

# Mt Arapiles-Tooan State Park (Tooan Block)

August 1998



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## Management Plan

Amended May 2015



This Management Plan for Mt Arapiles-Tooan State Park (Tooan Block) is approved for implementation. Its purpose is to direct management of the Park until the Plan is reviewed. A Draft Management Plan was published in February 1998. A total of 12 submissions were received.

Copies of the Plan can be obtained from:

Parks Victoria  
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Parks Victoria Information Centre  
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Published in August 1998 by Parks Victoria  
378 Cotham Road, Kew, Victoria, 3101

This Plan is based on a draft plan compiled by Biosis Research Pty. Ltd.

National Library of Australia  
Cataloguing-in-Publication entry

Parks Victoria  
Mt Arapiles-Toosan State Park (Tooan block) management plan.

Bibliography.  
ISBN 0 7311 3127 4.

1. National parks and reserves - Victoria - Wannon -  
Management. 2. National parks and reserves - Victoria -  
Wimmera - Management. 3. Dergholm State Park (Vic.).  
4. Mt Arapiles - Toosan State Park (Vic.) I. Title.

333.783099457

Cover: Yellow Gum Woodland, Mt Arapiles-Toosan State Park (Tooan  
block)  
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## FOREWORD

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These two areas are not widely known compared with parks like Port Campbell or Wilsons Promontory, but they have very high value for nature conservation, and they offer good opportunities for low-key recreation such as nature study, walking and camping. Their remoteness and lack of disturbance are also qualities that are increasingly valued today, especially in countries that do not have the spaciousness and relatively small population of Australia.

The Parks protect significant natural vegetation communities such as Clay Heath and Yellow Gum and Pink Gum Woodlands, and habitat for significant fauna such as Red-tailed Black-Cockatoos, Red-necked Wallabies, Bush Stone-Curlews, Swift Parrots, Painted Honeyeaters and Brush-tailed Phascogales.

Programs outside the Parks such as enhancing habitat will be encouraged. Parks should not be seen as isolated islands, separate from the surrounding area.

Under this Plan, most of Dergholm State Park and the Tooan Block of Mt Arapiles-Tooan State Park will be managed to protect sensitive natural environments and provide for minimal impact recreation activities and simple visitor facilities. Appropriate fire regimes will be determined and adopted.

Camping, picnic and walking areas at Bailey's Rocks in Dergholm State Park will be upgraded, scenic drives developed, and information for visitors provided. Visitor facilities will not be provided in the Tooan block, but walking and nature study are appropriate activities there. (There are already visitor facilities in the popular Mt Arapiles section of the Park, which has a separate Management Plan.)

These Parks protect important parts of Victoria's natural and cultural heritage. I look forward to the community's support in looking after them for the future.

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

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## APPROVED MANAGEMENT PLAN

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

The Plan provides the basis for the future management of Dergholm State Park and the Tooan block of Mt Arapiles-Tooan State Park. It was finalised following consideration of the 12 submissions received on the Draft Plan.

Rod Gowans  
**A/Director**  
**National Parks**

Mark Stone  
**Chief Executive**  
**Parks Victoria**

**Note:**

The *Ngootyoong Gunditj Ngootyoong Mara South West Management Plan* May 2015 was released on 25th May 2015 and covers the Dergholm State Park. That plan replaces any part of this plan relevant to Dergholm State Park. This plan remains the current basis for management of the Tooan block of Mt Arapiles -Tooan State Park only.

Pages 9 to 29 which are relevant only to Dergholm State Park have been removed from this document.

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## SUMMARY

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Dergholm State Park (10 400 ha) and the Tooan block (3 550 ha) of Mt Arapiles-Tooan State Park protect important landforms of the Wannon and Wimmera regions. The Parks are important for their unique and highly diverse vegetation communities supporting a range of significant fauna species. Two nationally significant vegetation communities occur in Dergholm State Park. Both Parks represent some of the most intact and last remaining vegetation communities within the regions.

The Parks are isolated from major population centres but are natural settings for semi-remote recreation opportunities. Activities in Dergholm State Park include walking, picnicking, nature study, camping and orienteering, with visitor facilities at Bailey's Rocks.

The Tooan block of the Mt Arapiles-Tooan State Park is primarily managed for the protection of its natural values, hence recreation opportunities are limited. The Mt Arapiles block is the visitor focus for the Park because of the internationally renowned rock climbing opportunities there. (Mt Arapiles already has a Management Plan.)

Significant management directions for the Parks are summarised below.

- Bailey's Rocks visitor area in Dergholm State Park will be maintained and new information and interpretation facilities will be provided.
- Testing for Cinnamon Fungus in Dergholm State Park will be undertaken.
- Flora and fauna surveys will be encouraged in the Tooan block of Mt Arapiles-Tooan State Park.
- Habitat links between the blocks in each Park will continue to be encouraged.
- Tracks in both Parks will be protected from inappropriate uses.

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*The Ngootyoong Gunditj Ngootyoong Mara South West Management Plan May 2015 was released on 25th May 2015 and covers the Dergholm State Park. That plan replaces any part of this plan relevant to Dergholm State Park. This plan remains the current basis for management of the Tooan block of Mt Arapiles-Tooan State Park only. Pages 9 to 29 which are relevant only to Dergholm State Park have been removed from this document.*

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**MT ARAPILES-TOOAN STATE PARK (TOOAN  
BLOCK)**

**INTRODUCTION  
AND  
STRATEGIC DIRECTIONS**

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# 1 INTRODUCTION

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This Plan covers both Dergholm State Park and the Tooan block of Mt Arapiles-Tooan State Park. The Parks have been considered together in the planning process, particularly in relation to regional issues, but a number of management aims and actions are specific to each Park. This is reflected in the plan format: Sections 1 and 2 deal with both Parks together, and then the document is divided into separate sections dealing with each Park.

There is a separate Management Plan for the Mt Arapiles block of the Mt Arapiles-Tooan State Park (DCE 1991).

## 1.1 Location and planning area

Dergholm State Park (10 400 ha) is located to the north and north-east of Dergholm and Casterton in western Victoria, about 390 km from Melbourne (figure 1). It consists of two blocks, the Youpayang block in the east and the Bogalara block in the west. The blocks are separated by the Glenelg River and private land.

Mt Arapiles-Tooan State Park (5 061 ha) is in the Wimmera about 80 km north-east of Dergholm State Park, 46 km west of Horsham and 340 km north-west of Melbourne (figure 1). This Park is also in two blocks, Mt Arapiles (including Mitre Rock) and the Tooan block.

This plan covers:

- Youpayang and Bogalara blocks of Dergholm State Park (10 400 ha);
- the Tooan block (3 550 ha) of Mt Arapiles-Tooan State Park (5 061 ha), including the Tooan Reference Area (430 ha).

## 1.2 Regional context

Dergholm State Park, although isolated from major populated centres, is centrally located in relation to a number of towns, parks and tourist routes in south-west Victoria (figure 1).

Bailey's Rocks in the Bogalara block is the most visited area in the Park, although overall visitor numbers are low. The Park supports

significant natural environments of the Wannon region.

A network of roads and tracks provides opportunities for low-key activities. Major activities are based on natural attributes such as walking, sight-seeing, camping, orienteering and nature study.

The Bogalara block is surrounded almost entirely by freehold land used for cropping and sheep grazing. The Youpayang block has a variety of surrounding land tenures including State forest on the eastern boundary, the Glenelg River along small sections of the western boundary and freehold for the remainder, in which cropping and sheep grazing are the major uses (figure 2).

Other public land in the region is mostly State forest with relatively low opportunities for recreation and tourism.

Dergholm State Park and the Tooan block of Mt Arapiles-Tooan State Park have different visitor use and management requirements.

Mt Arapiles-Tooan State Park is at the western edge of the Wimmera. The Mt Arapiles block is world famous for its rock climbing opportunities and therefore receives the majority of visitors to the Park. Tooan block on the other hand has few visitors but has significant natural values. Visitor use is mostly restricted to nature study, with some driving and walking.

The block is bordered by farmland with uncommitted Crown land to the west and south. The Wimmera Highway adjoins the south-eastern corner and the St Mary's Lake Reserve adjoins the eastern side (figure 3).

Other parks and reserves in the region include Grampians National Park, Black Range State Park, Little Desert National Park and Lower Glenelg National Park, all providing semi-remote tourism and recreation opportunities.

## 1.3 Significance of the Parks

Dergholm State Park and the Tooan block of Mt Arapiles-Tooan State Park make a valuable contribution to Victoria's parks system, which

aims to protect viable representative samples of the State's natural environments occurring on public land. The Parks also provide opportunities for visitors to enjoy and appreciate natural and cultural values.

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

Significant features of the Parks are summarised below.

### **Natural values**

#### **Dergholm State Park**

- Significant vegetation communities including Swampy Riparian, Clay Heath, Yellow Gum and Pink Gum Woodlands.
- Important fauna habitat for a range of threatened fauna such as the Red-tailed Black-Cockatoo, as well as numerous regionally significant species.
- Spectacular wildflower displays.

#### **Tooan block**

- Important fauna habitat for a range of threatened fauna such as the Malleefowl.
- Relatively intact and weed-free habitats with minimal threats from recreation and other uses.
- One of the few blocks of public land in the South-West Wimmera supporting woodland tree species and intact and interesting drainage lines.

### **Cultural values**

#### **Dergholm State Park**

- Sites of interest associated with European history, including Bailey's Rocks.

#### **Tooan block**

- Significant Aboriginal archaeological sites in the Tooan block.

### **Tourism and recreation values**

#### **Dergholm State Park**

- Opportunities to experience nature-based recreation activities such as walking, picnicking and camping.
- A focus for orienteering events for Victorians and South Australians.

#### **Tooan block**

- Excellent opportunities for nature appreciation, because of its intact and diverse habitats.

## **1.4 Creation of the Parks**

Following the LCC South-Western Area District 1 Review Final Recommendations (LCC 1983), Dergholm State Park was included on Schedule Two B of the National Parks Act and proclaimed on 23 September 1992 under the *National Parks (Amendment) Act 1989* (Vic.).

Following the LCC South-Western Area District 2 Final Recommendations (LCC 1982), the Tooan block, as part of the Mt Arapiles-Tooan State Park, was included on Schedule 3 (Other Parks) and proclaimed on 17 December 1987 under the *National Parks (Amendment) Act 1987* (Vic.) and transferred to the new Schedule Two B (State Parks) in 1989.

## **1.5 Legislation and guidelines**

Dergholm State Park and Mt Arapiles-Tooan State Park are reserved and managed under the National Parks Act. The Act requires the Director to preserve the natural condition of the Parks and their natural and other features and, subject to this, to provide for the use of the Parks by the public for enjoyment, recreation and education. The Act also provides for appropriate research.

The Tooan Reference Area is proclaimed under the provisions of the *Reference Areas Act 1978* (Vic.) and managed in accordance with Ministerial directives and the relevant guideline. Within this area, which form a reference for comparative study purposes, natural processes are to be allowed to continue undisturbed.

Recommendations of the former Land Conservation Council (LCC 1982; 1983) relating to the Parks include providing for recreational and educational experiences associated with enjoying and understanding the natural environment. A recommendation in relation to both Parks was to provide for apiculture.

The Parks are managed in accordance with park guidelines for the management of parks and LCC recommendations and other plans and guidelines, including:

- Portland Region Fire Protection Plan (CFL 1989a)
- Horsham Region Fire Protection Plan (CFL 1989b)
- Code of Practice for Fire Management on Public Land (CNR 1995a).

## 1.6 Park management aims

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

### Resource conservation

- Preserve and protect the natural environment.
- Allow natural environmental processes to continue with the minimum of disturbance, and maintain biodiversity.

- Conserve features of archaeological, historical and cultural significance.

### Park protection

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

### The Park visit

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

### Other

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

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## 2 STRATEGIC DIRECTIONS

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### 2.1 Park vision

#### Dergholm State Park

A future visitor to Dergholm State Park will see a natural and undisturbed environment with habitats not protected elsewhere in the region. The Park is well known for its significant natural values and semi-remote visitor experiences. A number of recreation activities are encouraged, and structures are in keeping with a semi-remote atmosphere. Popular activities include nature study, sight-seeing, camping and walking. Bailey's Rocks is the major visitor focus, having recreation, interpretation and information facilities. The Park is increasingly valued as a nature-based location for recreation and tourism activities which do not detract from its isolated atmosphere.

#### Toosan block

A future visitor to the Toosan block of Mt Arapiles-Toosan State Park finds a remote and significant component of Victoria's park system, particularly representing a relatively undisturbed Wimmera land system. The unusually diverse environments show little disturbance from visitor use, fire or pest plants and animals, and the Park is prized for its diverse habitats. Promotion of the block is minimal, although visitors to the popular Mt Arapiles block are aware of Toosan's role in the Park in protecting high conservation values. Visitor numbers are low and there are no visitor facilities; the main visitor use is nature-study and walking. There is a sense of ownership of the Park by the local community, which has a continuing role in its management.

### 2.2 Management directions

Future visitors will view the Parks as having independent identities; they are separated geographically and the experiences each offers are unique. Management directions are specific to each Park although some regional issues are related.

Major management directions for the Parks are outlined below.

#### Resource conservation

##### Dergholm State Park

- Emphasis will be given to managing the diversity of vegetation communities with active and achievable weed control and the application of appropriate fire regimes.
- Fauna surveys will be undertaken to provide baseline data.
- Protection of vegetation communities will be achieved by closing and rehabilitating a number of tracks.
- Support will be given to programs outside the Park that complement park management, such as protection of Red-tailed Black-Cockatoos and pest plant and animal control.

##### Toosan block

- Emphasis will be given to managing the diversity of vegetation communities with active and achievable weed control and the application of appropriate fire regimes.
- Flora and fauna surveys will be encouraged to provide baseline data, in particular the monitoring of Malleefowl.
- Programs outside the block that complement aspects of park management such as protection of Red-tailed Black-Cockatoos, habitat retention and pest plant and animal control will be supported.

#### Park protection

##### Dergholm State Park

- The current fire management plans will be modified to ensure that ecological requirements, particularly of heath vegetation, are taken into account.
- The presence or otherwise of Cinnamon Fungus will be investigated.

- Control of pine, Blackberry, Coast Wattle and other localised weeds will be given priority.
- Rocky Creek will be monitored and protected from visitor use and other potential impacts.

#### **Tooan block**

- The current fire management plan will be modified to ensure that ecological requirements are taken into account.

### **The Park visit**

#### **Dergholm State Park**

- The design of the visitor area at Bailey's Rocks will be reviewed, and camping and picnic facilities will be maintained.
- Interpretation facilities at Bailey's Rocks, and improved information signage, will be provided.
- Opportunities for scenic driving will be provided.

#### **Tooan block**

- Improved information signage will be provided.

## **2.3 Zoning**

A park management zoning scheme has been developed for each Park to:

- provide a geographic framework in which to manage the Parks;

- indicate which management directions have priority in different parts of the Parks;
- indicate the types and levels of use appropriate throughout the Parks;
- assist in minimising existing and potential conflicts between uses and activities, or between those and the protection of park values; and
- provide a basis for assessing the suitability of future activities and development proposals.

Two management zones apply to the Dergholm State Park: Conservation, and Conservation and Recreation.

These zones are described in table 1, and figure 2 shows their location.

Two management zones apply to Mt Arapiles-Tooan State Park (Tooan block): Conservation and Reference Area. In addition, a special protection area overlay is used to indicate management requirements additional to underlying management zones.

The zones and overlay in the Tooan block are described in table 2, and figure 3 shows their location.

**TABLE 1 PARK MANAGEMENT ZONES - DERGHOLM STATE PARK**

	MANAGEMENT ZONES	
	CONSERVATION AND RECREATION	CONSERVATION
AREA/LOCATION	Bailey's Rocks and surrounding area, Bogalara block (figure 2). 250 ha, 2.5 % of the Park.	Remainder of Bogalara block and all of Youpayang block. 10 150 ha, 97.5 % of the Park.
VALUES	Areas of sensitive environments or less sensitive natural environments supporting a range of geological, cultural and recreation values.	Broad areas of very high natural values with minimal disturbance from recreation.
GENERAL MANAGEMENT AIM	Protect less sensitive natural environments, and provide for sustainable dispersed recreation activities and small-scale recreation facilities without significant impact on natural processes.	Protect sensitive natural environments, and provide for minimal impact recreation activities and simple visitor facilities subject to ensuring minimal interference to natural processes.

**TABLE 2 PARK MANAGEMENT ZONES AND OVERLAY - TOOAN BLOCK**

	MANAGEMENT ZONES		OVERLAY
	CONSERVATION	REFERENCE AREA	SPECIAL PROTECTION AREA
AREA/LOCATION	Majority of the Park. 3 120 ha, 88 % of the block.	Tooan Reference Area. 430 ha, 12 % of the block.	Area detailed in figure 3.
VALUES	Large areas of sensitive and important vegetation communities and diverse habitats.	Relatively undisturbed land types and associated vegetation, representative of ridges and flats of the Wimmera plain.	A number of Malleefowl nests within the Special Protection Area.
GENERAL MANAGEMENT AIM	Protect sensitive natural environments and provide for minimal impact recreation activities and simple visitor facilities, subject to ensuring minimal interference to natural processes.	Protect viable samples of one or more land types that are relatively undisturbed for comparative study with similar land types elsewhere, by keeping all human interference to the essential minimum and ensuring as far as practicable that the only long-term change results from natural processes.	Protect specific natural or cultural values in specific areas and sites where a special management focus is required.

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**MT ARAPILES-TOOAN STATE PARK**

**(TOOAN BLOCK)**

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## 9 RESOURCE CONSERVATION

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### 9.1 Geological and landform features

The Tooan block consists of West Wimmera Plains and Lowan Dunefields. The block is characterised by a low irregular undulating plain with pronounced ridges and occasional dunes dominated by fine white sands.

The Tooan block has a number of subtle landform features, including naturally functioning intermittent drainage lines in intact condition, and low undulating dunes. Soil conservation is critical in these landforms (section 10.3).

#### Aim

- Protect areas of geological and geomorphological interest.

#### Management strategy

- *Monitor and minimise the impact of visitors on geomorphological features, especially intermittent stream systems.*

### 9.2 Vegetation

The Tooan block is floristically unusual in that it supports significant intact remnants of the woodland vegetation of more fertile soils (LCC 1982) that have been largely cleared elsewhere for agriculture.

There has been little detailed flora survey in Tooan, except for Beaglehole (1984) and a number of local naturalists who have collected species records. There are therefore a number of species lists and specimen collections for the block, but an up-to-date species list is yet to be collated. A range of sources including NRE database (1997b), Beaglehole (1984) and unpublished data (Rogers et al.) indicate that 11 species considered rare or threatened (appendix 2) occur, three of these listed under the Flora and Fauna Guarantee Act (appendix 2). A further 19 species considered regionally significant in the Wannon Natural Region are found in the block (Conn 1993).

The Kamarooka Mallee and Thorny Bitter-pea, which are rare in Victoria and Australia, (Gullan et al. 1990) are of national significance.

The block has a very diverse range of vegetation communities, including Red Gum Grassy Woodland, Yellow Gum Grassy Woodland, Casuarina Grassy Woodland, Brown Stringybark Heathy Woodland, Mallee (including a small patch of Rough Porcupine Grass), Broombush, Heathland and Wetland. The stands of grassy woodlands on more fertile soils are among the most important remaining stands in the State (other major stands occur in the Black Range and Little Desert, with lesser but important stands at the Grampians, Dergholm and a number of small reserves). Adding to the block's significance is the number of naturally functioning intermittent drainage lines, features which are very poorly reserved in Victoria.

The Tooan block is separated from the Mt Arapiles block by cleared private land. However, a major community-based program in co-operation with Parks Victoria has been developing a habitat link between the blocks. The Tooan block is also an important link in the discontinuous habitat between the Little Desert, Jilpanger Flora and Fauna Reserve and areas to the south.

Fire management is an important aspect of the protection and enhancement of significant vegetation communities within the block (section 10.1).

#### Aims

- Conserve native plant communities in their natural condition, and maintain and enhance habitat diversity.
- Improve knowledge of the Park's flora and requirements for management.

#### Management strategies

- *Manage Flora and Fauna Guarantee listed species and communities according to approved Action Statements.*

- *Encourage a survey of the Park's flora and production of an Ecological Vegetation Class map. Encourage tertiary students to undertake these activities.*
- *Continue to support the community-based program to develop a habitat link with the Mt Arapiles block and encourage the maintenance of existing habitat connections between Little Desert National Park and Jilpanger Flora and Fauna Reserve.*

### 9.3 Fauna

There has been little fauna survey within the block other than a brief survey by Emison et al. (1978). Significant species are listed in appendix 3. However, detailed bird lists have been kept by local naturalists (R. Sutherland, pers. comm.).

A single breeding pair of Malleefowl, a species listed under the Flora and Fauna Guarantee Act and considered endangered in Victoria (NRE 1998), still occurs in the block, but their level of breeding success is unknown (research in both Victoria and New South Wales has found poor breeding success in nearly all small populations). Habitat corridors are important, particularly for movement between Tooan and areas outside and to the north of the block where other pairs are known to occur.

The Flora and Fauna Guarantee listed Red-tailed Black-Cockatoo, considered endangered in Australia, occasionally uses the area. A number of fauna species typical of Mallee habitats reach the southern limit of their range in Victoria in Tooan, including the Southern Scrub-robin, Variegated Fairy-wren, Gilbert's Whistler and White-fronted Honeyeater (LCC 1982) (appendix 3).

Other significant fauna known to be present are the Bush Stone-curlew, which requires woodland habitat with fallen timber and litter, and Latham's Snipe, which appears to use the intermittent wetlands in the block as a staging area during its migratory flights from Japan to southern Victoria and Tasmania (J. McQueen, pers. comm.), Painted Honeyeater (woodlands with mistletoe) and the Silky Mouse. Significant species likely to be present include

the Swift Parrot (woodlands) and Brush-tailed Phascogale. The diversity of environments and substrates suggests that an interesting reptile fauna is likely to be present.

The regionally significant Red-necked Wallaby is present in the Park; this species has declined considerably in western Victoria in the last few decades.

#### Aims

- Conserve native fauna and maintain the integrity of their habitats.
- Provide special protection for significant fauna.
- Protect genetic diversity of native populations and maintain habitat diversity.

#### Management strategies

- *Manage Flora and Fauna Guarantee listed species and communities according to approved Action Statements.*
- *Encourage survey of the Park's fauna.*
- *Continue to support programs to protect roosting and nesting sites for the Red-tailed Black-Cockatoo outside the block.*
- *Monitor populations of Red-tailed Black-Cockatoo as part of existing integrated programs such as Landcare and Land for Wildlife.*
- *Monitor Malleefowl pairs and nests and keep updated records of the species.*
- *Protect significant species such as Latham's Snipe, Bush Stone-curlew and the Malleefowl by maintaining an appropriate fire regime and managing visitor use (sections 10.1 and 11.2).*

### 9.4 Landscape

The Tooan block is relatively uniform in its topography but contains a wide range of important habitats. The landform consists of undulating dunefields with an extremely high diversity of vegetation communities which can be viewed along the tracks. Spectacular

wildflower displays are a special feature of the block.

#### **Aim**

- Protect and preserve the landscape values of the Park in areas of scenic quality and visitor interest.

#### **Management strategy**

- *Minimise the visual impact of management activities and authorised uses.*

### **9.5 Cultural heritage**

The Jardwadjali formed the language boundary covering a large area west of the Grampians. The nearest known clan location to the Tooan block was Djurid balug, or ‘Choorite balug’, (Clark 1990) which literally means ‘Mt Arapiles people’. In historical records, however, the Tooan area was not mentioned in connection with Aborigines (Edmonds 1992). The Goolum Goolum Aboriginal Co-operative is the relevant authority for Aboriginal cultural heritage.

A number of archaeological surveys have been undertaken in Mt Arapiles-Tooan State Park. The most comprehensive of these is Edmonds (1992) in which three sites were located in the Tooan unit: a scarred tree, surface scatter and an isolated artefact. These sites are also listed on the Aboriginal Affairs Victoria archaeological register (AAV 1997). Of these sites the extensive surface scatter near the entrance of the Park has major management implications, particularly in relation to potential disturbance from vehicles. Management actions recommended by Edmonds have been undertaken, such as the closure of an entrance track. Mt Arapiles is considered the more archaeologically sensitive of the two blocks. However, the Holocene dunes and sandsheets at Tooan may also be archaeologically sensitive, particularly near water (Edmonds 1992).

All Aboriginal material and sites are protected under the Archaeological and Aboriginal Relics Preservation Act and the Aboriginal and Torres Strait Islanders Heritage Protection Act. An application for a native title determination was lodged with the Native Title Tribunal in 1997,

covering, among other areas, Mt Arapiles-Tooan State Park.

European association of the area is better documented. Major Thomas Mitchell passed through the block in 1836 on the ‘Australia Felix’ expedition (DCE 1990). Settlement occurred near Tooan from 1845 with the taking up of the St Mary’s Lake run (Edmonds 1992). From this time grazing and timber harvesting occurred in the Tooan block until grazing was discontinued in about 1959. A shepherd’s hut from this time is in the block and appears to be in excellent condition.

No sites of historical significance were identified in Tooan by the former LCC in its South Western Historic Places Investigation (LCC 1997).

#### **Aim**

- Conserve features of archaeological, historical and cultural significance.

#### **Management strategies**

- *Identify, assess, protect, interpret, manage and monitor Aboriginal sites in accordance with Parks Victoria guidelines and Edmonds (1992) as appropriate, and in consultation with the Goolum Goolum Aboriginal Co-operative community and Aboriginal Affairs Victoria. Ensure that management works do not adversely affect sites.*
- *Conserve features of historic and cultural significance.*
- *Liaise with relevant experts regarding any assessments and conservation works on European historic places, including the shepherd’s hut, and undertake any works in accordance with the Parks Victoria guidelines.*

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## 10 PARK PROTECTION

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### 10.1 Fire management

The National Parks Act requires the Director of National Parks to ensure that appropriate and sufficient measures are taken to protect parks and humans from injury by fire. Current fire protection measures are in accordance with the Department's Code of Practice for Fire Management on Public Land (CNR 1995a) and with the (former) Horsham Region Fire Protection Plan (CFL 1989b). This plan includes provision for the maintenance of the Park's system of fire protection tracks and liaison with private landholders for the common purpose of fire management within the Park and on adjacent land.

Parts of the block have been burnt frequently in the past when it was grazed (J. McQueen, pers. comm.) but no major wildfires have occurred in the Park for some time, although there have been small areas of fuel reduction burning (P. Hawker, pers. comm.). Grazier burning was concentrated in mallee and heathy woodland habitats, while the grassy woodlands were rarely burnt as they seldom carry a fire (J. McQueen, pers. comm.).

There is no burning program for the block at present, although one is being developed. Much of the block has not been burnt for at least 30 years and can be considered old-growth in these vegetation types. Such long unburnt areas are now uncommon and they provide important habitat values for a range of fauna (Meredith 1983), including the Malleefowl. The absence of recent fire is one of the values of the block.

Burning frequencies of eight years or less can be expected to cause ecological change in heathy and mallee communities. The preferred frequency range for ecological management is 12-25 years, with a range of fire ages present at any one time over the whole Park. Wetlands do not need intentional burning. Red Gum/Yellow Gum Woodlands will not often carry a fire and do not require ecological burning; fires caused by a high fuel load of introduced grasses can occur and can be damaging to these woodlands.

Given the highly complex patterning of vegetation in the block, the presence of large areas of natural fire breaks (grassy woodlands) and moderate flammability areas (wetlands, broombush), a major fuel reduction burning program is not recommended. However, it is important that the whole block does not burn at once (particularly for fauna conservation), so fire planning should aim both to ensure the protection of surrounding land and to minimise the potential for the whole area to burn while still maintaining old growth values.

Autumn burning will usually lead to more rapid regeneration, because it avoids the dry summer period, and is safer in terms of risks of re-lights.

#### Aims

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

#### Management strategies

- *Manage fire in accordance with the Horsham Region Fire Protection Plan (CFL 1989b) and the Code of Practice (CNR 1995a).*
- *Develop an ecological burning program that maintains ecological values and makes contributions to fire protection of park and property.*
- *Ensure that vegetation types that do not have an ecological requirement for fire are not burnt.*
- *Ensure that the Reference Area is zone 5 (exclusion of prescribed burning) and that the remainder of the block is zone 4 (specific flora and fauna management) for fire management purposes.*

- *Where appropriate, use ecological burning to link vegetation types of low flammability.*
- *To prevent the spread of pathogens, ensure that appropriate hygiene strategies are implemented.*
- *Ensure that the movement of earth moving machinery for fire protection and other works is adequately supervised.*
- *Rehabilitate areas following fire as soon as possible.*
- *Avoid using earth-moving machinery in the Reference Area.*
- *Slash along boundary tracks to enable their use as fire breaks and to prevent the duplication of tracks (section 11.2.1).*
- *Close and revegetate the fire break parallel to Fenceline Track.*

## 10.2 Pest plants and animals and diseases

The Park has remarkably low numbers of pest plants (approximately 30 recorded — unpublished data from Rogers et al.), in part because of the infertility of the sandy soils. There are no significant pest plant issues in the sandy areas. The most threatening pest plants are Cape Tulip, Stinkwort, Bridal Creeper (Smilax), various thistles, Horehound and African Daisy.

The more fertile soils of the grassy woodlands support higher numbers of weeds, mostly wind-dispersed grasses for which control is generally not feasible, although minimising disturbance will reduce their spread. Infestations of Veldt Grass occur around the boundaries and should be a priority for control, but the areas of grassy woodland that are internal to the block have much lower levels of introduced grasses. The key weed management issue in this block is to maintain these low-weed areas in good condition through minimising disturbance, including fire, and by spot control of weeds such as thistles as necessary.

The pest animal issues in the Park do not appear to be serious. Control measures should concentrate on foxes (which have the most severe impact on wildlife and which are likely to be the greatest threat to the survival of the Malleefowl in the block) and rabbits (where they are damaging park or surrounding land values). Current rabbit populations are not high, but if the calicivirus becomes established in the area it will present a critical opportunity to control this species through a follow-up program.

### Aims

- Eradicate, or otherwise control, introduced plants, animals and diseases.
- Protect the Park from other threats and diseases.
- Minimise the impact of control programs on native flora and fauna.

### Management strategies

- *Maintain areas of low weed infestation, especially in the internal grassy woodlands; minimise disturbance, including fire, and undertake spot control of localised weedy areas.*
- *Target the following priority weed species:*
  - *Cape Tulip;*
  - *Stinkwort;*
  - *Bridal Creeper;*
  - *thistles;*
  - *Horehound;*
  - *African Daisy;*
  - *Veldt Grass.*
- *Control and monitor new occurrences of pest plants before they have an opportunity to establish.*
- *Continue to control foxes, especially in relation to Malleefowl and Bush Stone-curlew breeding; control rabbits as necessary, and undertake follow-up control to enhance any effects of the Calicivirus on the population.*

- *Continue pest plant and animal control works in the Park which complement works on adjacent private land (section 12.2).*

### **10.3 Soil conservation**

Lowan Dunefields consist of windblown white dunes with uniform fine to medium sands and sandy yellow duplex types. The West Wimmera Plains consist of a low irregular undulating plain with pronounced ridges and occasional dunes with grey cracking clay, red duplex and sandy loam duplexes (WRLPWG 1993).

The sandy soils are generally susceptible to disturbance from vehicles and other activities, particularly during dry months. Access in areas with clay soils, such as Three Mile Swamp Track, is often closed during winter months (section 11.2.1). Drainage lines are also susceptible to disturbance in high rainfall.

#### **Aim**

- Prevent and control soil disturbance and erosion.

#### **Management strategies**

- *Monitor for erosion along sandy tracks and repair where necessary.*
- *Continue to restrict access to reduce the threat of soil erosion and damage (section 11.2.1).*

## 11 THE PARK VISIT

### 11.1 The Park visitor

The Tooan block of the Mt Arapiles-Tooan State Park offers visitors opportunities to enjoy activities including nature study and walking in a remote setting.

In contrast to the Mt Arapiles block (DCE 1991), visitor numbers are very low at approximately 250 people per year. Visitors are generally from the immediate region, including adjacent land owners and visitors to Mt Arapiles and Natimuk. In contrast to the Mt Arapiles block, it is unlikely that visitor numbers or recreational activities will increase, because of the Tooan block's relatively flat and uniform topography and the availability of a range of attractive alternative opportunities in the region.

The Park falls within Tourism Victoria's Grampians product region.

#### Providing for the visitor

The Park offers visitor experiences in a significant and highly natural setting. Visitor opportunities are limited because of the remoteness and topography. Visitor experience falls generally into one category: nature study and associated low-key activities, including walking.

There are no visitor services or facilities in the block although there are entrance signs and track signs throughout. High levels of recreational use are not considered appropriate in the block because of high natural and cultural values. However, promotion of the block's high conservation significance, particularly for nature study, is appropriate.

#### Aim

- Provide for visitors in accordance with the above overview of future management for visitors.

#### Management strategies

- *Permit recreational activities in accordance with table 6.*

- *Apply market survey findings on visitor profiles, patterns of behaviour, expectations and preferences to assist in park management.*
- *Encourage all visitors to adopt minimum impact techniques and to adhere to codes of conduct appropriate to their activity.*

### 11.2 Visitor recreation activities and facilities

#### 11.2.1 Vehicle access

The road plan in Tooan was developed in consultation with the community, including the Country Fire Authority. Some tracks were closed because they duplicated other tracks or fire breaks.

Localised flooding in the Park has recently caused wash-outs in drainage lines (such as the one crossing Triodia Track) as well as some minor erosion on other roads. Off-road motorbike use damages the fragile soils.

Use of tracks in clay areas during wet weather poses risks to visitors and causes damage to the tracks. Temporary closure has been applied to Three Mile Swamp Track.

The main access route into the block is along Worthy's Road near St Mary's Lake. There is no well-defined entrance to the block (figure 3).

#### Aim

- Maintain an appropriate road and track network for visitor use and management purposes.

#### Management strategies

- *Manage and permit use of the current road network in accordance with table 7 and figure 3, and monitor for localised erosion (section 10.3).*

**TABLE 6 SUMMARY OF RECREATIONAL ACTIVITIES**

ACTIVITY	CONSERVATION ZONE	REFERENCE AREA ZONE
Picnicking (no facilities)	Y	N
Walking	Y	N
Camping (no facilities)	Y	N
Bicycle riding	YC *	N
Horse riding	YC **	N
2WD - driving	YC*	N
4WD - touring	YC*	N
Orienteering	N	N
Rock climbing/Abseiling	N/A	N
Fishing	N/A	N
Fossicking	N	N
Hang gliding, paragliding	N/A	N
Firewood removal	N	N
Hunting	N	N
Dogs	N	N

Y	Yes	*	Permitted only on tracks open to the public vehicles
YC	Conditional		
N	Not appropriate	**	Permitted only on boundary tracks
N/A	Not applicable		

**TABLE 7 MANAGEMENT OF ROADS AND TRACKS**

ROAD OR TRACK NAME	CURRENT		COMMENTS*
	CLASS	STATUS	
Three Mile Swamp Track	2	O	Apply temporary road closure in wet weather as necessary.
Mallee Hill Track	3	O	
McRaes Track	2	O	
Gymbowen Track	2	O	
Tea Tree Track	3	MVO	Adjacent to Reference Area.
Fenceline Track	3	O	
Boundary Track	3	O	
Triodia Track	2	O	
Isaacson Road	2	O	Located partly within the Park, partly on road reserve, maintained by West Wimmera Shire.
Duffholme Road	2	O	Track is located within the Park, adjacent to road reserve.

\* Tracks to be maintained to their current class and status (unless otherwise stated)

2 = seasonal 2WD road (seasonal conditions may make impassable)      MVO = management vehicles and walkers only

3 = 4WD track

O = open to public vehicles

- *Permit bicycles on roads and tracks open to public vehicles (table 7 and figure 3).*
- *Permit horses only on tracks along the boundary (figure 3).*
- *Promote and enforce regulations regarding off-road motorbike use, and take additional action where necessary.*
- *Liaise with VicRoads and the West Wimmera Shire to improve signage to the Park, particularly from the Wimmera Highway.*
- *Liaise with the West Wimmera Shire to minimise impacts from road maintenance.*
- *Upgrade signage at the Park entrance (via Worthy's Road) to ensure that visitors experience a sense of arrival (section 11.3).*
- *Maintain Tea Tree Track as an MVO track to protect and buffer the Reference Area from fire and other activities. Ensure that the Country Fire Authority has access to this track when required for fire suppression purposes (section 10.1).*

### 11.2.2 Day visits, camping and walking

Minimal visitor use occurs in the Tooan block. The popular day visit and camping sites in the area are at Mt Arapiles and St Mary's Lake, which are adjacent to the Tooan block (figure 3). Walkers in the block are mainly natural historians and local land owners. There are no facilities such as campgrounds or walking tracks. The Park can sustain the current minimal level of use both on and off tracks.

Dogs are permitted at Centenary Park in the Mt Arapiles block. There is little demand for dog walking in the Tooan block.

#### Aim

- Maintain the limited range of low-key but unique recreation opportunities.

#### Management strategies

- *Permit recreation activities, in accordance with table 6.*
- *Allow, but do not encourage, dispersed camping and walking off track. Monitor impacts to the block's values. Do not permit dogs.*

### 11.3 Visitor information and interpretation

Park signs are located at every entrance point but there are very few signs on main roads and highways to the block. The block lacks a defined entrance point including road and direction signs (section 11.2.1).

Interpretation and information is limited and mainly focused on Mt Arapiles because of the high visitor numbers. A brochure for the Park highlights the importance of the Tooan block for nature conservation rather than recreation.

#### Aims

- Provide visitors with appropriate levels of quality information, orientation and interpretation to maximise knowledge of natural and cultural values of the Park.
- Encourage visitors to adopt minimum impact activities.

#### Management strategies

- *Provide adequate visitor orientation information at road access and entrance points (section 11.2.1).*
- *Continue to promote the Park's conservation values and the use of minimal impact techniques.*

### 11.4 Commercial tourism operations

No commercial tours operate within the Tooan block. The Park, and particularly the Mt Arapiles block, has opportunities to provide nature-based tourism and cultural tourism. However, use of the Tooan block will need to be carefully managed to protect its important and sensitive natural values.

### **Aim**

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

### **Management strategy**

- *Ensure that commercial tourism operations are consistent with park objectives, sustainable, and in accordance with Parks Victoria guidelines.*

## **11.5 Public safety**

Climate, lack of water and wildfire are potential hazards during drier times of the year.

### **Aim**

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

### **Management strategies**

- *Manage the Park in accordance with Parks Victoria risk mitigation and emergency management guidelines.*
- *Encourage visitors to seek information on activities they wish to undertake in the Park.*
- *Ensure that Park staff are trained in appropriate emergency techniques, and are able to assist in emergency situations.*

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## 12 COMMUNITY AWARENESS AND INVOLVEMENT

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### 12.1 Friends and volunteers

The Park has an important and prized volunteer resource assisting with park management. The Friends of Mt Arapiles-Tooan State Park assist in many important management activities such as the development of habitat links utilising roads between the two blocks (section 9.2). An Advisory Committee for the Park gives valuable advice on a range of management issues such as fire protection, recreation management (in relation to the Mt Arapiles block) and adjoining land issues. Members of the Committee are representatives from the local community.

#### Aim

- Encourage and maintain volunteer involvement in managing the Park.

#### Management strategy

- *Encourage and support the Advisory Committee and the Friends groups for the Park, and activities that enhance the Park's values.*

### 12.2 Community awareness and Park neighbours

There is strong local interest in the Park, mainly from local land owners and field naturalists. The adjoining land owners' main interests in the Park relate to the management

of fire and pest plants and animals, and nature conservation. There is an extensive historical knowledge of the Park within the local area and associations with early grazing runs. The Wimmera community is actively involved in Landcare activities throughout the region, including tree planting, protection of remnant vegetation, demonstration sites and pest plant and animal control.

#### Aims

- Increase public awareness of management activities undertaken in the Park.
- Encourage conservation and sound land management and recreation practices on private land adjoining the Park.

#### Management strategies

- *Continue to liaise with local groups and landholders, and as appropriate involve them in relevant aspects of planning and managing the block.*
- *Apply, and encourage the application of, the Good Neighbour Policy to management issues on or near the boundaries of the block (section 10.2).*

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## 13 OTHER ISSUES

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### 13.1 Authorised uses

Apiculture is permitted in the Park in accordance with the LCC recommendation (LCC 1982). There are five bee sites in the block. Two of these are adjacent to the Reference Area (figure 3). Ministerial directives for the management of Reference Areas require bee sites to be located at least 2 km from Reference Areas.

There are no other authorised uses within the block.

#### Aims

- Allow apiculture in accordance with LCC recommendations.
- Minimise the impact of apiculture on conservation and other park values.
- Minimise the impacts of the construction and maintenance of public utilities on the Park.

#### Management strategies

- *Continue to permit and manage use of three bee sites in the block in accordance with Parks Victoria guidelines.*
- *Finalise relocation of the two bee sites adjacent to the Reference Area to suitable alternative locations, in consultation with the Victorian Apiarists' Association and local apiarists.*
- *Maintain the block's natural and remote values by encouraging the location of any proposed public utilities outside the block.*
- *Ensure that any essential public utilities are covered by a section 27 consent and managed in accordance with Parks Victoria guidelines.*

### 13.2 Boundaries and adjacent uses

The Tooan and Mt Arapiles blocks are separated by approximately five kilometres of private land. Roads join the two blocks and revegetation of these roads is being undertaken

to provide a habitat link (section 9.2). The Park has patchy yet important habitat connections with Little Desert National Park in the north, and Jilpanger Flora and Fauna Reserve. This has implications for a range of significant species, including the Malleefowl (section 9.3).

Most of the adjacent land use is cropping; rabbits and fire management are the main issues for boundary management in these areas. Land use in the area is covered by a planning scheme administered by the West Wimmera Shire and the Rural City of Horsham. The block's boundaries are generally well fenced. The Wimmera Highway joins a section of the block's southern boundary. There are also areas of uncleared uncommitted Crown land adjoining the block, increasing its natural values.

There are a number of unused road reserves within the Park boundary. These are managed as part of the Park.

St Mary's Lake Reserve, managed by Parks Victoria, adjoins the eastern side of the block. This is a popular location for fishing, yabbying, camping, and to a lesser extent duck shooting and water skiing. Apart from the Mt Arapiles block, this site is the only visitor focus close to the block. If visitor use of this site increases, it may place pressure on the Park, particularly on the archaeological values of the area.

#### Aims

- Co-operate with adjoining landholders in the protection of the Park from fire, pests, visual threats, erosion and other hazards.
- Minimise conflicts between park values and surrounding land use.

#### Management strategies

- *Liaise with adjoining landholders in relation to fire and pest plant and animal management (section 10.2) and to minimise impacts on the Park's natural drainage lines (section 9.1).*

- *Liaise with local planning authorities and adjacent land owners to minimise adverse effects on park values of activities or developments proposed on adjacent land.*
- *Seek closure of unused road reserves and incorporation into the Park.*
- *Ensure that there are no adverse impacts on the block from increasing use of St Mary's Lake Reserve.*

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## 14 IMPLEMENTATION

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A three-year rolling implementation program will be prepared for the Parks to ensure efficient implementation of this Plan. Priorities for management are identified below in table 8 as an initial step in this process.

**TABLE 8 PRIORITY MANAGEMENT STRATEGIES**

MANAGEMENT STRATEGY	SECTION IN PLAN
<b>Resource conservation</b>	
Continue to support development of a habitat link between the two blocks	9.2
Conserve significant archaeological features	9.5
<b>Park protection</b>	
Adopt appropriate ecological fire regimes	10.1
Undertake spot control of weeds	10.2
Continue pest animal control (foxes and rabbits)	10.2
<b>The Park visit</b>	
Seek closure of unused road reserves and incorporation into the Park	13.2
Improve signage to and in the Park	11.2.1, 11.3
<b>Monitoring and research</b>	
Encourage flora and fauna surveys and production of a vegetation map	9.2, 9.3
Monitor Malleefowl pairs and nests	9.3

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**REFERENCES**


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- AAV 1997 Aboriginal Archaeological Register. Aboriginal Affairs Victoria, Department of Human Services, Victoria.
- Beaglehole, A. C. 1984 *The Distribution and Conservation of Vascular Plants in South West Victoria*. Western Victorian Field Naturalists Clubs Association, Portland.
- Carr, G.W. & Horsfall, P.F. 1995 'Studies in Phormiaceae (Liliaceae) 1: New Species and Combinations in *Dianella*'. *Muelleria* Vol. 8, No. 3, 365-378.
- Clark, I. D. 1990 *Aboriginal Languages and Clans: An Historical Atlas of Victoria, 1800 - 1900*. Monash Publications in Geography No 37. Department of Geography and Environmental Science, Monash University, Melbourne.
- CFL 1989a *Portland Region Fire Protection Plan*. Department of Conservation, Forests and Lands, Victoria.
- CFL 1989b *Horsham Region Fire Protection Plan*. Department of Conservation, Forests and Lands, Victoria.
- CNR 1995a *Code of Practice for Fire Management on Public Land*. Department of Conservation and Natural Resources, Victoria.
- CNR 1995b *Threatened fauna in Victoria - 1995*, Department of Conservation and Natural Resources, Victoria.
- Conn, B.J. 1993 'Natural Regions and Vegetation of Victoria' in *Flora of Victoria Volume 1 Introduction*, eds D.B. Foreman and N.G. Walsh, Inkata Press, Melbourne.
- DCE 1990 *The Major Mitchell Trail, Exploring Australia Felix*. Department of Conservation and Environment, Melbourne.
- DCE 1991 *Mt Arapiles - Tooan State Park: Mt Arapiles Management Unit Management Plan*. National Parks and Public Land Division, Horsham Region, Department of Conservation and Environment, Victoria.
- Edmonds, V. 1992 *Mt Arapiles-Tooan State Park Archaeological Survey. A report to the Goolum Goolum Aboriginal Co-operative Ltd.*
- Emison, W.B., Porter, J.W., Norris, K.C. & Apps, G.J. 1978 Survey of the vertebrate fauna of the Grampians-Edenhope area of southwestern Victoria. *Mem. Nat. Mus. Vict.* **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.
- Joseph, L., Emison, W.B. & Bren, W.M. 1991 'Critical Assessment of the Conservation Status of Red-tailed Black-Cockatoos in South eastern Australia with Special Reference to Nesting Requirements'. *EMU* Vol. 9, 46-50.
- LCC 1981 *Report on the South Western Area, District 1 - Review*. Land Conservation Council, Melbourne.
- LCC 1982 *Final Recommendations South Western Area District 2*. Land Conservation Council, Melbourne.
- LCC 1983 *Final Recommendations South Western Area District 1 - Review*. Land Conservation Council, Melbourne.
- LCC 1996 *Historic Places Special Investigation South Western Victoria Descriptive Report*. Land Conservation Council, Victoria.
- LCC 1997 *Historic Places Special Investigation South Western Victoria Final Recommendations*. Land Conservation Council, Victoria.
- Meredith, C. W. 1983 Fire and birds - the results of two studies and their relevance to fuel-reduction burning, in E H M Ealey, ed., 'Fighting fire with Fire - a Symposium on Fuel-reduction Burning'. Monash University, Melbourne.

NPS 1995 *National Parks and Conservation Reserves Guidelines and Procedures Manual*. Department of Conservation and Natural Resources, Victoria.

NRE 1998 *Threatened Vertebrate Fauna in Victoria - 1998*. Department of Natural Resources and Environment, Victoria.

NRE database 1998a Atlas of Victorian Wildlife. Department of Natural Resources and Environment, Victoria.

NRE database 1998b Flora Information System. Flora Section, Arthur Rylah Institute, Department of Natural Resources and Environment, Victoria.

Rankin, D. J. W. 1997 *Flora Survey of the Dergholm State Park South West Victoria*. Flora Section, Department of Conservation and Natural Resources, Victoria.

Rogers F.J.C., Sutherland Dr. R.M. & Paterson, G. (unpublished data) Botanical field surveys and collections. Specimens held at Parks Victoria office, Natimuk.

WRLPWG 1993 Wimmera Regional Landcare Plan. Wimmera Regional Landcare Plan Working Group.

**Personal communications**

S. Ransome, Environment Conservation Council, Melbourne.

J. McQueen, local land owner, Natimuk.

Dr. R. Sutherland, local land owner, Tooan.

P. Hawker, Parks Victoria, Natimuk.

Dr. C. Meredith, Biosis Research, Melbourne.

## APPENDIX 1 SIGNIFICANT FLORA - DERGHOLM STATE PARK

SCIENTIFIC NAME	COMMON NAME	STATUS
<b>Rare and threatened species</b>		
<i>Allocasuarina luehmannii</i>	Buloke	d
<i>Dianella callicarpa</i>	Swamp Flax-lily	v
<i>Glycine latrobeana</i>	Clover Glycine	V v, L
<i>Hibbertia humifusa</i> ssp. <i>debilis</i>	Grampians Guinea-flower	R r
<i>Hibbertia sessiliflora</i>	Heathy Guinea-flower	r
<i>Pomaderris halmaturina</i> ssp. <i>continentis</i>	Glenelg Pomaderris	v
<i>Ptilotus erubescens</i>	Hairy-tails	e
<b>Regionally significant species</b>		
<i>Adiantum aethiopicum</i>	Common Maidenhair	
<i>Ajuga australis</i>	Austral Bugle	
<i>Allocasuarina misera</i>	Slender Sheoke	
<i>Allocasuarina verticillata</i>	Drooping Sheoke	
<i>Asplenium flabellifolium</i>	Necklace Fern	
<i>Banksia ornata</i>	Desert Banksia	
<i>Baumea arthropphylla</i>	Fine Twig-sedge	
<i>Baumea tetragona</i>	Square Twig-sedge	
<i>Blechnum minus</i>	Soft Water-fern	
<i>Boronia coerulescens</i> ssp. <i>coerulescens</i>	Blue Boronia	
<i>Caladenia carnea</i> s.s	Pink Fingers Caladenia	
<i>Caladenia menziesii</i>	Hare Orchid	
<i>Centrolepis fascicularis</i>	Tufted Centrolepis	
<i>Cheilanthes austrotenuifolia</i>	Green Rock Fern	
<i>Conospermum mitchellii</i>	Victorian Smoke-bush	
<i>Corybas diemenicus</i>	Veined Helmet-orchid	
<i>Cyperus lucidus</i>	Leafy Flat-sedge	
<i>Danthonia penicillata</i>	Slender Wallaby-grass	
<i>Daviesia ulicifolia</i>	Gorse Bitter-pea	
<i>Derwentia derwentiana</i>	Derwent Speedwell	
<i>Dillwynia hispida</i>	Red Parrot-pea	
<i>Diuris pardina</i>	Panther Orchid	
<i>Echinopogon ovatus</i>	Common Hedgehog-grass	
<i>Eleocharis gracilis</i>	Slender Spike-edge	
<i>Enneapogon nigricans</i>	Nigger-heads	
<i>Eriochilus cucullatus</i>	Parson's Bands	
<i>Eucalyptus fasciculosa</i>	Pink Gum	
<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>	Manna Gum	
<i>Euchiton involucratus</i> s.s.	Star Cudweed	
<i>Galium australe</i>	Tangled Bedstraw	
<i>Galium binifolium</i>	Reflexed Bedstraw	

## Appendix 1 (cont.)

SCIENTIFIC NAME	COMMON NAME	STATUS
<i>Geranium potentilloides</i>	Cinquefoil Cranesbill	
<i>Gleichenia microphylla</i>	Scrambling Coral-fern	
<i>Gratiola pedunculata</i>	Stalked Brooklime	
<i>Grevillea lavandulacea</i> var. <i>lavandulacea</i>	Lavender Grevillea	
<i>Hardenbergia violacea</i>	Purple Coral-pea	
<i>Hibbertia virgata</i> var. <i>crassifolia</i>	Twiggy Guinea -flower	
<i>Hydrocotyle capillaris</i>	Thread Pennywort	
<i>Hymenophyllum rarum</i>	Narrow Filmy Fern	
<i>Indigofera australis</i>	Austral Indigo	
<i>Ixodia achillaeoides</i> ssp. <i>alata</i>	Ixodia	
<i>Lagenifera gracilis</i>	Slender Lagenifera	
<i>Lepidosperma laterale</i>	Variable Sword-sedge	
<i>Menkea australis</i>	Fairy Spectacles	
<i>Microtis arenaria</i>	Sand Onion-orchid	
<i>Mitrasacme distylis</i>	Tiny Mitrewort	
<i>Muellerina eucalyptoides</i>	Creeping Mistletoe	
<i>Myriophyllum amphibium</i>	Broad Milfoil	
<i>Parietaria debilis</i>	Shade Pellitory	
<i>Phylloglossum drummondii</i>	Piggy Clubmoss	
<i>Plantago debilis</i>	Shade Plantain	
<i>Poa labillardieri</i> var. <i>labillardieri</i>	Common Tussock-grass	
<i>Psoralea adscendens</i>	Mountain Psoralea	
<i>Pterostylis pedunculata</i>	Maroon-hood	
<i>Sambucus gaudichaudiana</i>	White Elderberry	
<i>Scleranthus diander</i>	Tufted Diander	
<i>Senecio biserratus</i>	Jagged Fireweed	
<i>Sphaerolobium minus</i>	Globe-pea	
<i>Stellaria pungens</i>	Prickly Starwort	
<i>Xanthorrhoea caespitosa</i>	Yacca	

Sources: Rankin (1997), Beaglehole (1984), NRE database (1998b).

Status after Gullan et al. (1990) & Carr and Horsfall (1995):

Australia

R rare

V vulnerable

Victoria

d depleted

e endangered

L listed under the Flora and Fauna Guarantee Act

r rare

v vulnerable

Regional significance from NRE database (1998b)

- species occurring in less than 1% of the records in the Wannon Natural Region (Conn 1993) and Beaglehole (1984)

## APPENDIX 2 SIGNIFICANT FLORA - TOOAN BLOCK

SCIENTIFIC NAME	COMMON NAME	STATUS
<b>Rare and threatened species</b>		
<i>Acacia rupicola</i>	Rock Wattle	r
<i>Agrostis billarieri</i> var. <i>filifolia</i>	Coast Blown Grass	v
<i>Comesperma polygaloides</i>	Small Milkwort	v, L
<i>Daviesia pectinata</i>	Thorny Bitter-pea	R r
<i>Eucalyptus phenax</i>	Kangaroo Island Mallee	r
<i>Eucalyptus froggattii</i>	Kamarooka Mallee	R r, L
<i>Ptilotus erubescens</i>	Hairy-tails	e, L
<i>Senecio hypoleucus</i>	Pale Fireweed	r
<i>Stipa setacea</i>	Corkscrew Spear-grass	r
<i>Triglochin minutissimum</i>	Tiny Arrow-grass	r
<i>Zieria veronicaea</i>	Pink Zieria	r
<b>Regionally significant species</b>		
<i>Brachyscome perpusilla</i>	Rayless Daisy	
<i>Baeckea behrii</i>	Broom Baeckea	
<i>Caladenia dilata</i> spp. agg.	Green-comb Spider-orchid	
<i>Danthonia auriculatum</i>	Lobed Wallaby-grass	
<i>D. linkii</i>	Leafy Wallaby-grass	
<i>Eremophila gibbifolia</i>	Coccid Emu-bush	
<i>Eucalyptus behriana</i>	Bull Mallee	
<i>E. goniocalyx</i> s.s.	Long-leaf Box	
<i>E. leptophylla</i>	Slender-leaf Mallee	
<i>E. leucoxydon</i> ssp. <i>stephaniae</i>	Yellow Gum	
<i>E. viridis</i> ssp. <i>wimmerensis</i>	Wimmera Mallee-box	
<i>Gnaphalium indutum</i>	Tiny Cudweed	
<i>Goodenia amplexans</i>	Clasping Goodenia	
<i>Hibbertia exutiacies</i>	Spiky Guinea-flower	
<i>Melaleuca acuminata</i>	Creamy Honey-myrtle	
<i>M. wilsonii</i>	Violet Honey-myrtle	
<i>Pittosporum phylliraedoides</i>	Weeping Pittosporum	
<i>Plantago drummondii</i>	Dark Plantain	
<i>Wahlenbergia communis</i> s.l.	Tufted Bluebell	

Sources: Beaglehole (1984), NRE database (1998b), Rogers et al. (unpub)

Threatened flora status after Gullan et al. (1990):  
Australia

R Rare

Victoria

e endangered

L listed under the Flora and Fauna Guarantee Act

r rare

v vulnerable

Regional significance from NRE database (1997b)  
- species occurring in less than 1% of the records  
in the Wannon Natural Region (Conn 1993) and  
Beaglehole (1984).

## APPENDIX 3 SIGNIFICANT FAUNA

SCIENTIFIC NAME	COMMON NAME	STATUS	LOCATION
<b>Mammals</b>			
<i>Macropus rufogriseus</i>	Red-necked Wallaby	regional	T
<i>Pseudomys apodemoides</i>	Silky Mouse	nt	D, T
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale	Vul, L	D, T (not confirmed)
<b>Birds</b>			
<i>Acanthagenys rufogularis</i>	Spiny-cheeked Honeyeater	regional	T
<i>Acanthiza uropygialis</i>	Chestnut-rumped Thornbill	"	T
<i>Aphelocephala leucopsis</i>	Southern Whiteface	"	T
<i>Ardea alba</i>	Great Egret	End, L, JAMBA, CAMBA	T
<i>Burhinus grallarius</i>	Bush Stone-curlew	End, L	T
<i>Calyptorhynchus banksii</i>	Red-tailed Black-Cockatoo	E, End, L	D, T
<i>Cincloramphus cruralis</i>	Brown Songlark	regional	T
<i>Cincloramphus mathewsi</i>	Rufous Songlark	"	T
<i>Circus assimilis</i>	Spotted Harrier	"	T
<i>Drymodes brunneopygia</i>	Southern Scrub-robin	"	T
<i>Gallinago hardwickii</i>	Latham's Snipe	JAMBA, CAMBA	T
<i>Grantiella picta</i>	Painted Honeyeater	Vul, L	T
<i>Grus rubicunda</i>	Brolga	Vul, L	D
<i>Hylacola cauta</i>	Shy Hylacola	regional	T
<i>Hylacola pyrrhopygia</i>	Chestnut-rumped Heathwren	DD	T
<i>Lathamus discolor</i>	Swift Parrot	V, End, L	T
<i>Leipoa ocellata</i>	Malleefowl	V, End, L	T
<i>Malurus lamberti</i>	Variegated Fairy-wren	regional	T
<i>Melanodryas cucullata</i>	Hooded Robin	"	T
<i>Melithreptus gularis</i>	Black-chinned Honeyeater	"	T
<i>Mirafra javanica</i>	Singing Bushlark	"	T
<i>Neophema elegans</i>	Elegant Parrot	"	T
<i>Nymphicus hollandicus</i>	Cockatiel	"	T
<i>Oxyura australis</i>	Blue-billed Duck	Vul, N	T
<i>Pachycephala inornata</i>	Gilbert's Whistler	regional	T
<i>Phylidonyris albifrons</i>	White-fronted Honeyeater	"	T
<b>Fish</b>			
<i>Gadopsis marmoratus</i>	River Blackfish	DD	D (Salt Creek - outside Park)
<i>Nannoperca variegata</i>	Variegated Pigmy Perch	LR(nt), L	D (Salt Creek - outside Park)
<b>Other</b>			
<i>Myrmecia sp. 17</i>	Bullant	Vul, L	T

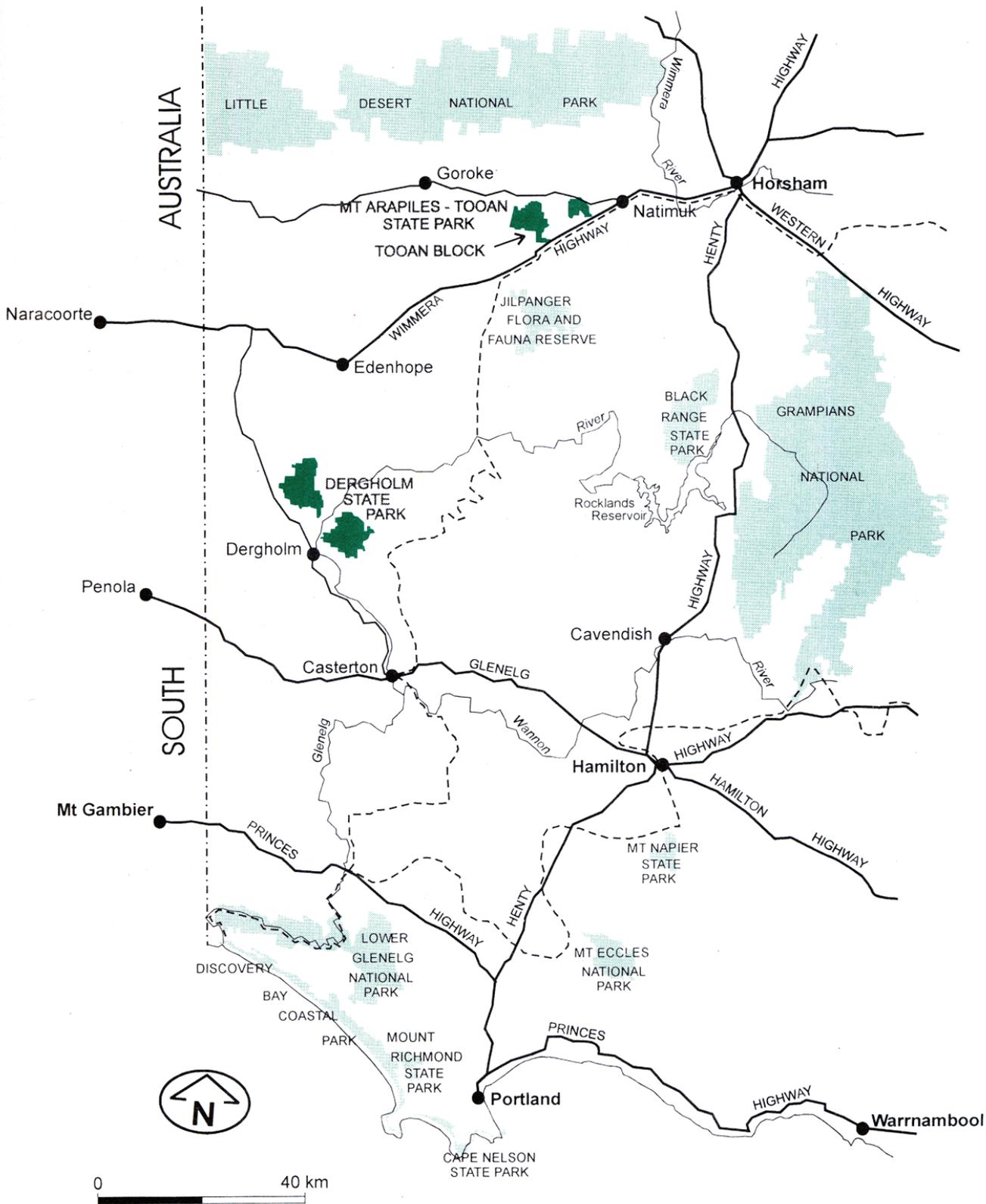
Source: NRE database (1998a), LCC (1982), D. Sutherland, pers. comm., C. Meredith, pers. comm.

Status (CNR 1995a; NRE 1998):

CAMBA	Chinese and Australia Migratory Bird Agreement	regional	Regionally significant
DD	Data deficient	V	Vulnerable in Australia
E	Endangered in Australia	Vul	Vulnerable in Victoria
End	Endangered in Victoria		
JAMBA	Japanese and Australia Migratory Bird Agreement	Location:	
L	listed under the Flora and Fauna Guarantee Act	D—Dergholm State Park	
LR(nt)	lower risk (near threatened) in Victoria	T—Toonan block of Mt Arapiles-Toonan State Park	
N	Nominated for FFG		

# DERGHOLM AND MT ARAPILES - TOOAN STATE PARKS

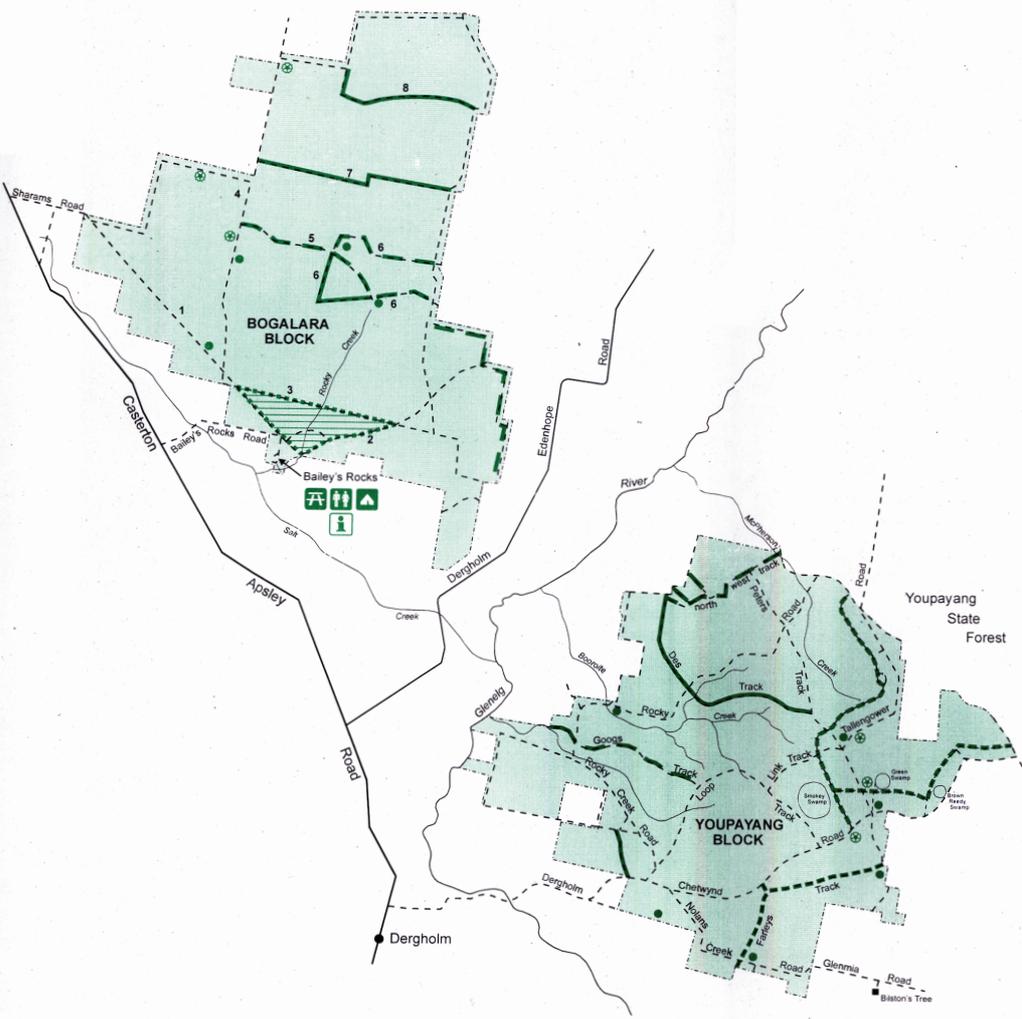
Figure 1 Regional Locality Plan



- Major roads
- Highways
- - - Major Mitchell Trail
- Dergholm State Park and Mt Arapiles - Tooan State Park
- Other Major Parks and Reserves

# DERGHOLM STATE PARK

Figure 2 Management zones, recreation and access



- Park boundary
- Sealed road
- Unsealed road
- Walking track
- Existing camping
- Existing picnic tables
- Existing toilets
- Proposed information
- Proposed walking opportunities
- Track closure
- Management vehicles and walkers only track
- Temporary fire break (Management vehicles and walkers only track)
- Water point
- Bee site
- 1 - 8 Track number

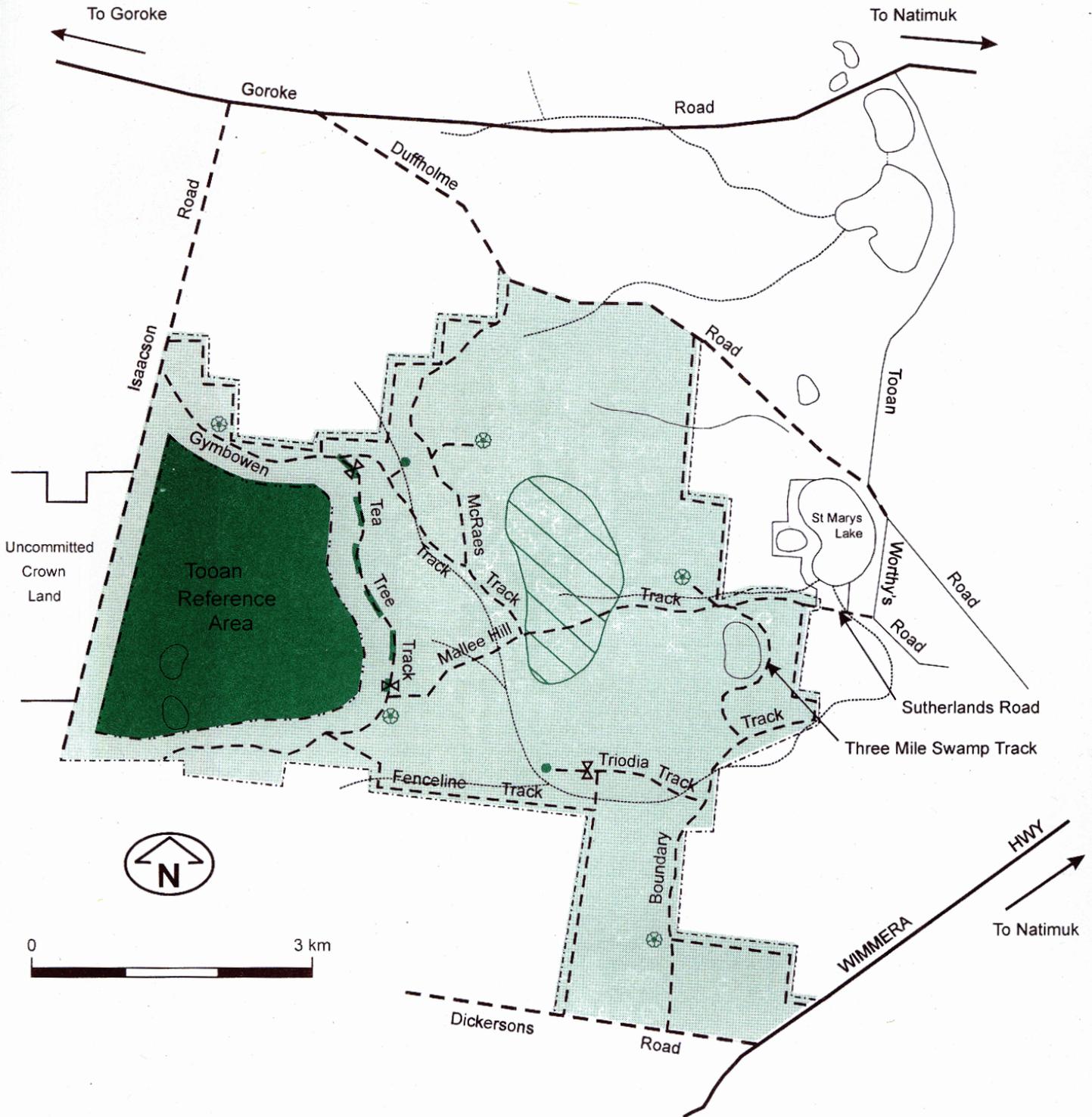
- ZONES**
- Conservation Zone
  - Conservation and Recreation Zone



0 2 km

# MT ARAPILES - TOOAN STATE PARK (TOOAN BLOCK)

Figure 3 Management zones, recreation and access



## ZONES



Conservation Zone



Reference Area Zone

## OVERLAY



Special Protection Area



Park boundary



Sealed road



Unsealed road



Gate



Drainage line



Water point



Bee site



Management vehicle only track