Hazardous trees and tree limbs in the vicinity of picnic areas and the camping area will be removed.
- Advise climbers of climbing hazards through notices provided on information boards and information in publications.
- The Park is available for training purposes to emergency services on application to the Regional Manager.

### **8.7 NAMING OF FEATURES**

The established name of some features of special interest to rock climbers have, in some instances, become confused. Some long established names have fallen into disuse as a result of the common practice of rock climbers in adopting new names and establishing these through frequent use.

An effort should be made to standardise the names of features (as distinct from the names of actual climbs or climbing routes) and to preserve historic names where these are known.

#### **Management strategies**

- The names of major features in the Park should be standardised and used consistently in all publications and Departmental activities.
- Naming procedures should conform to procedures established by the Victorian Place Names Committee and Departmental policy (see Parks Policy 3.1P).
- Historical names not now in common usage should be re-established with advice and assistance of the Arapiles Historical Society.

## 9 MANAGEMENT FOR RESOURCE UTILISATION

### 9.1 FIREWOOD

The removal of fallen limbs and hollow logs destroys habitat (see Section 6.2.1).

Licensed firewood removal, allowed in the former Mt Arapiles Forest Park, is not considered an appropriate use following incorporation of the Unit in the State Park.

A firewood shortage exists at camping and picnic areas and demand for firewood is increasing.

The costs involved prohibit the provision of firewood by the Department on a regular basis, although the Department can supply firewood derived from management operations from time to time.

The aims for management of firewood removal in the Unit are to:

- provide for the collection of firewood for on-site use in picnic and camping areas;
- reduce the impact of concentrated firewood removal on wildlife habitat and other Park values.

#### Management strategies

- The use of alternative fuels for cooking and heating will be encouraged.
- Visitors may continue to collect and use firewood for camp-fires and barbecues in the Park, only from designated areas.
- Designated areas and appropriate methods of firewood collection will be advised through the Information Board at Centenary Park. Firewood collection areas will be changed as appropriate. No firewood collection will be allowed in Zone 1.
- Firewood will be burnt only in the constructed fireplaces provided.
- Removal of firewood from the Park for outside use will not be permitted.
- A public education program will be developed to reduce the use of firewood and improve collection methods so as to minimise impact on the natural ecology (see Section 6.2.1).
- The possibility of providing a woodlot outside the Park should be investigated to provide a long-term solution.

### 9.2 APICULTURE

The area is attractive to apiarists because the Long-leaf Box provides pollen and nectar for building up hive strength, and the variety of eucalypt species provide an extended flowering season.

Two permanent bee sites were previously established in the area. Conflicts between apiarist and other activities were not apparent.

No temporary sites have yet been approved in the Unit.

The aims for management of apiculture in the Unit are to:

- allow apiculture in accordance with the LCC recommendation approved by Government;
- minimise impacts on conservation values and conflict with recreational activities;
- issue licences in accordance with the provisions of the National Parks Act 1975 and Departmental policy.

#### **Management strategies**

- Bee sites will only be permitted in Zone 2.
- A maximum of two temporary bee sites will be licensed with appropriate conditions under the National Parks Act.
- Feral bee populations will be monitored, and control measures will be implemented where there is conflict with conservation or recreation objectives.

### **9.3 GRAVEL EXTRACTION**

Extraction of gravel (all road making material and stone) was a significant activity within the area until 1958.

Unlicensed extraction of stone from Mt Arapiles for local rock gardens in the surrounding area has occurred from time to time in the past; amounts extracted were generally small.

#### **Management strategies**

- Gravel and stone removal for either private or Departmental use will not be permitted.
- Existing gravel-stripped areas will be stabilised and rehabilitated where necessary (see Sections 6.1.3 and 7.4).

## 10 MANAGEMENT OF AUTHORISED USES

Public authorities have established a range of facilities in the Unit including electricity lines, telephone cables, a trigonometric station, a fire tower and a repeater station (figure 8). The Military Forces carry out training exercises.

Public Authorities require the consent of the Director to perform their functions and exercise their powers in the Unit, now it has been incorporated in Park.

The aim for management of authorised uses is to:

- allow public authorities to perform their functions and exercise their powers in the area in ways which minimise impacts on the environment and activities in the Unit.

### 10.1 UTILITIES AND SERVICES

**Electricity Lines.** The SEC has installed electricity lines to supply the Telecom repeater station, the fire spotting tower and the motor on the bore pump at Centenary Park. Power lines can have a visual impact and increase the risk of fire. Management strategies for clearing vegetation near power lines and removal of vegetation associated with works are detailed in Section 6.1.4.

**Telephone Cables.** Cables have been installed to service the Telecom repeater station, a public phone booth at Centenary Park and the fire spotting tower on Mt Arapiles. No additional telephone cables are planned.

**Trigonometric Station.** The station is located near the fire spotting tower on Mt Arapiles and is the responsibility of the Ministry of Finance.

**Fire Tower.** The tower on the summit of Mt Arapiles plays a vital role in fire prevention and communications. A number of Emergency Services make use of the tower. The existing facility will be replaced (see Section 7.1.2). Emergency Services using the existing tower will be able to continue this use in the new tower.

**Repeater Station.** The Telecom Repeater Station on the summit of Mt Arapiles has been subject to an annual lease. The structure has major visual impact and additional works are planned.

#### Management strategies

- National Parks Act Section 27 Consents, including appropriate conditions will be issued to Public Authorities for the maintenance of existing uses and facilities; in the interim, access to existing facilities for maintenance will be permitted.
- Consents for any new works or modifications to existing facilities will be thoroughly investigated and Consents will be issued as appropriate.
- The Consent to be issued to Telecom will provide for vehicle access and minor new works, and include conditions to ensure future rationalization and reduction of the visual impact of the communication facility (see Section 7.1.2).
- Prior to the issue of the consent, the following management strategies will apply:
  - existing lease arrangements are to continue;
  - vehicle access to the lease area will be maintained;
  - the Department should be consulted before any works are carried out.

**10.2 DEFENCE TRAINING**

- Military training is currently limited to a few exercises a year involving rock climbing and rescue technique.
- Management strategies
- Defence training exercises, restricted to Level One training (adventure training and bushcraft/field exercises) for small groups at specified times, will be permitted.
- The only permissible activities will be rock-climbing, abseiling and use of the camping area; written approval of the Regional Manager is required for all exercises.
- In accordance with Departmental policy, conditions will apply to all exercises. Director's approval is required for any carriage of weapons. Use of ammunition (live or dummy), or explosives, will not be permitted.
- Support vehicles must use existing roads and tracks.

## **11 MANAGEMENT ORGANISATION AND OPERATIONS**

The Mount Arapiles-Tooan State Park is managed by the Horsham Region.

Currently the Public Land Ranger South Wimmera who is responsible for the Park allocates about 60% of time to the Park as a whole. A work crew regularly visit the Park to carry out maintenance work. Various other staff members allocate time to the Unit.

### **11.1 PERSONNEL**

#### **Management strategies**

- The ranger responsible for the Unit will receive extensive training in education and interpretation skills and be familiarised with the sport of rock climbing.
- A crew will be made available for maintenance work in the Unit as necessary.

### **11.2 BUILDINGS**

Existing buildings within the Park include:

- the toilet block and picnic shelter at Centenary Park;
- the fire spotting tower, and various buildings associated with the Telecom communication facility within the Commonwealth lease area, at and near Mt Arapiles.

#### **Management strategy**

- Construct a basic toilet block as part of the development of the proposed camping ground to service the proposed camping area adjacent to Centenary Park.

### **11.3 DEPARTMENTAL FACILITIES**

The Mt Arapiles fire tower serves both a fire protection and communication role.

#### **Management strategy**

- Existing Departmental fire protection and communication facilities provided by the fire tower will be maintained (see Sections 7.1.2 and 10.1).

## 12 SUMMARY OF MANAGEMENT PROPOSALS

The management proposals in this plan are summarised in table 3, and for each of them implementation priority and duration are listed. They are grouped under four headings; Field Management Actions, Resource Assessment and Planning, Monitoring, and Research.

**Priority.** The classifications are High, Medium and Low. Classifications are intended as a relative guide to management and will be continually open to review.

**Duration.** Projects are classified as Short, Medium, Long and Ongoing. Classifications indicate the relative time requirements for a project's completion.

**TABLE 3 SUMMARY OF MANAGEMENT PROPOSALS**  
(Numbers given (e.g. 6.1) refer to sections of chapters)

Priority	Duration	Project
<b>FIELD MANAGEMENT ACTIONS</b>		
<b>6.1 Conservation of native vegetation</b>		
High	Ongoing	Protect communities from grazing, introduced plants and human activities.
High	Ongoing	Prevent introduction of <i>Phytophthora cinnamomi</i> .
High	Ongoing	Undertake experimental burning if required, in conjunction with NPPL Division.
High	Ongoing	Use prescribed burning for vegetation management if a need is demonstrated.
High	Ongoing	Protect significant species from any threats identified.
Medium	Short	Establish guidelines for clearing vegetation near power lines.
<b>6.2 Wildlife management</b>		
High	Short	Re-introduce Red-necked Wallabies if their absence is confirmed in conjunction with NPPL Division.
High	Ongoing	Protect raptor nesting sites by seasonal closure to rock climbing when justified.
Medium	Ongoing	Control rabbits to maintain vegetation diversity.
Medium	Short	Prepare program to promote the awareness of rock climbers to the need to protect raptors.
Medium	Ongoing	Observe conditions for removal of fallen timber.
<b>6.3 Aboriginal and historic sites</b>		
High	Short	VAS to carry out systematic survey of the Unit for Aboriginal sites.
Medium	Ongoing	Maintain parking bay and walking track to the Major Mitchell Cairn.
Medium	Short	Provide interpretative material on European historic sites.

Priority	Duration	Project
<b>6.4 Landscape</b>		
Medium	Short	Reduce visual impact of existing sites and facilities where appropriate.
<b>7.2 Introduced animals</b>		
High	Ongoing	Control population levels of introduced animals as necessary.
Medium	Ongoing	Prepare and implement a rabbit control program.
<b>7.3 Introduced plants</b>		
High	Ongoing	Control problem introduced plant species.
Medium	Ongoing	Eradicate regeneration from historic introduced plants.
<b>8.1 Recreation activities</b>		
High	Ongoing	Ensure conditions for recreation activities are observed.
High	Ongoing	Regulate commercial recreation.
<b>8.3 Vehicle access</b>		
High	Ongoing	Implement seasonal track closures.
High	Short	Implement permanent track closures.
High	Ongoing	Maintain all internal roads.
Medium	Ongoing	Maintain turning area at the start of the walking track to the Summit Lookout.
Medium	Medium	Rehabilitate permanently closed tracks not required for management.
<b>8.4 Visitor facilities</b>		
High	Short	Develop Centenary Park picnic area.
High	Short	Improve existing camping area at Centenary Park.
High	Short	Prepare Mitre Rock development plan and implement.
High	Long	Develop new camping area at Centenary Park.
Medium	Short	Investigate loop walking track.
Medium	Ongoing	Maintain Melville Cave, Summit picnic areas, Summit lookout and Declaration Crag.
Medium	Medium	Prepare Summit development plan and implement.
Medium	Short	Sign-post walking tracks and reclaim any eroded sections of track.
Medium	Short	Prepare walking track brochures.
<b>8.5 Information, interpretation and education</b>		
High	Short	Revise existing interpretative facilities.
High	Medium	Prepare additional interpretative material.
Medium	Short	Erect signs advising of Park regulations.
Medium	Medium	Develop educational material.
Medium	Medium	Provide directional, warning and feature signs.

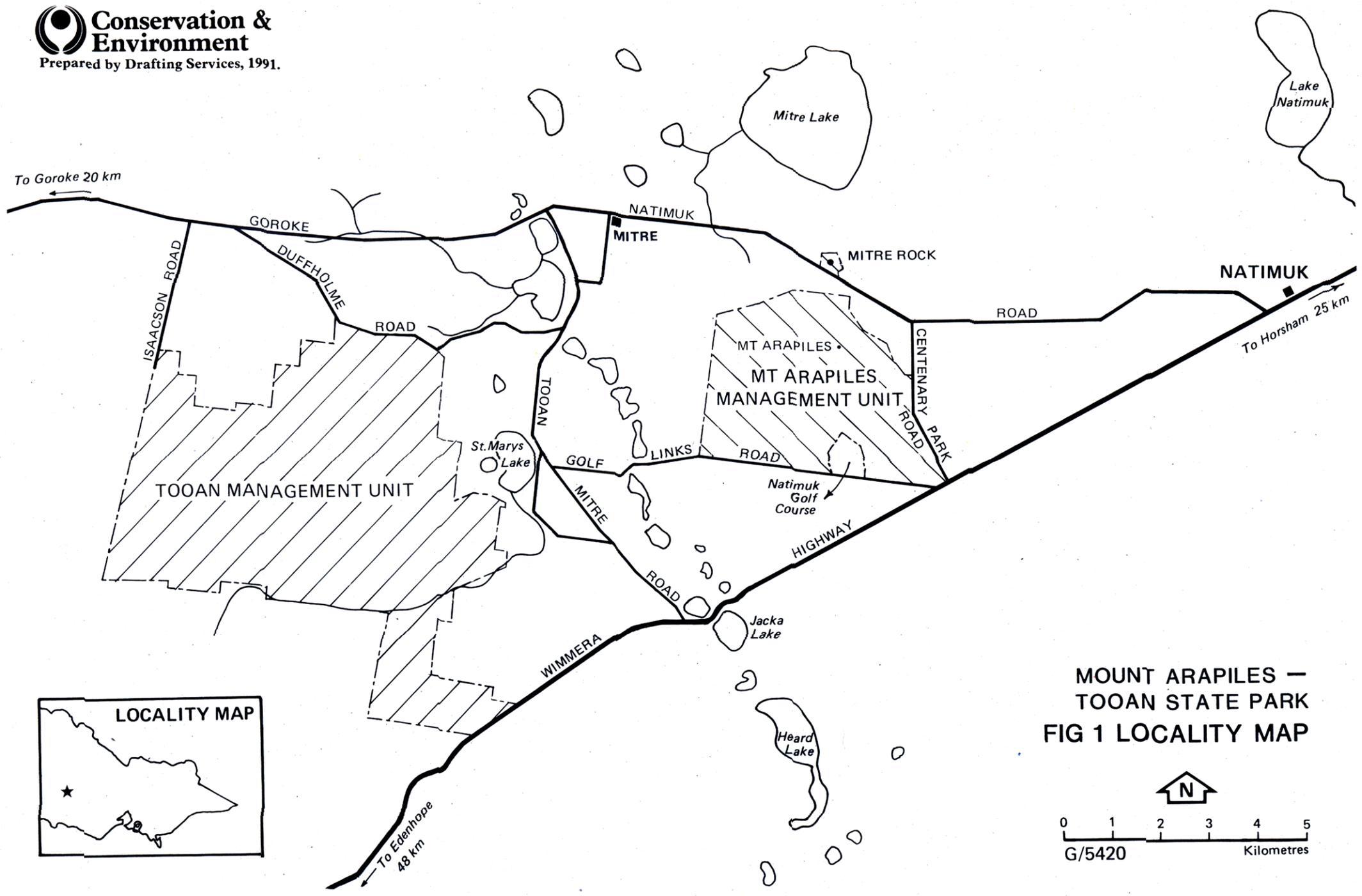
Priority	Duration	Project
<b>8.6 Public safety</b>		
High	Ongoing	Remove hazardous trees in Zone 3 areas.
High	Short	Erect appropriate warning signs and signs advising of facilities and procedures in case of accident.
<b>9.1 Firewood</b>		
Medium	Short	Prepare information for Information Board in Centenary Park on the use of firewood.
Medium	Ongoing	Develop and implement a public education program.
<b>9.3 Gravel extraction</b>		
Medium	Medium	Rehabilitate gravel stripped areas where necessary.
<b>10.1 Utilities and services</b>		
Medium	Medium	Issue consents to public authorities.
High	Short	Issue permits to the Defence Forces.
<b>11.2 Buildings</b>		
High	Long	Construct an additional toilet block to service the proposed new camping area at Centenary Park.
<b>RESOURCE ASSESSMENT AND PLANNING</b>		
<b>6.1 Conservation of native vegetation</b>		
High	Short	Determine the status and distribution of significant plant species and any threats.
Low	Short	Update vegetation map and descriptions.
<b>6.2 Wildlife management</b>		
High	Short	Confirm absence of Red-necked Wallabies.
High	Medium	Assess disturbance to nesting raptors.
High	Medium	Determine locations of all Peregrine Falcon nest sites.
Medium	Ongoing	Survey distribution and abundance of vertebrate and invertebrate species.
<b>6.3 Aboriginal and historic sites</b>		
High	Short	VAS to determine Aboriginal sites.
Medium	Short	Document significance of European historic sites.

Priority	Duration	Project
<b>6.4 Landscape</b>		
Low	Short	Prepare Landscape Features Map.
<b>7.1 Fire management</b>		
Medium	Long	Prepare overall Summit development plan including the replacement of the existing fire tower, and implement.
<b>8.1 Recreation activities</b>		
High	Ongoing	Monitor usage of Centenary Park.
Medium	Short	Prepare a code of conduct for rock climbers.
Low	Short	Conduct visitor survey.
<b>MONITORING</b>		
<b>6.1 Conservation of native vegetation</b>		
High	Ongoing	Monitor the effectiveness of vegetation management.
High	Ongoing	Monitor the effects of fire (or its absence) on vegetation.
High	Ongoing	Monitor the status of all significant species.
High	Ongoing	Monitor the presence of plant diseases and other damaging agents.
<b>6.2 Wildlife management</b>		
High	Ongoing	Monitor the effects of visitors on wildlife.
High	Ongoing	Monitor the competition for nest hollows by starlings and bees.
High	Ongoing	Monitor the number of Peregrine Falcons, nest location, nesting success and the impact of disturbance.
<b>7.2 Introduced animals</b>		
High	Ongoing	Monitor the presence of cats and goats, and the impact of black rats, mice, sparrows and starlings.
High	Ongoing	Monitor rabbit numbers and distribution as part of the rabbit control plan.
<b>7.3 Introduced plants</b>		
High	Ongoing	Monitor the distribution and abundance of weed species, the occurrence of new introductions and the effectiveness of control measures.

Priority	Duration	Project
<b>7.4 Erosion prevention and rehabilitation</b>		
High	Ongoing	Monitor the success of erosion control works.
<b>8.1 Recreation activities</b>		
High	Ongoing	Monitor the level of use of sites.
High	Ongoing	Monitor the impact of recreation activities.
<b>Research</b>		
High	Ongoing	Encourage external research of relevance to vegetation management.
High	Ongoing	Promote ecological studies of the effects of fire on the Unit's vegetation communities and significant flora and fauna, and of the habitat requirements of wildlife.

**BIBLIOGRAPHY**

- Baker-Gabb, D. 1990, List of Threatened Fauna in Victoria 1990, Department of Conservation and Environment, Victoria.
- Blackburn, G. 1971, The Soils of Western Victoria in The Natural History of Western Victoria, Douglas, M.H. and O'Brien, L. Eds., Aust. Inst. of Agric. Sci., Horsham.
- CFL 1987, Mount Arapiles-Tooan State Park, Mt Arapiles Management Unit, Inventory of Resources and Uses, NPWD and Horsham Region, Victoria.
- Department of Conservation, Forests and Lands, Summary of the Visual Management System. Landscape Management Branch, State Forests and Lands Service, unpub.
- Eccleston, G.C. 1985, Major Mitchell's 1836 Australia Felix Expedition, Department of Conservation, Forests and Lands, Victoria.
- Emison, W.B., Porter, J.W., Norris, K.C., & Apps, G.J. 1978, Survey of the vertebrate fauna in the Grampians-Edenhope area of South Western Victoria, Mem. Nat. Mus. Vic. 39; 281-363.
- Gullan, P.K., Cheal, D.C. & Walsh, N.G. 1990, Rare or threatened Plants in Victoria, Department of Conservation and Environment, Victoria.
- LCC 1979, Report on the South-Western Area, District 2. Land Conservation Council, Victoria.
- LCC 1981, Proposed Recommendations, South-Western Area, District 2. Land Conservation Council, Victoria.
- LCC 1982, Final Recommendations, South-Western Area, District 2. Land Conservation Council, Victoria.
- LCC 1986, Final Recommendations, Wimmera Area, District 2. Land Conservation Council, Victoria.
- Leonard, M. & Hammond, R. 1983, Landscape character types of Victoria with frames of reference for scenic quality assessment. Forests Commission, Victoria.
- Sibley, G.T. 1967, A Study of the land in the Grampians Area. Soil Conservation Authority, Victoria.
- Stabb, E.I. 1974, Mt Arapiles Forest Park : Vegetation Map and Explanatory Notes. Forests Commission, Victoria.
- Tindale, N.B. 1940, Distribution of Australian Aboriginal Tribes: A Field Survey. Trans. R. Soc. S. Aust. 64.
- White, C.M., Pruett-Jones, S.G., & Emison, W.B. 1981, The Status and Distribution of the Peregrine Falcon in Victoria, Australia, The Emu, Volume 80 Supplement; 270-280.
- Willis, J.H. 1978, A List of Rare, Very Localised and Endangered Indigenous Plants of Victoria. Forests Commission, Victoria.
- Willis, J.H. 1982, A List of Rare, Very Localised and Endangered Indigenous Plants of Victoria. Forests Commission, Victoria.



**MOUNT ARAPILES —  
TOOAN STATE PARK  
FIG 1 LOCALITY MAP**

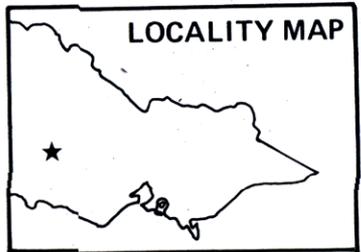
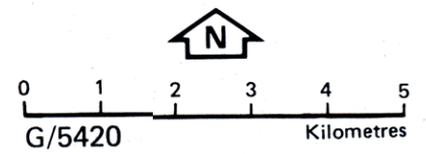
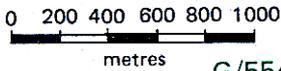
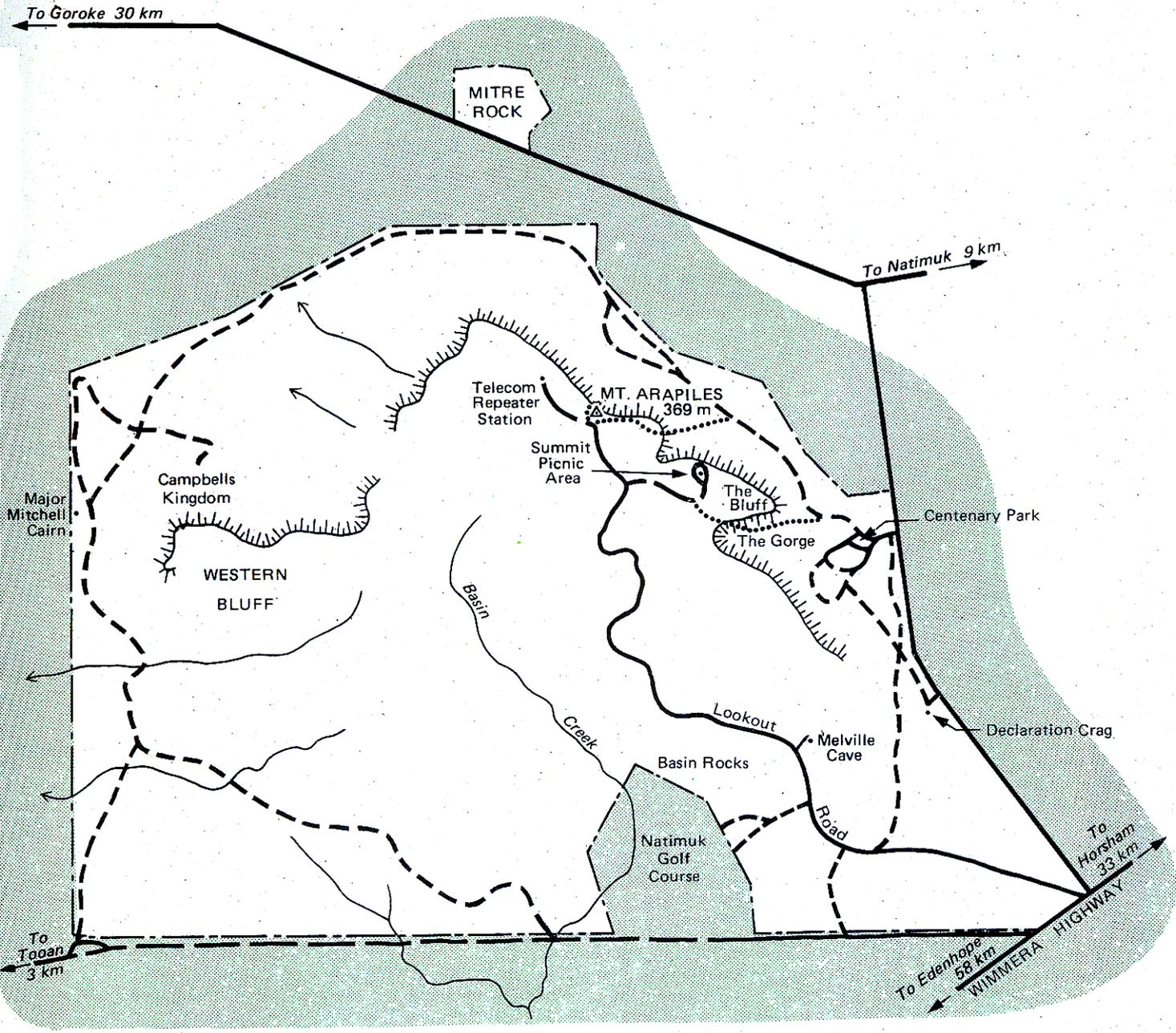


FIG 2  
BOUNDARY

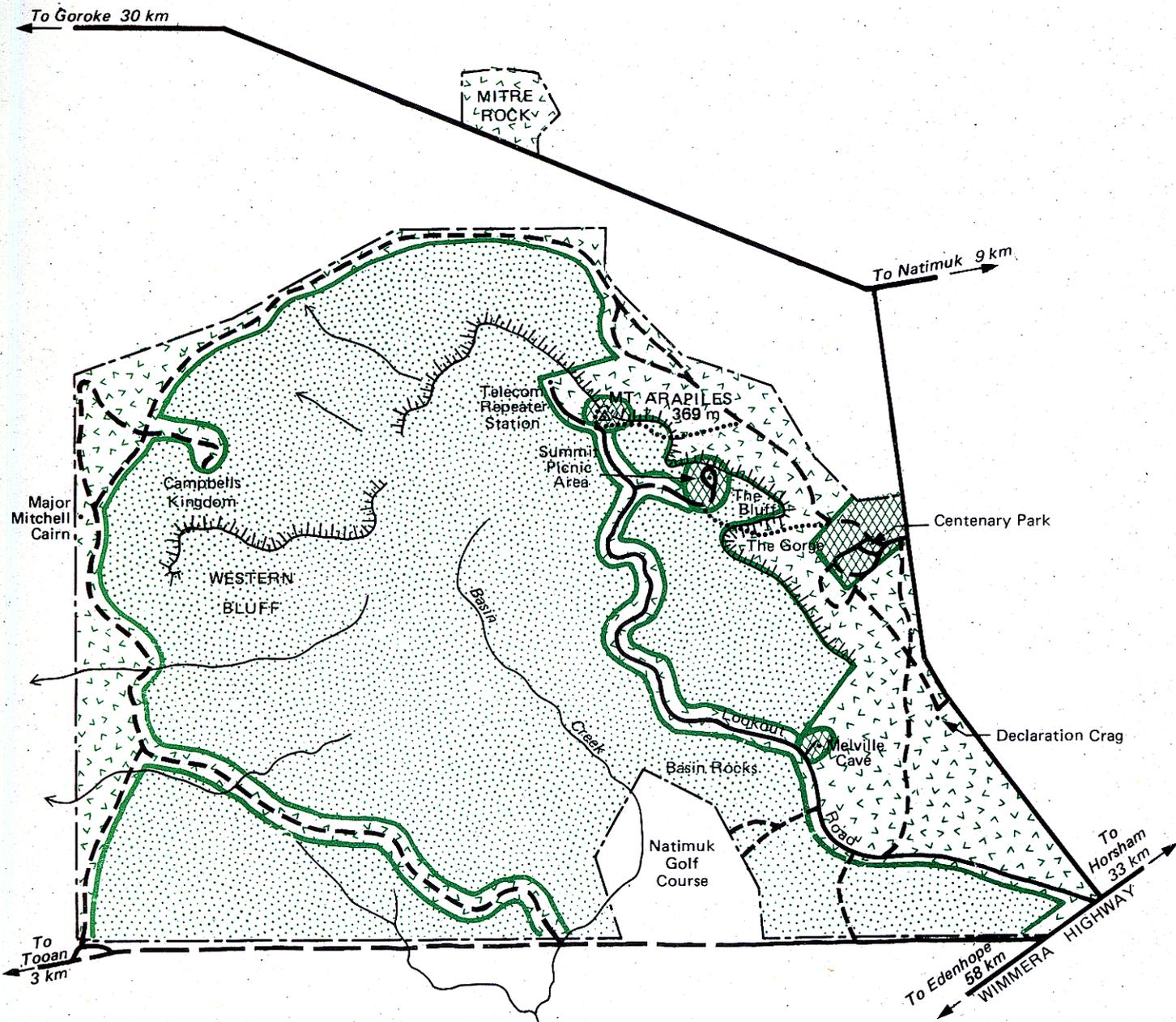


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- Sealed Road
- Unsealed Road
- Vehicular Track
- Walking Track
- Escarpment
- Mt Arapiles Management Unit Boundary

FIG 3  
MANAGEMENT ZONES



Sealed Road		Zone 1	
Unsealed Road		Zone 2	
Vehicular Track		Zone 3	
Walking Track			
Escarpment			
Mt Arapiles Management Unit Boundary			

FIG 4  
VEGETATION



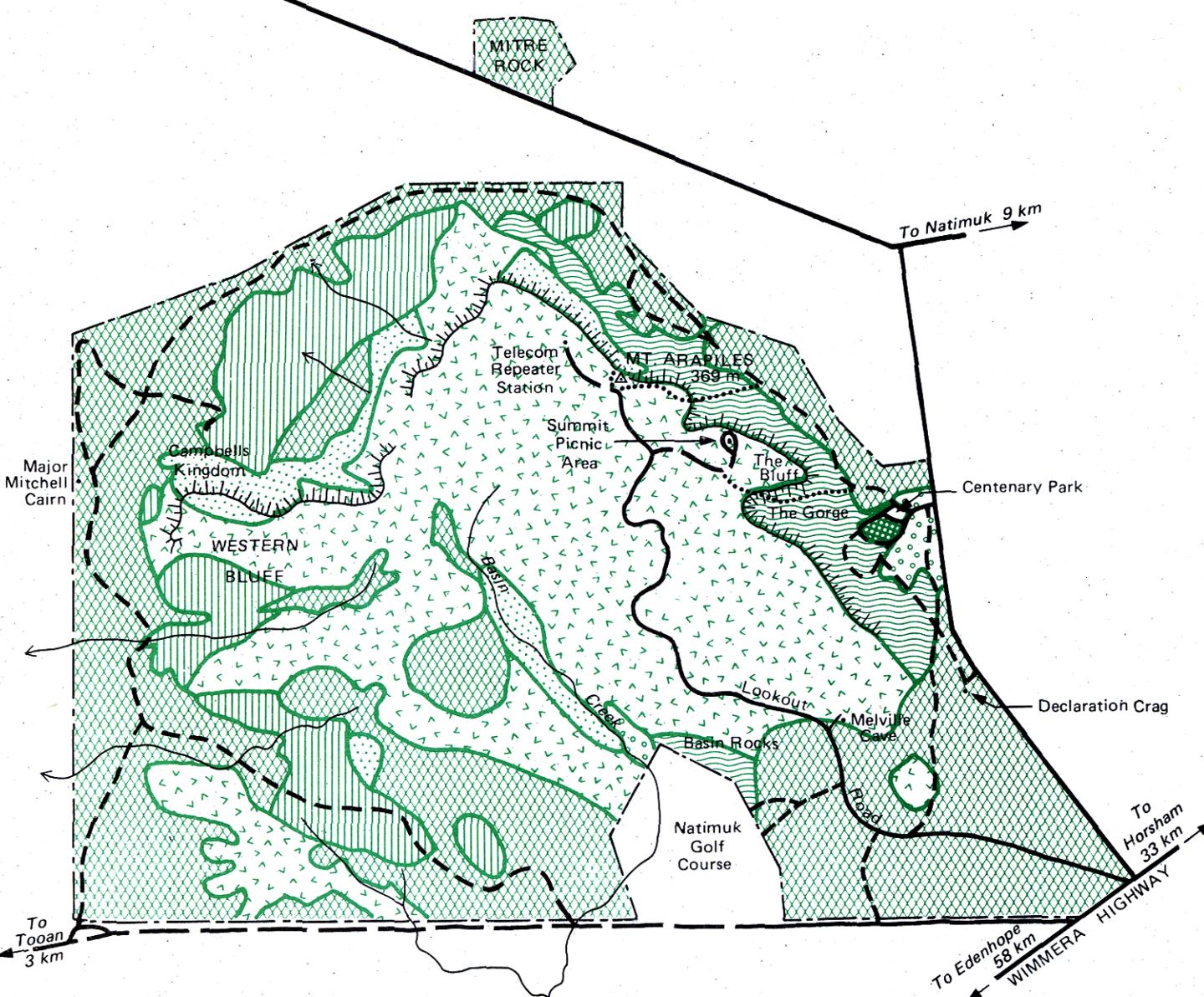
0 200 400 600 800 1000

metres

G/5547.04

To Goroke 30 km

To Natimuk 9 km



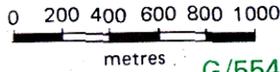
Major Tree Species and  
Typical Structural Form

Major Understorey Species

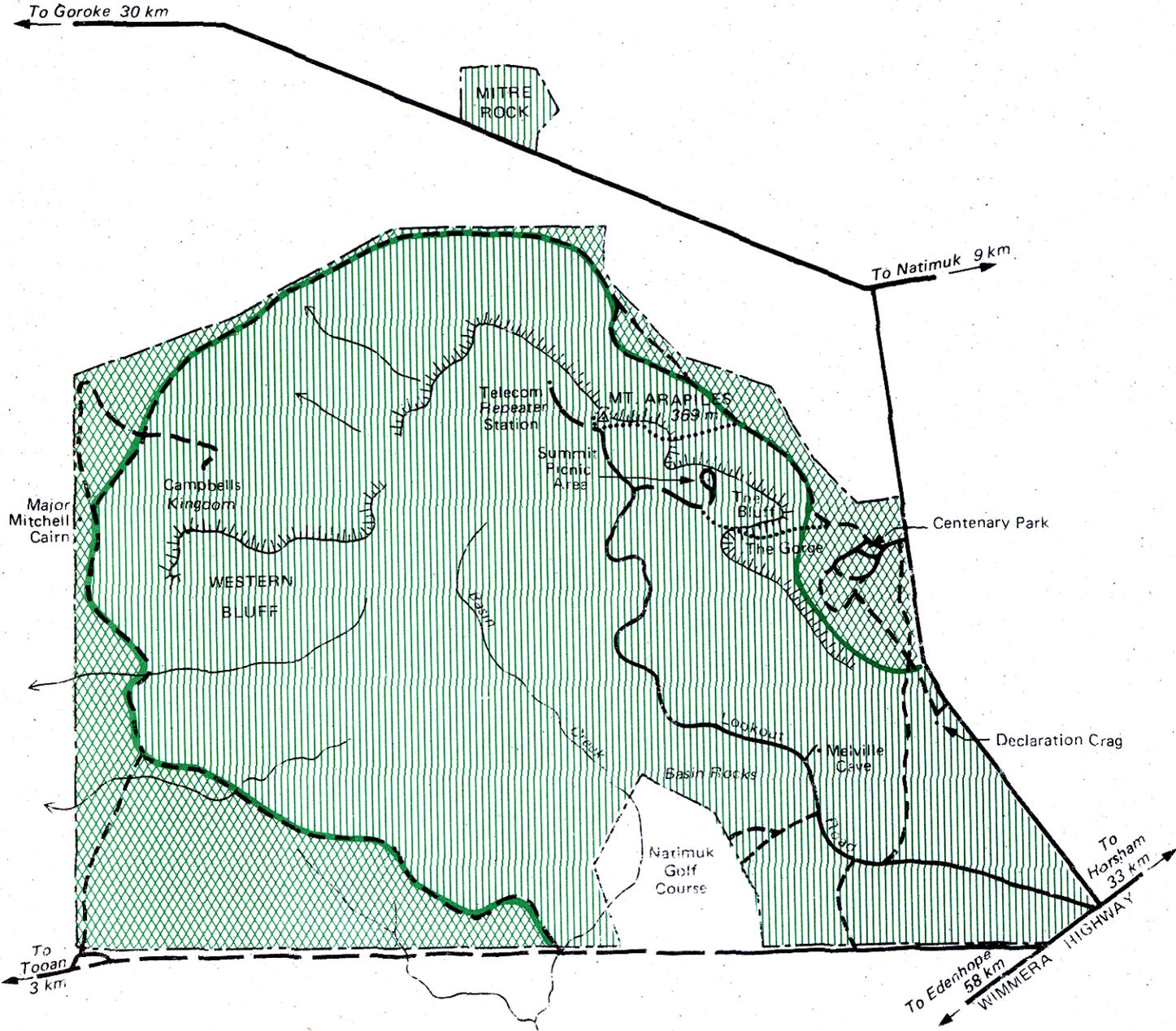
- Sealed Road
- Unsealed Road
- Vehicular Track
- Walking Track
- Escarpment
- Mt Arapiles Management Unit Boundary

	Yellow Gum, Peppermint Box Grey Box WOODLAND	Wallowa, Rock Wattle, Flame Heath, Golden Wattle, Cranberry Heath, Daphne Heath, Guinea-flower.
	White Cypress Pine LOW WOODLAND	Common Heath, Common Everlasting, Rock Correa.
	Red Gum OPEN FOREST	Tussock Grass.
	Red Mallee, Dumosa Mallee, Slender-leaf Mallee, Yellow Mallee. OPEN SCRUB	Broom Honey-myrtle
	Kangaroo Grass, Wallaby Grass GRASSLAND	Native and introduced grasses.
	Long-leaved Box, Brown Stringybark LOW OPEN FOREST	Grampians Fringe-myrtle, Flame Heath, Common Guinea-flower, Common Correa.
	Monterey Pine PLANTATION	

FIG 5  
LANDSCAPE  
MANAGEMENT AREAS



G/5547.05



- Sealed Road
- Unsealed Road
- Vehicular Track
- Walking Track
- Escarpment
- Mt Arapiles Management Unit Boundary



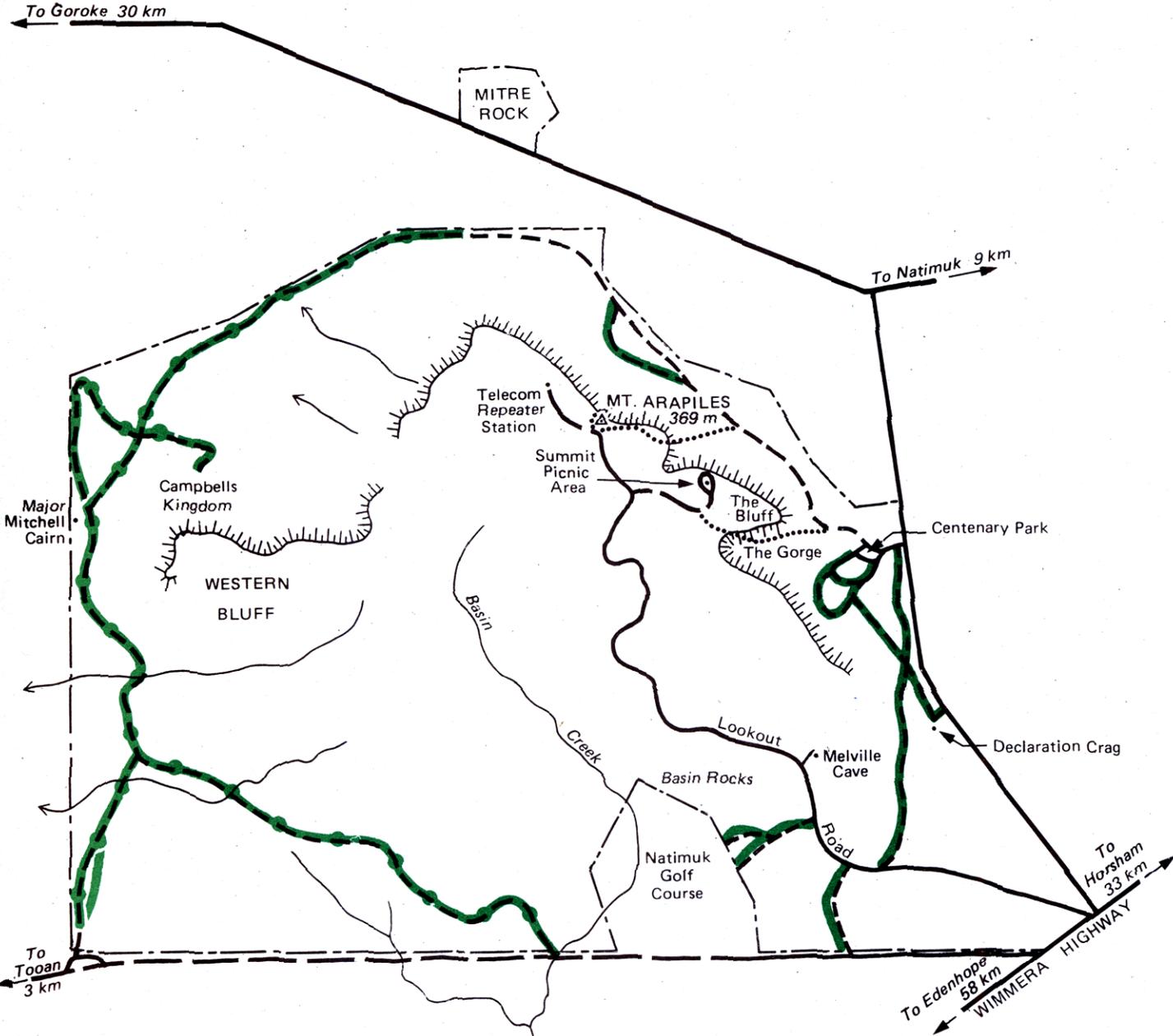
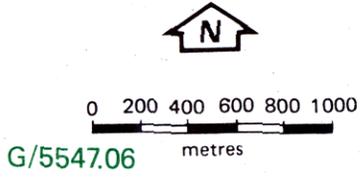
Area A: Highest concern for visual resources



Area B: Moderate concern for visual resources



FIG 6  
CHANGES TO EXISTING  
ROAD AND TRACK NETWORK



- Sealed Road
- Unsealed Road
- Vehicular Track
- Walking Track
- Escarpment
- Mt Arapiles Management Unit Boundary

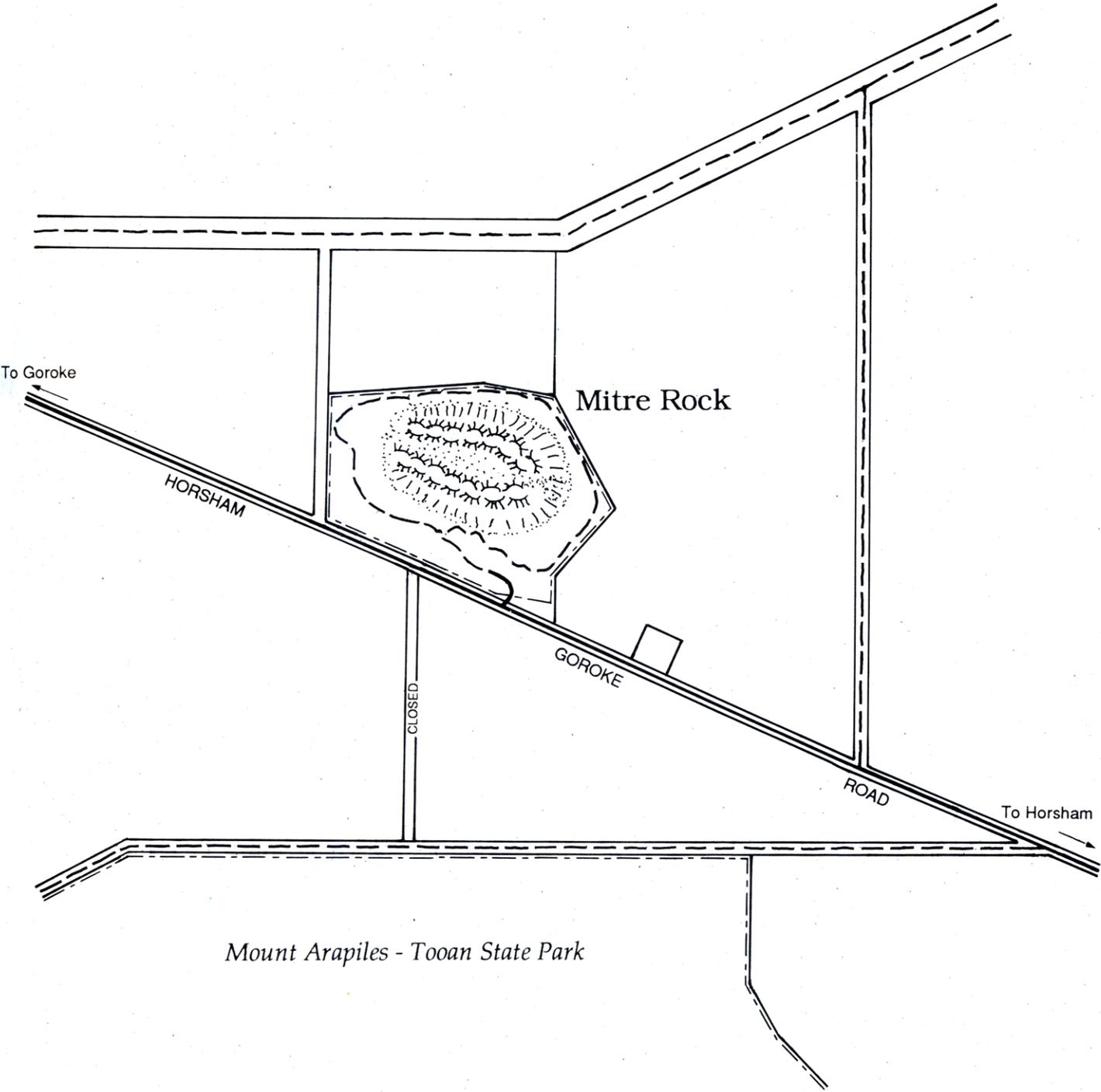
- Vehicular Track (Permanent Closure)
- Vehicular Track (Seasonal Closure)

# MITRE ROCK

MOUNT ARAPILES - TOOAN STATE PARK

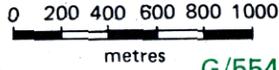


G/6155

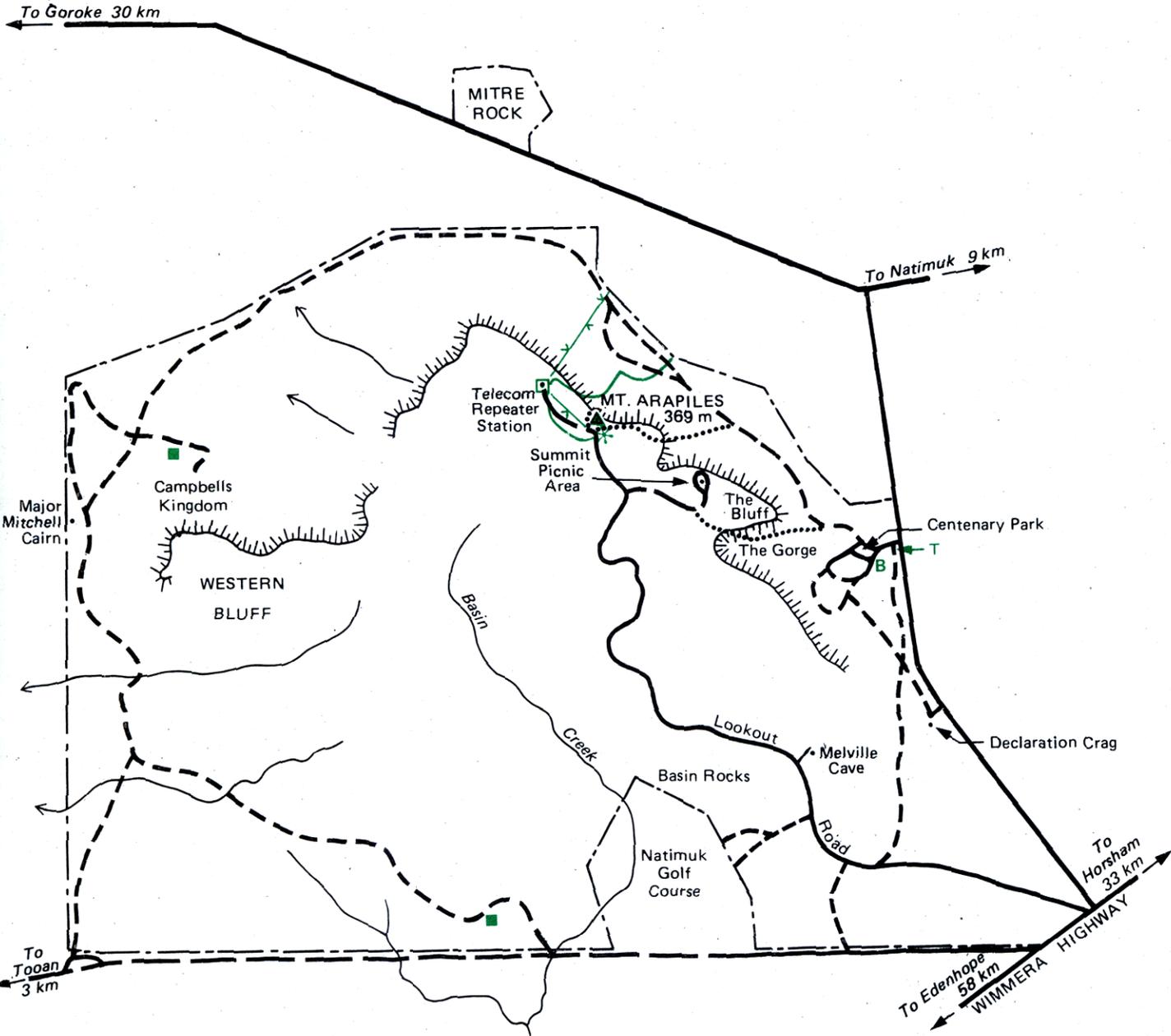


- SEALED ROAD ———
- VEHICULAR TRACK - - - - -
- PARK BOUNDARY - . . . . .

FIG 8  
UTILITIES AND  
SERVICES



G/5547.08



- Sealed Road
- Unsealed Road
- Vehicular Track
- Walking Track
- Escarpment
- Mt Arapiles Management Unit Boundary

- Fire Spotting Tower
- Telecom Repeater Station
- Trig. Station
- Bore
- S.E.C. Powerlines
- Telecom Cable (underground)
- Telephone
- Bee sites