Central Gippsland Region
National Parks and Public Land Division

Moondarra State Park and Tyers Park Management Plan

May 1991

Department of Conservation & Environment - Victoria

This Management Plan for Moondarra State Park and Tyers 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 November 1989. A total of 18 submissions were received.

Copies of this plan can be obtained from:

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Further information on this plan can be obtained from the Central Gippsland Region, DCE (051 746166)

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MOONDARRA STATE PARK AND TYERS PARK

MANAGEMENT PLAN

Central Gippsland Region

and

National Parks and
Public Land Division

DEPARTMENT OF CONSERVATION
AND ENVIRONMENT

Victoria

May 1991

APPROVED MANAGEMENT PLAN

This approved Management Plan for Moondarra State Park and Tyers Park contains a summary of the Parks resources, a review of present and future use, management objectives, and detailed management strategies and actions.

A proposed Plan for the Parks was released for public comment in November 1989 and 18 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.

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

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Director of National Parks and Public Land

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Regional Manager, Central Gippsland

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1 INTRODUCTION

Moondarra State Park is an area of 6292 ha on the northern edge of the Latrobe Valley. The Park straddles the Tyers River upstream of Moondarra Reservoir (Figs 1 and 2). Tyers Park is an area of 1810 ha located about three kilometres to the east and immediately downstream of Moondarra Reservoir on the Tyers River (Figs 1 and 3). Both Parks are managed by the Central Gippsland Region of the Department of Conservation and Environment (DCE) under delegation from the Director of National Parks and Public Land Division.

Moondarra State Park and Tyers Park have a rich variety of flora and fauna and, in particular, a diversity of wildflowers and an abundance of bird life. Sightseeing, picnicking, camping, nature study and fishing are popular activities. The remains of the old narrow gauge railway which ran from Moe to Walhalla may be seen in Moondarra State Park. Tyers Park encompasses the fine scenery of the Tyers Gorge, which is an area also of considerable geological interest.

Both Parks were proclaimed in January 1986 following recommendations by the Land Conservation Council (LCC) for the Melbourne Study Area in 1977, and for the South Gippsland Study Area in 1982. Moondarra State Park is listed on Schedule Two B and Tyers Park on Schedule Three of the *National Parks Act 1975* (Vic.).

The Parks will be managed in accordance with the National Parks Act and the recommendations of the LCC. Both direct that management provide primarily for recreation, education and for conservation of natural ecosystems. For Tyers Park the LCC recommendations place a greater emphasis on recreational use, including the provision of 'opportunities for informal recreation for large numbers of people' and development 'so as to encourage high-intensity use at suitable localities away from the Tyers Gorge area' (LCC 1977).

1.1 THE PLAN

The purpose of the Management Plan is to set out management strategies and requirements, and to define the location, type and intensity of activities permitted in the Parks.

The management of both Moondarra State Park and Tyers Park will be dealt with in this one Management Plan. The Parks are very similar in character, are located close together and generally will be managed as one unit.

It should be recognised that planning is a continuing process and that additions or amendments to the Plan may be required in the future. Significant changes would only be made after consultation with community groups.

The Plan is divided into two parts. In Part A, the basis of the Plan is briefly outlined, based upon a review of the natural and cultural resources of the Parks, past and present land uses and Government policies and directions. Part B is the Plan itself, consisting of chapters on management objectives, zoning, management actions and the resources needed to implement the Plan.

The planning period

This Plan will remain in force until replaced by a revised Plan. The need to review the approved Plan should be considered in 1996, unless circumstances warrant an earlier review.

PART A

BASIS OF THE PLAN

2 BACKGROUND

This Management Plan is derived from a consideration of a range of legislation, Government strategies, Departmental plans and policies, and of the regional and local settings of the Parks, and their resources, current conditions and uses.

A summary of this information is provided in this chapter. More detailed information on the natural and cultural resources of the Parks is provided in the appendices. Specific information is also included in Part B of the Plan as necessary to assist in the understanding of particular issues. Further information is available in the references cited and from the DCE Central Gippsland Region's Office at Traralgon, Erica Work Centre and the National Parks and Public Land Division Office in Melbourne.

2.1 PLAN SETTING

The tenure of land adjacent to the Parks is broadly described in Figure 4. The Parks are bordered to the west, north and east by largely forested public land managed by DCE and used for timber, water production, and recreation. Both are bordered to the south by freehold grazing land, and pine plantations are present on the eastern boundaries.

The LCC (1983) recommended that much of the reserved forest adjacent to the western boundary of Moondarra State Park was suitable for softwood production. The recommendations included buffer areas along the boundary with the Park which would reduce the impact of plantations on the Park. However, it is now Government policy that areas of native forest are not to be used to establish softwood plantations, and these areas will remain native forest.

Adjoining Tyers Park on the southern boundary is the Wirilda Environment Park. This is an area of about 140 ha acquired by the Wirilda Project Association in the late 1960s with assistance from the Commonwealth Government. The Association intends to develop the area for environmental education and recreation by restoring a natural environment and providing accommodation and recreation facilities. Some picnic facilities have been provided on the Tyers River adjacent to the Tyers Park. The Wirilda Walking Track has been constructed along the river to the Moondarra Reservoir. Access to these facilities and to this southern section of the Park is through the Wirilda Environment Park.

Both Parks adjoin land managed by the Latrobe Valley Water and Sewerage Board (LVWSB) and include within their boundaries water supply facilities associated with the nearby Moondarra Reservoir. Large areas of these Parks are also within the declared water supply catchments of either the Tanjil or the Tyers Rivers (Fig. 5). The Notice of Determination of Land Use for the Tyers River Water Supply Catchment (SCA 1975b) requires approval from DCE before certain categories of land can be developed for agriculture. This requirement applies to the uncleared freehold blocks in both Parks. For the Tanjil River catchment the land use determination (SCA 1975a) requires that major changes in land use be referred to DCE.

The State Electricity Commission (SEC) proposes to use an area of land at Andersons Creek, on the southern boundary of the Moondarra State Park, to dump overburden from coal mining in the Latrobe Valley. The area (Fig. 2) is not expected to be needed until the next century (Govt of Vic. 1986a). The National Parks Act makes provision for the addition of 170 ha of this site to the Park if it is not used as a dump for overburden.

A gravel quarry, operated by the Shire of Traralgon, adjacent to the Tyers Park on the Tyers-Walhalla Road (Fig. 3), provides road-making material without having a serious impact on the Park. It is, however, located at one of the major visitor entry points and careful management of the landscape is required. The LCC (1982) recommended management of the quarry should be transferred to DCE.

The Parks are located in an extensive area of public land and close to the northern boundary of the Latrobe Valley. The Valley contains a number of large cities, towns and industries, together with major facilities managed by the SEC to generate most of the State's electricity supply. Wildfires originating in either Park, or in adjoining public land could pose a threat to these very important assets.

Land use planning

The Parks and surrounding areas are included in the Narracan Planning Scheme. Under this scheme the Parks are zoned 'reserved forest'.

A report to the Shire of Narracan described the freehold lands surrounding the Parks as having poor capability for rural subdivision (Scott & Furphy 1980b). The Narracan Planning Scheme permits a minimum subdivision size of 60 ha in the Rural Zones adjacent to the Parks. This provides some control over possible developments along the boundaries of the Parks. A permit is required for clearing native vegetation on all private land. The Planning Scheme places little constraint on Government authorities carrying out their statutory role, and thus will have little effect on management of these Parks.

The Shire of Narracan is one of the ten municipalities which comprise the Latrobe Region as defined in the *Latrobe Regional Commission Act 1983* (Vic.). The Commission has now released the Latrobe Strategy Plan, the Latrobe Regional Environment Policy and the Latrobe Regional Land Use Policy (LRC 1988). These documents provide a focus for important economic, social, environmental and land use issues in the Latrobe Region and they need to be considered in relation to the management of public land, including the Parks which are the subject of this Plan.

2.2 LEGISLATION, GOVERNMENT STRATEGIES AND POLICY

A broad range of legislation, Government strategies and policies, and DCE policies and plans control or influence Park management.

Legislation

The principal legislation is the National Parks Act. This Act determines how National and other Parks are created and managed. Moondarra State Park will be managed under the provisions of Section 17 of the Act. This section requires the Director of National Parks and Public Land Division to:

- ensure that the Park is managed in a manner that will -

  reserve and protect the Park in its natural condition for the use, enjoyment and education of the public;

  preserve and protect indigenous flora and fauna in the Park;

  exterminate or control exotic fauna in the Park;

  eradicate or control exotic flora in the Park; and

  preserve and protect wilderness areas in the Park and features in the Park of scenic, archaeological, ecological, geological, historic or other scientific interest;

- ensure that appropriate and sufficient measures are taken to protect each Park from injury by fire;

- promote and encourage the use and enjoyment of the Parks by the public and the understanding and recognition of the purpose and significance of National Parks; and

- prepare a plan of management.

Tyers Park will be managed under the provisions of Section 18 of the Act which requires the Director to:

- ensure that each Park is managed in a manner that will:

  preserve, protect and re-establish indigenous flora and fauna in the Park

  enable the Park to be used by the public for the enjoyment, observation and study of the countryside and its pursuits, its flora and fauna, its ecology and geology and other features

  control exotic flora and fauna in the Park, and

  preserve and protect features in the Park of scenic, archaeological, ecological, geological, historic or other scientific interest

- ensure that appropriate and sufficient measures are taken to protect each Park from injury by fire
- promote and encourage the use and enjoyment of the Parks by the public, and
- prepare a plan of management.

The Department is also responsible for the prevention and suppression of fire in Parks and on protected public land under Section 62 of the *Forests Act 1958* (Vic.).

Land Conservation Council

The Government has accepted the recommendations of the LCC for both Parks.

The LCC (1977) recommended that Moondarra State Park 'provide opportunities for recreation and education associated with the enjoyment and understanding of natural environments'. The LCC also recommended a separate education area at Boggy Creek which has now been incorporated into the Park (Fig. 6). Other recommendations include:

- supply of water and protection of water catchments.
- protection of the habitat of the Onion-orchid.
- recognition of the significance of the Park in protecting the Latrobe Valley from fire, and the need to develop fire protection plans in consultation with the SEC.

The LCC (1977, 1982) recommendations for Tyers Park place emphasis on recreational use, including the provision of 'opportunities for informal recreation for large numbers of people' and development 'to encourage high-intensity use at suitable localities away from the Tyers Gorge area'. They also include:

- provision for conservation of natural ecosystems
- supply of water, and protection of water catchments and water supply installations
- addition of Connan Park (leased by the Scout Association) to the Park, on expiration of the lease
- continued extraction of shale for brick manufacture until the location of an alternative source of supply
- preservation of the remains of the lime kiln
- provision for honey production (eastern half, LCC 1982)
- the need to provide for additional transmission lines and easements in the Park
- planning and management in consultation with the Wirilda Project Association and the LVWSB.

Major Government strategies

The Victorian Government has developed three major strategies to help achieve the interrelated major goals of environmental conservation, economic development and social justice. Together, they form an important policy basis for Park management both directly, and through a number of subsidiary strategies.

(i) Conservation Strategy. The five main objectives of the Strategy (Govt of Vic. 1987b) are to:

- maintain essential ecological processes and life-support systems
- preserve genetic diversity
- ensure the sustainable use of renewable resources
- ensure the wise use of non-renewable resources, and
- protect natural areas and ecosystems for the non-material needs of society.

Consistent with these objectives is the recognition that the community should be able to sustain a high level of material well-being. Much of the State's outdoor recreation and tourism is based on the natural environment, and long-term viability is contingent on environmental conservation and maintenance.

National and other Parks have a major role to play in implementing the Conservation Strategy; protecting the diversity and long-term viability of natural environments used for recreation; and protecting special, scarce and particularly sensitive environments.

Tyers Park and Moondarra State Park contribute to all the main objectives of the Strategy. The means by which the specific objectives are achieved form the basis for the detailed prescriptions spelt out in Part B of this Plan.

(ii) Social Justice Strategy. This Strategy (Govt of Vic. 1987a) has as its objectives, to provide:

- fair access to goods and services
- opportunities for participation, and
- for the protection of people's rights.

The Strategy is relevant to many aspects of Park management, including public participation in the planning process, provision of equitable access to the experiences and facilities in the Park, and direction of publicity, information and education services to a wide range of interest groups and individuals.

(iii) Economic Strategy. First released in 1984 and republished in April 1987 as the document *Victoria: The Next Decade* (Govt of Vic. 1987d), this Strategy has as its main objective 'to ensure prosperity and a high standard of living for all sections of the community'.

The **Tourism Strategy** (Govt of Vic. 1984) was released by the Government in 1984 as part of the State Economic Strategy. Its main objectives are to:

- identify Victoria's competitive advantages in tourism journeys and destinations
- enhance attractions
- promote more intensive use of assets, and
- identify opportunities for complementary tourism development.

Tourism is one of the broad industry sectors offering significant economic development and growth potential. The approach adopted in the Strategy is to select appropriate 'resort zones' where tourism development will be encouraged, and to link them with scenic tourism corridors.

The Parks are not located in the identified resort zones. Appropriately resourced, however, they have the potential to provide greater opportunities for all Victorians to enjoy recreation in natural settings, in particular the attractive limestone gorge and river landscapes.

The **Timber Industry Strategy** (Govt of Vic. 1986b) defined 15 Forest Management Areas (FMA) as the basis for supply of timber products from Victoria's native forests. Both Parks are within the Central Gippsland FMA, an area from which the volume of timber taken from native forests is expected to increase over the next several years. In accordance with the provisions of the Strategy, the Department has established a project to develop a management plan for the Central Gippsland FMA, which will be co-ordinated with this Proposed Management Plan for Tyers Park and Moondarra State Park where appropriate.

Policies and plans

The Plan is prepared in accordance with DCE policies for the management of Parks under the National Parks Act (NPWD 1988), and with other policies prepared by the Department for all public lands. It is part of a hierarchy of plans prepared by the Department to assist in implementing legislation, Government strategies and policies.

The main legislation and policy documents relating to Park management are listed in the preamble to Part B of the Plan.

2.3 SIGNIFICANT PARK RESOURCES AND USES

This section briefly describes the significant characteristics of the Parks, both natural and cultural, which constrain or provide important opportunities for management. Significant uses or other issues are also briefly discussed where they are an important management consideration.

2.3.1 Natural and cultural resources

Vegetation. There are a number of significant vegetation communities and plant species found in these Parks (Section 4.1 and Appendix II) and both are noted for their spring wildflower displays. The Yertchuk-Silvertop vegetation type is poorly represented in Parks in Victoria (Ashe & Smith 1983) and the Red Box-Apple Box vegetation type is of restricted distribution in this State (D. Frood pers. comm.). The Yertchuk and open woodlands in the Moondarra State Park is unusual in Victoria and designated of state botanical significance (see Section 4.1.1; Fig. 7; Appendix I for definition of terms). Twenty-two species of botanical interest (Table 2), including five which are rare in Victoria or Australia have been recorded in the Parks.

Fauna. This area is popular with naturalists and is noted for a high and diverse bird population in particular (Section 4.2 and Appendix IV). Parts of both Parks are within an area designated of state zoological significance (see Section 4.2; Fig. 7; Appendix I for definition of terms). Nineteen rare or threatened species of mammals, birds, reptiles and fish, amphibians and insects have been identified as occurring in or near the Parks (Table 3). Also of note is a nesting pair of Peregrine Falcons *(Falco peregrinus)* and a species of butterfly found in Moondarra State Park which is only found in two other locations in Victoria.

Landscape. Landscape values are moderate becoming high alongside the Tyers River (Fig. 8). The views along the Tyers Gorge and to the Latrobe Valley from Petersons Lookout are a particular feature of Tyers Park. The relatively natural character of the landscapes contribute significantly to the visitor's experience. A number of features, such as vegetation clearing, powerlines and roadworks, detract from the quality of the Park landscape.

Geology. This is an area of complex geology and Sites of State, Regional and Local Geological and Geomorphological Significance have been identified in both Parks (see Section 4.4; Fig. 7; Appendix I for definition of terms). These provide popular visitor destinations and are an important educational resource.

History. There is only very limited information available about the archeological and historical values of the Parks. In Tyers Park there are remains of a lime kiln and of early water supply technology associated with the Moondarra Reservoir. The remains of the Moe-Erica railway line and possibly evidence of timber tramlines, associated with logging in the area, are to be found in the Moondarra State Park.

Fire. The incidence of fire in the Parks has been low in recent times. However, wildfire poses a substantial threat to some Park values, to Park visitors, to LVWSB and SEC assets and to the Latrobe Valley to the south. The SEC coal open cuts in the Latrobe Valley are particularly vulnerable to spotting from fires burning in the forested areas in and near the Parks under appropriate weather conditions. These resources are of vital economic importance to the State.

2.3.2 Recreation and other uses

Both Parks provide a similar variety of opportunities for such activities as picnicking, bush walking, fishing and pleasure driving. There are also many other areas of public land in the vicinity which offer similar recreation settings. Visitor numbers are generally low throughout the Parks. However, the area is easily accessible from the Latrobe Valley and from Melbourne and recreational use is likely to increase.

Access to and within both Parks is generally good, although road and track standards vary. The closure of some roads within Tyers Park to the public and the barrier provided by the Tyers River restricts access within this Park. These factors and the Wirilda Environment Park also restrict access to the Park from the south.

A small number of existing occupancies, utilities and commercial uses will need to be provided for in the Parks. The maintenance of electricity and water supply utilities will continue to significantly affect the use and management of parts of the Parks.

PART B

THE MANAGEMENT PLAN

NOTE

Chapters 3 to 8 set out in detail the issues involved in managing Tyers Park and Moondarra State Park and define specific management aims for the resolution of groups of related issues (printed in bold). Management actions to achieve these aims are presented, defining how the aims will be achieved. A statement of relative priority accompanies each management action:

High	Proposed as soon as possible.
Medium	Proposed for action generally after high priority tasks have been completed.
Low	Less urgent but important actions.
Ongoing	An action that requires the continuing attention of Departmental staff.
As needed	An action or issue to be addressed when the relevant situation arises.

Chapter 9 sets out the managerial resources, such as staffing and equipment, that are required to implement the Plan.

This Plan will be implemented in conjunction with the following:

- National Parks Act and regulations thereunder
- Parks Policy and Procedure Manual
- Central Gippsland Regional Fire Protection Plan
- Natural Resource Systems Division, Pest Animals General Manual (Vermin Pac)
- *Forests Act 1958* (Vic.) and regulations thereunder
- *Conservation, Forests and Lands Act 1987* (Vic.)
- other Departmental Policies and Procedures, as appropriate.

3 OBJECTIVES AND ZONING

3.1 PRINCIPAL MANAGEMENT DIRECTIONS

The recommendations of the LCC provide particular direction to this Management Plan. Their implementation is influenced by the relatively low visitor numbers in the Parks at present and the lack of information about the nature of the Parks, their values and the management needed to protect the assets of these areas. In this Plan there is a strong emphasis on research, investigation and monitoring to provide a basis for future management and for a future revision of the Management Plan. Management, during the period of this Plan, will be conservative concentrating upon the maintenance and improvement of existing facilities and access.

At this stage there is insufficient demand to justify for catering for the large numbers of people in Tyers Park recommended by the LCC. Until more is known about the use of the Parks and the conservation needs of the natural and historical features there will not be any major development of recreation facilities or changes of use.

There is a need for a review of road access in both Parks, particularly in Tyers Park. This will include the identification of vehicle tracks which do not need to be maintained for other than management purposes, an assessment of access to public utilities, the restriction of public use of some roads and options for periodic or partial removal of these controls.

The opportunity will be taken to improve public information about the Parks to allow better enjoyment of the area. A better appreciation of the values should also encourage a responsible approach to use of the Parks.

Moondarra State Park and Tyers Park both contain areas of considerable botanical, zoological and geological significance. Moondarra State Park is of particular botanical value and Tyers Park of particular geological importance. This Plan includes measures to protect these important natural values and identifies the need for further research and investigation of the natural systems of the Parks to provide information for future management and protection.

The historical significance of the Parks is not fully understood. Further investigation is proposed, particularly of the remains of timber tramways in the Moondarra State Park. Conservation and interpretation of the tramways could become a feature of this Park in the future. Until more is known, management activity which may affect historical features, such as prescribed burning, will be strictly controlled.

The Parks are important for education and they will be managed to encourage this activity. The development of residential accommodation for education purposes is not appropriate, as several camps exist already in the vicinity. Wirilda Environment Park may also provide accommodation and education facilities in the future. The Scout Camp in Connan Park will be maintained to provide complementary accommodation and to be available for school and other appropriate groups.

An important aspect of this plan is the commitment to maintain close liaison and co-operation with a number of other bodies. The management of Tyers Park will be co-ordinated with the development of the Wirilda Environment Park and the management of both Parks closely tied to the requirements of the LVWSB. Liaison will be maintained with the SEC on management of the transmission lines passing through each Park and protection of assets in adjacent areas.

The location of both Parks on the northern fringe of the Latrobe Valley makes them very important in relation to protecting the Valley from fire, and emphasis is placed on this aspect of management.

3.2 MANAGEMENT OBJECTIVES

The primary management objectives for Moondarra State Park and Tyers Park are to:

- preserve and protect the natural environment, and in particular the habitats of rare and significant species and features of importance;
- provide a range of recreation opportunities for all people, including the elderly, disabled and children wherever practicable;
- preserve and protect historical, archaeological and cultural features;
- protect scenic values;
- protect water catchments and water supply installations;
- promote a better understanding of the environment through the provision of interpretation and education facilities and programs;
- provide opportunities for the public to see wildlife in its natural habitat;
- promote research designed to provide a better basis for future management;
- eliminate or control exotic plants, animals and pathogens;
- protect life, each Park, private assets, and the surrounding public land from fire;
- take adequate precautions for the safety of visitors;
- minimise the impact of surrounding land uses and the impact of the Parks on adjacent communities;
- provide for apiculture and extraction of shale in Tyers Park.

3.3 ZONING

Park management zoning is a tool to assist management in achieving the Park management objectives. Zoning indicates which management objectives are appropriate and which have priority in each part of the Park. It identifies the places where conservation is a critical requirement, and establishes broadly the intensity and types of use that are appropriate for different parts of the Park. Its purpose is to pre-empt conflicts between uses, and to provide a basis for assessing the suitability of management proposals for particular parts of the Park.

The zones which have been developed for this Plan are described below (Figs 9 and 10). The contributions of the zones to achieving Park management objectives are listed in Table 1.

TABLE 1 CONTRIBUTION MADE BY ZONES TOWARDS ACHIEVING PARK MANAGEMENT OBJECTIVES

	Zone						
Management objectives	I	Ia	II	IIa	III	IV	V
to protect and conserve the natural environment	***	**	**	**	*	*	*
to protect rare and unusual features	***	***	***	**	*	*	*
to provide recreation opportunities	**	**	***	**	***	*	-
to protect scenic values	***	***	***	**	*	*	*
to protect water supply catchments and installations	**	**	**	**	***	**	**
to provide opportunities to view wildlife	**	**	***	***	***	**	**
to promote understanding of environment	**	**	***	***	***	*	*
to take precautions for visitor safety	*	*	**	***	***	**	*
to protect Park, life and property from fire	*	*	**	**	***	**	**
to provide opportunities for research	***	***	***	***	***	*	*
to control introduced plants and animals	***	***	**	**	**	*	*
to minimise impact on all operations	***	***	***	**	**	**	**
to provide for apiculture and/or shale extraction	-	***	-	-	-	-	***

Symbols:

*** zone maximises achievement of objective
** zone partially achieves objective
* zone makes a contribution to achieving objective
- not appropriate in zone

Zone names:

Zone	I	Conservation and Recreation A
	I(a)	Conservation and Recreation A, Sub-zone - apiculture
	II	Conservation and Recreation B
	II(a)	Conservation and Recreation B, Sub-zone - education
	III	Development
	IV	Special Use - utilities
	V	Special Use - quarrying

Zone I - Conservation and Recreation A

Includes areas of conservation significance which require a high level of protection. Provision shall be made for activities with a low impact on the environment.

Management considerations are:

- Significant conservation values are present, including areas of State botanical, zoological and geological significance, and areas of high scenic quality.

- Natural settings predominate; low frequency of contact with other people is to be expected. Opportunities are present for recreation in a predominantly unmodified environment with some semi-remote recreation experiences.

- Vehicular access should be limited. Access by private vehicles is permitted on designated roads which should only receive occasional use. Public roads will not be upgraded with the exception of main through roads - Moe-Erica and Tanjil Bren Roads. Rationalisation of public and management access may reduce vehicular access (see Section 6.2)

- Simple and limited facilities may be provided for small numbers of visitors. These may include minimal sign posting, walking tracks and small remote camping sites.

- Utilisation for water supply only will be permitted.

Zone I(a) Conservation and Recreation A, Sub-Zone - Apiculture

Management and activities are the same as for Zone I, with the addition that apiculture is permitted.

Zone II - Conservation and Recreation B

Includes areas where conservation values are not threatened or where small specific sites of conservation value can be adequately protected whilst providing for moderate levels of recreational activity.

Management considerations are:

- Significant conservation values, both natural and cultural.

- Natural-appearing settings predominate; moderate levels of contact with other people are to be expected.

- Access by private vehicles is permitted on roads which will be suitably maintained or upgraded as necessary.

- Small-scale facilities may be provided for camping, informal picnicking and other recreation activities by small to moderate visitor numbers.

- Utilisation for water supply only will be permitted.

Zone II(a) Conservation and Recreation B, Sub-Zone - Education

The primary use is environmental study, although the integrity of the environment is to be maintained as far as practicable. Activities such as collection of specimens, establishment of growth plots and limited experimental manipulation of the environment are consistent with management objectives. Management considerations are the same as for Zone II.

Zone III - Development

Includes areas in which known conservation values are not threatened, or where natural features have been disturbed and modified by development. Management will aim to maintain or restore the natural appearance of the environment, while providing facilities for recreation. Most of the facilities for recreation and Park infrastructure are to be located in this zone.

Management considerations are:

- Few significant conservation values are present or these values are not threatened by development.

- Natural-appearing settings, however with substantial development and site disturbance.

- The access network may be upgraded to good 2WD standard to take high levels of use.

- A range of recreation facilities may be provided. This may include major development/structures such as developed campsites, picnic/barbecue areas, nature trails and interpretive centres catering for moderate to high visitor levels.

- There will be a high level of contact between users and therefore potential for conflicts to occur.

- Major opportunities exist for education and interpretation.

Zone IV - Special Use - Utilities

This zone applies to the transmission line easement running along and under the existing transmission lines in the southern sections of both Parks and to the areas under existing transmission lines elsewhere in the Parks. Special management is required in these areas by the SEC to operate and maintain the transmission lines.

This zone also applies to the pipeline easement running through Moondarra State Park and to the strip of land along the route of the water supply pipeline in Tyers Park where special management is required by the Latrobe Valley Water and Sewerage Board to operate and maintain the pipeline.

The purpose of management is to minimise the impact of the zone on the Parks. The landscape impacts are a major concern.

Zone V - Special Use - Quarrying

This zone applies to the shale quarry in Tyers Park. The purpose of management is to minimise the impact of the zone in the Parks. This zone will revert to Zone I(a) when the quarry ceases operation.

4 MANAGEMENT FOR RESOURCE CONSERVATION

This chapter sets out aims and actions for those aspects of Park management relating to the protection and conservation of the natural and cultural environment. Particular emphasis is placed on the protection and management of the rarer plant communities and plant and animal species in the Parks.

4.1 VEGETATION MANAGEMENT

The vegetation has not been comprehensively surveyed and more detailed investigation and mapping of the Parks is needed. This particularly applies to the location and management requirements of significant plant communities and species.

Although there is a degree of summer drought generally in and around February, the area has a long growing season because of the well distributed rainfall (mean annual 1149 mm). Low winter temperature, often with frosts, between July and August, retards vegetation growth (Scott & Furphy 1980a).

The zoning scheme adopted in the Park (Section 3.3) in part reflects vegetation and flora conservation requirements, but specific measures are required in a number of cases.

4.1.1 Plant community management

Six major vegetation types have been described in the two Parks (Ashe & Smith 1983, Figs 11 and 12 and Appendix II). These are:

Vegetation Type	Dominant species and structure
1	Yertchuk - Silvertop Open Forest
2	Silvertop Open Forest
3	Yertchuk Woodland/Open Woodland
4	Messmate Stringybark - Silverleaf Stringybark Open Forest
5	Red Box - Apple Box Open Forest
6	Prickly Tea Tree Heath/Scrub.

Significant features

- The Yertchuk - Silvertop group of vegetation types are poorly represented in other Parks in Victoria (Ashe & Smith, 1983).

- The Red Box/Apple Box vegetation type is restricted in Victoria (D. Frood Pers. Comm).

- The woodland (Vegetation type 3) in Moondarra State Park is unusual, and much of the area (Fig. 7) has been designated of state botanical significance (Gullan et al. 1984; Appendix I for definition of terms). It is notable for the occurrence of Banksia and Hakea shrubs over a ground layer of Spear-Grass, sedges and lilies, and is unlike other Victorian plant communities except for those on the lower slopes of the Grampians.

The majority of vegetation types in the Park do not require specific management, and will be satisfactorily protected by the actions set out elsewhere in this Plan, particularly in relation to fire protection.

Clearing and repeated fire may well be responsible for lower and more open woodland vegetation in some areas (Ashe & Smith 1983). Silvertop appears to have become more dominant in the vegetation on ridges and slopes following logging (Loyn et al. 1980). Fire management is an important issue in these Parks. A better understanding is needed of the natural fire regime of these forests and the impact of regular fuel reduction burning.

Pest plants, invasion by the Cinnamon Fungus (*Phytophthora cinnamomi*) and unauthorised vehicle access are threats to the vegetation community. Controls on earthworks and vehicle access are appropriate.

Aims and actions

To maintain and protect the diversity of natural plant communities in the Park.

To protect plant communities that are threatened or are of special significance.

To ensure that ecological processes are allowed to continue.

To promote applied ecological research, particularly to assist future Park management.

As needed	Rehabilitate native vegetation (remove weeds, rip, replant etc as appropriate) in areas where it is identified as necessary.
High	Investigate the conservation requirements of the Yertchuk-Silvertop group of alliances in both Parks, and the Yertchuk Woodland in Moondarra State Park and develop appropriate management strategies as required.
High	Monitor the impact of fire on the vegetation and the use of fire as a management tool for natural systems. Particular attention to the sedge-land habitat of a rare butterfly (see 4.2) is required. Encourage the participation of interested groups and individuals, including the Latrobe Valley Field Naturalists Club.
Medium	Encourage research into the status and distribution of native plant communities, with emphasis on those of known significance.
Medium	Investigate the establishment of a program to restore vegetation species composition in areas affected by past logging.
Low	Investigate the conservation significance of the Red Box-Apple Box vegetation type (Vegetation type 5).

4.1.2 Indigenous plants

A total of 360 native plant species have been recorded in the Parks, (Beauglehole 1983; Appendix III). Of these, five have been classified as being rare in Victoria (Gullan et al. 1990) (Table 2). One species, Burnettia, is rare Australia wide. Another 18 species have been classified by Beauglehole (1983) as being significant (Table 2).

Both Parks are noted for their spring wildflower displays, particularly orchids along Seninis Road in Moondarra State Park. A local form of the Common Onion-orchid (*Microtis unifolia*; recorded as *M. biloba*, Willis 1970) has been recorded near Gould (east of Moondarra State Park and immediately upstream of Moondarra Reservoir) and near Moe. This form may be present in the Parks.

It is thought that the Parks support the most westerly occurrence of the Rush Lily (*Sowerbaea juncea*) and the most easterly occurrence of Wiry Spear-grass (*Stipa muelleri*).

Aims and actions

To protect rare or threatened plant species.

As needed	Develop appropriate management actions for any further species identified as rare or threatened through further survey or taxonomic revision.

High	Investigate the conservation requirements of species of identified significance; these include the species listed in Table 2 and the Common Onion-orchid (local form).
High	Prepare improved management prescriptions based on detailed ecological study for the plant species of identified significance.
High	Protect and where necessary rehabilitate the habitat of significant fauna species, particularly the sedge-land habitat of the rare butterfly (see Section 4.2 and separate report).

TABLE 2 SIGNIFICANT PLANT SPECIES

Brachyscome aculeata		Branching Daisy
Brachyscome angustifolia		Grassland Daisy
Burnettia cuneata	Rr	Burnetta
Caladenia aurantiaca		Orange-tip Caledenia
Caladenia cucullata		Hooded Caladenia
Caladenia pattersonii	r	Common Spider-orchid
Desmodium varians	r	Slender Tick-trefoil
Eucalyptus bridgesiana		But But
Eucalyptus cinerea	r	Silver-leaf Stringybark
Gnaphalium umbricola	r	Cliff Cudweed
Grevillea lanigera		Woolly Grevillea
Hibbertia aspera		Rough Guinea-flower
Lasiopetalum macrophyllum		Shrubby Velvet-bush
Leucopogon collinus		Fringed Beard-heath
Logania albiflora		Narrow-leaf Logania
Lycopodium deuterodensum		Bushy Clubmoss
Micrantheum hexandrum		Box Micrantheum
Mitrasacme serpyllifolia		Thyme Mitrewort
Myosotis exarrhena		Sweet Forget-me-not
Pomaderris intermedia		Citron Pomaderris
Sowerbaea juncea		Rush Lily
Tetratheca pilosa		Hairy Pink-bells

Source: National Parks Flora Database (NPFLORA) and Gullan et al. (1990)
R Rare in Australia
r Rare in Victoria

4.2 FAUNA MANAGEMENT

The Parks contain a range of habitats and consequently the dependent fauna is diverse, including a number of species that are restricted or at the limits of their distribution. Surveys of the Boola Boola Forest by Loyn et al. (1980) and Mansergh and Watson (1984), and the work of local naturalists, have provided information on fauna in the Parks. A list of the fauna is included as Appendices IV to VI.

Twenty-seven native mammals and six introduced species have been found in the area. The most common mammals are the Bush Rat and the Brown Antechinus. Also fairly abundant are the Common Ringtail Possum, Sugar Glider, Swamp Wallaby and Common Wombat.

Approximately 100 species of bird have been recorded (DCE Records, Latrobe Valley Field Naturalists Club, Loyn et al. 1980). The most common, the Brown Thornbill and the Striated Thornbill, are typically found in the Gippsland eucalypt forests. Other commonly occurring native species include the Crimson Rosella, Fan-tailed Cuckoo, Laughing Kookaburra and Superb Lyrebird.

There is a high diversity of native fish species with at least eight species known to occur in the Parks and the possibility of a further five species being present. River Blackfish in the Moondarra State Park are of special value because of their abundance and large size. The vulnerable Australian Grayling occurs in the Latrobe River system and may spawn in the Tyers River. There is a significant population of Gippsland Spiny Crayfish.

Insects of all major orders are recorded in the vicinity (Loyn et al. 1980). A rare butterfly is found in Moondarra State Park and in only two other areas in the State. Its habitat is characterised by low-lying and poorly drained sedge land. Another species recorded in Moondarra State Park is considered uncommon (D. Crosby pers. comm.). To protect these species concerned further information has not been made available in this Plan.

An area near Andersons Track and the old Walhalla Railway in Moondarra State Park is a site of local and scientific interest (Mansergh & Norris 1982; Appendix I for definition of terms). Over 50 bird species have been observed at this site. The most notable species include the White-throated Gerygone, Diamond Firetail and Blue-winged Parrot. Southern Emu Wrens have also been recorded by the Latrobe Valley Field Naturalists Club in Moondarra State Park near Andersons Track north of Early Road.

A total of 19 species of animals which occur in or near the Parks have been classified as rare or threatened in Victoria (Table 3). The most significant of these is the Regent Honeyeater which is endangered in Victoria and the Tiger Quoll and Australian Grayling which are both considered vulnerable to extinction in Victoria. The ecological requirements of these, and the other significant species are poorly known. Further research may indicate that active management is required to ensure their survival.

Generally fauna is managed and maintained by maintaining the overall quality of the Park as fauna habitat. Frequently this requires no specific actions other than the protection of a diversity of natural vegetation communities and the continuation of ecological processes. Effective management also requires detailed information on the breeding, refuge, and dietary requirement and distribution of the species. There is a need for further investigation of the biology and habitat requirements of fauna in the Parks, particularly of the significant species, to provide a basis for effective management.

The conservation of creeks and rivers and adjacent riparian vegetation is important for the protection of the Giant Burrowing Frog and the aquatic fauna of the Parks generally. For other species, active restoration of the original composition of tree species (see Section 4.1) and the removal of noxious weeds have been proposed as important management strategies (Mansergh & Norris 1982).

The Peregrine Falcon nests in Tyers Park (Latrobe Valley Field Naturalists Club; DCE records). The long-term survival of this species worldwide is uncertain. Although not threatened in Victoria special protection of breeding sites is required during the nesting season to ensure successful breeding. Several offspring each year have regularly been recorded in Tyers Park, making it of statewide significance. Management will be directed to minimise disturbance of birds, particularly in the nesting season. Human presence, particularly by climbers, can disrupt breeding.

Aims and actions

To protect and maintain the diverse assemblage of native fauna by maintaining suitable habitat.

To actively manage threatened or significant species.

To undertake continuing research and resource surveys of native wildlife.

Ongoing — Implement a conservation and monitoring program for the rare butterfly (see separate report held by the Central Gippsland Region and NPPL). Particular care will be taken with the location of fuel reduction burning and slashing operations to exclude butterfly habitat, unless they form part of a conservation program for the species. Herbacides will not be used in these areas.

Ongoing — Implement a conservation and monitoring program for the Peregrine Falcon in the Tyers Gorge area. To prevent disturbance, the location of nesting sites will not be made public and public access into the Tyers Gorge area south of W3 (Fig. 15) and east of the Tyers River will be closed between 1 July and 15 December each year.

- Erect appropriate signs on roads and tracks. Track W2 will be closed to public access at this time at the Tyers-Erica Rd.
- Access for management purposes will be kept to a minimum during this period (see Section 6.2).
- Rock climbing and abseiling will not be permitted in this area during the period of closure (see Section 6.3.4).
- Period and timing of the closure may be varied with the approval of the Director of National Parks and Public Land Division to suit nesting behaviour.

High — Train Park staff to undertake monitoring and fauna surveys.

High — Investigate the conservation requirements of the rare or threatened fauna listed in Table 3.

High — Encourage further research into the status and distribution of native animals, with emphasis placed on the known species of special significance.

High — Monitor regularly the known habitats of species of special significance.

TABLE 3 RARE OR THREATENED FAUNA IN THE VICINITY OF MOONDARRA STATE PARK OR TYERS PARK (SEE APPENDICES IV TO VII.)

Endangered in Victoria	
Regent Honeyeater	*Xanthomyza phrygia*
Vulnerable in Victoria	
Tiger Quoll	*Dasyurus maculatus*
Australian Grayling	*Prototroctes maraena*
Rare in Victoria	
Brush-tailed Phascogale	*Phascogale tapoatafa*
Broad-toothed Rat	*Mastacomys fuscus*
White-bellied Sea-eagle	*Haliaeetus leucogaster*
Powerful Owl	*Ninox strenua*
Sooty Owl	*Tyto tenebricosa*
Swamp Skink	*Egernia coventryi*
Dwarf Galaxias	*Galaxiella pusilla*
Broad-finned Galaxias	*Galaxias brevipinnis*
Indeterminate (known to be rare, vulnerable or endangered) in Victoria	
Giant Burrowing Frog	*Heleioporus australiacus*
River (Freshwater) Blackfish	*Gadopsis marmoratus*
Mountain Galaxias	*Galaxias olidus*
Insufficiently known (suspected to be rare, vulnerable or endangered) in Victoria	
Mountain Dragon	*Amphibolurus diemensis*
Tree Goanna	*Varanus varius*
Restricted to colonial breeding or roosting sites in Victoria	
Australian Pelican	*Pelecanus conspicillatus*
Royal Spoonbill	*Platalea regia*
Great Egret	*Egretta alba*

4.3 LANDSCAPE

Landscape values in both Parks can generally be described as moderate. Both Parks are well vegetated with relatively little evidence of disturbance by such activities as timber harvesting or grazing. The impression of 'naturalness' is relatively strong, and where other features contribute to the landscape, such as along the Tyers River, landscape values are high. The Tyers Gorge area is noted for its scenery and views into the Latrobe Valley, particularly from Petersons Lookout.

The Department's Visual Resource Inventory (Williamson & Calder 1979) classifies areas along the Tyers River in both Parks as having high scenic quality. Also there are significant areas with moderate to high visual sensitivity (Fig. 8).

Some activities and works have had a deleterious effect on the landscape. Most notable is the clearing of vegetation for pipelines and powerlines and in particular clearing under the power lines along the Moe-Erica Road. The visual impact made by the clearing of vegetation and roadworks, particularly in the Tyers Gorge area, the timber dump adjacent to the Tanjil Bren Road and dumped cars in the southern sections of both Parks, all detract from the landscape.

Landscape protection in the Park involves the appropriate siting and design of all developments, such as walking tracks, recreation sites and structures, and the sensitive design of essential field operations such as prescribed burning.

Aims and actions

To protect and, where necessary, restore the natural character of the landscape and areas of high scenic quality.

To minimise the visual impacts of management activities.

To ensure that all works are in accordance with the Visual Management Guidelines.

To reduce the visual impact of existing works and structures.

To facilitate public access to areas of high scenic value where consistent with other objectives.

Ongoing	Exclude future works with significant long-term visual impacts from areas classified as having moderate to high visual sensitivity and scenic value (Fig. 8).
Ongoing	Encourage revegetation and rehabilitation of roadsides and along powerlines and pipelines.
Ongoing	Maintain access to, and viewing facilities at, Petersons Lookout in Tyers Park (see controls on access for fauna protection, Section 4.2).
Ongoing	Plan timber-harvesting operations in adjoining State Forest to minimise visual impacts on each Park.
Ongoing	Remove car bodies and other rubbish from the southern section of Moondarra State Park and discourage further dumping of rubbish through signage and education programs.
High	Reduce the visual impact of the pipeline easement through the southern section of Tyers Park, in consultation with the LVWSB.
High	Liaise with the SEC and Roads Corporation (RC) to reduce the impact on landscape of works along the Moe-Erica Road.
High	Rehabilitate the cleared and excavated areas along the Moe-Erica Road in conjunction with the SEC, RC and LVWSB.
Medium	Prepare and implement a site plan for the gravel quarry adjacent to Tyers Park (see Section 8.2) to reduce visual impacts on the Park.

Visual management guidelines

- Site and design facilities in sympathy with the visual environment, borrowing forms, lines, colours and textures from the natural surroundings.
- Generally adopt the Recreation Facilities Manual (CFL 1987) as a standard for design work.
- Minimise the visual intrusion of all developments, primarily by appropriate siting.
- Consult DCE landscape design personnel during the design of all Park developments.
- Prepare detailed site plans well in advance of construction.

- Design and program prescribed burning operations, particularly those abutting public roads, to minimise impacts on scenic quality where practicable.

4.4 GEOLOGICAL SITES

Much of Tyers Park and the northern part of Moondarra State Park contains Cretaceous and Lower Devonian sediments of sandstone, siltstone, mudstone and shale (LCC 1973; 1980). The south and central parts of Moondarra State Park and south-western parts of Tyers Park include tertiary gravels, sands and silt. Areas of limestone and conglomerate occur in Tyers Park.

Friable reddish and yellowish gradational soils predominate with shallow stony soils on steep slopes, and acidic duplex soils on ridges. Soil erosion hazard varies from low to high within both Parks, depending upon the slopes and soils at a particular locality (Sibley 1975).

This is a geologically complex area and there are a number of sites of geological and geomorphological significance in the Parks, particularly in Tyers Park. Some of these are popular destinations for visitors.

Tyers Park includes a number of sites (Fig. 7) of local, regional and state geological and geomorphological significance (Rosengren et al. 1981; Appendix I for definition of terms). These sites include exposures of the Walhalla Group of sediments, Coopers Creek Limestone and important sections of Lower Devonian and Cretaceous sediments. The area is popular for geological study, with fossils in the limestone of particular interest.

Moondarra State Park contains a site of regional significance (Fig. 7) where Whitelaw Siltstone and Sinclair Valley Sandstone are exposed by a road cutting (Rosengren et al. 1981), near where the Moe-Erica road crosses the Tyers River.

No particular management problems are evident although there is potential for damage to exposures by collectors, and particularly collectors of fossils. Management recommendations for these sites (Rosengren et al. 1981) are to maintain access to cutting faces by grading the base where necessary, and to keep cutting faces clear of vegetation

One of the Sites of Geological Significance, a limestone quarry in Tyers Park, is no longer worked. Shale extraction is continuing for brick-making material at another quarry in Tyers Park (see Section 7.1).

Aims and actions

To protect identified sites of significance.

To manage sites to allow public access and appreciation.

Ongoing	Develop a program for regularly clearing vegetation from significant manmade geological exposures.
Ongoing	Grade the base of road cuttings as necessary to maintain access.
Ongoing	Monitor the impact of visitors on geological sites of significance.
Medium	Erect information and regulation signs at popular sites and control access.

4.5 ARCHAEOLOGICAL AND HISTORIC SITES

Little is known about Aboriginal use of the area. No systematic assessment has been made of Aboriginal and archaeological values within either Park, and no sites of significance have been recorded by the Victoria Archaeological Survey (VAS).

The Moondarra grazing run was taken up in the early 1850s (Adams 1978), and scattered grazing and logging has occurred in both Parks since that time. Little obvious evidence of activity remains, although there are some old overgrown cattle mustering pens to be seen in Moondarra State Park.

The narrow-gauge railway to Walhalla, which ran through the southern section of Moondarra State Park, was opened in 1910. The Erica to Moe section of this line was closed in 1954 and dismantled in 1963 (S. Watson, pers. comm.) but evidence of the line is still visible. Until the 1940s the railway was important to the timber industry in the area of Moondarra State Park (McCarthy 1983) and the ash forests surrounding the Baw Baws. It provided a link to many small tramways used to haul timber out of the forest and the remains of some of these tramways are thought to be still evident in Moondarra State Park. The remains of these tramlines may be threatened by fires, including prescribed burning, in the Parks.

Although gold mines were being worked in Walhalla and on the Tanjil fields in the late nineteenth century, no mining is known to have occurred in either Park. Road links between these two fields may have run through the Parks and there is thought to be some remaining evidence of these. Scattered quarrying of limestone and shale has occurred in and near Tyers Park and the remains of a quarry and lime kiln are located on track W. 3. (Fig. 15). The remains of a wire-bound timber pipeline used in the early water supply system remain in Tyers Park along the river. This is of Regional historic interest (Supple et al. 1990). Other remains occur along the Tyers River but have not been investigated.

Public access to sites can result in damage to the site if adequate protection measures are not taken. This is particularly a factor to be considered when the nature, value and management needs of historic sites have not been adequately investigated, which is the case in these Parks.

Aims and actions

To identify and protect archaeological and historical values.

Ongoing	Discourage public access to sites until adequate protection measures are established.
High	Survey and evaluate the remains of the narrow-gauge railway and the timber tramlines. Review fire management plans as appropriate.
High	Survey and evaluate the remains of the lime kiln in Tyers Park. Prepare a detailed plan of management in consultation with the Historic Places branch of DCE.
Medium	Request the VAS to survey the Parks.
Medium	Survey and evaluate the remains of early water supply systems located in Tyers Park, in consultation with the LVWSB.
As needed	Notify VAS of any Aboriginal sites discovered in the Parks.

5 MANAGEMENT FOR PARK PROTECTION

This chapter sets out aims and actions for those aspects of management relating to the protection of conservation values in the Parks from the impact of fire, and of introduced plant and animal species. The impact of recreation and other uses is discussed in Chapters 6 and 7.

5.1 FIRE MANAGEMENT

Fire management includes the suppression of wildfire, protection from wildfire by maintaining pre-suppression facilities (such as access tracks, fire breaks and water supplies), and the planned use of prescribed burning for vegetation or habitat management and fuel reduction.

The Department has statutory duties to 'carry out proper and sufficient work for the prevention and suppression of fire in every Park, and on all protected public land' (Section 62, Forests Act), and, as agent of the Director of National Parks and Public Land Division, 'to ensure that proper (appropriate) and sufficient measures are taken to protect the (National) Park from injury by fire' (Sections 17 & 18, National Parks Act).

5.1.1 Fire protection

The last major wildfire, in 1967, burnt most of both Parks. Between 1973 and 1989, 16 small fires occurred in Moondarra State Park and two in Tyers Park. Although the incidence of fire has been low in recent times, it still poses a major threat to Park visitors and values, the communities of the Latrobe Valley and the assets of the LVWSB, SEC, APM Forests Pty Ltd and DCE Softwood plantations. The SEC's open-cut coal mines, which are of vital economic importance to the State, are particularly vulnerable to spotting from wildfires some distance away (SECV 1986).

The Central Gippsland Region's Fire Protection Plan (DCE 1990) defines the fire protection strategies which are appropriate for all the public land within the Region. The plan was approved in December 1990 and will be reviewed in three years. The objectives of the Plan emphasise the protection of life and public and private assets. It provides for:

- fuel reduction burning and other fuel modification treatments in areas identified as being strategically important
- access, including roads
- water storages or supplies
- firebreak establishment and maintenance
- an efficient detection system based on lookouts and aerial reconnaissance
- a rapid first-attack capability
- a well-organised, equipped, and trained fire-fighting and supervisory force
- an efficient communications system
- liaison and co-operation with other agencies in planning and fire-control activities.

Aims and actions

To protect life, property and Park facilities from fire.

To protect the natural and cultural features of the Parks from the adverse effects of fire.

To protect water catchments.

To protect neighbouring land from fires originating in the Parks, particularly townships, LVWSB and SEC assets and, APM and DCE plantations, in accordance with the Regional Fire Protection Plan.

To liaise with relevant organisations for the common purpose of fire management within the Parks and adjacent land.

Ongoing	Confer with and seek the co-operation of the Country Fire Authority (CFA) Municipal Fire Prevention Committees, SEC, LVWSB, and APM Forests Pty Ltd.
Ongoing	Establish and maintain a monitoring program to record: - areas burnt by prescribed or wild fire - impacts of fires on plant and animal values - fine fuel accumulation (see Section 5.1.4 for prescriptions).
Ongoing	Ensure Park values continue to be recognised in further reviews and development of the Regional Fire Protection Plan.
Ongoing	Prepare and maintain a Fire Emergency Plan to provide for managing visitor safety if threatened by fires.
Ongoing	Ensure that the aims and actions of this Plan are included in Annual Fire Protection Works Plans relevant to the Parks.
Ongoing	Slash flammable material along strategic roadsides in spring (grass) or autumn (heath/shrubs).
Ongoing	Use existing tracks or other natural barriers, as controls for prescribed fires, whenever possible. If these are not available, new control lines which have least impact on vegetation and soil erosion may be constructed. New control lines are to be rehabilitated after use, where risk of erosion is apparent.
Ongoing	Carry out protection works within and adjacent to Seninis Visitor Area and Tyers Bridge Visitor Area, including slashing of fuels within and immediately adjacent to these areas and judicious fuel reduction burning in surrounding areas.
Ongoing	Maintain quality and quantity of water supplies or storages for fire control and maintain access to these supplies with minimal environmental impact.
Ongoing	Maintain essential fire-protection measures including lookouts, fire access tracks, firefighting tools, equipment and communication network.
Ongoing	Provide appropriate measures (tracks, fire breaks, fuel modified areas etc.) in adjacent public land to reduce the chance of fire entering or leaving the Parks.

5.1.2 Wildfire control

'Wildfire control' refers to the control of fires as they actually occur, i.e. fire fighting. The rapid detection and control of all wildfires in the Parks remains a paramount fire-management objective.

Aims and actions

To restrict all wildfires to the minimum possible area using control techniques which cause least damage to natural and cultural resources.

As needed	Control all wildfires within natural or artificial control lines appropriate to minimising impact on Park values, to restrict wildfires to minimum area practicable, as rapidly as possible following detection.
High	Rehabilitate areas of the Park disturbed by control lines and other fire-control activities. In particular prevent vehicular use of new control lines, and restore the natural surface configuration and drainage, by techniques which do not cause additional long-term damage.

5.1.3 Prescribed burning

Prescribed burning is the planned use of fire to achieve specific management objectives, such as the reduction of fuel for protection purposes, and the maintenance of particular wildlife habitat or successional stages of vegetation. It is an effective technique if planned and applied cautiously using adequate scientific and technical knowledge.

Frequent fires, particularly if unseasonal, can significantly affect plant and animal communities. Prescribed burning should be planned to avoid or minimise adverse effects.

Since 1974 regular fuel reduction burning has taken place in both Parks, in accordance with the existing Regional Fire Protection Plan extending over more than half of the Moondarra State Park and about a third of Tyers Park. This Plan provides for fuel reduction burning in the Park in future years. It provides for high priority fuel modified areas extending along the southern boundaries of the Parks, and the eastern boundary of the Moondarra State Park adjacent to the pine plantation (see Section 5.1.4). Prescribed burning and fire management shall be in accordance with the approved plan for Central Gippsland.

Aims and actions

To use prescribed burning to achieve ecological and fire-protection objectives.

To maintain fire regimes appropriate for the perpetuation of the full range of indigenous flora and fauna of the Parks, particularly species of identified significance.

To maintain a diversity of ages of vegetation in the Parks, including some unburnt areas.

Ongoing	Identify values which need protection or fires of specific timing in prescribed burning programs. These will be identified on the Park Fire Management Maps (Figs 13 and 14) and the appropriate prescriptions for management added to this plan.
Ongoing	When prescribed burning is undertaken special provisions will be made to protect: - the sedge areas which are the habitat of the rare butterfly (see Section 4.2) - the remains of timber tramways and the Moe-Walhalla railway line - other significant sites, including sites of significant species as they are identified (see Section 4.1 and 4.2). - apiary sites in consultation with apiarists - stream sides and water quality. - Boggy Creek Education Area (Zone IIa).

High	Determine the fire regime which is appropriate to maintain the sedgelands as habitat for the rare butterfly and the proportion of habitat that may be affected by fire at a particular time.
High	Undertake a monitoring program involving the establishment of permanent vegetation monitoring plots and encourage research towards establishing the ecological requirements of different communities and the environmental impact of prescribed burning particularly in Priority 1 burning Zones (Figs 13 and 14).
Ongoing	Prepare a program of prescribed burning (see Section 5.1.4 for prescriptions) which, together with areas burnt by wildfire, will maintain the diversity of 'age-since-burning' of the vegetation communities in the Parks and provide for parts of each Park to be excluded from prescribed burning.

5.1.4 Fire management zones

The Central Gippsland Region's Fire Protection Plan refers to a scheme of prescribed burning priority zones which describe fuel management in areas of differing strategic importance for fire protection across the Region (see Figs 13 and 14).

Actions

Ongoing	Monitor fuel accumulation rates and schedule fuel reduction burning according to the Central Gippsland Region's Fire Protection Plan.
High	Undertake special protection measures described in Section 5.1.3. and on Figs 13 and 14.

5.2 WEEDS, INTRODUCED PLANTS AND PLANT DISEASES

The Department has obligations under the *Vermin and Noxious Weeds Act 1958* (Vic.) and the National Parks Act to eradicate or control introduced plants in the Park.

The occurrence of blackberries along watercourses and the Wirilda Walking Tracks is a major problem in both Parks. Wind-blown seeds from adjacent pine plantations are causing a problem and leading to infestations of pine seedlings in the Parks.

No investigation has been made of the presence of Cinnamon Fungus (*Phytophthora cinnamomi*) in either Park. There is some vegetation dieback that may be caused by this pathogen. This has the potential to cause serious damage to vegetation if it becomes established.

Earthworks and vegetation disturbance may provide suitable conditions for the establishment of introduced species in the Parks, or for the spread of introduced species already present. In addition, plants and their seeds can be in gravel and soil, or on machinery brought into or traversing the Parks.

Aims and actions

To monitor, control and as far as possible eradicate weeds, introduced plants and plant diseases, unless they perform useful functions or are of historical significance.

To minimise further establishment of introduced plants and plant diseases.

To minimise the spread of weeds and introduced plants into and through the Parks.

To locate and isolate any Cinnamon Fungus occurrence in the Parks.

Ongoing	Monitor and record the occurrence of weed species. Rangers will maintain a record of observed occurrences.
Ongoing	Co-operate with adjacent landholders in controlling the spread of weeds.
Ongoing	Disinfect machinery brought into the Parks to prevent Cinnamon Fungus infection.
High	Investigate the location and extent of dieback and occurrence of Cinnamon Fungus.
High	Regularly test for Cinnamon Fungus all gravel pits used prior to the supply of road-making materials to the Parks.
Medium	Implement a weed-control program for blackberries in consultation with the LBWSB and for other pest plants as required.
Medium	Map the extent of invasion of pine seedlings and implement a control program.
Medium	Revegetate areas disturbed during weed-control work with species found naturally in the Park, established from local stock of the same genetic makeup (provenance).

5.3 VERMIN AND INTRODUCED ANIMALS

Introduced animals threaten the populations and habitat of small native mammals. The Department has obligations under the Vermin and Noxious Weeds Act and the National Parks Act to exterminate or control introduced animals in the Parks.

Several pest animal species occur in the Parks and require appropriate control measures. The Fox is the most common introduced species and feral dogs are present in the southern section of Tyers Park. Rabbits and feral Cats are relatively uncommon. Feral Pigs are causing considerable damage in the southern part of the Moondarra State Park. The Common Blackbird *(Turdus merula)*, Common Skylark *(Alauda arvensis)* and European Goldfinch *(Carduelis carduelis)* are also to be found in the area.

Dogs, horses and honey bees are only permitted in the Parks under strict limitations and at specific sites.

Aims and actions

To monitor, eradicate or establish effective control of introduced animals, especially those declared as vermin.

To co-operate with adjoining landowners in the control of vermin and other introduced animals.

To control domestic pets in the Park.

Ongoing	Control Foxes, feral Dogs and feral Cats, especially in areas with significant wildlife, using methods such as shooting and cage trapping and the Bait Station technique.

Ongoing	Control rabbits, using methods such as myxomatosis, warren destruction and fumigation.

Ongoing	Avoid the use of 1080 poison for rabbit control; use requires approval of the Director of National Parks and Public Land Division.
Ongoing	Destroy feral bee colonies by means which do not affect other animals subsequently using the sites.
Ongoing	Control Pig populations using methods such as shooting and trapping. Liaise with adjacent landholders to reduce Pig escapes from freehold land.
Ongoing	Prohibit Dogs and other domestic pets in the Parks except for guide dogs accompanying blind persons and those confined in vehicles travelling through the Parks on Tanjil Bren Rd, Moe-Erica Rd, Moondarra Dam Rd and where gaining access to freehold land within the Parks on Seninis Rd and the track off the Moe-Erica (SEC line) Rd under the terms of the agreement with DCE.
Ongoing	Allow horse riding in the Parks, only on public roads shown on Figs 2 and 3. (see Section 6.3.5).
Ongoing	Permit apiaries at designated sites (see Section 7.4).

6 MANAGEMENT OF VISITOR USE

This chapter sets out aims and actions for many aspects of management relating to the activities of visitors throughout the Parks. The broad question of tourist and visitor access are treated first, then specific recreation activities and facilities, followed by information, and education.

6.1 TOURISM

In the Victorian Government's Economic Strategy (Govt of Vic. 1987d) seven 'tourist zones' are nominated for product enhancement. Neither Park falls within any of the zones. The nearest is the Gippsland Lakes Zone. The Latrobe Regional Commission in its Strategy Plan 'Steps Ahead' released in 1988 identified a number of strategic areas which should be promoted and developed as the main focus for launching a tourism industry in the Latrobe Region.

Under this Plan the Latrobe Regional Commission will lead the establishment of a series of product groups to develop tourism planning units in specific areas. The Mountain Rivers area has been identified as one such area. It incorporates both Parks and is scheduled for product development in the future. Responsibility for promotion rests with the Victorian Tourism Commission assisted by South East Coast Tourism, the Shires of Narracan and Traralgon, local tourist authorities and DCE.

The Latrobe Valley Tourist Committee is actively promoting the Latrobe Valley in conjunction with surrounding areas such as these Parks. The West Gippsland Tourism Authority is promoting the Alpine Area (synonymous with Mountain Rivers), which includes the two Parks as well as Baw Baw National Park, Walhalla and the Erica-Rawson area.

A market research study (Ogunmoken 1988) prepared for the Latrobe Valley Tourism Committee determined that only 23.7 per cent of respondents to the survey were aware of Tyers Park and only 6.4 per cent of respondents had visited the Park during the past two years. Key recreational attractions in the area are located outside these Parks and neither are significant tourist destinations in their own right. Visitation is frequently in association with visits to a number of other attractions in the vicinity. It seems unlikely that this situation will change during the life of this Plan.

There exists the opportunity however to improve visitors experience of the locality by provision of co-ordinated information on the features of the area, both within and outside the Parks. A tourist route could be promoted based on such features as Petersons Lookout, the Moondarra Reservoir and the unusual woodland vegetation in Moondarra State Park.

Aims and actions

Continue to provide a range of opportunities for tourists within the Parks.

Promote use of the Parks, through tourist outlets and information centres outside the Parks, where consistent with management objectives.

Provide input to Tourism plans and strategies prepared by responsible agencies.

Ongoing	Liaise with bodies responsible for tourism promotion and development.
Medium	Investigate the requirement for additional information outlets (see Section 6.5).
Medium	Develop a Regional Tourism Strategy which is consistent with Park management objectives.
Ongoing	Survey visitor requirements in the Parks.
Medium	In consultation with the Victorian Tourism Commission and LRC develop a self-guided nature drive within the Parks and in adjacent areas of public land

providing visitors with access to and information about the variety of environments in the district.

6.2 VEHICULAR ACCESS

Access to Moondarra State Park is relatively easy with the sealed Moe-Erica Road providing a link with the Princes Highway at Moe and the many tracks leading into the Park (Figs 1 and 2).

Most of Tyers Park is also readily accessible, although there are some restrictions, particularly that imposed by the Tyers River. Good access is available from the Moe-Erica Road via MOONDARRA Road and from the Tyers-Walhalla Road (Figs 1 and 3). Access from the south, from the Tyers-Yallourn North Road, may be gained through the Wirilda Environment Park during daylight hours and along the LVWSB pipeline or gas pipeline access roads, with permission from the managing authorities.

Private vehicles can only gain access to the Tyers River at one point in Tyers Park, via the Boola Road or via track W12 leading from the Tyers-Walhalla Road There is a ford suitable at most times only for four wheel drive vehicles at this point.

Roads providing access along the LVWSB pipeline in Tyers Park are closed to the public at a number of points (Fig. 3) to protect LVWSB facilities. The road along the Tyers River was constructed for pipeline installation and operations and maintenance purposes. It is a single lane road with many potentially dangerous 'blind' bends and rises and is traversed daily by LVWSB vehicles. In the past the LVWSB has allowed, by special arrangement, vehicular access by various groups and individuals along these roads. A gate on the track in Tyers Park providing access to the gas pipeline and north to Blairs Road is also locked at present.

The Department maintains all roads within the Parks except for the Moe-Erica Road, which is under the control of the RC, and access roads maintained by the LVWSB, SEC and Gas and Fuel Corporation. The road maintenance responsibilities of these last three authorities are not clearly defined.

Some roads and tracks in both Parks are not trafficable by two wheel drive vehicles in wet weather. There is no clear distinction at this stage between roads and tracks for public use and those which will be maintained for management and fire-fighting purposes only. There is a need to review road access in both Parks, but in Tyers Park in particular. This review should include identification of tracks that do not need to be maintained for other than management purposes and an assessment of access to public utilities, Park facilities and other areas of interest.

There is little illegal use of vehicles off-road occurring in the Parks. This situation is not expected to change; however this activity is a considerable threat to the values of the Parks and controls will be maintained.

The Tyers River and the Gorge are prime attractions for visitors. There are opportunities to improve access to the Tyers River without threatening Park values. Access to the Tyers Gorge will however be restricted to protect the Peregrine Falcon (see Section 4.2).

Aims and actions

To provide, maintain and improve vehicle access to recreation facilities, viewing sites and natural and cultural features where it is compatible with the overall objectives of management.

To eliminate off-road use of vehicles.

To rationalise roads and tracks in areas where there is duplication, where the system may be confusing to visitors or the roads unnecessary.

To provide opportunities for pleasure driving where compatible with other objectives.

Ongoing	Maintain the road system shown on Figs 2 and 3 for public use. Maintain other existing roads for management vehicles only. This will be subject to a review of road access throughout the region being undertaken by the Central Gippsland Region in consultation with user groups.
Ongoing	Maintain existing controls on road access along the Tyers River, in Tyers Park (Fig. 3) in consultation with the LVWSB. Liaise with the LVWSB on access to the Tyers Gorge during the Peregrine Falcon closure period (see Section 4.2).
Ongoing	Restrict use of Ti-Tree Creek Track to management vehicles only (see Section 6.3)
High	Investigate with the Gas and Fuel Corporation and Wirilda Project Association removal of a gate along the gas pipeline access track in the southern section of Tyers Park. A cattle grid may need to be installed to control stock on the Wirilda Environment Park.
High	Improve the track to Petersons Lookout in Tyers Park.
Medium	Reach agreement with the SEC and LVWSB on public access and the maintenance of access roads to and along their easements and facilities.
Medium	Investigate the improvement of access for two wheel drive vehicles to and across the Tyers River in Tyers Park in consultation with the LVWSB. This will include a review of the location of gates and the possibilities of periodic lifting of road closures. The condition of the ford across the Tyers River at W12 will be improved and car parking will be provided at the end of Boola Road. Control of access into the Tyers Gorge will be continued to protect the Peregrine Falcon.
Medium	Reach agreement with the Wirilda Project Association on access to and from Tyers Park through Wirilda Environment Park.

6.3 RECREATIONAL USE AND DEVELOPMENT

The forests in this general area, including the Parks, are important for recreation for people from Melbourne and the Latrobe Valley. Activities include camping, picnicking, fishing, bushwalking, horse riding, canoeing, and pleasure driving.

The recreation setting of the Parks is predominantly natural looking with moderate evidence of the sights and sounds of humans. Generally there are few opportunities for risk-taking or challenges. Interaction between users is low. Opportunities exist for both motorised and non-motorised forms and recreation with a high degree of interaction with the natural environment.

Both Parks are 'Roaded Natural' in the terms of the DCE recreation opportunity setting (CFL 1985). Vehicular use of Ti-Tree Creek Track has been restricted to management vehicles only in this Plan, to improve 'Semi-Remote' recreational opportunities in the northern part of Moondarra State Park (see Section 6.2).

In the Department's Central Gippsland Region and other nearby areas of the Latrobe Valley there are 16 other parks or areas of public land (including State Forests and Proposed Parks) which offer 'Roaded Natural' recreation opportunity settings similar to Tyers and Moondarra Parks. These include Morwell National Park, Holey Plains State Park and Mount Worth State Park. The nearby Baw Baw National Park and surrounding forests offer a considerably greater variety of opportunities with 'Semi-Remote', 'Roaded-Natural' and 'Semi-Developed' settings (CFL 1985).

Visitor facilities have been developed at a small number of sites in the Parks and also in nearby areas (Figs 15 and 16). There are few records of visitor numbers in the Parks or of the level or location of particular activities, other than the evident concentration at the existing facilities. Visitor levels are observed to be generally low throughout both Parks.

The Parks are easily accessible from the Latrobe Valley and Melbourne. Recreational use is likely to increase but this is not expected to be significant during the life of this Plan.

The Tyers River and Tyers Gorge provide the most important destinations for visitors, and future management will recognise the demand for access to these areas. The LCC recommended that provision be made in Tyers Park for 'opportunities for informal recreation for large numbers of people' and development 'to encourage high-intensity use of suitable localities away from Tyers Gorge area'. Tyers Gorge is an important scenic area and development will be strictly controlled to protect these values. It is unlikely that demand in the near future will warrant provisions for large numbers of people in Tyers Park.

Further information is needed before significant development work is considered in the Parks. Monitoring and investigations during the period of this Plan will provide the basis for future development for recreation.

Aims and actions

To manage recreation use to prevent conflicts between uses and users and to protect the Park environment.

To monitor patterns of visitor use and the impact of recreation activities in the Parks.

To maintain and improve existing recreational facilities consistent with management objectives and zoning. New recreation facilities will not be developed during the life of this plan.

Ongoing	Co-ordinate development and control of recreation with the LVWSB and the Wirilda Project Association. This applies in particular to activities which may have an impact on water supplies in the catchment.
High	Establish a monitoring program to assess the level and type of visitor use. Rangers will maintain a record of observed activity.
Medium	Investigate the opportunities for informal recreation for large numbers of people in Tyers Park and the encouragement of high-intensity uses at suitable localities away from Tyers Gorge.

6.3.1 Picnicking

Picnic facilities exist at Seninis and Tyers Bridge Visitor Areas in Moondarra State Park, and adjacent to the Tyers Park at the Moondarra Reservoir (maintained by the LVWSB, accessible to the disabled) and at Wirilda Environment Park (Figs 15 and 16). Moderate use is being made of these facilities.

Petersons Lookout is a popular visitors' destination in Tyers Park providing good views of the Tyers Gorge and the Latrobe Valley. The access road to Petersons Lookout has been partly improved recently and new viewing platforms, picnic facilities and toilets constructed. Large numbers of visitors could have significant impacts on this site and use of this area, particularly by rock-climbing groups, needs to be monitored. Access to this area will be restricted to certain times of the year to protect fauna values (see Section 4.2).

Work has commenced to improve the appearance of the visitor areas in the Moondarra State Park and new toilets, fireplaces and tables are being constructed. It is expected that additional picnic sites will be required, particularly along the Tyers River in Tyers Park.

Both Parks are within declared water supply catchments for either the Tyers or Tanjil River (Fig. 5). The development of picnic and camping facilities near the Tyers River will be constrained by minimum set backs from the river for toilet facilities or the installation of approved sealed systems.

Actions

High	Improve existing facilities at the Tyers River and Seninis Visitor Areas, including construction of toilets, fireplaces, control of vehicles and landscaping. Maintain facilities at Petersons Lookout. (see Section 9.2)
High	Establish a monitoring program for the use of Petersons Lookout and impacts on the site (see Section 4.2).
Medium	Investigate further picnic site(s) on the Tyers River in Tyers Park in consultation with the LVWSB.
Medium	Improve facilities at the picnic area on the eastside of the Tyers River near the Ford at W12. This will include the provision of fire places, toilets, the control of vehicles and some landscaping.

6.3.2 Camping

Some dispersed camping occurs in both Parks, but in general camping activity is low. There is an established camping area at Seninis Visitor Area in Moondarra State Park which is popular. This camping area is being improved.

Demand does not warrant any significant expansion of camping facilities at this stage. Any future development of camping must include precautions against pollution of water supplies.

Aims and actions

Maintain a range of camping opportunities.

Prevent pollution of water supplies by camping activity.

Ongoing	Encourage visitors to the Parks to use the serviced camping area at Seninis Visitor Area in Moondarra State Park and elsewhere in the Region. Information about the location of such sites will be provided at visitor areas.
Ongoing	Permit short-term bush camping, by walkers and vehicle based campers, throughout both Parks except: - in designated day visitor areas, including Tyers River Visitor Area and Petersons Lookout - within 200 m of the Moe-Erica and Tanjil Bren Roads. - within 20 m of streams.
Ongoing	Monitor camping activity in the Parks.
Ongoing	Encourage the use of small portable stoves and portable toilets by campers.
High	Improve the camping area at Seninis Visitor Area by completing parking areas, toilets and fireplaces.
Low	Investigate the possibility of further short-term camp sites within the Parks near the Tyers River, and along the Wirilda Track, in consultation with the LVWSB and the Federation of Victorian Walking Clubs.

6.3.3 Walking

There is little demand for extensive walking trails at present although this could change as the areas become better known. An extensive network of short and long walking tracks exists in the Erica-Rawson-Walhalla area. The Wirilda Track is the only track developed specifically for walkers in the Parks, although vehicle tracks are used. Use of the Wirilda Track appears to be low. Access to the track is obscure and little information is available to the public about the track itself. Clubs associated with the Federation of Victorian Walking Clubs assist the Department in maintaining the track.

The closed roads along the Tyers River in Tyers Park present opportunities for walkers, particularly in conjunction with the Wirilda Track. Demand does not justify significant development at this stage, although opportunities should be investigated, particularly those associated with interpretation and education programs.

Actions

High	Maintain the Wirilda Track to Class C as outlined in the Recreation Facilities Manual. Improve parking and sign posting along and at each end of the track, in consultation with the LVWSB the Wirilda Project Association and the Federation of Victorian Walking Clubs. Review the alignment of the Track where maintenance problems are occurring south of its intersection with W3.
High	Establish a monitoring program for use of the Wirilda Track.
High	Investigate the development of a walking track from Seninis Visitor Area to the Tyers Bridge Visitor Area in Moondarra State Park (see Section 6.5).
Medium	Investigate the opportunities for a return walking track system linking the Wirilda Track and roads along Tyers River in Tyers Park in consultation with the LVWSB.
Low	Investigate a walking track linking some of the historical features, and a link to the Alpine Walking Track, particularly from the Wirilda Track.

6.3.4 Rock climbing and abseiling

Some use is made of the rock faces below Peterson's Lookout in Tyers Park for rock climbing and abseiling, particularly by Scout groups and by the State Emergency Services for training purposes.

There are no major problems with this activity in the Park. However, there is concern about the likely disturbance of the Peregrine Falcons in Tyers Gorge. Mechanical devices used by climbers can damage the rock and large groups of climbers at Peterson's Lookout could annoy other visitors. The old limestone quarries in and adjacent to Tyers Park provide some alternative opportunities for these activities.

Actions

Ongoing	Rock climbing and abseiling is permitted in both Parks. Large groups will be discouraged from using Petersons Lookout, but use of disused quarries will be encouraged as alternative climbing sites.
Ongoing	Access to the Tyers Gorge will be closed between 1 July and 15 December each year for fauna protection purposes. (see Section 4.2). Rock climbing will be prohibited at Peterson's Lookout during this period. Track W2 will be closed to public access and appropriate signs erected.
High	Establish a monitoring program to assess the impacts of these activities, particularly the possible impact on nesting Peregrine Falcons (see Section 4.2) and on sites of geological significance (see Section 4.4)

Medium Investigate the need for information and educational material on the impact of human disturbances on Peregrine Falcons.

6.3.5 Horse riding

Occasional use is made of each Park by horse riders, mainly on existing roads and tracks. No problems or conflicts are known to have resulted from this activity.

Horse riding, particularly in groups, can conflict with other activities and result in damage to tracks, accelerated soil erosion and the introduction of weeds.

Wirilda Environment Park may provide for horse based camping in the future.

Action

Ongoing Permit horse riding on the existing roads and tracks shown on Figs 2 and 3. Horse riding is not permitted on walking tracks nor will cross-country horse riding or camping with horses be permitted. Horse riding along the pipeline in Tyers Road will be allowed.

Ongoing Use of the Parks by groups with more than 10 horses or by commercial organisations will require a permit.

Ongoing Monitor the effect of horse riding on Park values and other user groups.

6.3.6 Car and motor bike rallies

These take place within the Moondarra State Park but are not known to have occurred in Tyers Park. This latter Park is probably less attractive for such events because of the road closures. Motor Bike Enduro events have also been held in Moondarra State Park.

No major problems are known to have been caused by these activities but there is the potential for damage to roads, disturbance of other visitors, road deaths of wildlife and the deterioration of vegetation affected by dust along the roadsides. There are many alternative tracks in adjacent forest areas that could be used for these activities.

Action

Ongoing Car and motor bike rallies will not be permitted in Moondarra State Park or in Tyers Park, with the exception of the Tanjil Bren Road where it is within the Moondarra State Park. Tracks on public land in nearby areas will be made available for such activities subject to appropriate conditions being satisfied.

6.3.7 Orienteering and rogaining

These activities are not known to have taken place in either Park. Depending upon the number of participants, frequency and timing, orienteering and rogaining can have undesirable impacts on the environment and disturb other Park visitors. They are both allowed in a number of other Parks subject to conditions of permit. In this locality there are many alternative sites outside these Parks which are suitable for such events.

Action

Ongoing Orienteering and rogaining events will not be permitted either in Moondarra State Park or in Tyers Park. Public land in nearby areas will be made available for such activities subject to appropriate conditions being satisfied.

6.3.8 Canoeing

Some minor activity takes place on the Tyers River without any known problems. This is an appropriate activity and it should be encouraged, although expanded activity in Moondarra State Park may conflict with the LVWSB controls on boating on Moondarra Reservoir.

A camp site near the river in Tyers Park could improve the attractions of this Park for canoeists (see Section 6.3.2).

Actions

Ongoing Canoeing will be permitted in both Parks.

Ongoing Impacts will be monitored in consultation with the LVWSB.

6.3.9 Hunting and shooting

This activity is contrary to the conservation objectives of both Parks, poses a threat to visitors enjoying other recreation activities, and is not permitted under the terms of the National Parks Act.

Action

Ongoing Patrols will enforce the ban on hunting and shooting.

6.3.10 Fishing

There are many opportunities for fishing in the Tyers River within both Parks. This activity is not known to be having a major impact on either Park, and it is permitted under the National Parks Act. Taking freshwater crayfish in the Tyers River is prohibited by current Fisheries Regulations under the *Fisheries Act 1975* (Vic.). Fishing is not permitted in Moondarra Reservoir.

Action

OngoingPatrols will supervise fishing activities within each Park.

6.4 ORGANISED EVENTS AND COMMERCIAL RECREATION OPERATIONS

Organised events are only allowed in the Parks by permit. Such events include fun runs, fishing competitions, large group activities involving more than 20 people and horse rides involving more than ten horses. Such events can have undesirable impacts on the environment and disturb other Park visitors. Many opportunities for such activities may be found in nearby locations outside the Parks.

Commercial recreation operations (concessions) may only occur in the Parks under permit or licence in accordance with the National Parks Act. Relevant activities are generally those where a fee is paid to private individuals for instruction, leadership or use of facilities or services, including horses.

Aims and actions

To manage organised events and commercial recreation activities to minimise impacts on other users and the Park environment.

Ongoing	Organised recreation events will not be permitted in Moondarra State Park.
As needed	Assess applications for organised recreation events in Tyers Park on the basis of possible conflicts with other Park users and the Park environment. Senior Ranger to issue permits with appropriate conditions.
As needed	Assess applications for commercial recreation operations on the basis of possible conflicts with other Park users and the Park environment. Regional Manager to issue permits with appropriate conditions, with approval as required by the Director of National Parks and Public Land Division or the Minister for Conservation and Environment.

6.5 INFORMATION AND INTERPRETATION

An information sheet for each Park is available from DCE. These include a brief description of the Parks and a map of roads and facilities, and are made available to the public at offices of the Department.

No additional information services are provided and no information facilities are provided in the Parks. The roads in the Parks are well sign posted.

Aims and actions

To provide general information to visitors about the facilities and features available in the Parks.

To provide visitors with information and knowledge to enable them to discover and appreciate the natural and cultural features of the Parks.

To promote interpretation and information programs in the Parks through personal contact and participation.

To determine the information and interpretation needs of Park visitors, and the seasonal variation of such needs.

Ongoing	Maintain liaison with the LVWSB, Latrobe Valley Field Naturalists Club, Federation of Victorian Walking Clubs and the Wirilda Project Association in the development of information and interpretative services.
Ongoing	Provide information sheets at appropriate Department, other Government and tourist information centres and in the Parks.
High	Erect park signs at all major access points to the Parks.
High	Arrange for direction signs on the Princes Highway at Moe and Traralgon.
High	Erect an information shelter at the Tyers Bridge Visitor Area.
High	Erect an information board at the Seninis Bridge Visitor Area and Petersons Lookout.
High	Investigate the development of a nature trail originating from Seninis Visitor Area, possibly part of a walking loop to Tyers Bridge Visitor Area (see Section 6.3.3).

Medium	Liaise with the LVWSB on incorporating information about the Parks in displays at Moondarra Reservoir.
Medium	Upgrade road signs in accordance with Departmental guidelines.
Low	Investigate the development of an information centre at Parkers Corner in co-operation with the Board of Works, the Victorian Tourism Commission, the Shire of Narracan and the LRC.

6.6 EDUCATION

Visits are made by school groups, many from nearby school camps, including the Gippsland Educational Tours camp at Moondarra. The geological exposures in Tyers Park are popular for school visits and naturalist groups also visit the Parks.

There are no formal programs or facilities provided by DCE. The LCC identified an Education Area at Boggy Creek (LCC 1977) that has now been included in Moondarra State Park (Fig. 6).

Both Parks have educational value and this is enhanced by the ready access from the Latrobe Valley and Melbourne. There are a number of other features in the area, such as Moondarra Reservoir.

The future development of the Wirilda Environment Park and use of Connan Park will make demands on the Parks. Assessment of the demand for education facilities, during the period of this Plan, will provide a basis for future development.

Aims and actions

To provide educational opportunities for schools, tertiary institutions and community groups visiting the Park.

Ongoing	Enlist the co-operation of the LVWSB, the Wirilda Project Association, the Latrobe Valley Field Naturalists Club and other interested organisations in the development of joint educational programs.
Ongoing	Encourage use of the Boggy Creek Education Area for education programs involving experimental manipulation of the environment not permitted elsewhere in Moondarra State Park (see Section 3.3).
Ongoing	Monitor the impacts of educational use.
High	Investigate the use of Connan Park by school groups. No expansion of facilities at the camp will be permitted during the life of this Plan (see Section 7.8).
Medium	Assess demand for educational use.
Medium	Encourage and assist schools to develop educational programs.
Medium	Investigate the development of the Boggy Creek Education Area.

7 MANAGEMENT OF AUTHORISED USES

A small number of occupancies, utilities and commercial uses have become established within the Parks. If they are to remain these uses must be licensed under the National Parks Act.

Some activities that may occur irregularly in the Parks, such as seismic surveys, are dealt with under relevant legislation and Departmental policy as they arise. Commercially-based recreation activities and services were addressed in Chapter 6. The zoning of uses in certain parts of the Parks, described in Chapter 3, gives general guidance for control of many of these activities. Generally, authorised uses are managed to minimise disturbance to the Park environment and inconvenience to visitors.

7.1 SHALE EXTRACTION

A licence to extract shale, issued by the former Forests Commission Victoria, is held by Boral Brick for an area of three hectares in Tyers Park (Fig. 15, FCV Licence 6646). Although not widely visible, the works detract from the quality of the landscape of this part of the Park.

The LCC recommended that shale extraction be permitted to continue while investigation is made of alternative sources.

Actions

High	Initiate consent proceedings under Section 40 of the National Parks Act for the continued extraction of shale within the area defined on FCV licence 6646 . No significant expansion of existing areas of excavation or clearing of vegetation will be permitted and the licensee will be required to protect Park values and make appropriate provision to rehabilitate the site after operations have ceased. A rehabilitation plan will be jointly prepared by the Department and Licensee.
High	Encourage the licensee to seek an alternative source of shale in consultation with DCE and the Department of Manufacturing and Industry Development.

7.2 WATER SUPPLY

A LVWSB pipeline runs along the Tyers River in the Tyers Park (Fig. 15). No easement exists for this pipeline nor for the associated facilities and access road which are in the Park. A pipeline within an easement runs through the southern section of Moondarra State Park (Fig. 16). This easement is denuded of vegetation and detracts from the landscape of the Park. No licences or permits have been issued for these activities under the National Parks Act. No formal agreement exists on access and management responsibilities for the pipelines.

The pipelines have a considerable impact on both Parks. There is need for close liaison and co-operation between the LVWSB and DCE to ensure the efficient operation of water supply facilities while at the same time minimising restrictions on public access and clearing of vegetation.

Actions

High	Liaise with the LVWSB on future management of the pipelines. Current access, management and uses will remain during the period of this Plan.
High	Issue a consent to the LVWSB under the terms of Section 27 of the National Parks Act for existing pipelines and associated facilities in both Parks.

7.3 MINERAL EXPLORATION AND MINING

Very little mining appears to have occurred in either Park, except for the existing shale quarry and some limestone quarrying in the past in Tyers Park (Fig. 15). The remains of the limestone quarry and kiln are of historic interest.

The National Parks Act and Park Regulations 1984 generally prohibit prospecting, mineral exploration and mining unless specifically provided for by the Minister for Conservation and Environment under Section 40 of the Act. Mining in National and State Parks is not permitted under the Act unless application for a permit was made before 1 October 1988. No licences for mineral exploration or mining are held for land within the Parks and no applications are outstanding.

Action

Ongoing — All applications for exploration or mining are subject to the provisions of Section 40 of the National Parks Act. No mining or mineral exploration will be permitted in Moondarra State Park.

7.4 APICULTURE

No licenced beekeeping sites are located in either Park. The Red Box woodland along the Tyers River in Tyers Park has a moderate capability for apiculture (LCC 1980). The LCC recommended that provision be made for honey production in the southern portion of Tyers Park (LCC 1982).

The National Parks Act and Regulations provide for the Director of the National Parks and Public Land Division to grant permits for the keeping of any apiaries in Parks approved by the Minister.

There is potential danger for visitors from bees in Parks and also the potential for undesirable impacts on native flora and fauna. Beekeeping is generally only allowed in Parks where it is a traditional use.

Actions

Ongoing — Issue a permit, as appropriate, under Section 21 (1)(b) of the National Parks Act in Zone I(a) of Tyers Park for no more than 2 sites.

Ongoing — Monitor the use of approved sites.

7.5 MILITARY EXERCISES

The armed forces makes occasional use of both Parks for small-scale exercises using light vehicles on the roads and small groups on foot. Recent work by Army engineers on the ford over the Tyers River in Tyers Park has made a significant contribution to improving access in this area.

Limited use by the armed forces in the past has not created any significant problems.

Actions

Ongoing Small-scale military exercises will be permitted in both Parks, if no alternative areas of public land are suitable, subject to a permit from the Director of the National Parks and Public Land Division. Only those activities which are permitted to the general public will be allowed. Exercises using heavy machinery, explosives, pyrotechnics or other such disturbances to the environment or visitors, will not be approved. No large-scale or long-term exercises will be allowed. Proponents will be encouraged to seek locations outside the Parks.

Ongoing Monitor the impacts of military exercises on the Parks.

7.6 CIVIL DEFENCE EXERCISES

Search and rescue and rock-climbing exercises have taken place in the past. This small-scale and occasional activity has not caused significant problems. Activity will need to be monitored and controls will be applied in Tyers Gorge (see Section 4.2)

Actions

Ongoing Small-scale civil defence exercises which do not conflict with management objectives will be allowed, subject to approval by the Regional Manager.

Ongoing Monitor the impacts of civil defence exercises in the Parks.

7.7 POWER TRANSMISSION

Two overhead 500 kV transmission lines run east-west through the southern part of both Parks along a single easement (Figs 15 and 16). A 22 kV overhead line runs from this line, along an easement, through Tyers Park to the Moondarra Reservoir and also runs along the Moondarra Road outside the Park to join the 22 kV line running along the Moe-Erica Road. Part of this line runs through the Moondarra State Park. The 22 kV line along the Moe-Erica Road is generally confined to the road reserve, except in the north where it runs through the Moondarra State Park with a spur line into freehold property within the Park (CA 11A, Section C, Parish of Tanjil).

A grazing licence, issued by the former Forests Commission Victoria, is held for the cleared land on the easement running under the 500 kV transmission line through Moondarra State Park. The easement has been improved for grazing, dams have been constructed and fences erected on the boundaries. The fences may obstruct the movement of wildlife and visitor access, there is the threat of stock and weeds escaping into the Park and the strip of grazed pasture is out of character with the Park landscape.

No licences have been issued, under the National Parks Act, for these activities and there is no clear definition of access and management responsibilities for the transmission lines or the grazing.

Actions

High Liaise with the SEC on access and maintenance of the transmission line and easement and the reduction of the visual impact (see Section 4.3).

High Issue a consent to the SEC under the terms of Section 27 of the National Parks Act, for existing transmission lines in the Parks, subject to appropriate conditions.

High	Issue a licence under the terms of Section 26A of the National Parks Act for the grazing of the SEC easement in Moondarra State Park. Investigate phasing out of this licence in consultation with the SEC and the licence holder and methods of maintaining the fire protection values of the easement.

7.8 CONNAN PARK

Connan Park, a Scout Association of Australia camp, is located on the boundary of Tyers Park (Fig. 15). Access to this camp is through Tyers Park along roads that are presently closed to the public. School groups occasionally use the area with permission. The LCC recommended the addition of this camping area to Tyers Park and its continued use by the Scout Association. This is unlikely to pose any significant problems for Park management.

The Association's lease of the camp from the SEC has expired and the SEC has transferred the land to the Crown. The Camp will be added to Tyers Park in accordance with the recommendations of the LCC.

Action

High	Following incorporation of Connan Park into Tyers Park, issue a licence to the Scout Association of Australia, under Section 26A of the National Parks Act, for use of the existing camp. Include as a condition of the licence that the Scout Association will permit use of facilities by school and other groups, subject to satisfactory arrangements being made with the Association and proper care of the facilities during use. The Scout Association will have first priority on use of the camp. This licence will require the Scout Association to report annually to the Regional Manager on use of the camp.
Ongoing	Liaise with the Scout Association on Park management issues which affect Connan Park.

7.9 TIMBER STORAGE DUMP

A transfer dump for timber from nearby forests is located adjacent to the Tanjil Bren Road in Moondarra State Park (Fig. 16). This is a large open area, clearly visible from the Tanjil Bren Road and with considerable impact on the landscape in the immediate vicinity. It is an inappropriate use of the Park.

Action

High	Identify an alternative site outside the Park, and close and rehabilitate the site during the life of this Plan.

8 BOUNDARIES AND ADJACENT LAND USE

8.1 BOUNDARIES

The Parks are surrounded mostly by native forest on both public and freehold land with some freehold grazing land and pine plantations on public land to the south (Fig. 4). In general the boundaries of the Parks seem to be clearly delineated by roads, tracks, the Tyers River or the transition from forested Park to cleared freehold grazing land or pine plantation.

Within Moondarra State Park there are two freehold allotments which straddle the Tyers River at Seninis (Allotments 11A and 11B of C, Parish of Moondarra) (Fig. 2). Allotment 11A, to the west of the river, has been cleared and the boundary is well delineated but Allotment 11B, to the east of the river, is forested and less well defined. Neither allotments have legal access. Arrangements have been made to provide access to Allotment 11B through the Park off the Moe-Erica Rd, subject to an agreement with DCE. A similar agreement is needed with the landholder of allotment 11A.

Two other freehold allotments in Moondarra State Park were once part of the now dismantled railway line from Moe to Erica (Fig. 2). Allotment 17 of D, Parish of Tanjil, owned by the State Transport Authority and once part of the line itself, is being incorporated into the Park. Allotment 28H of B, Parish of Tanjil East was also once owned by what is now the State Transport Authority. However, ownership is now uncertain and investigations are being made with the intention of incorporating it into the Park

There is a freehold block in the northern part of Tyers Park (Allotment 57 of A, Parish of Tanjil) which is not cleared and therefore difficult to define on the ground (Fig. 3).

The freehold blocks of land within the Parks have not caused any significant conflicts with Park management. There are minor management difficulties and the possibility of future conflicts with use and development of these areas. The escape of domestic animals and stock into the Park is always a threat. Better definition of the boundaries of these blocks would assist management. However a costly survey is not justified.

Certain road reserves have been excluded from the Moondarra State Park. These primarily provide for access to and enjoyment of the Park. Most will be managed as part of the Park, and they should be incorporated into it. Exceptions to this are the Moe-Erica Road and the Tanjil Bren Road which are not primarily servicing the Park, and part of Seninis Road which gives access to the freehold block at Seninis. The alignment of these roads seems to differ in many places from the reservation.

Work on the Tyers-Walhalla Road has involved some re-alignment and some minor adjustment of the boundary of Tyers Park will be required.

Aims and actions

To manage Park boundaries to protect Park values.

To rationalise Park boundaries when possible and appropriate.

Ongoing	Where freehold land within the boundaries of the Parks is offered for sale, the Department will consider purchase.
Medium	Arrange for the incorporation of Connan Park into Tyers Park (see Section 7.8).

Medium	Arrange for incorporation into Moondarra State Park of all road reserves within the Parks except the Tanjil Bren Road, Moe-Erica Road and Seninis Road where it provides access to freehold land. Where these roads are to be excluded from the Park arrange for survey to ensure that road alignments and road reserves coincide.
Medium	Arrange for incorporation into Moondarra State Park of the unused railway line land within the boundaries of the Park (Allotment 17 of D, Parish of Tanjil).
Medium	Investigate incorporation into Moondarra State Park of the small unused railway block (Allotment 28H of B, Parish of Tanjil East).
Low	Arrange for adjustment of the eastern boundary of Tyers Park to accommodate the re-alignment of the Tyers-Walhalla Road.
Low	More clearly define the boundaries of freehold blocks inside Park boundaries.

8.2 ADJACENT LAND USE

Adjacent land uses are generally not having a major impact on either Park. Issues include the control of pine seedlings, and the operation of the gravel pit on the Tyers-Walhalla Road adjacent to Tyers Park. However, if the SEC overburden dumping site at Andersons Creek is used (see Section 2.1), there will be a considerable impact on the adjacent section of Moondarra State Park.

Use of and access to Tyers Park is closely linked to the LVWSB facilities at Moondarra Reservoir and to Wirilda Environment Park. The Tyers Park will be managed in consultation with the LVWSB and the Wirilda Project Association. The Wirilda Project Association hold a Water Frontage Licence (WF 61813) which extends into Tyers Park. This needs to be amended to revoke that section of the Licence extending into the Park.

Large areas of these Parks are within the proclaimed water supply catchments of either the Tanjil or Tyers Rivers (Fig. 5) and include within their boundaries a number of water-supply facilities. Management will be directed to protecting water quality and water-supply facilities, in consultation with the LVWSB. Soil erosion hazard is high in some areas and earthworks and clearing of vegetation will be strictly limited, unless it can be shown that the hazard is low at a particular site. Activity on and adjacent to Moondarra Reservoir is restricted by the LVWSB and management must not contribute to increased pressures on this area.

Planning controls do not pose any major issues for Park management. The Parks are zoned 'reserved forest' in the Narracan Planning Scheme (see Section 2.1). Clearing of the freehold blocks within the Parks would adversely affect landscape values and water quality. Timber harvesting in adjacent forest areas could have impacts on the landscape as viewed from the Parks.

Aims and actions

To maintain liaison with adjacent landholders, the LVWSB and the Wirilda Project Association.

To maintain liaison with the Shire of Narracan and the LRC to ensure that adjacent developments are consistent with protection of Park values.

To protect water supply facilities and maintain access to these facilities.

To minimise earthworks and clearing of vegetation in and adjacent to the Parks.

To maintain liaison with the SEC to ensure that any development of the proposed Andersons Creek overburden dump recognises Park values.

To minimise the impact of the operation of adjacent gravel pits on the Parks.

Ongoing	Plan timber-harvesting operations in adjoining State Forest to minimise visual impacts on each Park.
Ongoing	Encourage the SEC to seek alternative sites for the proposed overburden dump at Andersons Creek.
High	Reach agreement with the Wirilda Project Association to permit public vehicular and pedestrian access to the Tyers Park through Wirilda Environment Park and on use, development and management of visitor facilities.
High	Liaise with the LVWSB on the use and management of visitor facilities at Moondarra Reservoir.
High	Reach formal agreement with landholder of allotment 11A in Moondarra State Park on access off Seninis Rd through the Park.
High	Request the Shire of Narracan to refer all applications for planning permits, including subdivision proposals, in close proximity to the Park, to the Central Gippsland Region for comment prior to approval.
Medium	Take action to control domestic animals which are escaping into Moondarra State Park (see Section 5.3).
Medium	Review Water Frontage Licence No. WF61813 in consultation with the Wirilda Project Association to remove that portion extending into Tyers Park.
Low	Initiate transfer of management of the gravel pit on the Tyers-Walhalla Road adjacent to Tyers Park to DCE in accordance with LCC recommendations.
Low	Make a submission to the Shire of Narracan to amend the planning scheme to appropriately zone the Park areas.

9 MANAGEMENT RESOURCES

Central Gippsland Region is responsible for delivering the Department's programs on both public and private land, in accordance with Department policies. Both Parks are managed by this Region under delegation from the Director of National Parks and Public Land Division in accordance with the National Parks Act and policies.

The Region is structured into four major units, with broad responsibilities as shown below:

Services:	finance, purchasing, human-resource management and office services
Resource Conservation:	planning, advisory and extension services on private land, and planning and advisory input on public land
Public Land Management:	planning on all public land managed by the Department
Operation:	delivery of on-ground work programs throughout the Region

The Public Land Management unit prepares the plans, prescriptions and budgets which apply to the various areas of public land within the Region. In discharging this responsibility it co-ordinates input from all sections of the Region, and from other Department, Government and private sources.

The Operations unit has been sub-divided into five geographical areas, the Parks being located within the Erica Operations Area. The Operations Area Supervisor at Parkers Corner, who is responsible for all works in the Area, has a number of technical staff (including Rangers) and a labour force based at Erica and Moe, to implement works.

None of these personnel are actually based within the Parks. The two Rangers based at Erica have major commitments in Baw Baw National Park, Walhalla Historic Area and State Forest areas including the Thomson Catchment. As a result of these other commitments Tyers and Moondarra Parks are insufficiently resourced.

9.1 STAFF

One Ranger, based at Erica, is required to supervise activities in both Parks. Approximately 60 per cent of the Ranger's time will be spent in the Parks, with the balance in the adjoining public land. This will vary from time depending on annual programs. Tasks to be undertaken include interpretation, supervision of recreation, use, development and maintenance work, and enforcement of regulations.

Rangers will receive support from other staff and employees within the Operations Area, and from staff of the Public Land Management and Resource Conservation units, as required. Seasonal ranger staff will be employed during the summer period to assist permanent staff manage visitor use and implement interpretation programs. Additional temporary workers based at Erica from time to time will continue to be available to assist with Park works.

A proposal will be made to the Board of Works, to share the operation of the Parkers Corner Information Centre and support an additional full-time officer who will be responsible in part for programs dealing with the Tyers and Moondarra Parks (see Section 6.5).

9.1.1 Staff requirements

Specialist staff (e.g. scientific and technical staff, and landscape design personnel) will be required on a continuing basis for the implementation of this Plan, and to resolve specific issues which may arise and have not been addressed in this Plan. These will be made available as required from within the Central Gippsland Region or other DCE Divisions.

9.1.2 Staff training and authorisation

In addition to the Department's general training program for Park staff and on-the-job training acquired in the normal management of the Park, staff should receive formal training in:

- basic search and rescue techniques
- fire techniques
- first aid
- education and interpretation
- monitoring techniques for rare and endangered plant and animal species
- identifying and monitoring introduced plant species.

Ranger staff and other selected Departmental staff will also be expected to undertake the necessary training to be authorised as officers under the National Parks Act, the *Wildlife Act 1975* (Vic.), the Fisheries Act, the Forests Act, the *Land Act 1958* (Vic.) and the *Archaeological and Aboriginal Relics Preservation Act 1972* (Vic.).

9.2 BUILDINGS

An information shelter will be constructed at the Tyers Bridge Visitor Area. This will be the main information and interpretation centre for the Parks. Other visitor facilities will be provided as described in Section 6.3 including new toilets at the Tyers Bridge Visitor Area and maintaining the existing toilets at the Seninis Visitor Area and Peterson's Lookout.

APPENDIX I DEFINITIONS OF SIGNIFICANCE RATINGS

1 BOTANICAL (Gullan et al. 1984)

International significance

The site supports high quality vegetation of types or formations which are rare, restricted or in danger of extinction world wide, e.g. mature hardwood forest.

National significance

The site supports high quality stands of native vegetation of communities which are rare, restricted or in danger of extinction in Australia. The vegetation will often support rare and endangered plant species.

State significance

The site supports high quality vegetation which is rare or of restricted distribution in the State, represents a wide range of vegetation types, is particularly diverse, contains a number of significant species or is of importance because of the scientific research being carried out there.

Regional significance

The site supports high quality vegetation which may or may not be well represented elsewhere in the study area. These sites are usually small in area and are often utilised for purposes other than conservation.

Local significance

The site supports native vegetation which is representative of the original local flora. These sites are usually small and surrounded by extensive tracts of alienated land. The vegetation of these sites is often disturbed.

2 ZOOLOGICAL (Mansergh & Norris 1982)

Global significance

The site is essential for the survival of one or more species in the world.

International significance

The area contains significant segments of a population (birds in this instance) that are international migrants. Some species are protected under international agreements.

National significance

The area contains the only population(s) of the species in Australia or it is an important foraging, roosting or breeding area for interstate migrants. Because most species of vertebrate in Australia are endemic, 'Global Significance' usually takes precedence.

The area is part of a series selected to conserve every species in the Central Gippsland Region in the most efficient way *vis a vis* land area.

Local or scientific interest

Those sites of interest to biologists, local field naturalists or identified by us as being of potential interest to the local community or of special value for scientific research. This section is less complete than the significant sites, lacks the latter's objectivity and caters more for the human interest side of conservation rather than for the conservation of region's wildlife per se. However, localities where endangered or otherwise threatened species in Victoria have been recorded are included in this series, if such localities were not included in sites of higher significance.

3 GEOLOGICAL AND GEOMORPHOLOGICAL (Rosengren et al. 1981)

International significance

These are examples of landform, lithology or structure which are either unique or rare in the world and/or by the nature of their scale, state of conservation or display are comparable with examples known internationally. These would be included in an international register of sites of scientific significance.

National significance

A site rated as being of national significance is either unique or rare in Australia and has been so little disturbed or modified that the essential properties of the site are clearly preserved and displayed. The site represents a major contribution to understanding in the earth sciences and contains the potential for further research in several fields.

State significance

A site of state significance includes landforms or geological structures which are clearly displayed or provide important structures which are clearly displayed and/or provide an important contribution to understanding the stratigraphy and evolution of the landscapes of Victoria.

Regional significance

These sites represent clear examples of landform or geology typical of the study region.

Local significance

Sites of local significance are typically limited but clear exposures of rock formations that are widespread in Central Gippsland or throughout Victoria or are small landform features that are relatively common in the State.

APPENDIX II VEGETATION TYPES

Six major vegetation types (Figs 13 & 14) have been mapped in the two Parks (Ashe & Smith 1983).

1 YERTCHUK - SILVERTOP OPEN FOREST

The composition of the overstorey varies considerably but Yertchuk (*Eucalyptus consideniana*) and Silvertop (*E. sieberi*) are the most dominant species. Other species include Messmate Stringybark (*E.obliqua*), Narrow-leaf Peppermint (*E. radiata*), White Stringybark (*E. globoidea*), Apple Box (*E. bridgesiana*), Silver-leaf Stringybark (*E. cephalocarpa*) and Brown Stringybark (*E. baxteri*).

The understorey ranges from heath, comprising Tea Tree, sedges and grasses, to a shrub layer, dominated by *Acacia* spp. and *Leptospermum* spp., to grass.

2 SILVERTOP OPEN FOREST

This type tends to be confined to ridges in Tyers Park, but occurs more widely throughout Moondarra State Park. The understorey usually contains sclerophyllous shrubs such as Variable Sallow Wattle (*Acacia mucronata*), Prickly Tea-tree (*Leptosperum juniperinum*), Bushy Needlewood (*Hakea sericea*) and Common Heath (*Epacris impressa*). Thatch Saw-sedge (*Gahnia radula*) and Bracken (*Pteridium esculentum*) are common in the rather sparse ground layer.

3 YERTCHUK WOODLAND/OPEN WOODLAND

This type occupies poorly drained sites common in the western section of Moondarra State Park in the Serpentine Creek catchment. Yertchuk often occurs in pure stands or in mixture with Narrow-leaf Peppermint or Silver-leaf Stringybark. The understorey is usually a dense heath, similar in composition and structure to Vegetation type 6. Another common understorey is dominated by Bayonet Grass (*Stipa muelleri*) and Thatch Saw-sedge (*G. radula*).

4 MESSMATE STRINGYBARK - SILVERLEAF STRINGYBARK OPEN FOREST.

This type has a restricted occurrence in both Parks, and is confined to the deeper gullies and steep sheltered slopes. Other overstorey species are Manna Gum (*E. viminalis*) and Narrow-leaf Peppermint (*E. radiata*). The understorey typically contains a tall shrub layer of broad-leaved mesic species including Blanket-leaf (*Bedfordia arborescens*), Snow Daisy-bush (*Olearia lirata*), Rough Hazel Pomaderris (*Pomaderris aspera*) and a ferny field layer.

5 RED BOX - APPLE BOX OPEN FOREST

This occurs on the steep and rocky slopes near Tyers Gorge in Tyers Park. The understorey is dominated by a layer of sclerophyllous shrubs that is often quite dense. The ground layer is sparse with scattered grasses and herbs.

6 PRICKLY TEA TREE HEATH/SCRUB

This is common on low-lying poorly-drained sites in Moondarra State Park. It comprises a group of associations dominated by Prickly Tea-tree (*Leptospermum juniperinum*) and/or Scented Paper-bark (*Melaleuca squarrosa*) as closed-heath (0.2 - 2 m tall) or closed-scrub (>2 m tall). Species diversity and richness varies considerably with local conditions.

APPENDIX III FLORA OF MOONDARRA STATE PARK AND TYERS PARK

PTERIDOPHYTES (FERNS AND FERN-ALLIES)

ADIANTACEAE	*Adiantum aethiopicum*	Common Maidenhair
	Cheilanthes austrotenuifolia	Green Rock Fern
	Pellaea falcata	Sickle Fern
	Pteris tremula	Tender Brake
ASPLENIACEAE	*Asplenium bulbiferum*	Mother Spleenwort
	Asplenium flabellifolium	Necklace Fern
BLECHNACEAE	*Blechnum cartilagineum*	Gristle Fern
	Blechnum minus	Soft Water-fern
	Blechnum nudum	Fishbone Water-fern
	Blechnum patersonii	Strap Water-fern
	Blechnum wattsii	Hard Water-fern
	Doodia media	Common Rasp-fern
BRASSICACEAE	*Cardamine hirsuta*	Common Bitter-cress
CYATHEACEAE	*Cyathea australis*	Rough Tree-fern
DENNSTAEDTIACEAE	*Culcita dubia*	Common Ground-fern
	Histiopteris incisa	Bat's Wing Fern
	Pteridium esculentum	Austral Bracken
DICKSONIACEAE	*Dicksonia antarctica*	Soft Tree-fern
DRYOPTERIDACEAE	*Polystichum proliferum*	Mother Shield-fern
GLEICHENIACEAE	*Gleichenia dicarpa*	Pouched Coral-fern
	Gleichenia microphylla	Scrambling Coral-fern
	Sticherus lobatus	Spreading Fan-fern
LINDSAEACEAE	*Lindsaea linearis*	Screw Fern
LYCOPODIACEAE	*Lycopodium deuterodensum*	Bushy Clubmoss
	Lycopodium laterale	Slender Clubmoss
POLYPODIACEAE	*Microsorum diversifolium*	Kangaroo Fern
SCHIZAEACEAE	*Schizaea bifida*	Forked Comb-fern
SELAGINELLACEAE	*Selaginella uliginosa*	Swamp Selaginella

MONOCOTYLEDONS (FLOWERING PLANTS WITH ONE SEED-LEAF)

CENTROLEPIDACEAE	*Centrolepis strigosa*	Hairy Centrolepis
CYPERACEAE	*Baumea rubiginosa*	Soft Twig-sedge
	Baumea tetragona	Square Twig-sedge
	Carex appressa	Tall Sedge
	Carex breviculmis	Short-stem Sedge
	Carex polyantha	Sedge
	* *Cyperus eragrostis*	Drain Flat-sedge
	Cyperus lucidus	Leafy Flat-sedge

	*	*Cyperus tenellus*	Tiny Flat-sedge
		Eleocharis sphacelata	Tall Spike-sedge
		Gahnia radula	Thatch Saw-sedge
		Gahnia sieberiana	Red-fruit Saw-sedge
		Gymnoschoenus sphaerocephalus	Button Grass
		Isolepis inundata	Swamp Club-sedge
		Isolepis platycarpa	Flat-fruit club-sedge
		Lepidosperma elatius	Tall Sword-sedge
		Lepidosperma filiforme	Common Rapier-sedge
		Lepidosperma laterale	Variable Sword-sedge
		Lepidosperma semiteres	Wire Rapier-sedge
		Lepidosperma tortuosum	Tortuous Rapier-sedge
		Schoenus apogon	Common Bog-sedge
		Schoenus maschalinus	Leafy Bog-sedge
		Schoenus tenuissimus	Slender Bog-sedge
		Tetraria capillaris	Hair-sedge
HYDROCHARITACEAE		*Ottelia ovalifolia*	Swamp Lily
IRIDACEAE		*Patersonia fragilis*	Short Purple-flag
		Patersonia occidentalis	Long Purple-flag
	*	*Sisyrinchium iridifolium*	Striped Rush-leaf
	*	*Watsonia meriana*	Bulbil Watsonia
JUNCACEAE		*Juncus amabilis*	Hollow Rush
	*	*Juncus articulatus*	Jointed Rush
		Juncus bufonius	Toad Rush
	*	*Juncus bulbosus*	Bulbous Rush
	*	*Juncus capitatus*	Dwarf Rush
		Juncus pallidus	Pale Rush
		Juncus pauciflorus	Loose-flower Rush
		Juncus planifolius	Broad-leaf Rush
		Juncus prismatocarpus	Branching Rush
		Juncus procerus	Tall Rush
		Juncus sarophorus	Rush
		Juncus subsecundus	Finger Rush
		Luzula meridionalis var. *densiflora*	Common Woodrush
		Luzula ovata	Oval Woodrush
JUNCAGINACEAE		*Triglochin striata*	Streaked Arrow-grass
LILIACEAE		*Arthropodium milleflorum*	Pale Vanilla-lily
		Bulbine bulbosa	Yellow Bulbine-lily
		Burchardia umbellata	Milkmaids
		Caesia parviflora	Pale Grass-lily
		Dianella caerulea	Paroo Lily
		Dianella revoluta	Black-anther Flax-lily
		Dianella tasmanica	Tasman Flax-lily
		Dichopogon strictus	Chocolate-lily
		Hypoxis glabella	Tiny Star
		Hypoxis hygrometrica	Golden Weather-glass
		Sowerbaea juncea	Rush Lily
		Thelionema caespitosum	Tufted Lily
		Thysanotus patersonii	Twining Fringe-lily
		Thysanotus tuberosus	Common Fringe-lily
		Tricoryne elatior	Yellow Rush-lily
		Wurmbea dioica	Common Early Nancy
ORCHIDACEAE		*Acianthus caudatus*	Mayfly Orchid
		Acianthus exsertus	Gnat Orchid

	Arthrochilus huntianus	Elbow Orchid
Rr	*Burnettia cuneata*	Burnettia
	Caladenia aurantiaca	Orange-tip Caladenia
	Caladenia catenata	White Caladenia
	Caladenia congesta	Black-tongue Caladenia
	Caladenia cucullata	Hooded Caladenia
	Caladenia dilatata	Green-comb Spider-orchid
	Caladenia gracilis	Musky Caladenia
	Caladenia iridescens	Bronze Caladenia
r	*Caladenia patersonii*	Common Spider-orchid
	Caleana major	Large Duck-orchid
	Calochilus campestris	Copper Beard-orchid
	Calochilus robertsonii	Purplish Beard-orchid
	Chiloglottis gunnii	Common Bird-orchid
	Chiloglottis reflexa	Autumn Bird-orchid
	Corybas diemenicus	Veined Helmet-orchid
	Cryptostylis leptochila	Small Tongue-orchid
	Cryptostylis subulata	Large Tongue-orchid
	Dipodium punctatum	Hyacinth Orchid
	Diuris corymbosa	Wallflower Orchid
	Diuris maculata	Leopard Orchid
	Diuris sulphurea	Tiger Orchid
	Eriochilus cucullatus	Parson's Bands
	Gastrodia sesamoides	Cinnamon Bells
	Genoplesium archeri	Variable Midge-orchid
	Genoplesium despectans	Sharp Midge-orchid
	Glossodia major	Wax-lip Orchid
	Lyperanthus nigricans	Red-beaks
	Microtis oblonga	Rare Onion-orchid
	Microtis parviflora	Slender Onion-orchid
	Microtis unifolia	Common Onion-orchid
	Orthoceras strictum	Horned Orchid
	Prasophyllum australe	Austral Leek-orchid
	Prasophyllum brevilabre	Short-lip Leek-orchid
	Pterostylis alpina	Mountain Greenhood
	Pterostylis furcata	Forked Greenhood
	Pterostylis longifolia	Tall Greenhood
	Pterostylis nutans	Nodding Greenhood
	Pterostylis parviflora	Tiny Greenhood
	Pterostylis pedunculata	Maroon-hood
	Spiranthes sinensis	Austral Lady's Tresses
	Thelymitra aristata	Great Sun-orchid
	Thelymitra carnea	Salmon Sun-orchid
	Thelymitra holmesii	Blue-star Sun-orchid
	Thelymitra ixioides	Dotted Sun-orchid
	Thelymitra media	Tall Sun-orchid
	Thelymitra pauciflora	Slender Sun-orchid
POACEAE	*Agrostis avenacea*	Common Blown-grass
*	*Agrostis capillaris*	Brown-top Bent
*	*Aira caryophyllea*	Silvery Hair-grass
*	*Aira cupaniana*	Hair-grass
*	*Anthoxanthum odoratum*	Sweet Vernal-grass
*	*Briza maxima*	Large Quaking-grass
*	*Briza minor*	Lesser Quaking-grass
*	*Bromus catharticus*	Prairie Grass
*	*Bromus diandrus*	Great Brome
*	*Bromus hordeaceus*	Soft Brome
	Chionochloa pallida	Silvertop Wallaby-grass
*	*Cynodon dactylon*	Couch

	*	*Cynosurus echinatus*	Rough Dog's-tail
	*	*Dactylis glomerata*	Cocksfoot
		Danthonia eriantha	Reddish Wallaby-grass
		Danthonia penicillata	Slender Wallaby-grass
		Danthonia pilosa	Velvet Wallaby-grass
		Danthonia racemosa	Branched Wallaby-grass
		Danthonia semiannularis	Heath Wallaby-grass
		Danthonia setacea	Bristly Wallaby-grass
		Danthonia tenuior	Long-leaf Wallaby-grass
	*	*Desmazeria rigida*	Fern Grass
		Deyeuxia quadriseta	Reed Bent-grass
		Deyeuxia rodwayi	Tasman Bent-grass
		Dichelachne crinita	Long-hair Plume-grass
		Dichelachne micrantha	Short-hair Plume-grass
		Dichelachne sieberiana	Plume-grass
		Echinopogon ovatus	Common Hedgehog-grass
		Elymus scabrus	Common Wheat-grass
		Entolasia marginata	Bordered Panic
		Eragrostis brownii	Common Love-grass
		Hemarthria uncinata	Mat Grass
	*	*Holcus lanatus*	Yorkshire Fog
	*	*Lagurus ovatus*	Hare's Tail
	*	*Lolium perenne*	Perennial Rye-grass
		Microlaena stipoides	Weeping Grass
	*	*Paspalum dilatatum*	Paspalum
	*	*Pennisetum clandestinum*	Kikuya
	*	*Poa annua*	Annual Meadow-grass
		Poa labillardieri	Common Tussock-grass
		Poa morrisii	Soft Tussock-grass
		Poa pratensis	English Meadow-grass
		Poa sieberiana	Grey Tussock-grass
		Poa tenera	Slender Tussock-grass
	*	*Polypogon monspeliensis*	Annual Beard-grass
	*	*Sporobolus indicus*	Indian Rat-tail Grass
		Stipa flavescens	Coast Spear-grass
		Stipa muelleri	Wiry Spear-grass
		Stipa rudis	Veined Spear-grass
		Tetrarrhena juncea	Forest Wire-grass
		Themeda triandra	Kangaroo Grass
	*	*Vulpia bromoides*	Squirrel-tail Fescue
	*	*Vulpia myuros*	Rat's-tail Fescue
RESTIONACEAE		*Empodisma minus*	Spreading Rope-rush
		Restio tetraphyllus	Tassel Cord-rush
TYPHACEAE		*Typha orientalis*	Cumbungi
XANTHORRHOEACEAE		*Lomandra filiformis*	Wattle Mat-lily
		Lomandra longifolia	Spiny-headed Mat-lily
		Lomandra multiflora	Many-flowered Mat-lily
		Xanthorrhoea minor	Small Grass-tree
XYRIDACEAE		*Xyris gracilis*	Slender Yellow-eye
		Xyris operculata	Tall Yellow-eye

DICOTYLEDONS (FLOWERING PLANTS WITH TWO SEED-LEAVES)

AMARANTHACEAE	*Alternanthera denticulata*	Lesser Joyweed

APIACEAE		*Centella cordifolia*	Centella
		Daucus glochidiatus	Austral Carrot
		Hydrocotyle foveolata	Yellow Pennywort
		Hydrocotyle geraniifolia	Forest Pennywort
		Hydrocotyle hirtats	Hairy Pennywort
		Hydrocotyle laxiflora	Stinking Pennywort
		Hydrocotyle sibthorpioides	Shining Pennywort
		Lilaeopsis polyantha	Australian Lilaeopsis
		Platysace heterophylla	Slender Platysace
		Xanthosia dissecta	Cut-leaf Xanthosia
APOCYNACEAE		*Parsonsia brownii*	Twining Silkpod
ARALIACEAE		*Polyscias sambucifolia*	Elderberry Panax
ASTERACEAE	*	*Arctotheca calendula*	Cape Weed
		Bedfordia arborescens	Blanket-leaf
		Brachyscome aculeata	Branching Daisy
		Brachyscome angustifolia	Grassland Daisy
		Brachyscome multifida	Cut-leaf Daisy
	*	*Carduus pycnocephalus*	Slender Thistle
	*	*Carduus tenuiflorus*	Thistle
	*	*Conyza canadensis*	Canadian Fleabane
		Craspedia glauca	Common Billy-buttons
		Cassinia aculeata	Common Cassinia
		Cassinia longifolia	Shiny Cassinia
		Cassinia trinerva	Three-nerved Cassinia
		Centipeda cunninghamii	Common Sneezeweed
		Centipeda minima	Spreading Sneezeweed
	*	*Cirsium vulgare*	Spear Thistle
	*	*Conyza bonariensis*	Tall Fleabane
		Cotula australis	Common Cotula
	*	*Cotula coronopifolia*	Water Buttons
		Craspedia glauca	Common Billy-buttons
	*	*Crepis capillaris*	Smooth Hawksbeard
		Cymbonotus preissianus	Austral Bear's-ears
		Gnaphalium gymnocephalum	Creeping Cudweed
		Gnaphalium involucratum	Cudweed
	*	*Gnaphalium purpureum*	Purple Cudweed
		Gnaphalium sphaericum	Common Cudweed
	r	*Gnaphalium umbricola*	Cliff Cudweed
		Helichrysum cuneifolium	Wedge-leaf Everlasting
		Helichrysum dendroideum	Tree Everlasting
		Helichrysum leucopsideum	Satin Everlasting
		Helichrysum obcordatum	Grey Everlasting
		Helichrysum rosmarinifolium	Rosemary Everlasting
		Helichrysum scorpioides	Button Everlasting
		Helichrysum semipapposum	Clustered Everlasting
		Helichrysum thyrsoideum	Sticky Everlasting
	*	*Hypochoeris glabra*	Smooth Cat's Ear
	*	*Hypochoeris radicata*	Cat's Ear
		Lagenifera gracilis	Slender Lagenifera
		Lagenifera stipitata	Common Lagenifera
	*	*Leontodon taraxacoides*	Hairy Hawkbit
		Leptorhynchos linearis	Shiny Buttons
		Leptorhynchos squamatus	Scaly Buttons
	*	*Leucanthemum vulgare*	Ox-eye Daisy
		Olearia argophylla	Musk Daisy-bush
		Olearia lirata	Snow Daisy-bush
		Olearia myrsinoides	Silky Daisy-bush

		Olearia phlogopappa	Dusty Daisy-bush
		Olearia ramulosa	Twiggy Daisy-bush
		Pseudognaphalium luteo-album	Jersey Cudweed
		Senecio glomeratus	Annual Fireweed
		Senecio hispidulus	Rough Fireweed
	*	*Senecio jacobaea*	Ragwort
		Senecio lautus	Variable Groundsel
		Senecio linearifolius	Fireweed Groundsel
		Senecio minimus	Shrubby Fireweed
		Senecio quadridentatus	Cotton Fireweed
		Senecio tenuiflorus	Narrow Groundsel
		Senecio vagus	Saw Groundsel
		Senecio velleioides	Forest Groundsel
	*	*Sonchus asper*	Rough Sow-thistle
	*	*Sonchus oleraceus*	Milk Thistle
	*	*Taraxacum Sect. Vulgaria*	Garden Dandelion
	*	*Vellereophyton dealbatum*	White Cudweed
BIGNONIACEAE		*Pandorea pandorana*	Wonga Vine
BORAGINACEAE		*Cynoglossum latifolium*	Forest Hound's-tongue
		Cynoglossum suaveolens	Sweet Hound's-tongue
	*	*Myosotis exarrhena*	Sweet Forget-me-not
	*	*Myosotis laxa*	Water Forget-me-not
BRASSICACEAE	*	*Cardamine hirsuta*	Common Bitter-cress
	*	*Raphanus raphanistrum*	Wild Radish
BRUNONIACEAE		*Brunonia australis*	Blue Pincushion
CALLITRICHACEAE	*	*Callitriche stagnalis*	Water Starwort
CAMPANULACEAE		*Isotoma fluviatilis*	Swamp Isotome
		Lobelia alata	Angled Lobelia
		Lobelia gibbosa	Tall Lobelia
		Pratia pedunculata	Matted Pratia
		Wahlenbergia gracilenta	Annual Bluebell
		Wahlenbergia gracilis	Sprawling Bluebell
		Wahlenbergia multicaulis	Many-stemmed Bluebell
		Wahlenbergia stricta	Tall Bluebell
CAPRIFOLIACEAE		*Sambucus gaudichaudiana*	White Elderberry
CARYOPHYLLACEAE	*	*Cerastium fontanum*	Mouse-ear Chickweed
	*	*Cerastium glomeratum*	Common Mouse-ear Chickweed
	*	*Silene gallica*	French Catchfly
	*	*Spergularia media*	Coast Sand-spurrey
	*	*Spergularia rubra*	Red Sand-spurrey
		Stellaria flaccida	Forest Starwort
	*	*Stellaria pallida*	Lesser Starwort
		Stellaria pungens	Prickly Starwort
CASUARINACEAE		*Allocasuarina littoralis*	Black Sheoke
		Allocasuarina paludosa	Scrub Sheoke
CLUSIACEAE		*Hypericum gramineum*	Small St. John's Wort
		Hypericum japonicumts	Matted St. John's Wort

CONVOLVULACEAE		*Calystegia marginata*	Forest Bindweed
		Dichondra repens	Kidney-weed
CRASSULACEAE		*Crassula decumbens*	Spreading Crassula
		Crassula helmsii	Swamp Crassula
		Crassula sieberiana	Sieber Crassula
CUNONIACEAE		*Bauera rubioides*	Wiry Bauera
CUSCUTACEAE	*	*Cuscuta campestris*	Field Dodder
DILLENIACEAE		*Hibbertia aspera*	Rough Guinea-flower
		Hibbertia empetrifolia	Tangled Guinea-flower
		Hibbertia obtusifolia	Grey Guinea-flower
DROSERACEAE		*Drosera binata*	Forked Sundew
		Drosera peltata	Tall Sundew
		Drosera peltata ssp. *auriculata*	Tall Sundew
		Drosera pygmaea	Tiny Sundew
		Drosera spatulata	Rosy Sundew
		Drosera whittakeri	Scented Sundew
EPACRIDACEAE		*Acrotriche prostrata*	Trailing Ground-berry
		Acrotriche serrulata	Honey-pots
		Astroloma humifusum	Cranberry Heath
		Epacris impressa	Common Heath
		Epacris microphylla	Coral Heath
		Epacris obtusifolia	Blunt-leaf Heath
		Leucopogon australis	Spike Beard-heath
		Leucopogon collinus	Fringed Beard-heath
		Leucopogon virgatus	Common Beard-heath
		Lissanthe strigosa	Peach Heath
		Monotoca scoparia	Prickly Broom-heath
		Sprengelia incarnata	Pink Swamp-heath
EUPHORBIACEAE		*Amperea xiphoclada*	Broom Spurge
	*	*Euphorbia peplus*	Petty Spurge
		Micrantheum hexandrum	Box Micrantheum
		Poranthera microphylla	Small Poranthera
		Pseudanthus ovalifolius	Oval-leaf Pseudanthus
FABACEAE		*Bossiaea cinerea*	Showy Bossiaea
		Bossiaea prostrata	Creeping Bossiaea
	*	*Cytisus palmensis*	Tree Lucerne
	*	*Cytisus scoparius*	English Broom
		Daviesia latifolia	Hop Bitter-pea
		Daviesia leptophylla	Narrow-leaf Bitter-pea
		Daviesia mimosoides	Blunt-leaf Bitter-pea
		Daviesia ulicifolia	Gorse Bitter-pea
	r	*Desmodium varians*	Slender Tick-trefoil
		Dillwynia cinerascens	Grey Parrot-pea
		Dillwynia glaberrima	Smooth Parrot-pea
		Dillwynia phylicoides	Small-leaf Parrot-pea
		Dillwynia sericea	Showy Parrot-pea
	*	*Genista monspessulana*	Montpellier Broom
		Glycine clandestina	Twining Glycine
		Gompholobium huegelii	Common Wedge-pea
		Goodia lotifolia	Golden-tip
		Hardenbergia violacea	Purple Coral-pea
		Hovea linearis	Common Hovea

		Indigofera australis	Austral Indigo
	*	*Lotus subbiflorus*	Hair Bird's-foot Trefoil
	*	*Lotus uliginosus*	Greater Bird's-foot Trefo
	*	*Medicago lupulina*	Black Medic
		Oxylobium ellipticum	Common Oxylobium
		Platylobium formosum	Handsome Flat-pea
		Pultenaea daphnoides	Large-leaf Bush-pea
		Pultenaea gunnii	Golden Bush-pea
		Pultenaea juniperina	Prickly Bush-pea
		Pultenaea scabra	Rough Bush-pea
		Sphaerolobium vimineum	Leafless Globe-pea
	*	*Trifolium dubium*	Suckling Clover
	*	*Trifolium glomeratum*	Cluster Clover
	*	*Trifolium repens*	White Clover
	*	*Trifolium subterraneum*	Subterraneum Clover
GENTIANACEAE	*	*Centaurium erythraea*	Common Centaury
	*	*Centaurium tenuiflorum*	Centaury
	*	*Cicendia filiformis*	Slender Cicendia
		Sebaea ovata	Yellow Sebaea
GERANIACEAE		*Geranium potentilloides*	Cinquefoil
		Geranium solanderi	Austral Crane's-bill
		Pelargonium australe	Austral Stork's-bill
		Pelargonium inodorum	Kopata
GOODENIACEAE		*Dampiera stricta*	Blue Dampiera
		Goodenia elongata	Lanky Goodenia
		Goodenia humilis	Swamp Goodenia
		Goodenia lanata	Trailing Goodenia
		Goodenia ovata	Hop Goodenia
HALORAGACEAE		*Gonocarpus humilis*	Shade Raspwort
		Gonocarpus micranthus	Creeping Raspwort
		Gonocarpus tetragynus	Common Raspwort
		Gonocarpus teucrioides	Germander Raspwort
		Myriophyllum crispatum	Upright Milfoil
		Myriophyllum pedunculatum	Mat Milfoil
		Myriophyllum simulans	Amphibious Milfoil
LAMIACEAE		*Prostanthera lasianthos*	Victorian Christmas-bush
		Prunella vulgaris	Self-heal
		Teucrium corymbosum	Forest Germander
LAURACEAE		*Cassytha glabella*	Slender Dodder-laurel
		Cassytha melantha	Coarse Dodder-laurel
		Cassytha pubescens	Downy Dodder-laurel
LENTIBULARIACEAE		*Utricularia lateriflora*	Tiny Bladderwort
		Utricularia uniflora	Single Bladderwort
LINACEAE	*	*Linum trigynum*	French Flax
LOGANIACEAE		*Logania albiflora*	Narrow-leaf Logania
		Mitrasacme serpyllifolia	Thyme Mitrewort
LORANTHACEAE		*Amyema pendulum*	Drooping Mistletoe
		Muellerina eucalyptoides	Creeping Mistletoe
LYTHRACEAE		*Lythrum hyssopifolia*	Small Loosestrife

MALVACEAE		*Gynatrix pulchella*	Hemp Bush
	*	*Modiola caroliniana*	Carolina Mallow
MIMOSACEAE		*Acacia brownei*	Heath Wattle
		Acacia dealbata	Silver Wattle
		Acacia genistifolia	Spreading Wattle
		Acacia gunnii	Ploughshare Wattle
		Acacia implexa	Lightwood
		Acacia lanigera	Woolly Wattle
		Acacia mearnsii	Black Wattle
		Acacia melanoxylon	Blackwood
		Acacia mucronata	Narrow-leaf Wattle
		Acacia myrtifolia	Myrtle Wattle
		Acacia pycnantha	Golden Wattle
		Acacia stricta	Hop Wattle
		Acacia terminalis	Sunshine Wattle
		Acacia verniciflua	Varnish Wattle
		Acacia verticillata	Prickly Moses
MONIMIACEAE		*Hedycarya angustifolia*	Austral Mulberry
MYRTACEAE		*Eucalyptus aromaphloia*	Scent Bark
		Eucalyptus baxteri	Brown Stringybark
		Eucalyptus bridgesiana	But But
		Eucalyptus cinerea	Silver-leaf Stringybark
		Eucalyptus consideniana	Yertchuk
		Eucalyptus cypellocarpa	Mountain Grey Gum
		Eucalyptus dives	Broad-leaved Peppermint
		Eucalyptus globoidea	White Stringybark
		Eucalyptus globulus	Blue Gum
		Eucalyptus melliodora	Yellow Box
		Eucalyptus obliqua	Messmate
		Eucalyptus ovata	Swamp Gum
		Eucalyptus polyanthemos	Red Box
		Eucalyptus radiata	Narrow-leaf Peppermint
		Eucalyptus sideroxylon	Red Ironbark
		Eucalyptus sieberi	Silver-top
		Eucalyptus viminalis	Manna Gum
		Kunzea ericoides	Burgan
		Leptospermum continentale	Prickly Tea-tree
		Leptospermum grandifolium	Mountain Tea-tree
		Leptospermum lanigerum	Woolly Tea-tree
		Leptospermum myrsinoides	Heath Tea-tree
		Melaleuca squarrosa	Scented Paperbark
ONAGRACEAE		*Epilobium billardierianum* ssp. *cinereum*	Variable Willow-herb
	*	*Epilobium ciliatum*	Glandular Willow-herb
		Epilobium hirtigerum	Hairy Willow-herb
OXALIDACEAE		*Oxalis corniculata* spp. agg.	Yellow Wood-sorrel
PITTOSPORACEAE		*Billardiera longiflora*	Purple Apple-berry
		Billardiera scandens	Common Apple-berry
		Bursaria spinosa	Sweet Bursaria
		Rhytidosporum procumbens	White Marianth
PLANTAGINACEAE	*	*Plantago coronopus*	Buck's-horn Plantain
		Plantago debilis	Shade Plantain
	*	*Plantago lanceolata*	Ribwort

	*	*Plantago major*	Greater Plantain
		Plantago varia	Variable Plantain
POLYGALACEAE		*Comesperma calymega*	Blue-spike Milkwort
		Comesperma ericinum	Heath Milkwort
		Comesperma volubile	Love Creeper
POLYGONACEAE		*Persicaria decipiens*	Slender Knotweed
	*	*Persicaria maculosa*	Persicaria
		Persicaria prostrata	Creeping Knotweed
		Persicaria strigosa	Ridged Knotweed
		Polygonum minus	Slender Knotweed
	*	*Rumex acetosella* spp. agg.	Sheep Sorrel
		Rumex brownii	Slender Dock
PRIMULACEAE	*	*Anagallis arvensis*	Pimpernel
	*	*Anagallis minima*	Chaffweed
PROTEACEAE		*Banksia marginata*	Silver Banksia
		Banksia spinulosa	Hairpin Banksia
		Grevillea lanigera	Woolly Grevillea
		Hakea nodosa	Yellow Hakea
		Hakea sericea	Bushy Hakea
		Hakea teretifolia	Dagger Hakea
		Hakea ulicina	Furze Hakea
		Lomatia fraseri	Tree Lomatia
		Lomatia ilicifolia	Holly Lomatia
		Lomatia myricoides	River Lomatia
		Persoonia chamaepeuce	Dwarf geebung
		Persoonia confertiflora	Cluster-flower Geebung
		Persoonia juniperina	Prickly Geebung
RANUNCULACEAE		*Clematis aristata*	Mountain Clematis
		Clematis glycinoides	Forest Clematis
		Ranunculus plebeius	Forest Buttercup
	*	*Ranunculus repens*	Creeping Buttercup
RHAMNACEAE		*Pomaderris aspera*	Hazel Pomaderris
		Pomaderris elachophylla	Small-leaf Pomaderris
		Pomaderris elliptica	Smooth Pomaderris
		Pomaderris ferruginea	Rusty Pomaderris
		Pomaderris intermedia	Citron Pomaderris
		Pomaderris lanigera	Woolly Pomaderris
		Pomaderris prunifolia	Prunus Pomaderris
		Pomaderris vacciniifolia	Round-leaf Pomaderris
		Spyridium parvifolium	Dusty Miller
ROSACEAE		*Acaena anserinifolia*	Bidgee-widgee
		Acaena echinata	Sheep's Burr
	*	*Malus domestica* (hybrid)	Domestic Apple
	*	*Rubus fruticosus* spp. agg.	Blackberry
		Rubus parvifolius	Small-leaf Bramble
RUBIACEAE		*Asperula scoparia*	Prickly Woodruff
		Coprosma hirtella	Rough Coprosma
		Coprosma quadrifida	Prickly Coprosma
		Galium australe	Tangled Bedstraw
		Galium binifolium	Reflexed Bedstraw

		Galium gaudichaudii	Rough Bedstraw
		Opercularia varia	Variable Stinkweed
RUTACEAE		*Boronia nana*	Dwarf Boronia
		Correa reflexa	Common Correa
		Zieria arborescens	Stinkwood
SALICACEAE	*	*Populus nigra* var. *italica*	
SANTALACEAE		*Exocarpos cupressiformis*	Cherry Ballart
		Exocarpos strictus	Pale-fruit Ballart
		Santalum obtusifolium	Blunt Sandalwood
SAPINDACEAE		*Dodonaea viscosa* ssp. *angustifolia*	Narrow Hop-bush
SCROPHULARIACEAE		*Glossostigma elatinoides*	Small Mud-mat
		Gratiola peruviana	Brooklime
		Mazus pumilio	Swamp Mazus
		Parahebe derwentiana	Derwent Speedwell
	*	*Parentucellia latifolia*	Common Bartsia
	*	*Parentucellia viscosa*	Sticky Bartsia
		Veronica calycina	Hairy Speedwell
SOLANACEAE		*Solanum prinophyllum*	Forest Nightshade
		Solanum nigrum	Black Nightshade
STACKHOUSIACEAE		*Stackhousia monogyna*	Creamy Candles
STERCULIACEAE		*Lasiopetalum macrophyllum*	Shrubby Velvet-bush
STYLIDIACEAE		*Stylidium graminifolium*	Grass Trigger-plant
THYMELAEACEAE		*Pimelea axiflora*	Bootlace Bush
		Pimelea humilis	Common Rice-flower
		Pimelea linifolia	Slender Rice-flower
TREMANDRACEAE		*Tetratheca bauerifolia*	Heath Pink-bells
		Tetratheca ciliata	Pink-bells
		Tetratheca labillardieri	Glandular Pink-bells
		Tetratheca pilosa	Hairy Pink-bells
URTICACEAE		*Australina pusilla*	Shade Nettle
		Urtica incisa	Scrub Nettle
VERBENACEAE	*	*Verbena bonariensis*	Purple-top Verbena
VIOLACEAE		*Viola hederacea*	Ivy-leaf Violet
WINTERACEAE		*Tasmannia lanceolata*	Mountain Pepper

Source: NPFLORA

Conservation Status is based on Gullan et al. (1990):

R Rare in Australia
r Rare in Victoria
* Introduced Species

APPENDIX IV BIRDS IN THE VICINITY OF MOONDARRA STATE PARK AND TYERS PARK

Dromaius novaehollandiae		Emu
Coturnix novaezelandiae		Stubble Quail
Turnix varia		Painted Button-quail
Geopelia placida		Peaceful Dove
Phaps chalcoptera		Common Bronzewing
Phaps elegans		Brush Bronzewing
Leucosarcia melanoleuca		Wonga Pigeon
Streptopelia chinensis	*	Spotted Turtle Dove
Columba livia	*	Feral Pigeon
Gallinula tenebrosa		Dusky Moorhen
Porphyrio porphyrio		Purple Swamphen
Fulica atra		Eurasian Coot
Tachybaptus novaehollandiae		Australasian Grebe
Poliocephalus poliocephalus poliocephalus		Hoary-headed Grebe
Phalacrocorax carbo		Great Cormorant
Phalacrocorax sulcirostris		Little Black Cormorant
Phalacrocorax melanoleucos		Little Pied Cormorant
Anhinga melanogaster		Darter
Pelecanus conspicillatus	Restricted	Australian Pelican
Larus novaehollandiae		Silver Gull
Vanellus miles		Masked Lapwing
Gallinago hardwickii		Latham's Snipe
Threskiornis aethiopicus		Sacred Ibis
Threskiornis spinicollis		Straw-necked Ibis
Platalea regia	Restricted	Royal Spoonbill
Platalea flavipes		Yellow-billed Spoonbill
Egretta alba	Restricted	Great Egret
Ardeola ibis		Cattle Egret
Ardea novaehollandiae		White-faced Heron
Ardea pacifica		Pacific Heron
Chenonetta jubata		Maned Duck
Cygnus atratus		Black Swan
Tadorna tadornoides		Australian Shelduck
Anas superciliosa		Pacific Black Duck
Anas castanea		Chestnut Teal
Anas gibberifrons		Grey Teal
Anas rhynchotis		Australasian Shoveler
Malacorhynchus membranaceus		Pink-eared Duck
Aythya australis		Hardhead
Oxyura australis		Blue-billed Duck
Biziura lobata		Musk Duck
Circus aeruginosus		Marsh Harrier
Accipiter fasciatus		Brown Goshawk
Aquila audax		Wedge-tailed Eagle
Hieraaetus morphnoides		Little Eagle
Haliaeetus leucogaster	Rare	White-bellied Sea-Eagle
Haliastur sphenurus		Whistling Kite
Elanus notatus		Black-shouldered Kite
Falco longipennis		Australian Hobby
Falco peregrinus		Peregrine Falcon
Falco subniger		Black Falcon

Falco berigora		Brown Falcon
Falco cenchroides		Australian Kestrel
Ninox novaeseelandiae		Southern Boobook
Ninox strenu	Rare	Powerful Owl
Tyto alba		Barn Owl
Tyto tenebricosa	Rare	Sooty Owl
Glossopsitta concinna		Musk Lorikeet
Glossopsitta pusilla		Little Lorikeet
Calyptorhynchus funereus		Yellow-tailed Black-Cockatoo
Callocephalon fimbriatum		Gang-gang Cockatoo
Cacatua galerita		Sulphur-crested Cockatoo
Cacatua roseicapilla		Galah
Alisterus scapularis		Australian King-Parrot
Platycercus elegans		Crimson Rosella
Platycercus eximius		Eastern Rosella
Neophema chrysostoma		Blue-winged Parrot
Podargus strigoides		Tawny Frogmouth
Aegotheles cristatus		Australian Owlet-nightjar
Ceyx azurea		Azure Kingfisher
Dacelo novaeguineae		Laughing Kookaburra
Halcyon sancta		Sacred Kingfisher
Caprimulgus mystacalis		White-throated Nightjar
Hirundapus caudacutus		White-throated Needletail
Cuculus pallidus		Pallid Cuckoo
Cuculus pyrrhophanus		Fan-tailed Cuckoo
Cuculus variolosus		Brush Cuckoo
Chrysococcyx basalis		Horsfield's Bronze-Cuckoo
Chrysococcyx lucidus		Shining Bronze-Cuckoo
Menura novaehollandiae		Superb Lyrebird
Hirundo neoxena		Welcome Swallow
Cecropis nigricans		Tree Martin
Cecropis ariel		Fairy Martin
Rhipidura fuliginosa		Grey Fantail
Rhipidura rufifrons		Rufous Fantail
Rhipidura leucophrys		Willie Wagtail
Myiagra rubecula		Leaden Flycatcher
Myiagra cyanoleuca		Satin Flycatcher
Microeca leucophaea		Jacky Winter
Petroica multicolor		Scarlet Robin
Petroica phoenicea		Flame Robin
Petroica rodinogaster		Pink Robin
Petroica rosea		Rose Robin
Melanodryas cucullata		Hooded Robin
Eopsaltria australis		Eastern Yellow Robin
Falcunculus frontatus		Crested Shrike-tit
Pachycephala pectoralis		Golden Whistler
Pachycephala rufiventris		Rufous Whistler
Pachycephala olivacea		Olive Whistler
Colluricincla harmonica		Grey Shrike-thrush
Turdus merula	*	Common Blackbird

Zoothera dauma		White's Thrush
Grallina cyanoleuca		Australian Magpie Lark
Psophodes olivaceus		Eastern Whipbird
Coracina novaehollandiae		Black-faced Cuckoo-shrike
Coracina tenuirostris		Cicadabird
Lalage sueurii		White-winged Triller
Cinclosoma punctatum		Spotted Quail-thrush
Acanthiza lineata		Striated Thornbill
Acanthiza pusilla		Brown Thornbill
Acanthiza reguloides		Buff-rumped Thornbill
Acanthiza chrysorrhoa		Yellow-rumped Thornbill
Sericornis frontalis		White-browed Scrubwren
Sericornis magnirostris		Large-billed Scrubwren
Sericornis pyrrhopygius		Chestnut-rumped Hylacola
Sericornis fuliginosus		Calamanthus
Pycnoptilus floccosus		Pilotbird
Alauda arvensis	*	Common Skylark
Cinclorhamphus mathewsi		Rufous Songlark
Megalurus gramineus		Little Grassbird
Acrocephalus stentoreus		Clamorous Reed Warbler
Cisticola exilis		Golden-headed Cisticola
Stipiturus malachurus		Southern Emu-wren
Malurus cyaneus		Superb Fairy-wren
Artamus cyanopterus		Dusky Woodswallow
Daphoenositta chrysoptera		Varied Sittella
Climacteris leucophaea		White-throated Treecreeper
Climacteris erythrops		Red-browed Treecreeper
Dicaeum hirundinaceum		Mistletoebird
Pardalotus punctatus		Spotted Pardalote
Pardalotus striatus		Striated Pardalote
Zosterops lateralis		Silvereye
Melithreptus lunatus		White-naped Honeyeater
Melithreptus brevirostris		Brown-headed Honeyeater
Acanthorhynchus tenuirostris		Eastern Spinebill
Xanthomyza phrygia	Endangered	Regent Honeyeater
Meliphaga lewinii		Lewin's Honeyeater
Lichenostomus chrysops		Yellow-faced Honeyeater
Lichenostomus leucotis		White-eared Honeyeater
Lichenostomus melanops		Yellow-tufted Honeyeater
Lichenostomus penicillatus		White-plumed Honeyeater
Phylidonyris pyrrhoptera		Crescent Honeyeater
Phylidonyris novaehollandiae		New Holland Honeyeater
Manorina melanocephala		Noisy Miner
Anthochaera carunculata		Red Wattlebird
Anthus novaeseelandiae		Richard's Pipit
Passer domesticus	*	House Sparrow

Carduelis carduelis	*	European Goldfinch
Carduelis chloris	*	European Greenfinch
Emblema bella		Beautiful Firetail
Emblema guttata		Diamond Firetail
Emblema temporalis		Red-browed Firetail
Oriolus sagittatus		Olive-backed Oriole
Acridotheres tristis	*	Common Myna
Sturnus vulgaris	*	Common Starling
Ptilonorhynchus violaceus		Satin Bowerbird
Corcorax melanorhamphos		White-winged Chough
Strepera graculina		Pied Currawong
Strepera versicolor		Grey Currawong
Cracticus torquatus		Grey Butcherbird
Gymnorhina tibicen		Australian Magpie
Corvus coronoides		Australian Raven
Corvus mellori		Little Raven

Source: Atlas of Victorian Wildlife. Species are listed for the geographic grids S37^{o}55'- 38^{o}15' E146^{o}10'-146^{o}35'.

Victorian Conservation Status is based on Baker-Gabb (1990).

* Introduced species

APPENDIX V MAMMALS IN THE VICINITY OF MOONDARRA STATE PARK AND TYERS PARK

TACHYGLOSSIDAE		*Tachyglossus aculeatus*	Short-beaked Echidna
DASYURIDAE		*Antechinus stuartii*	Brown Antechinus
		Antechinus swainsonii	Dusky Antechinus
	v	*Dasyurus maculatus*	Tiger Quoll
	r	*Phascogale tapoatafa*	Brush-tailed Phascogale
PERAMELIDAE		*Perameles nasuta*	Long-nosed Bandicoot
PHALANGERIDAE		*Trichosurus caninus*	Mountain Brushtail Possum
BURRAMYIDAE		*Acrobates pygmaeus*	Feathertail Glider
		Cercartetus nanus	Eastern Pygmy-possum
PETAURIDAE		*Petaurus australis*	Yellow-bellied Glider
		Petaurus breviceps	Sugar Glider
		Petauroides volans	Greater Glider
		Pseudocheirus peregrinus	Common Ringtail Possum
VOMBATIDAE		*Vombatus ursinus*	Common Wombat
PHASCOLARCTIDAE		*Phascolarctos cinereus*	Koala
MACROPODIDAE		*Macropus giganteus*	Eastern Grey Kangaroo
		Wallabia bicolor	Swamp Wallaby
MOLOSSIDAE		*Tadarida australis*	White-striped Mastiff-bat
VESPERTILIONIDAE		*Eptesicus darlingtoni*	Large Forest Eptesicus
		Eptesicus regulus	King River Eptesicus
		Eptesicus vulturnus	Little Forest Eptesicus
		Chalinolobus morio	Chocolate Wattled Bat
		Falsistrellus tasmaniensis	Great Pipistrelle
		Nyctophilus geoffroyi	Lesser Long-eared Bat
		Nyctophilus gouldi	Gould's Long-eared Bat
MURIDAE		*Hydromys chrysogaster*	Water-rat
	r	*Mastacomys fuscus*	Broad-toothed Rat
		Rattus fuscipes	Bush Rat
		Rattus lutreolus	Swamp Rat
	*	*Mus musculus*	House Mouse
LEPORIDAE	*	*Oryctolagus cuniculus*	European Rabbit
SUIDAE	*	*Sus scrofa*	Pig (feral)
CERVIDAE	*	*Cervus unicolor*	Sambar Deer
CANIDAE	*	*Vulpes vulpes*	Fox
	*	*Canis familiaris*	Dingo/dog

Source: Atlas of Victorian Wildlife. Species are listed for the geographic grids S $37^0$55'- $38^0$15' E $146^0$10'- $146^0$35'.

The Victorian Conservation Status is based on Baker-Gabb (1990)

v Vulnerable r Rare * Introduced species

APPENDIX VI REPTILES AND AMPHIBIANS IN THE VICINITY OF MOONDARA STATE PARK AND TYERS PARK

AMPHIBIANS

Southern Frogs		
Geocrinia victoriana		Victorian Smooth Froglet
Heleioporus australiacus	Ind.	Giant Burrowing Frog
Limnodynastes dumerillii		Southern Bullfrog
Limnodynastes peronii		Striped Marsh Frog
Pseudophryne bibronii		Bibron's Toadlet
Pseudophryne dendyi		Dendy's Toadlet
Pseudophryne semimarmorata		Southern Toadlet
Ranidella signifera		Common Froglet
Tree Frogs		
Litoria ewingii		Southern Brown Tree Frog
Litoria lesueuri		Lesueur's Frog
Litoria phyllochroa		Leaf Green Tree Frog
Litoria raniformis		Growling Grass Frog
Litoria verreauxii verreauxii		Verreaux's Tree Frog

REPTILES

Lizards		
Amphibolurus diemensis	Ins.	Mountain Dragon
Physignathus lesueurii howittii		Gippsland Water Dragon
Varanus varius	Ins.	Tree Goanna
Egernia coventryi	r	Swamp Skink
Egernia saxatilis intermedia		Black Rock Skink
Egernia whitii		White's Skink
Lampropholis guichenoti		Garden Skink
Lampropholis mustelina		Weasel Skink
Leiolopisma coventryi		Coventry's Skink
Leiolopisma entrecasteauxii B		Grass Skink Form B
Leiolopisma duperreyi		Eastern Three-lined Skink
Nannoscincus maccoyi		McCoy's Skink
Sphenomorphus tympanum CTF		Southern Water Skink CTF
Tiliqua nigrolutea		Blotched Blue-tongued Lizard
Tiliqua scincoides		Common Blue-tonged Lizard
Snakes		
Austrelaps superbus		Lowland Copperhead
Drysdalia coronoides		White-lipped Snake
Notechis scutatus		Tiger Snake

Source: Atlas of Victorian Wildlife. Species listed for geographic grids N37^0 55' and 38^0 9' W146^0 15' E146^0 28'.

Victorian Conservation Status based on Baker-Gabb (1990):

r Rare
Ind. Indeterminate (known to be rare, vulnerable or endangered) in Victoria
Ins. Insufficiently known (suspected rare,vulnerable or endangered) in Victoria.

APPENDIX VII FISH AND CRAYFISH IN THE VICINITY OF MOONDARRA STATE PARK AND TYERS PARK

Native species		
Anguilla australis		Short-finned Eel
Anguilla reinhardtii		Long-finned eel
Euastacus kershawi		Gippsland Spiny Crayfish
Gadopsis marmoratus	Ind.	River Blackfish
Galaxias brevipinnis	r	Broad-finned Galaxias
Galaxias maculatus *		Common Galaxias
Galaxias olides *	Ind.	Mountain Galaxias
Galaxias pusilla *	r	Dwarf Galaxias
Mordacia mordax		Short-headed Lamprey
Nannoperca australis		Southern Pigmy Perch
Philypnodon grandiceps *		Flat-headed Gudgeon
Prototroctes maraena *	v	Australian Grayling
Pseudaphritis urvilli		Tupong
Retropinna semoni		Australian Smelt
Introduced species:		
Cyprinus carpio *		Common Carp
Gambusia affinis *		Mosquito Fish
Perca fluviatilis		Redfin
Salmo trutta		Brown Trout

* Species occurring in the Latrobe River Catchment and likely to also occur in the Parks.

Sources: Cadwallader & Backhouse (1983).

Victorian Conservation Status is based on Baker-Gabb (1990):

- v Vulnerable
- r Rare
- Ind. Indeterminate (known to be rare, vulnerable or engangered) in Victoria.

REFERENCES

Adams J. 1978, *So Tall the Trees*, Narracan Shire Council.

Ashe C. & Smith P. 1983, *Notes on the Vegetation of Moondarra State Park and Tyers Regional Park*, NPS, unpub.

Beauglehole, A.C. 1983, *The Distribution and Conservation of Vascular Plants in the Melbourne Area, Victoria*, Western Victorian Field Naturalists Clubs Association, Portland.

Baker-Gabb, D. 1990, *List of Threatened Fauna in Victoria 1990*. Department of Conservation and Environment, Victoria, unpub.

Cadwallader, P.L. & Backhouse, G.N. 1983, *A Guide to the Freshwater Fish of Victoria*, Fisheries and Wildlife Division, Ministry for Conservation, Victoria.

Gullan, P.K., Cheal, D.C. & Walsh, N.G. 1990, *Rare or Threatened Plants in Victoria.* Department of Conservation and Environment, Victoria.

CFL 1985, *Access to Victoria's Parks. Submission to Natural Resources and Environment Committee*, inquiry into access to Victoria's Parks, Department of Conservation, Forests and Lands, unpub.

CFL 1987, *Recreation Facilities Manual*, Department of Conservation, Forests and Lands, Victoria.

DCE 1990, *Fire Prevention Plan*, Central Gippsland Region, unpub.

Govt of Vic. 1984, *Victorian Tourism Strategy. Economic Strategy for Victoria*, Statement No. 4.

Govt of Vic. 1986a, *Latrobe Region Framework for the Future*.

Govt of Vic. 1986b, *Victoria Timber Industry Strategy*.

Govt of Vic. 1987a, *People and Opportunities. Victoria's Social Justice Strategy.*

Govt of Vic. 1987b, *Protecting the Environment: A Conservation Strategy for Victoria*.

Govt of Vic. 1987c, *Report Upon Access to Victoria's Parks.* Natural Resources and Environment Committee.

Govt of Vic. 1987d, *Victoria: The Next Decade. State Economic Strategy.*

Gullan P.K., Earl G.E., Forbes S.J., Barley R.H., & Walsh N.G. 1984, *Sites of Botanical Significance in Central Gippsland*, Ministry for Conservation, Victoria.

LCC 1973, *Report on the Melbourne Study Area*, Land Conservation Council, Victoria.

LCC 1977, *Final Recommendations Melbourne Study Area*, Land Conservation Council, Victoria.

LCC 1980, *Report on the South Gippsland Study Area, District 2*, Land Conservation Council, Victoria.

LCC 1982, *Final Recommendations South Gippsland Study Area, District 2*, Land Conservation Council, Victoria.

LCC 1983, *Final Recommendations Special Investigation Melbourne Area Hill End*, Land Conservation Council, Victoria.

LRC 1988, *Steps Ahead*: I *Latrobe Regional Strategy Plan*; II *Latrobe Regional Land Use Policy*; III *Latrobe Regional Environment Policy,* Latrobe Regional Commission, Victoria.

Loyn R. H., MacFarlane M. A., Chesterfield E. A., & Harris J. A. 1980, *Forest Utilisation and the Flora and Fauna of the Boola Boola State Forest in South Eastern Victoria*, FCV, bulletin no. 28.

Mansergh, I.M., & Norris, K.C. 1982, *Sites of Zoological Significance in Central Gippsland*, vol I & II, Ministry for Conservation, Victoria.

Mansergh, I.M. & Watson L.M. 1984, *Vertebrate Fauna of the National Parks of Gippsland*, Department of Conservation, Forests and Lands, Victoria, unpub.

McCarthy M.J. 1983, *Trestle Bridges and Tramways: The Timber Industry of the Erica District 1910-1950*, Light Railway Research Society of Australia.

NPWD 1988, *Policy and Procedure Manual*, Department of Conservation, Forests and Lands, Victoria.

Ogunmokken G.D. 1988, *A Market Research Study of Tourism in the Latrobe Valley*, report prepared for the Latrobe Valley Tourism Committee.

Rosengren, N.I., McRae-Williams M.S. & Kraemers S.M. 1981 *Sites of Geological and Geomorphological Significance in Central Gippsland*, Ministry for Conservation, Victoria.

SCA 1975a, *Tanjil River Water Supply Catchment Land Use Determination*, SCA meeting 16 April 1985.

SCA 1975b, *Tyers River Water Supply Catchment, Notice of Determination of Land Use*, Victoria Government Gazette no. 33, 7 May 1975.

Scott and Furphy Consulting Group 1980a, *Shire of Narracan Planning Scheme, Analysis, Trends and Development Policies*, Narracan Shire Council, Victoria.

Scott and Furphy Consulting Group 1980b, *Shire of Narracan Planning Scheme, Existing Conditions Report*, Narracan Shire Council, Victoria.

SECV 1986, *Policy for the Protection of SECV Latrobe Valley Assets from Rural Fires*, State Electricity Commission of Victoria.

Sibley, G.T. 1975, *A Study of the Land in the Tyers River Catchment*, Soil Conservation Authority, Victoria.

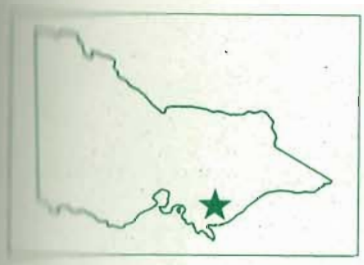
Supple, R., Perham, G. and Griffiths, T. 1990, *Historic Sites in the Melbourne East Study Area, Report to the Land Conservation Council*. Historic Places Section, Department of Conservation, Forests and Lands, Victoria.

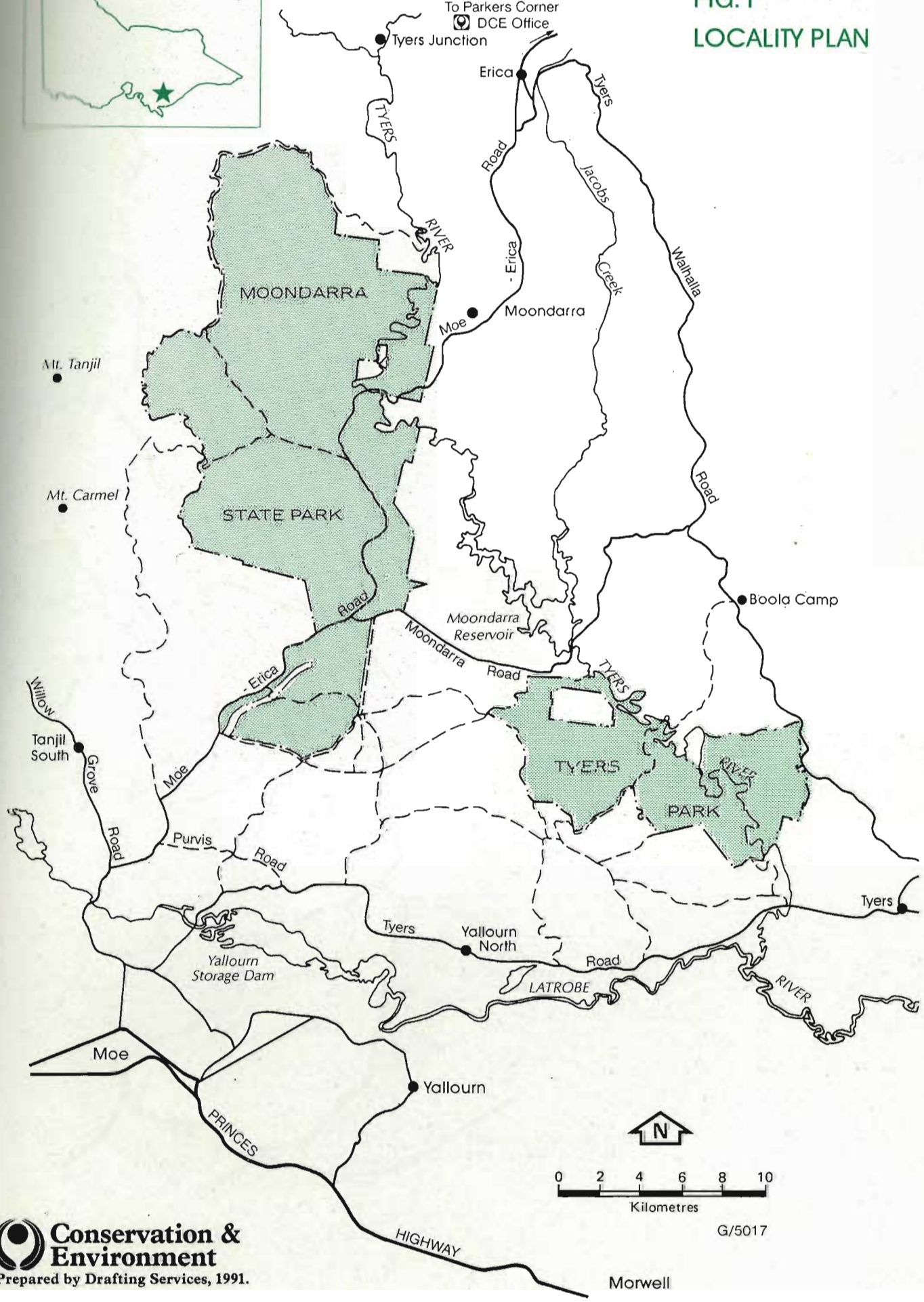
Williamson, D.N. & Calder, S.W. 1979, Visual Resource Management of Victoria's Forests: A New Concept for Australia. *Landscape Planning 6* : 313-14.

Willis J.H. 1970, *A Handbook to Plants in Victoria* Vol 1, Melbourne University Press, Melbourne.

MOONDARRA STATE PARK AND TYERS PARK

FIG. I
LOCALITY PLAN





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MOONDARRA STATE PARK

FIG. 2
BOUNDARIES

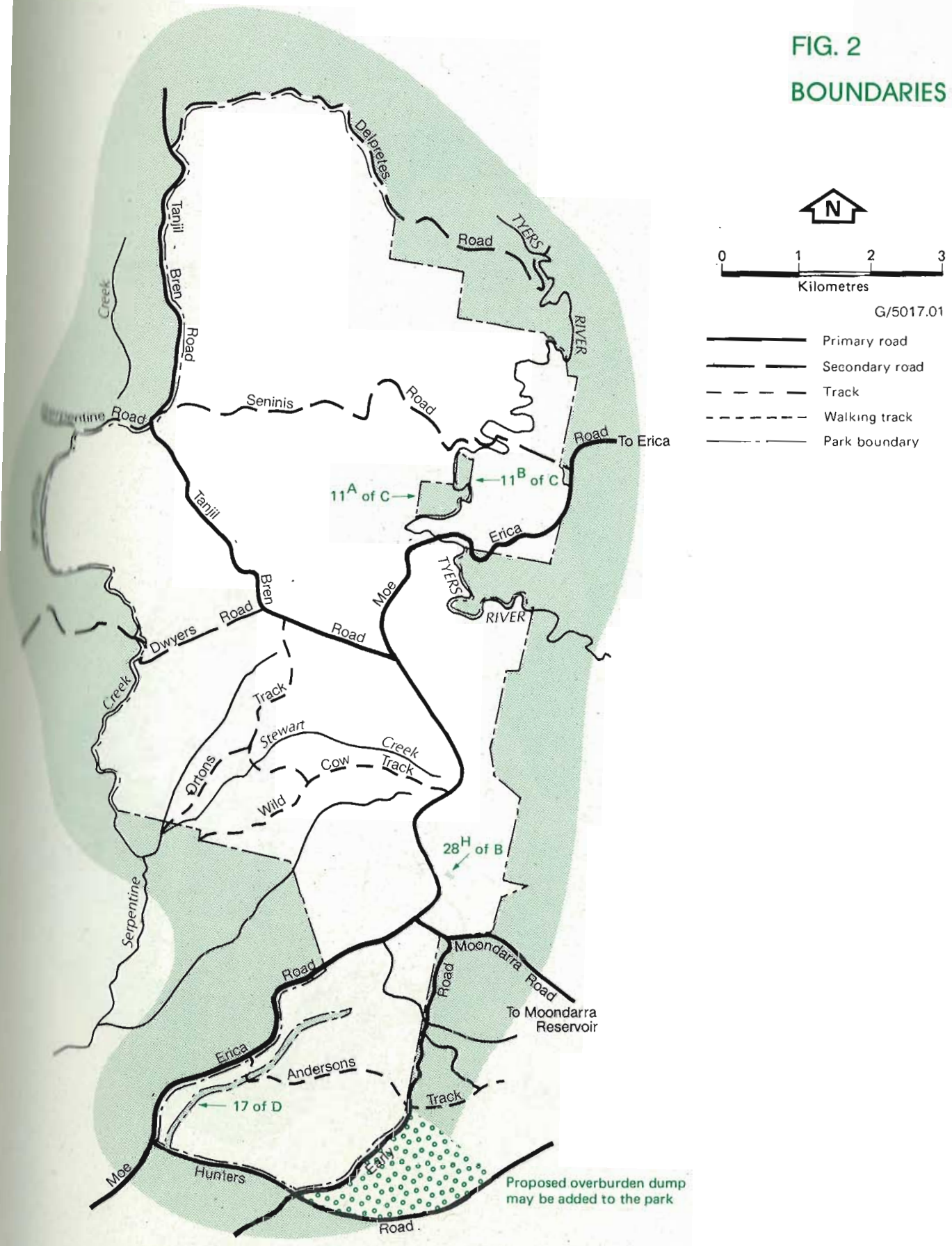

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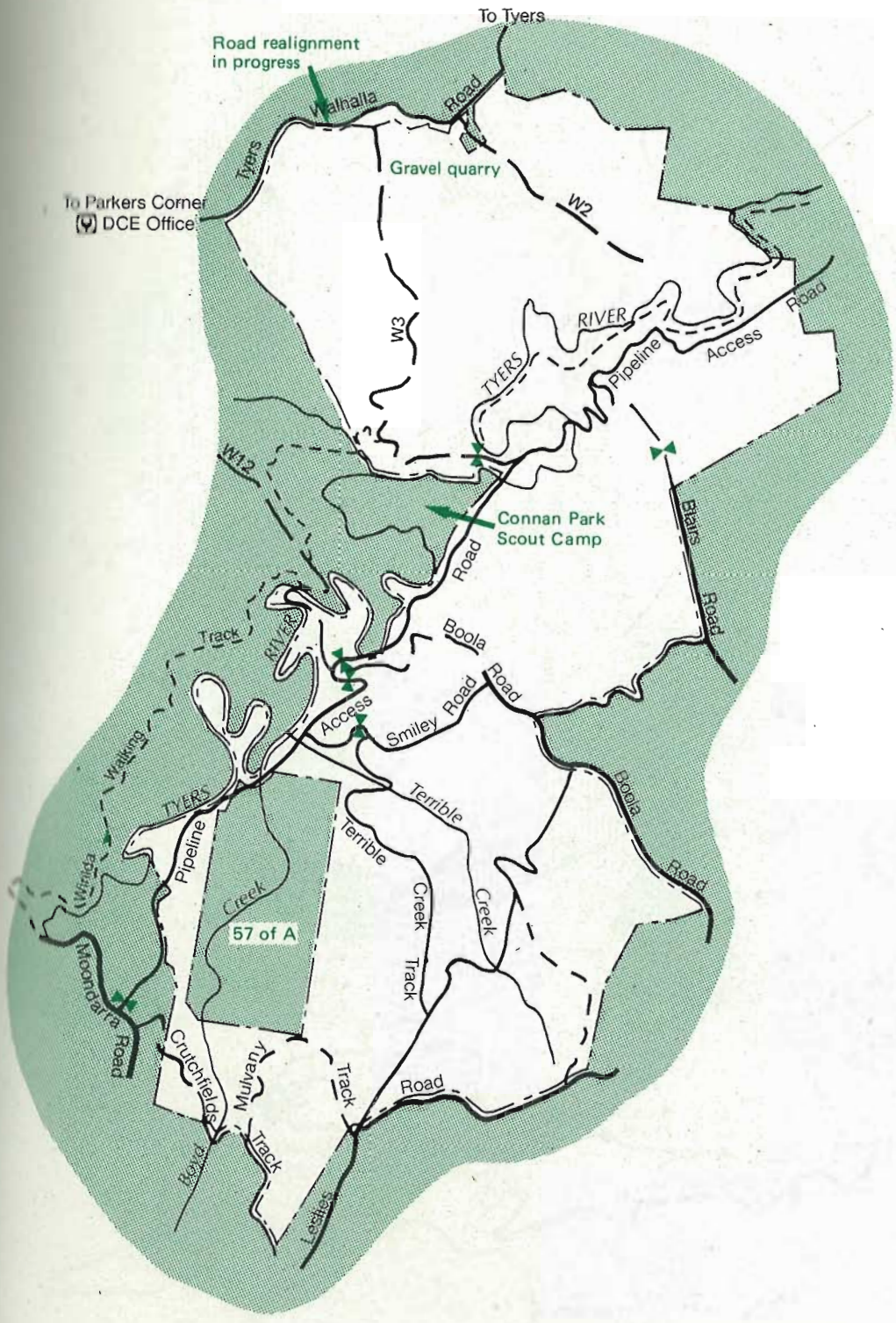
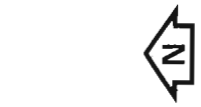
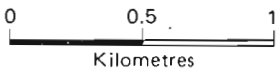
FIG. 3
BOUNDARIES







G/5017.02

- Primary road
- Secondary road
- Track
- Walking track
- Park boundary
- Locked gates

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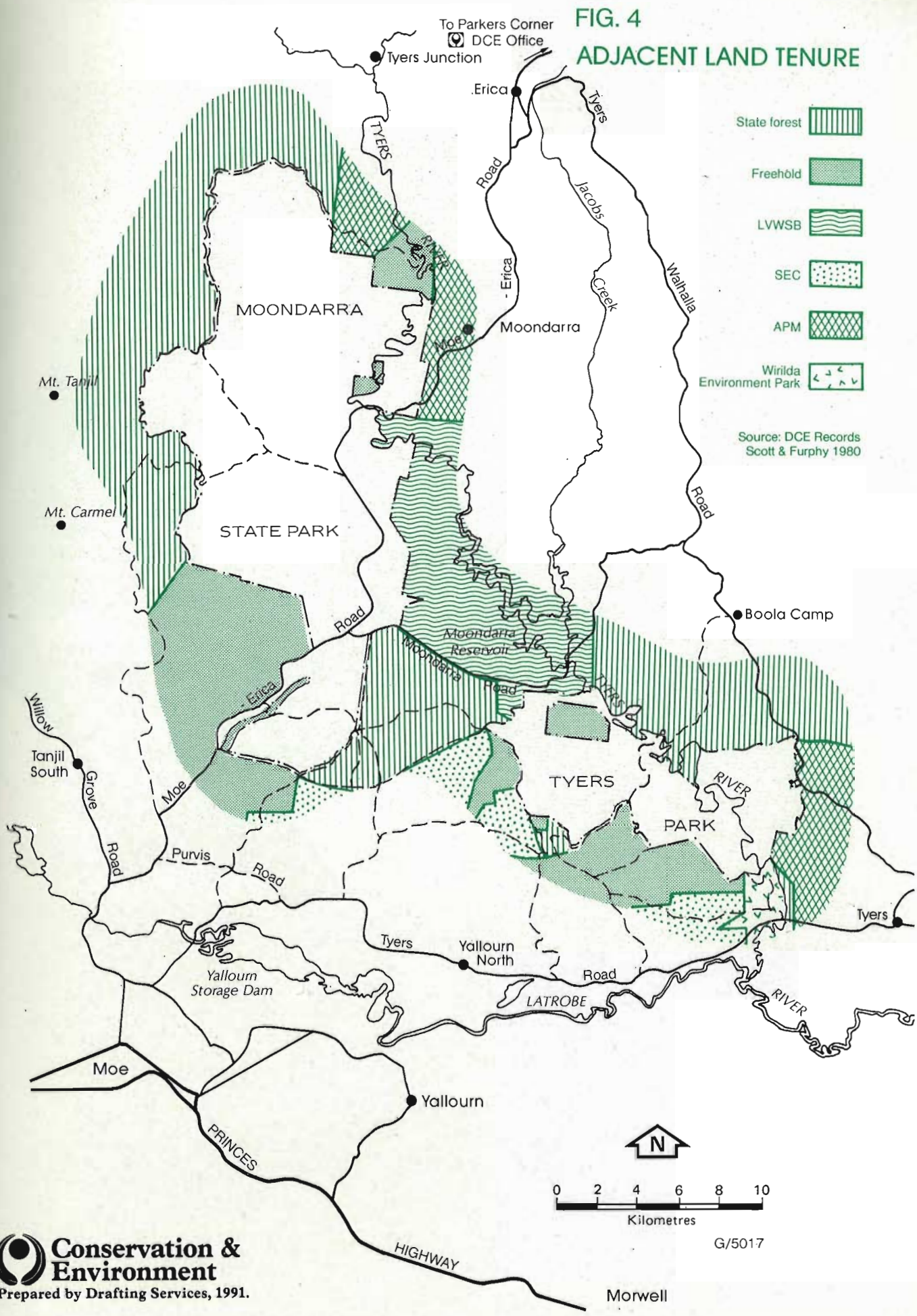
MOONDARRA STATE PARK AND TYERS PARK



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MOONDARRA STATE PARK AND TYERS PARK

FIG. 5
WATER SUPPLY CATCHMENTS

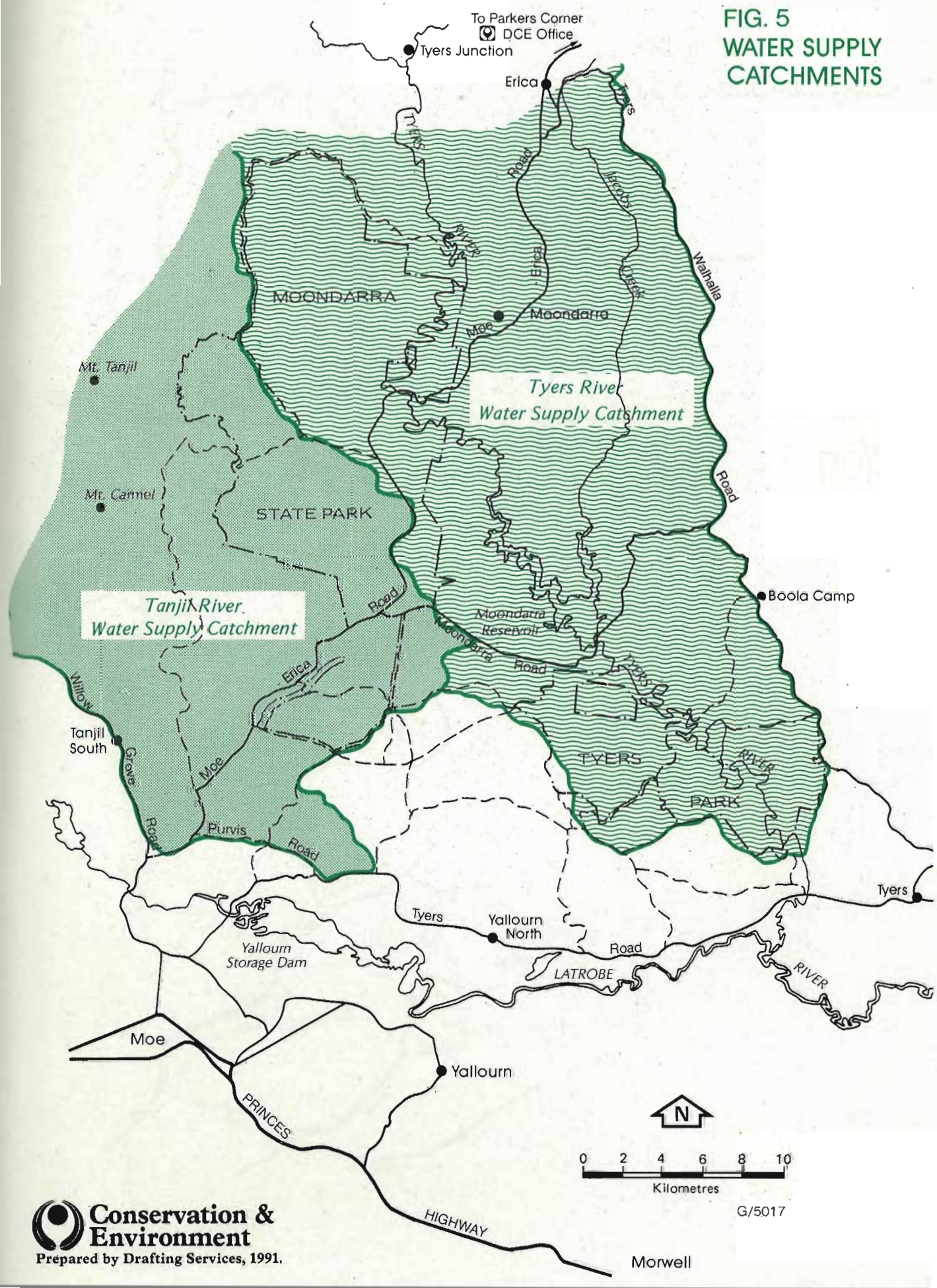

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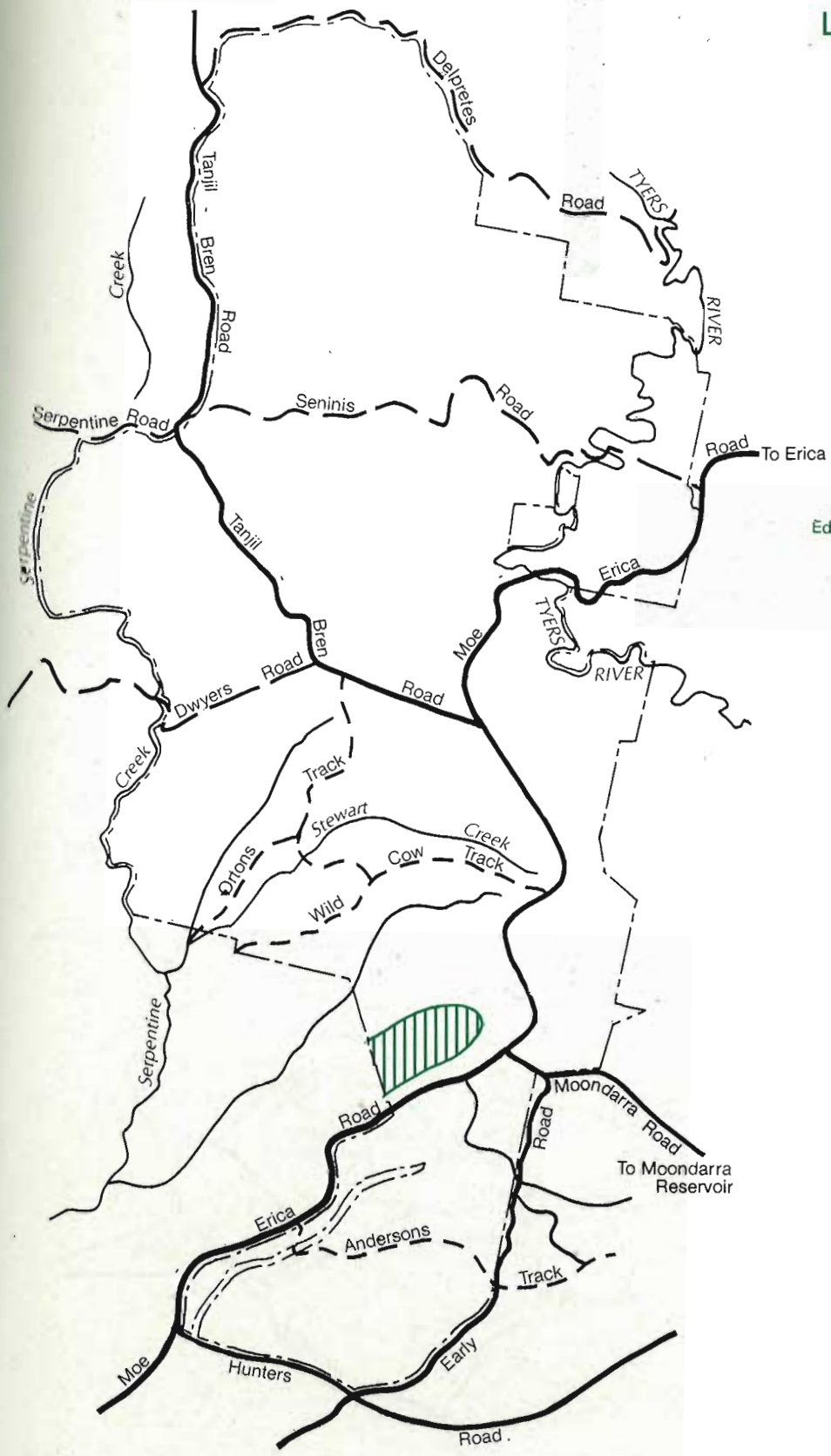
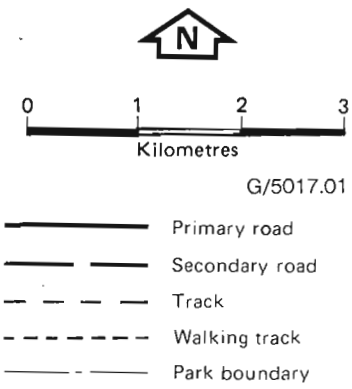
FIG. 6
LCC EDUCATION AREA





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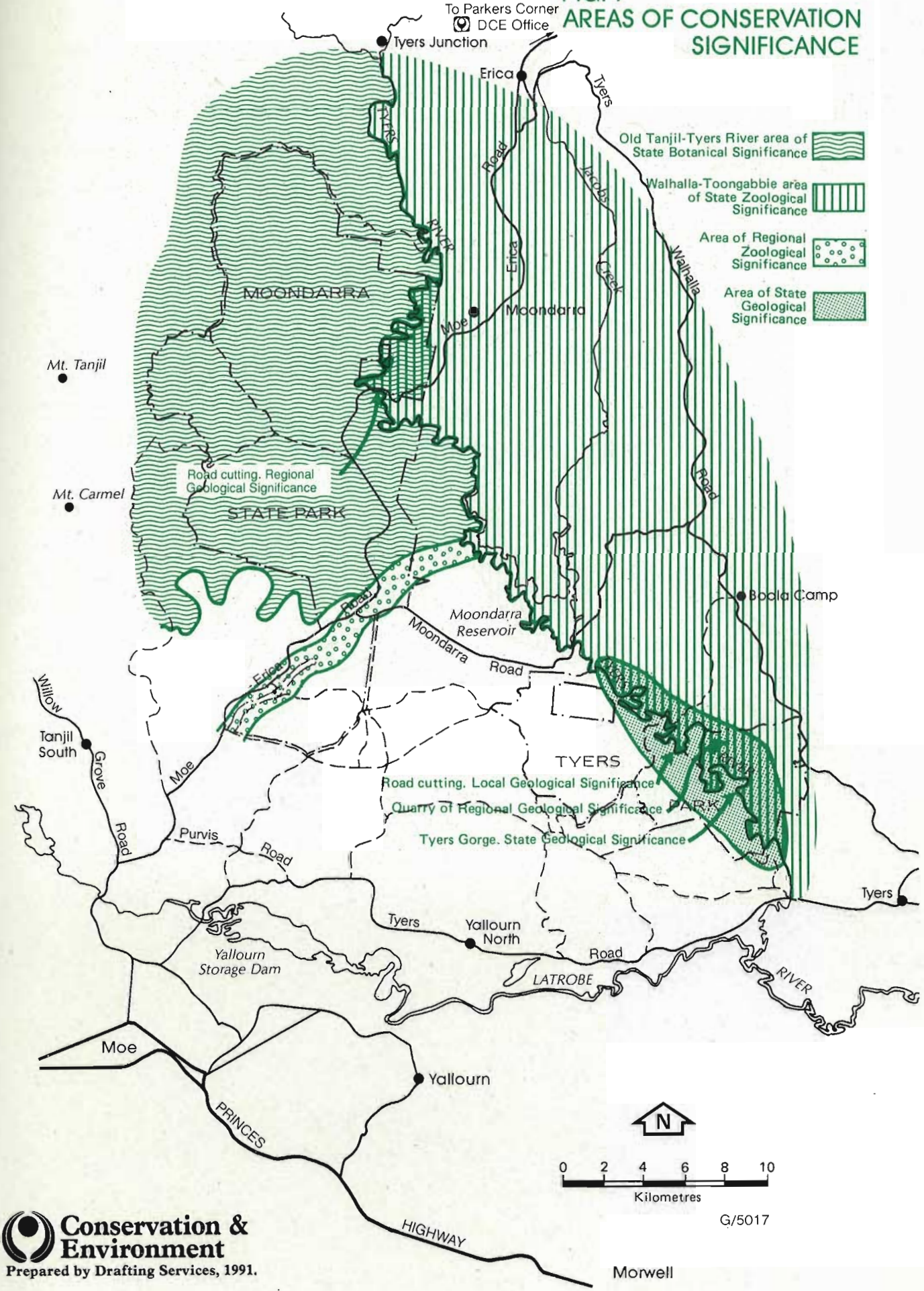
MOONDARRA STATE PARK AND TYERS PARK

FIG. 7
AREAS OF CONSERVATION SIGNIFICANCE



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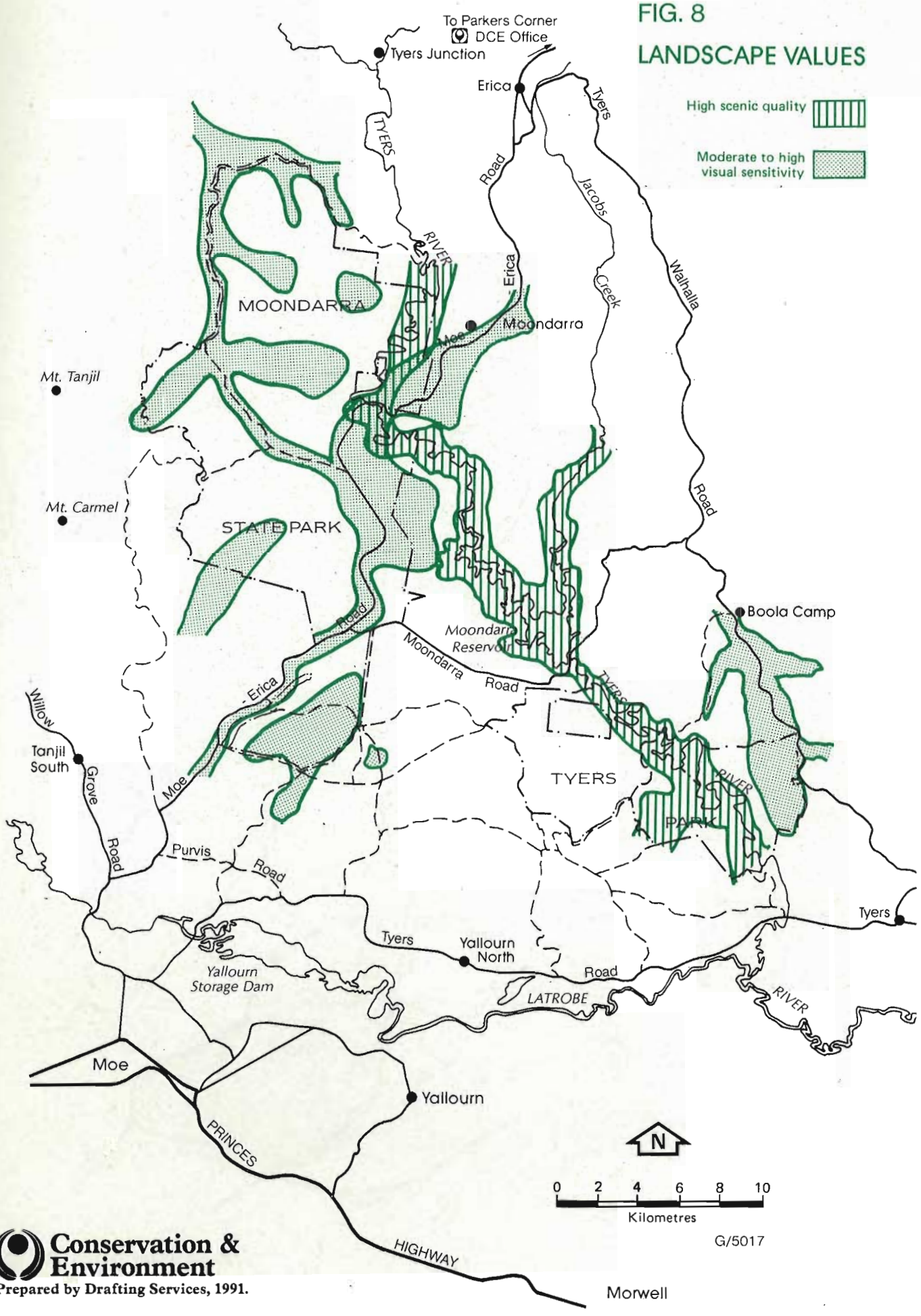
MOONDARRA STATE PARK AND TYERS PARK

FIG. 8

LANDSCAPE VALUES



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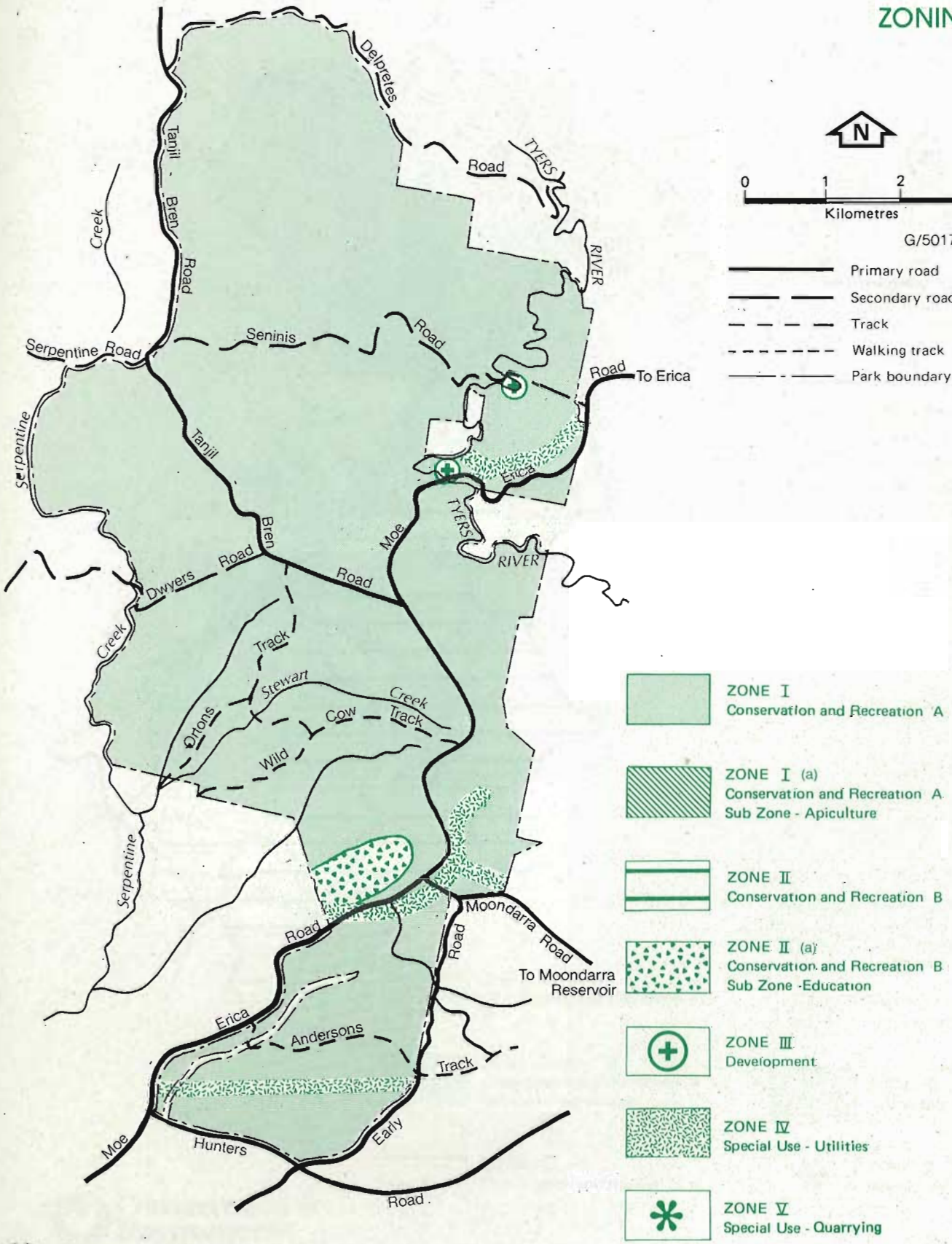
MOONDARRA STATE PARK

FIG. 9
ZONING



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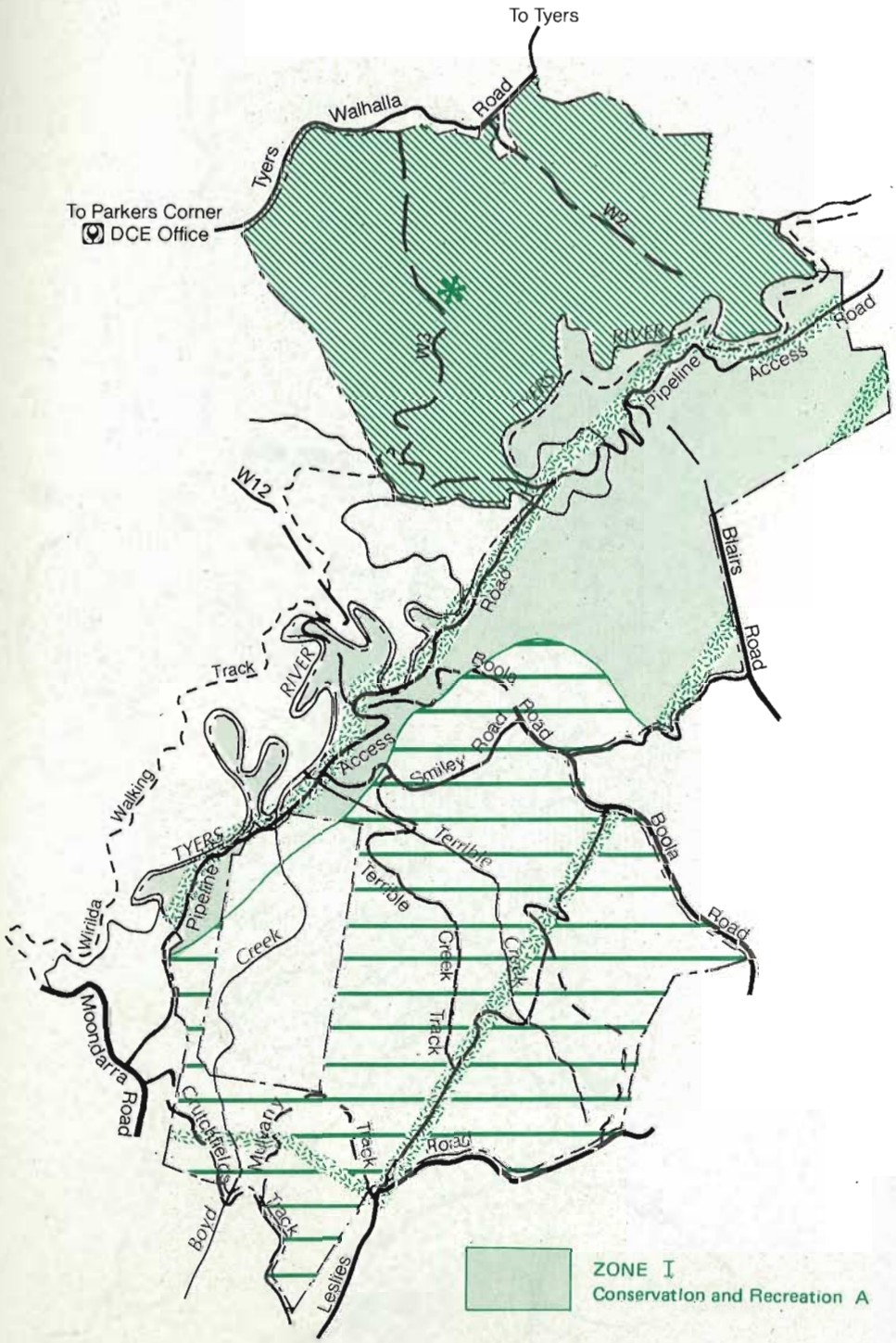
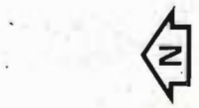
TYERS PARK

FIG. 10
ZONING





G/5017.02

- Primary road
- Secondary road
- Track
- Walking track
- Park boundary

ZONE I
Conservation and Recreation A

ZONE I (a)
Conservation and Recreation A
Sub Zone - Apiculture

ZONE II
Conservation and Recreation B

ZONE II (a)
Conservation and Recreation B
Sub Zone -Education

ZONE III
Development

ZONE IV
Special Use - Utilities

ZONE V
Special Use - Quarrying

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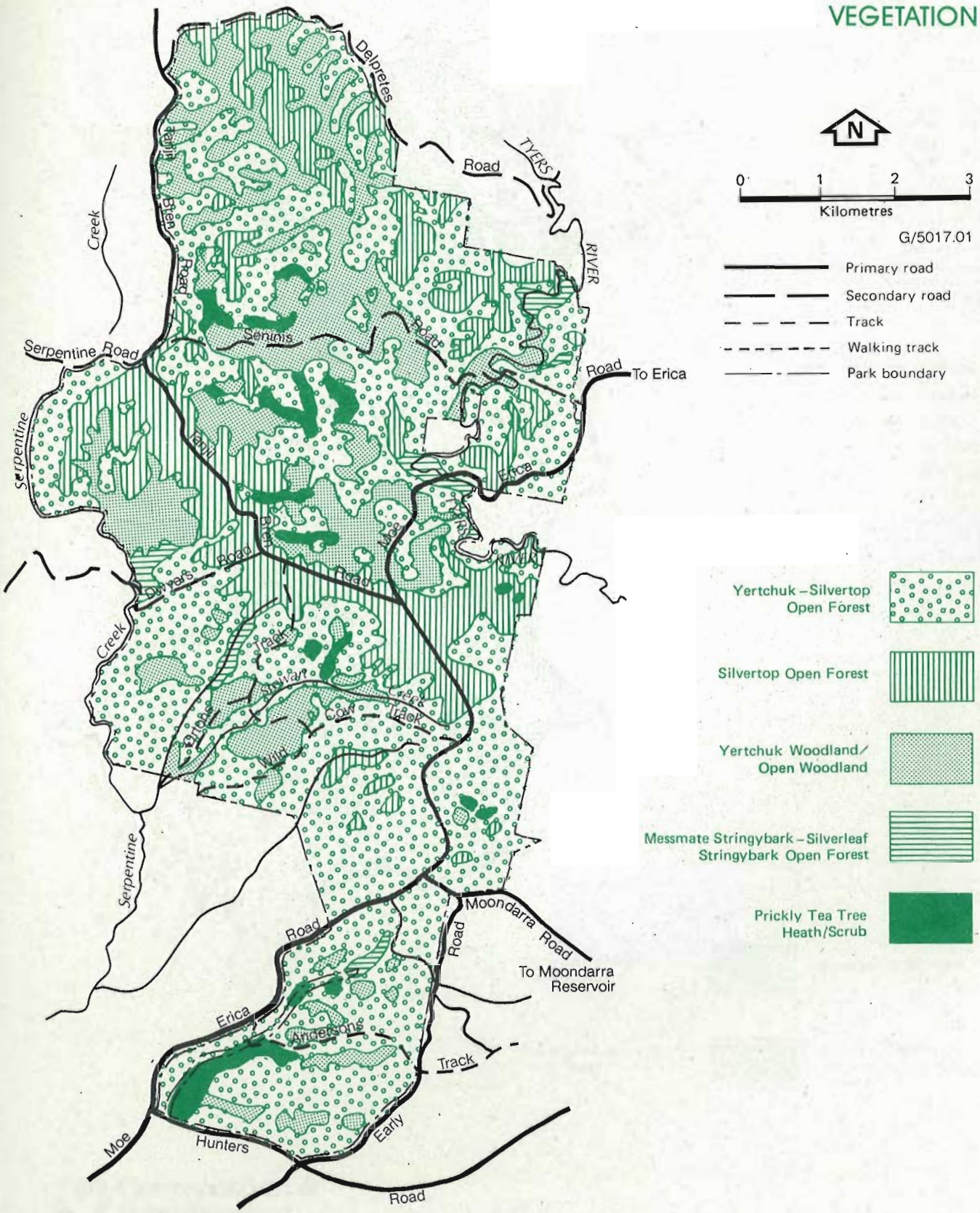
MOONDARRA STATE PARK

FIG. 11
VEGETATION



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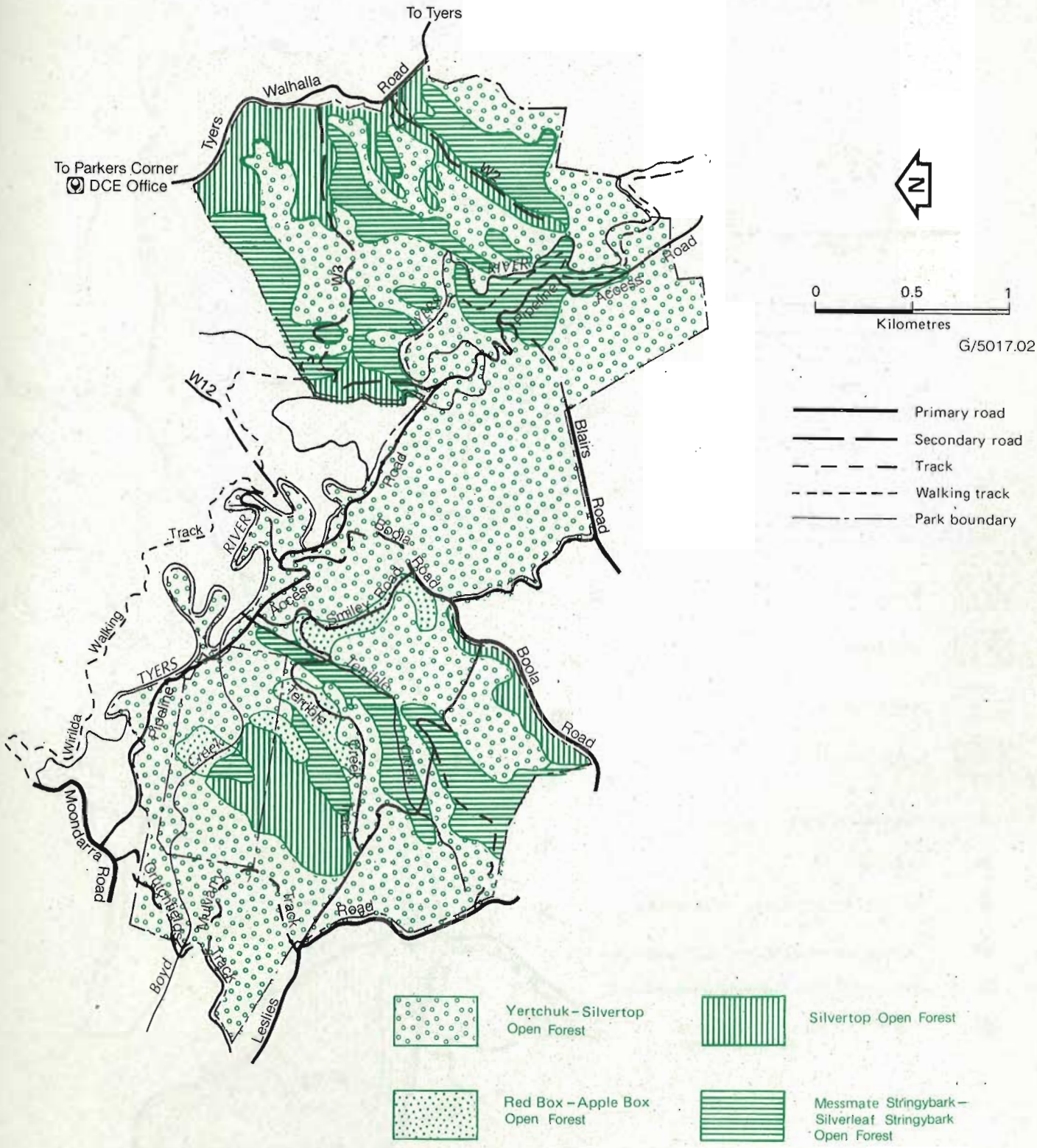
TYERS PARK

FIG. 12
VEGETATION



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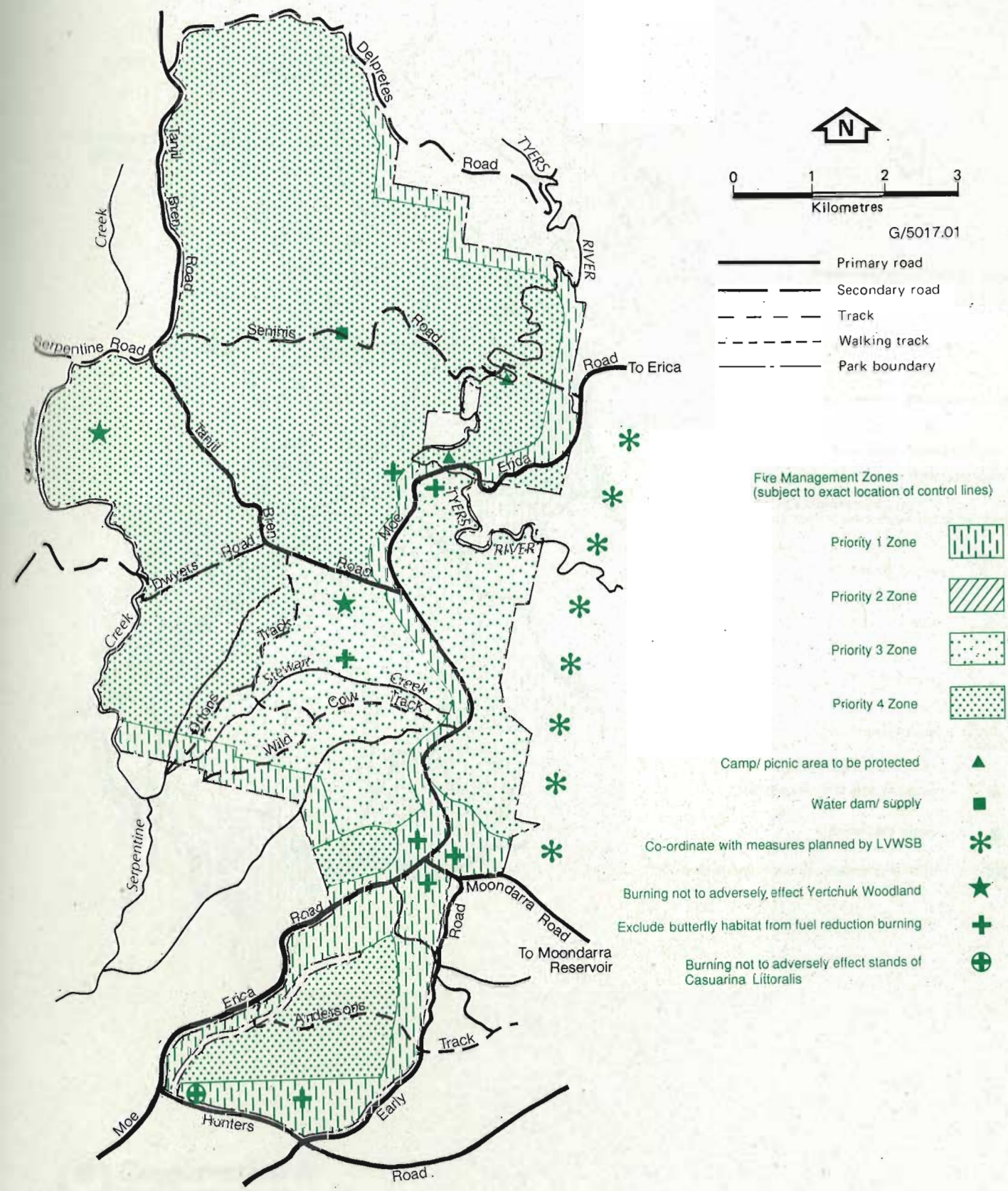
MOONDARRA STATE PARK

FIG. 13
FIRE MANAGEMENT



N

0 1 2 3

Kilometres

G/5017.01

- Primary road
- Secondary road
- Track
- Walking track
- Park boundary

Fire Management Zones
(subject to exact location of control lines)

- Priority 1 Zone
- Priority 2 Zone
- Priority 3 Zone
- Priority 4 Zone

- Camp/ picnic area to be protected
- Water dam/ supply
- Co-ordinate with measures planned by LVWSB
- Burning not to adversely effect Yertchuk Woodland
- Exclude butterfly habitat from fuel reduction burning
- Burning not to adversely effect stands of Casuarina Littoralis

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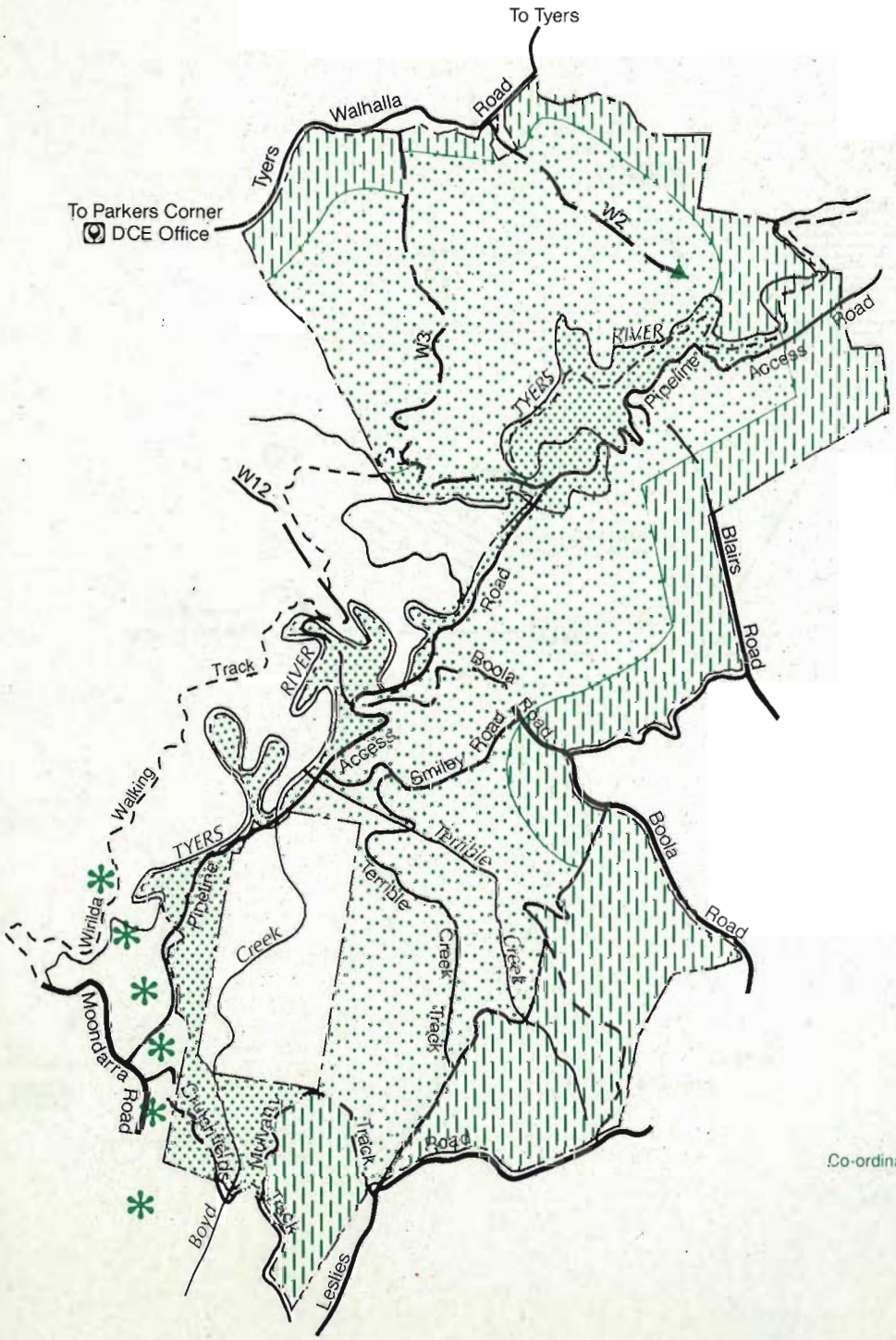
TYERS PARK

FIG. 14
FIRE MANAGEMENT



0 0.5 1
Kilometres

G/5017.02

- Primary road
- Secondary road
- Track
- Walking track
- Park boundary

Fire Management Zones
(subject to exact location of control lines)

- Priority 1 Zone
- Priority 2 Zone
- Priority 3 Zone
- Priority 4 Zone

- Camp/ picnic area to be protected
- Water dam/ supply
- Co-ordinate with measures planned by LVWSB

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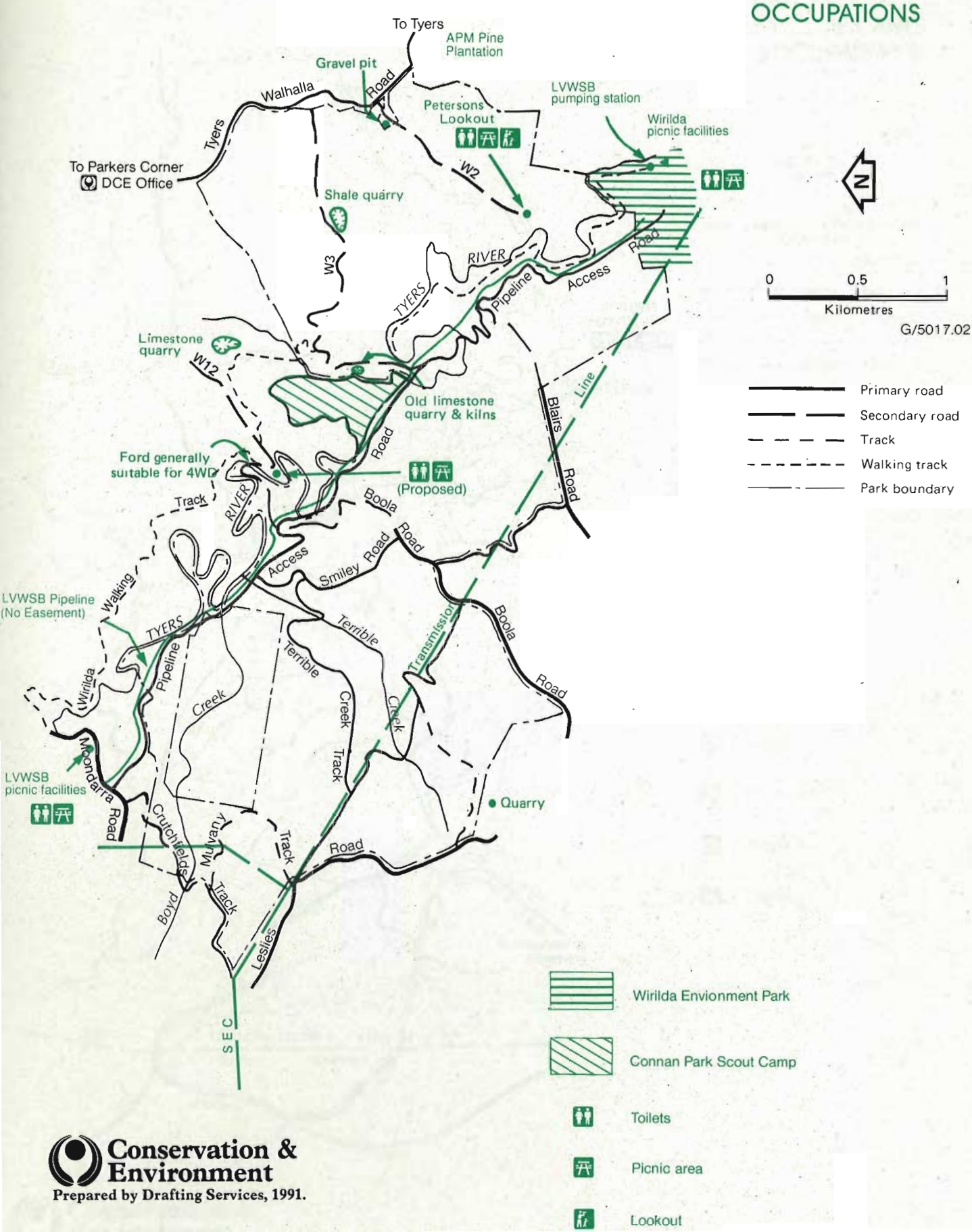
FIG. 15 FACILITIES AND OCCUPATIONS



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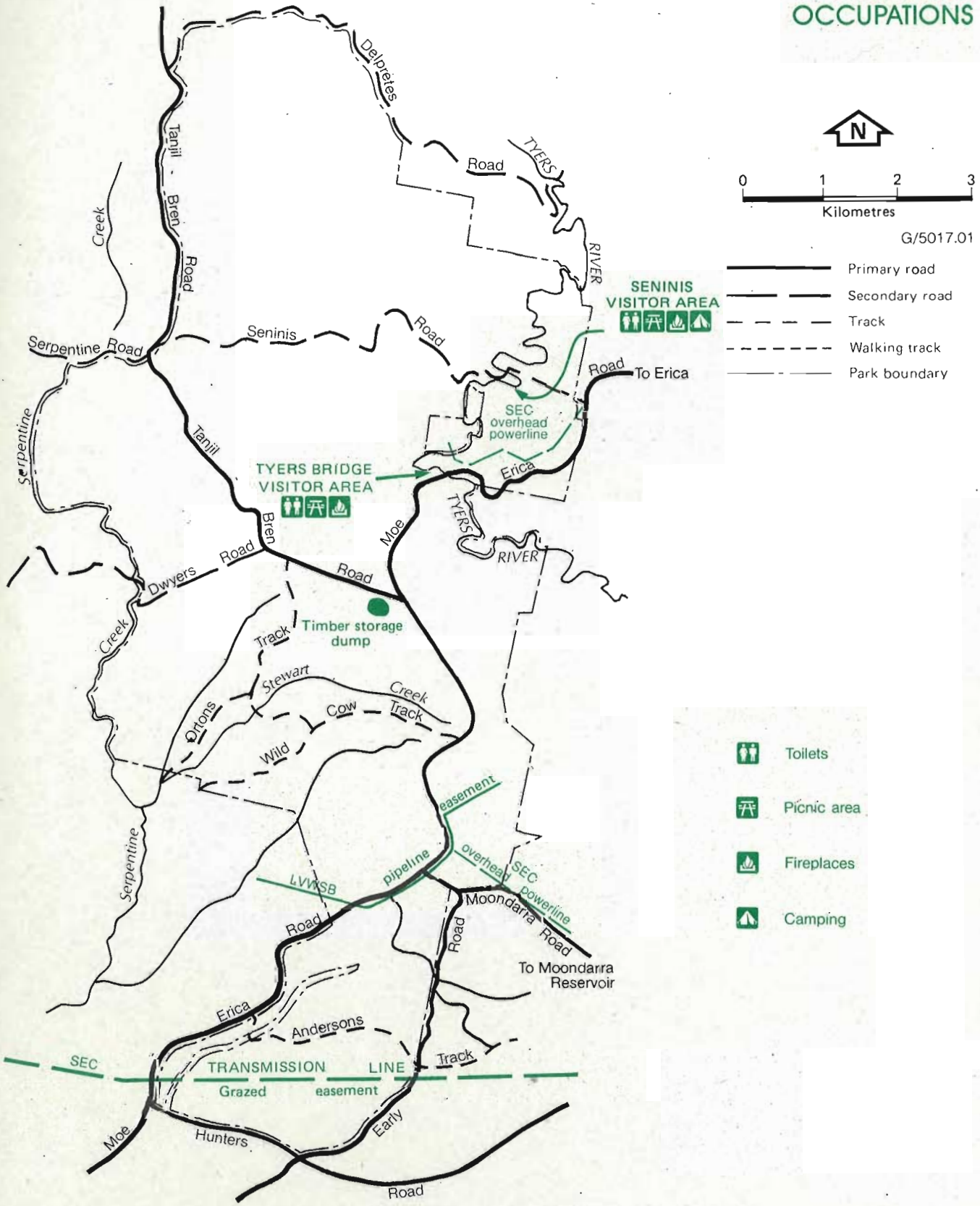
MOONDARRA STATE PARK

FIG. 16
FACILITIES AND OCCUPATIONS



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