SMALL PARKS OF THE UPPER SOUTH EAST MANAGEMENT PLANS

South East SOUTH AUSTRALIA

NATIONAL PARKS AND WILDLIFE SERVICE
DEPARTMENT OF ENVIRONMENT AND PLANNING

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This plan of management has been prepared and adopted in pursuance of Section 38 of the *National Parks and Wildlife Act*, 1972-81.

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1 INTRODUCTION

1.1 The Planning Process

There is a requirement under Section 38 of the *National Parks and Wildlife Act, 1972*, to prepare a management plan for each reserve constituted under the *Act*. Such plans "set forth proposals" to manage and improve reserves, and the means by which the objectives of the *Act* will be accomplished. A management plan provides the framework for management of a park by stating the philosophy on which management should be based, and by setting out objectives and actions for management. The objectives related to management of conservation parks are stated in Section 37 of the *Act* as:

- preservation and management of wildlife;
- preservation of historic sites, objects and structures of historic or scientific interest within reserves;
- preservation of features of geographical, natural or scenic interest;
- destruction of dangerous weeds and the eradication or control of noxious weeds and exotic plants;
- control of vermin and exotic animals;
- control and eradication of disease of animals and vegetation;
- prevention and suppression of bush fires and other hazards;
- encouragement of public use and enjoyment of reserves and education in, and a proper understanding and recognition of their purpose and significance; and
- generally the promotion of the public interest.

Once a management plan has been prepared, an announcement is made in the *Government Gazette* and the plan is placed on public exhibition for at least two months. Any person may make submissions in relation to the plan.

The plan and submissions are then referred to the Reserves Advisory Committee who may make further comments or suggestions. The Minister, after considering all representations, may then adopt the plan with or without alterations. Notice of adoption is published in the *Government Gazette* and copies of the plan are made available to the public.

A similar process applies for any amendment proposed to a management plan.

Once a plan is adopted, its provisions must be carried out in relation to the reserve in question, and no operations may be undertaken unless they are in accordance with the management plan.

1.2 The Conservation Parks

The conservation parks covered by this document are small; the largest, Padthaway Conservation Park, is 984 ha (Figure 1). The parks are:

- Bangham Conservation Park;
- Desert Camp Conservation Park;
- Grass Tree Conservation Park;
- Jip Jip Conservation Park;
- Kelvin Powrie Conservation Park;
- Mullinger Swamp Conservation Park;
- Padthaway Conservation Park; and
- Talapar Conservation Park.

There are a number of other small conservation parks in the Upper South East, which have not been included with these plans. Management plans for these parks have already been adopted, or will be prepared at a later date.

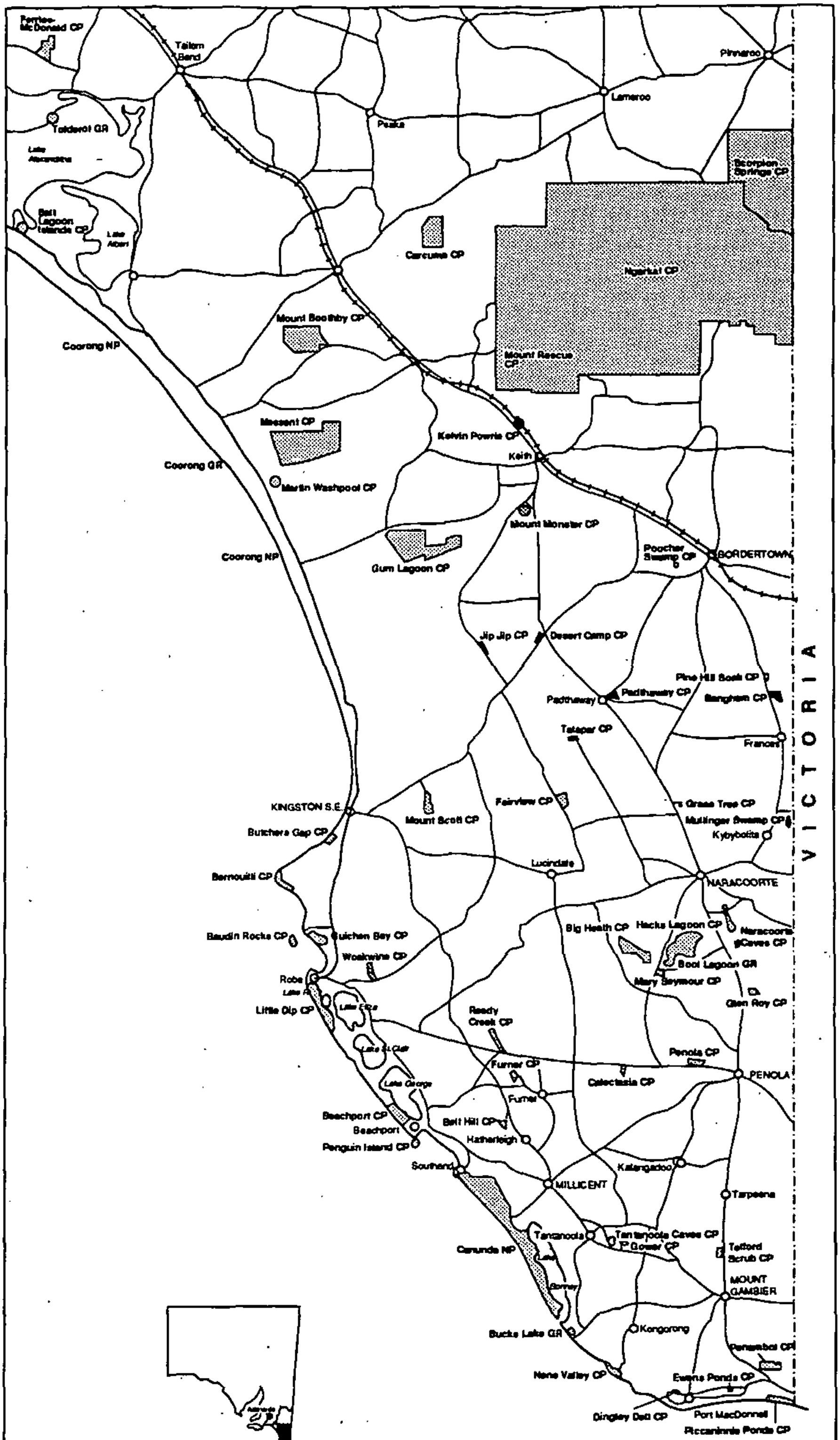
The Upper South East as defined in this document takes in the area enclosed by the Naracoorte/Kingston road in the south, the Victorian border in the east, the Adelaide/Melbourne railway line in the north to a point about 10 km west of Keith and west to the coast including the southern part of the Coorong (Figure 1).

1.3 Regional Management Considerations

1.3.1 Conservation Value of Small Parks

The parks in this document were acquired for conservation during the 1960s and 1970s when large-scale clearance of native vegetation was taking place in the Upper South East. Many of the parks had been uncommitted Crown Lands or were scrub blocks offered for sale as remnants of native vegetation in areas which were to be cleared. As clearing continued, parks were left as islands of scrub in cleared cultivated landscapes. While these parks have value as conservation areas, their 'island' status and small size makes them vulnerable to the effects of visitor use, wildfire, weed invasion, and change in nutrient status of the soil through the use of fertilisers in neighbouring paddocks.

In many places the remaining scrub areas do not have sufficient food resources to adequately support their native animal populations. Improved pasture and crops on neighbouring properties attracts kangaroos from parks. There is a need in some areas to establish a kangaroo management program for small parks and other small conservation areas, to ensure that kangaroo populations in these areas are conserved without undue impact on adjacent landholders.



Parks covered in this document

Other Parks in the South East

Map 1

SMALL PARKS OF THE UPPER SOUTH EAST

Location Map

Corridors of native vegetation linking parks to other areas of scrub, and uncleared scrub blocks near parks are essential for conservation in the Upper South East. Several areas of uncleared land in the Upper South East have been identified as being worth conserving. Mowling and Barritt (1980) identified areas in the following Hundreds:

- Geegeela, Beeamma, and Binnum - vegetation of the sand plain areas;
- Makin, Senior and Cannawigara - mallee and heath areas north of Bordertown;
- Marcollat, Wirrega, Hynam, and Glen Roy - vegetation of the stranded dune ridges;
- Marcollat - interdunal plains vegetation; and
- Geegeela and Binnum - wetland habitat.

In addition they recommend investigation of other islands of vegetation in the Hundreds of Pendleton, Cannawigara, and McCallum. It should be noted that some of the areas they recommend be conserved have since been cleared.

Objectives

- to provide for the conservation of native flora and fauna populations occurring in remnant stands of native vegetation
- to encourage land managers to retain remnant native vegetation

Actions

- liaise with district councils and the Department of Road Transport to retain native vegetation along roadsides as linking corridors between parks and other areas of native vegetation
- encourage landholders to retain corridors and blocks of native vegetation
- investigate for acquisition any substantial areas of uncleared land and wetlands, particularly areas close to or adjacent to existing parks
- prepare a kangaroo management program for small parks and other small conservation areas
- prepare and implement pest plant and animal control programs for each park

1.3.2 Fire Management

Fire management in South Australian National Parks and Wildlife Service (SANPWS) reserves is based on guidelines and objectives contained in the Fire Management and Protection Manual (1989), which sets out objectives of fire management and the Service's fire policy and guidelines. The objectives of fire management as stated in the Manual are:

- to protect human life and the assets of properties adjacent to parks;
- to foster sound land use planning in relation to fire hazard;
- to maintain diversity of native plant and animal communities;
- to protect special features of the reserve including cultural sites and park facilities; and
- to manage fire, thus protecting the land from degradation by erosion and subsequent invasion by weeds.

The Manual is not the final statement on fire management. Fundamental alterations may be made as research provides more information. The question of acceptable fire regimes and the ecological effects of fuel reduction burning are areas of particular concern which need more management-directed research to establish sound policies.

In addition to the Manual, the Service has prepared fire protection plans for individual parks in the State. A fire protection plan provides an account of existing and proposed fire protection strategies for the park; it identifies hazards and risks both within and outside the park, and provides historic and logistical information on location and nature of resources.

Objective
- to provide for protection of life, property, and the conservation values of the parks from wildfire

Actions
- adopt objectives and policies of the Fire Management and Protection Manual
- implement the fire management plan prepared for each park

1.3.3 Visitor Use of Parks

To ensure a consistent and balanced approach to park management, the management of the parks covered by these plans will be considered in the context of managing all parks in the region.

Tourism in South Australia is being widely encouraged on both a State and regional level as a means of stimulating economic activity and local employment. It is important in the promotion of tourism that visitor use of parks is directed to those parks which have some focus of interest and which can be adequately managed to both satisfy visitor demand and ensure that the parks' conservation values are maintained.

Parks not only attract visitors from far afield; they frequently serve the recreational needs of local communities. It is not expected that the patterns of local visitor use in the Upper South East will change significantly. At present the parks in the Upper South East which receive most visitor use are Naracoorte Caves Conservation Park, Bool Lagoon Game Reserve, and Coorong National Park. Of the smaller parks, visitor use is concentrated mainly at Mount Monster, Jip Jip, Mullinger Swamp, Fairview and Kelvin Powrie Conservation Parks (Figure 1).

Objective
- to provide for conservation and public enjoyment of the parks

Actions

- monitor public use of the parks
- provide visitor facilities as required to protect park values and enhance visitor use and enjoyment
- liaise with Tourism SA, local tourism associations and tour operators to ensure that their policies and practices are consistent with SANPWS policies on recreational use of parks, and that SANPWS are made aware of initiatives in the tourism industry which may affect the parks

1.3.4 Interpretation

People's appreciation of parks is enriched through effective interpretation of parks and their resources. The availability of information before people visit parks allows them to make informed decisions about which parks to visit, how long to spend there, what they can expect to find in the park and how best to utilise their time.

Many of the small parks in the Upper South East are conveniently located for educational use by local schools. There is potential for the further development of environmental education by local schools using the parks as a major resource.

Objective

- to provide for public understanding of the purpose and significance of the parks

Actions

- prepare a Regional interpretive plan and provide interpretive material for the parks
- encourage local schools to use the parks as resources for environmental education and to liaise with SANPWS staff when preparing curricula and field classes

1.3.5 Research and Survey

Little research and survey work has been undertaken in the small parks of the Upper South East. Consequently, knowledge of their natural attributes and their sites of Aboriginal and European cultural significance is limited.

Objective

- to provide opportunities for scientific research and survey which contributes to the management of the parks' resources

Action

- encourage research into the natural and cultural resources of the Upper South East, and implement appropriate management programs to protect and conserve these resources

1.3.6 Bee Sites

Honeybees are not native to South Australia, and their presence in areas of native bushland conflicts with the nature conservation objective of excluding non-indigenous species. Ecologists and wildlife managers have expressed concern that honeybees may displace native fauna and alter the reproductive patterns of native plants.

Commercial apiarists have argued that continued access to conservation reserves and heritage agreement areas is important if they are to provide a viable industry capable of meeting the needs of the fruit, almond and small seeds industries of South Australia. Native plants, particularly *Eucalyptus* and *Banksia* species are important sources of nectar and pollen for honeybees.

The South Australian Government recognises the economic importance of the apiary industry for the production of honey and other bee products, as well as for pollination services, and has determined that bee-keepers should continue to have controlled use of *National Parks and Wildlife Act, 1972* reserves. Current SANPWS policy is that the number of bee sites is not to change. This policy will be reviewed if research shows significant adverse effects of honeybees on natural systems.

Objective
- to implement existing policy in relation to bee sites

Action
- permit existing bee sites in Padthaway and Bangham Conservation Parks to remain, subject to their lease conditions and the results of research

1.3.7 Staff

Parks referred to in this document fall into the SANPWS South East Region. To effectively manage the parks and to implement the proposals of these plans, additional field staff are required. Management and monitoring work in the small parks is limited by low staffing levels and the distance of the parks from staff bases. Priority is given to management of the major parks in each region, with the result that there is only a small investment of resources and staff time in the small parks. Additional field staff would enable all field staff to manage parks in their regions more effectively.

Objective
- to increase management activity in the parks

Action
- prepare a works program which ensures frequent management presence in the parks

2 BANGHAM CONSERVATION PARK

This is the Management Plan for Bangham Conservation Park, adopted under the provisions of the *National Parks and Wildlife Act, 1972*. The Foreword and Introduction (Section 1) of this document form part of this Plan.

2.1 Park Description

Bangham Conservation Park is located 45 km north east of Naracoorte and is bounded by the Bordertown - Frances road on the west and the Bordertown - Naracoorte railway line on the east (Figure 2).

The Park occupies Section 4, Hd of Geegeela, an area of 738.4 ha. A Government survey of 1908 described the area as having the "greater part undulating white sand, with stringy bark, buck honeysuckle, heath, yacca with a few pines" and supporting "a little grass" considered to be "inferior pasture" (Dept. of Lands Diagram Book, Hundred of Geegeela). In the western part is an area described as "gum flats, shallow sand over clay".

A transmission line easement crosses the Park.

In 1971 Section 4, Hd of Geegeela, 675.8 ha of native scrub and 125 ha of cleared land, was offered for conservation purposes. The land was investigated and it was found that red-tailed black cockatoos (*Calyptorhynchus magnificus*) used the area. Because of the limited distribution of this species in South Australia, the area was considered particularly suitable for conservation purposes. At that time, the cleared area was used for grazing and the owners of the stock were granted short term grazing rights over this area. While the grazing of stock had prevented regeneration of native plant species, cessation of grazing resulted in prolific growth of *Phalaris* sp. which was seen as a fire hazard and necessitated regular slashing. Slashing the *Phalaris* reduces the fuel load, but maintains the area as a disclimax by hampering regeneration of native species.

In the late 1980s the possibility of revegetating the area with indigenous trees was mooted. In 1982, an experimental plot of 1000 m^2 was established adjacent to the northern fence line of the cleared area. The plot was fenced and Eucalypt branches containing fruits and seeds were laid across the area. Results were destroyed by drought.

Bangham Conservation Park lies within the Bangham Environmental Association of Laut et al. (1977a). The association is characterised by an undulating plain of Tertiary sand with local ferruginous cappings, overlain by easterly trending dunes and sheets of aeolian sand. Occasional sinkholes and small depressions are caused by solution of the underlying limestone.

Soils in the Park are generally bleached, deep acid sands with a yellow-grey B horizon (Laut et al. 1977a).

The vegetation of the Park has been mapped by Davies (1982). The area indicated as cleared comprises mainly *Phalaris* sp., with scattered South Australian blue gum (*Eucalyptus leucoxylon*) which are remnants of the original native vegetation. Three major associations have been identified:

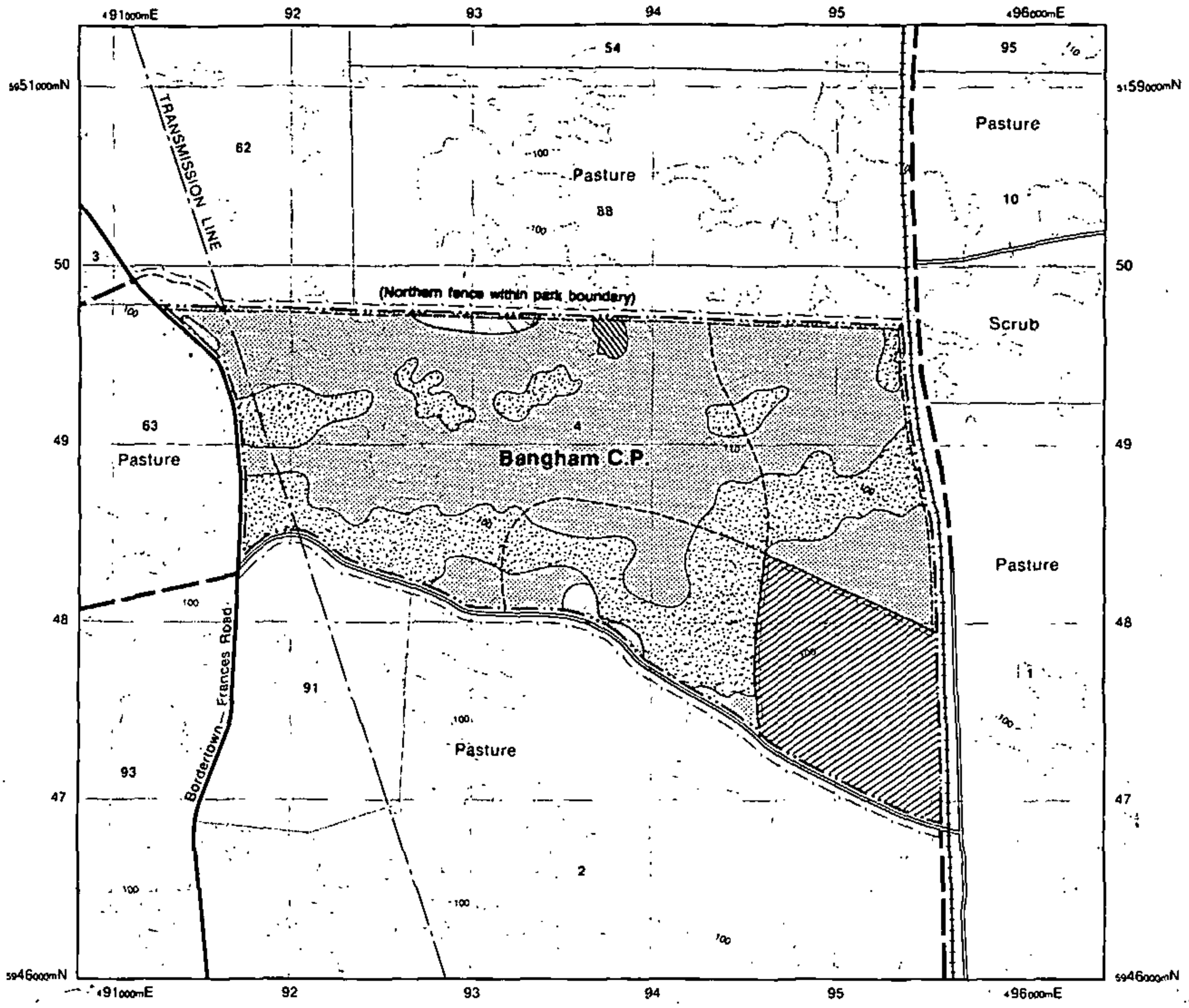
- South Australian blue gum open forest - woodland;
- river red gum (*E. camaldulensis*) - in areas subject to inundation; and
- brown stringybark (*E. baxteri*) open forest - low open forest.

The vegetation of the Park has particular conservation significance because of the South Australian blue gum open forest and woodland, formerly a widespread vegetation type in the eastern part of the Upper South East, and now substantially cleared for pasture cultivation (Barritt 1982). Barritt considers this vegetation type in need of further conservation in the Upper South East.

The red-tailed black cockatoo has a widespread distribution in eastern, northern, western and central Australia, with an isolated population in south eastern South Australia and south western Victoria. Sightings in this State are concentrated in the Bangham area, and between Penola and the State border (Joseph 1980). Red-tailed black cockatoos are dependent on brown stringybark for both food and nesting sites. They eat the seeds of bulloak (*Allocasuarina luehmanii*) and unripened brown stringybark fruits. Nesting takes place in hollows in brown stringybark as well as other *Eucalyptus* species. Clearing of brown stringybark woodland and forest in south eastern South Australia and south western Victoria is seriously threatening the habitat of the red-tailed black cockatoo. With about 53% of its area covered by brown stringybark open forest or low open forest (Davies 1982), Bangham Conservation Park has an important role in the protection of the red-tailed black cockatoo.

Northern and eastern boundary access tracks have been constructed. A surveyed road adjoining the southern boundary of the Park receives very little use and is impassable during winter and spring. An alternative public road lies three kilometres north of the Park. The Bordertown - Frances Road provides access on the western boundary, and when it was realigned in 1969, it encroached on 0.167 ha of Section 4, Hd of Geegeela. When Section 4 was dedicated as the Park in 1973 no legal action was taken to exclude this area from the Park. This road intrusion presents no management problems but the legal anomaly of a Council road occupying part of an SANPWS reserve remains unresolved.

The Park receives a low level of mainly local use with occasional visits from further afield by field naturalists and bird observers. No visitor facilities are provided.



OPEN FOREST— LOW OPEN FOREST

Eucalyptus baxteri

Eucalyptus viminalis ssp *cygnetensis*

OPEN FOREST— WOODLAND

Eucalyptus leucoxylon

Eucalyptus leucoxylon
E. viminalis ssp *cygnetensis*

CLEARED LAND

Source: Davies (1982)

4 Section number (Hd. of GEEGEELA)

Disused borrow pit

Fence

Railway line

Management track

Sealed road

Unsealed road

Surveyed road

Park boundary

Scale 1:40 000

0 km 1 2 3

Figure 2

SMALL PARKS OF THE UPPER SOUTH EAST

Bangham C.P.

2.2 Management Prescription

The Park should be managed to ensure the conservation of its native vegetation and fauna, in particular the red-tailed black cockatoo. The objectives of management are:

- to protect native fauna and vegetation, in particular the habitat of the red-tailed black cockatoo;
- to review management of former agricultural land; and
- to regulate vehicle access in the Park.

In order to fulfil these objectives, the following actions will be implemented.

	Priority
• provide pedestrian public access	mod.
• maintain existing vehicle tracks for management purposes	high
• discuss with District Council of Tatiara incorporation of the surveyed road on the southern boundary of the Park	high
• ensure red-tailed black cockatoo habitat is retained	high
• investigate revegetation of former agricultural land in the Park	high
• undedicate and dispose of former agricultural land if cost effective revegetation cannot be achieved	high
• undedicate portion of the Bordertown/Frances Road in the Park	mod.

3 DESERT CAMP CONSERVATION PARK

This is the Management Plan for Desert Camp Conservation Park, adopted under the provisions of the *National Parks and Wildlife Act, 1972.* The Foreword and Introduction (Section 1) of this document form part of this Plan.

3.1 Park Description

Desert Camp Conservation Park, 65 km north west of Naracoorte on the northern side of the Kingston - Keith road, occupies an area of 49.06 ha in Sections 87 and 105, Hd of Marcollat (Figure 3). Section 87 was gazetted as Desert Camp National Park in 1967. Fourteen months later, new works on the Keith - Kingston road severed Section 105 from an adjoining lease. The 11.4 ha of Section 105 adjacent to the Park were gazetted as part of the Park in 1968. On proclamation of the *National Parks and Wildlife Act, 1972*, the Park became Desert Camp Conservation Park.

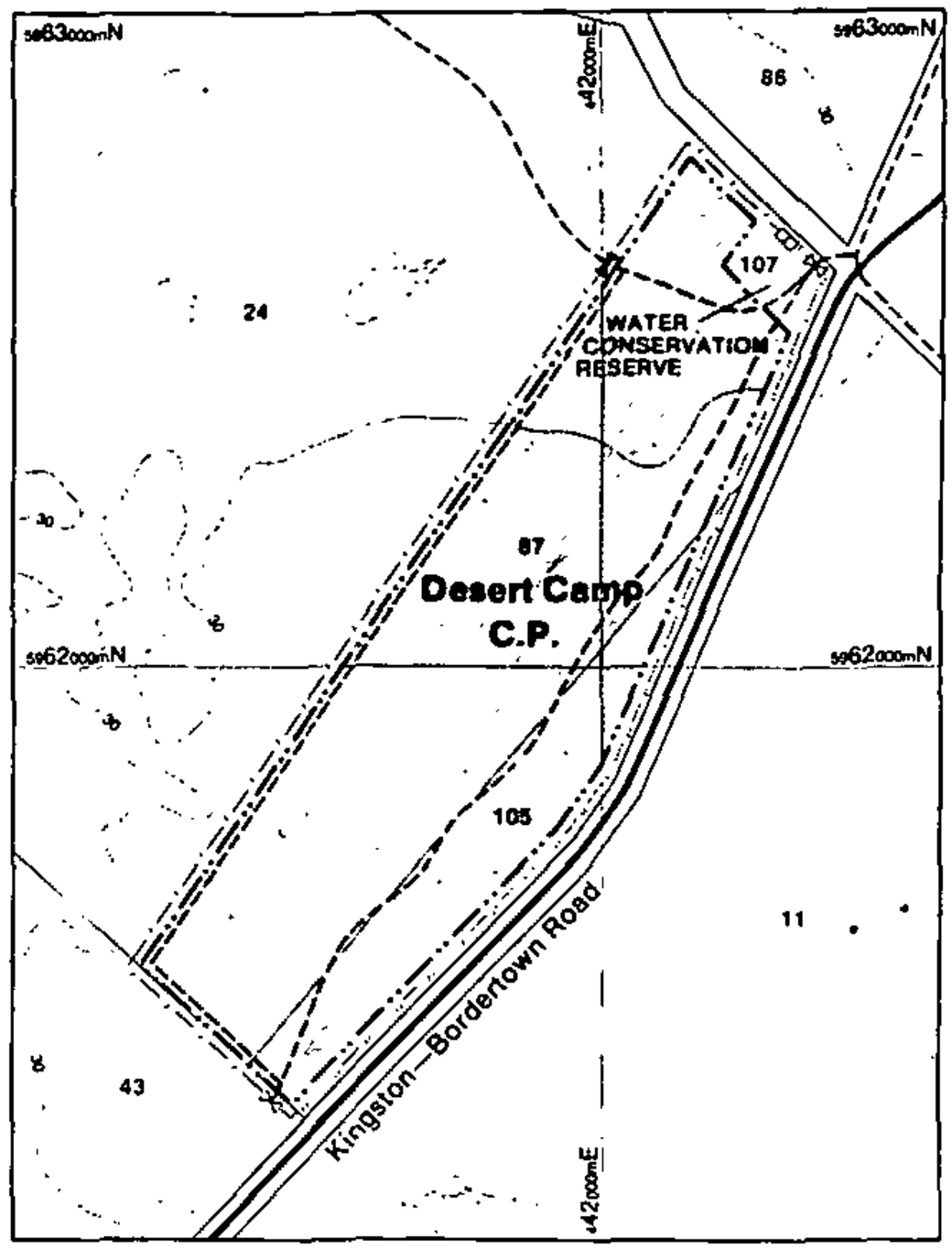
The Park is located in the Angle Rock Environmental Association of Laut et al. (1977a). This association is characterised by interdunal plains with occasional low narrow dune ridges and isolated granite outcrops. Soils are moderately deep, alkaline, sandy, pedal, mottled-yellow duplex soils (Laut et al. 1977a). These soils support an open woodland of pink gum (*Eucalyptus fasciculosa*) over a heath understorey of mallee honey-myrtle (*Melaleuca brevifolia*), broombush (*M. uncinata*), austral grass tree (*Xanthorrhoea australis*), slaty sheoak (*Allocasuarina muelleriana*), and desert hakea (*Hakea muelleriana*).

The Park receives limited visitation, mainly by bird observers and field naturalists. No facilities are provided. Occasional use is made of the short east-west track in the north-east of the Park as a route for the movement of stock. This is an activity which is incompatible with the Park's conservation function. The spread of weeds along this track is already evident.

3.2 Management Prescription

The management objective for the Park is to ensure the conservation of its natural and cultural features. In order to fulfil this objective, the following actions will be implemented.

	Priority
• prevent the movement of stock through the Park	high
• maintain vehicle tracks for management and fire access	high
• add the Water Conservation Reserve (Section 107) to the Park	high
• provide public pedestrian access	high
• establish monitoring points to record data on fauna and flora	mod.



87 Section number (Hd. of MARCOLLAT)

Gate

Proposed gate

Proposed stile

Proposed fence (within park boundary)

Existing fence (within park boundary)

Access tracks

Sealed road

Park boundary

0 m 400 800 1200

Figure 3

SMALL PARKS OF THE UPPER SOUTH EAST

Desert Camp C.P.

4 GRASS TREE CONSERVATION PARK

This is the Management Plan for Grass Tree Conservation Park, adopted under the provisions of the *National Parks and Wildlife Act, 1972*. The Foreword and Introduction (Section 1) of this document form part of this Plan.

4.1 Park Description

Grass Tree Conservation Park, 17 km north of Naracoorte off the Naracoorte Keith road, occupies Section 451, Hd of Hynam, and has an area of 15.88 ha (Figure 4). It was gazetted in 1972 to protect the grass tree (*Xanthorrhoea australis*).

The Park is located in the Naracoorte Environmental Association identified by Laut et al. (1977a). This association is characterised by calcarenite dune ridges overlain by dunes or sheets of mobile sand. Narrow interdunal areas are poorly drained because of impermeable clay and marl which underlie thin sand sheets.

Soils are generally deep, acid, bleached sands with a yellow-grey B horizon, and smaller areas of shallower alkaline sandy soils of a reddish colour (Laut et al. 1977a), and support three vegetation associations:

- brown stringybark (*Eucalyptus baxteri*) low woodland associated with sandy soils of the stranded dune systems of the West Naracoorte Range;
- pink gum (*E. fasciculosa*) open forest - low open forest associated with a stoney limestone rise in the central part of the Park, and an understorey generally consisting of introduced grasses and pasture weeds such as Cape weed (*Arctotheca calendula*); and
- a small area in the south-east of the Park of South Australian blue gum (*E. leucoxylon*) open forest with an understorey of grass trees, austral bracken (*Pteridium esculentum*), and rice flower (*Pimelea* sp.).

Grass trees are well adapted to withstand the effects of fire and their flowering is stimulated by fire. Although vegetation in the Park has never been cleared, the disturbed understorey and introduced grasses in the pink gum open forest area indicate it was previously grazed by domestic livestock.

The Park receives very little visitor use and no facilities are provided.

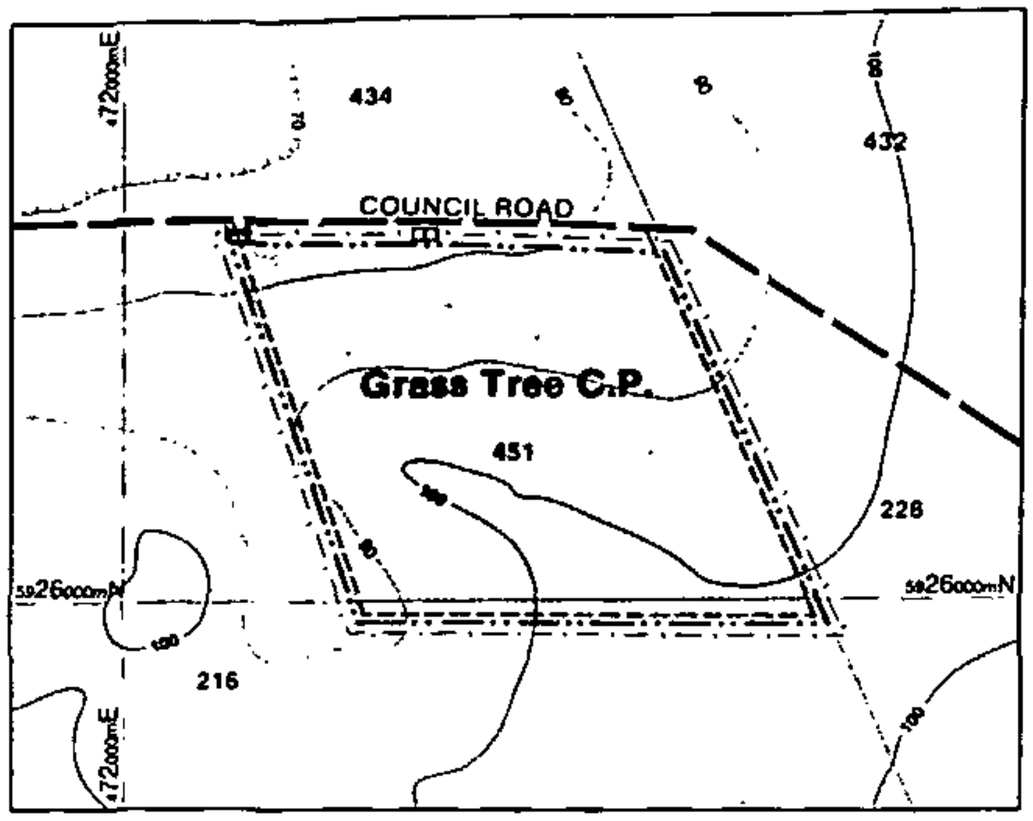
Five metre wide boundary access tracks are maintained on the perimeter of the Park, except along the northern boundary where a Council road serves as an access track.

4.2 Management Prescription

The objective for managing the Park is to ensure the conservation of the native vegetation and fauna of the Park, in particular the grass trees for which it was originally acquired.

In order to fulfil this objective, the following actions will be implemented.

	Priority
• monitor viability of the grass trees in the Park, if necessary consider use of fire for their regeneration	high
• maintain boundary access tracks	high
• maintain pedestrian access within the Park	high



451 Section number (Hd. of HYNAM)

Gate

Stile

Fence (within park boundary)

Access tracks

Unsealed road

Park boundary

0 m 300 600 900

Figure 4

SMALL PARKS OF THE UPPER SOUTH EAST

Grass Tree C.P.

5 JIP JIP CONSERVATION PARK

This is the Management Plan for Jip Jip Conservation Park, adopted under the provisions of the *National Parks and Wildlife Act, 1972*. The Foreword and Introduction (Section 1) of this document form part of this Plan.

5.1 Park Description

Jip Jip Conservation Park is located approximately 50 km north east of Kingston SE (Figure 5). The Park comprises Section 86, Hd of Peacock, and has an area of 141.6 ha. The granite outcrops and the gently sloping hill at Jip Jip form a prominent local landmark.

Jip Jip National Park was gazetted in 1967, and became Jip Jip Conservation Park after proclamation of the *National Parks and Wildlife Act, 1972*. The Park was dedicated following a protracted dispute and considerable public interest in protecting the granite outcrops.

The Park falls within the Lucindale Environmental Association of Laut et al. (1977a). The region is characterised by low parallel calcarenite dune ridges trending north west - south east which are separated by narrow interdunal plains with scattered wetlands. Small unconsolidated sand dunes have developed over the stranded calcarenite dunes. The Jip Jip granite outcrops are a distinctive feature in a landscape of generally low relief.

The granite outcrops at Jip Jip which protrude above the present land surface, represent the surface expression of the Padthaway Ridge, which was a centre of acid vulcanism and granitic intrusion about 480-460 million years ago. The outcrops form a series of low domes and prominent boulders which rise above subdued flat platforms. The geomorphic features associated with the outcrops are of particular interest and include:

- flared slopes at the margins of the boulders and domes;
- platforms developed on horizontal joint planes;
- gnamma holes or weathering pits; and
- perched boulders which probably represent the erosional remnants of larger boulders, and form spectacular features which are the major attraction of the Park.

On the western slopes of the Park, calcrete which has developed on aeolianite of the Bridgewater Formation is exposed. Soils of the consolidated dune areas are generally shallow, alkaline, weakly structured, sandy, and red (Laut et al. 1977a). The soils associated with granite areas are usually acidic with a high clay content (Bundey 1974).

The soils of the Park support four vegetation associations:

- pink gum (*Eucalyptus fasciculosa*)/coastal white mallee (*E. diversifolia*) low open forest on the upper slopes;
- brown stringybark (*E. baxteri*)/pink gum/coastal white mallee open scrub on the lower sandy slopes;
- slender honey-myrtle (*Melaleuca gibbosa*)/dwarf hakea (*Hakea rugosa*) open heath on the lower, wetter north eastern section of the Park; and
- coastal white mallee, pink gum, brown stringybark, drooping sheoak (*Allocasuarina verticillata*), large forms of native box (*Bursaria spinosa*) and sticky hopbush (*Dodonaea viscosa*) on the granite outcrops.

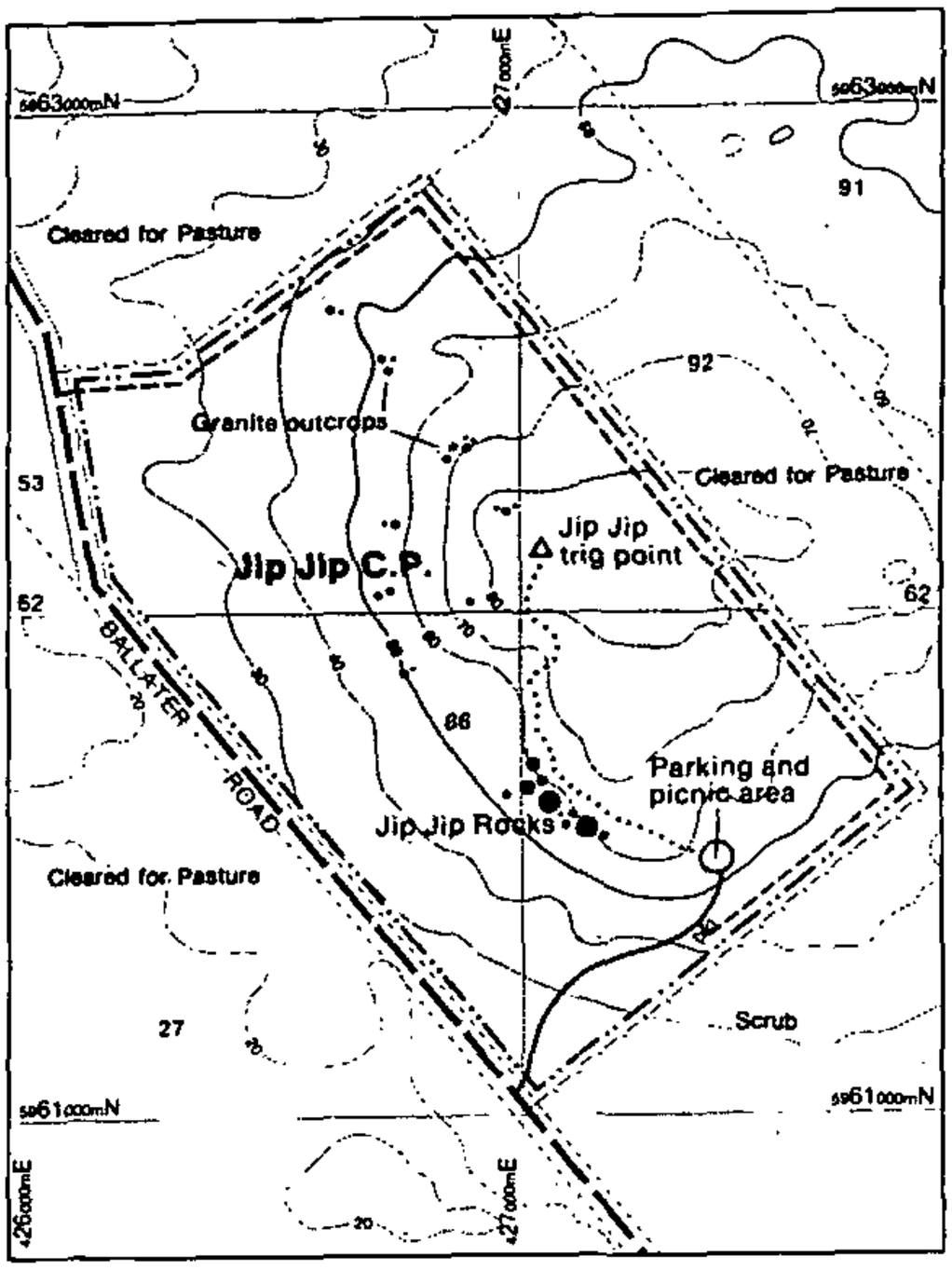
The Park is used by local residents for picnics, walking and viewing the granite outcrops, as well as by bird observers and field naturalists. The public access track from the Park entrance to the picnic area is at present in poor condition. Maintenance of this track has been a problem over the years because of frequent use, the relatively steep slope, and a readily erodible surface.

Five metre wide access tracks are maintained on the northern and eastern boundaries of the Park. The Council road provides access along the western boundary. The access track to the picnic area serves as a boundary access track from the Park entry to about 400 m from the south western corner of the Park. North of this point, a boundary track to the south eastern corner is required.

5.2 Management Prescription

The parking area serves the additional functions of vehicle turning circle and picnic place. Passive recreation and moving vehicles are incompatible in the same area. In order to provide a safe, attractive environment for groups wanting to use the picnic facilities, these need to be kept separate from the movement of vehicles. This will involve minor re-design and possibly minor extension to the picnic area.

Many visitors use the walking track from the parking area to the granite outcrops and the trigonometric survey point at the top of the hill. It will be made clear that the track is for pedestrians only and information will be provided on the approximate duration of a return walking trip. A loop extension to return walkers via a different route will be investigated. The scenic and geological interests of Jip Jip lend themselves to interpretation of the rocks. Their relationship to the surrounding landscape will be included in information, as will the significance of the area to Aboriginal people.



86	Section number (Hd. of PEACOCK)
⋈	Proposed gate
_ _ _ _ _	Proposed access track
.....	Walking trail
—·—·—	Fence (within park boundary)
———	Access track
— —	Unsealed road
—·—·—	Park boundary

0 m 400 800 1200 1600

Figure 5

SMALL PARKS OF THE UPPER SOUTH EAST

Jip Jip C.P.

The fire protection plan should recognise that gum-barked Eucalypts such as pink gum and coastal white mallee are susceptible to fire (when these species are burnt a large amount of dead fallen or standing timber is left, providing highly flammable fuel supply for the next fire). No fuel reduction burning will be undertaken in the Park.

The management objectives for the Park are to protect its natural and cultural features, with special consideration given to the granite outcrops, while providing for public use, enjoyment and understanding. In order to fulfil these objectives, the following actions will be implemented.

	Priority
• maintain existing boundary access tracks and construct a boundary access track along the south eastern boundary	high
• maintain separate picnic and parking areas	high
• provide appropriate signs at beginning of walking track	high
• provide on-site interpretation of granite outcrops	high
• maintain barriers at start of walking track and boundary access tracks to prevent unauthorised vehicle entry	high
• cap public access track with appropriate surfacing and maintain all-weather access for two-wheel-drive vehicles	high
• investigate, and implement if appropriate, a looped return for the existing walking track from the trig. point to the picnic area	high
• establish monitoring points to record data on flora and fauna	mod.

6 KELVIN POWRIE CONSERVATION PARK

This is the Management Plan for Kelvin Powrie Conservation Park, adopted under the provisions of the *National Parks and Wildlife Act, 1972.* The Foreword and Introduction (Section 1) of this document form part of this Plan.

6.1 Park Description

Kelvin Powrie Conservation Park is located eight kilometres north west of Keith between the Dukes Highway and the Adelaide/Melbourne railway line (Figure 6). The Park, with an area of 17.66 ha, occupies Section 34, Hd of Archibald, and Section 475, Hd of Stirling. It was gazetted in 1971.

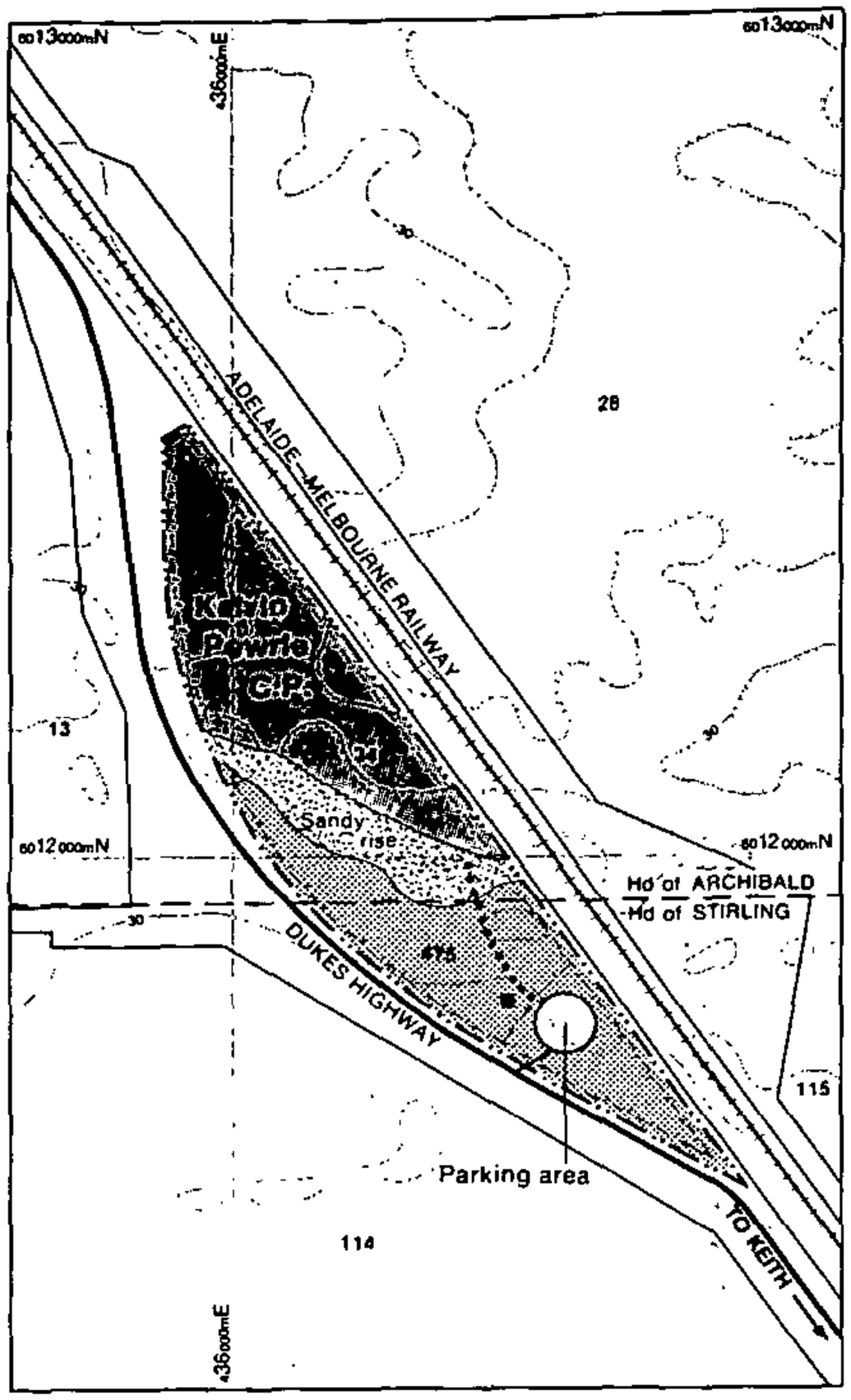
Kelvin Powrie Conservation Park is located within the Keith Environmental Association of Laut et al. (1977b). The landscape is a uniform limestone plain with isolated, gently rising sand dunes. One of these dunes traverses the Park in a generally east-west direction. Soils in the Park are generally deep, acid, bleached sands with a yellow-grey B horizon (Laut et al. 1977b).

The Park conserves a very small remnant of two distinctive vegetation types: in the southern part of the Park is a pink gum (*Eucalyptus fasciculosa*) low open woodland with a heath understorey, while the northern part of the Park is a substantially treeless heath associated with low sandy rises. A band of coastal white mallee (*E. diversifolia*) woodland spans the central part of the Park in a north west - south east direction and corresponds with the crest of the dune system.

A parking area and picnic site in the Park caters mainly for short stops by people travelling along the Dukes Highway. Use of the Park is encouraged by signs along the Highway indicating the presence of a place of interest with facilities. The parking area is fenced. Collection of rubbish from the picnic area is undertaken by arrangement with the Department of Road Transport.

A short walking track leads from the parking area in a north west direction to the crest of a dune which affords a view of the heath association in the north of the Park and of the expanse of cleared land surrounding the Park. The termination of the track is not well defined, and has resulted in the development of several spur tracks and alternative return routes. Converting the track to a loop configuration will resolve this situation.

Fire access tracks have not been constructed in this Park because the Dukes Highway and the Railway Reserve afford easy access if required. The fire protection plan recognises that gum-barked eucalypts such as pink gum are susceptible to fire. When such species are burnt a large amount of dead fallen or standing timber is left, providing a large and easily flammable fuel supply for the next fire.



Eucalyptus fasciculosa —Low Open Woodland with heath understorey

Heath

Eucalyptus diversifolia —Woodland

475 Section number

■ Plaque

Fence

Walking trail

Vehicular track

Sealed Roads

Park boundary

0 m 200 400 600 800

Figure 6

SMALL PARKS OF THE UPPER SOUTH EAST

Kelvin Powrie C.P.

6.2 Management Prescription

The Park should be managed to ensure the conservation of its native fauna and vegetation. The Park should be protected from wildfire where possible.

The public should be encouraged to use the Park's facilities, and appropriate on-site information should be provided. Any demonstrated need for additional visitor facilities in the Park will only be met if adequate supervision and management can be provided.

On the assumption that most travellers would be prepared to spend no more than about 30 to 45 minutes in the Park, interpretive material should be geared towards short visits, and should take into account the likelihood that visiting the Park is probably not the prime objective of their journey. Interpretation should relate to the walking track and lookout on the sandy rise which, together with resting and eating, is the focus of visitor activity in the Park.

The objectives for management of the Park are to protect the natural and cultural features of the Park while providing for public use, enjoyment and understanding of the Park's purpose and significance.

In order to fulfil these objectives, the following actions will be implemented.

	Priority
• provide picnic tables and seats away from traffic areas	mod.
• erect prominent signs to advise visitors that Kelvin Powrie is a Conservation Park managed by SANPWS	mod.
• provide toilets if there is a demonstrated need, and effective management and maintenance are available	mod.
• prepare on-site interpretive material for the Park	high
• establish a viewing platform on sandy rise to mark the end of the walking track, and form a track loop back to the carpark	high
• liaise with Dept. of Road Transport regarding rubbish collection	high
• maintain a defined parking area and ensure no unauthorised vehicle access to remainder of the Park	high

7 MULLINGER SWAMP CONSERVATION PARK

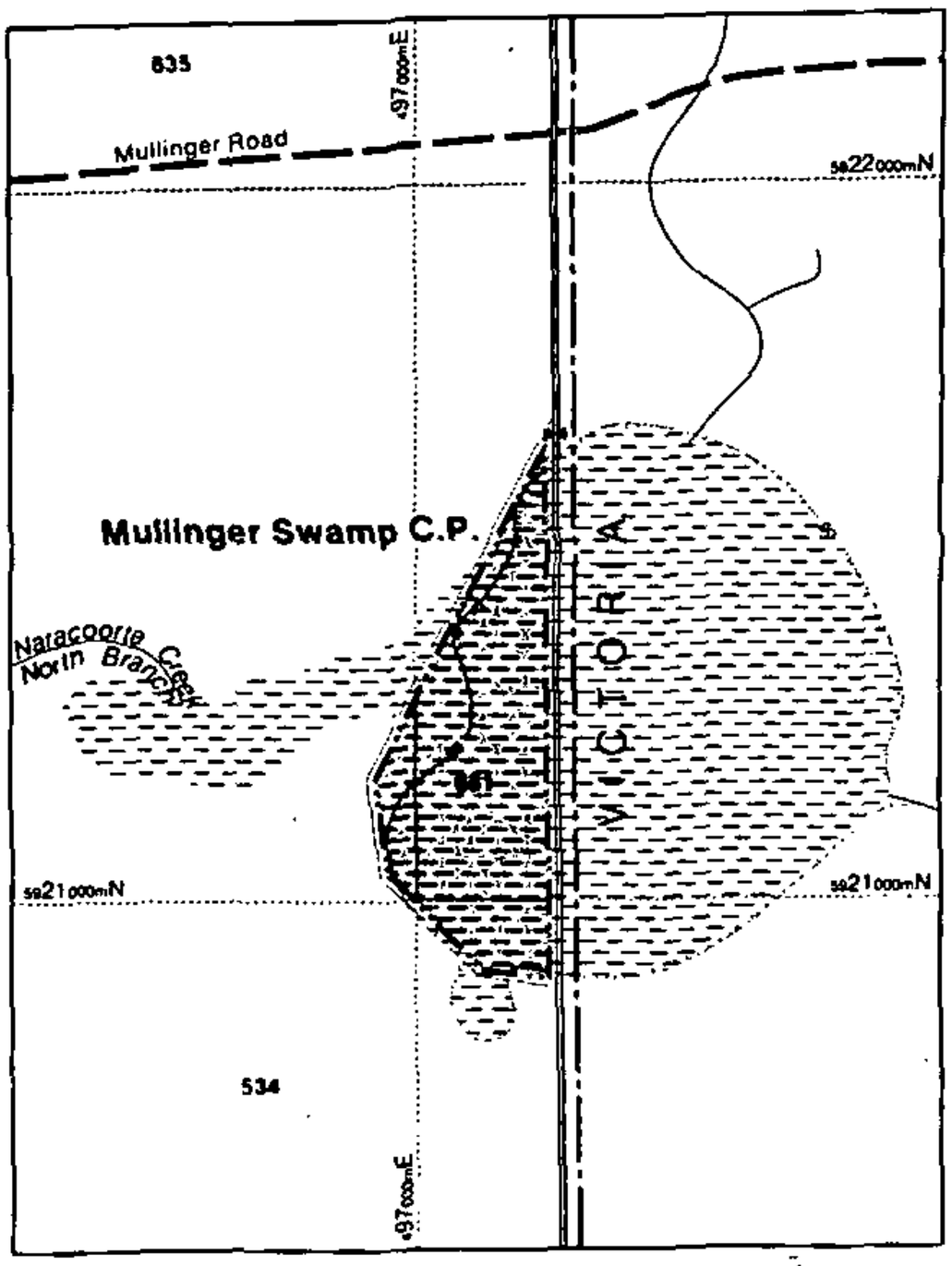
This is the Management Plan for Mullinger Swamp Conservation Park, adopted under the provisions of the *National Parks and Wildlife Act, 1972*. The Foreword and Introduction (Section 1) of this document form part of this Plan.

7.1 Park Description

Mullinger Swamp, located approximately 25 km north east of Naracoorte in Section 681, Hd of Binnum, was gazetted in 1976. The South Australian - Victorian border traverses the wetland, with approximately 35% of the wetland in South Australia (Figure 7). The Park covers an area of 13.66 ha. A surveyed road, vested in the District Council of Naracoorte, adjoins the boundary between the two States. The Swamp receives its water from a series of wetlands in Victoria and forms the headwaters of the North Branch of Naracoorte Creek. Before the Park was dedicated, it was vacant Crown Land, although some grazing may have occurred. Past grazing of stock on the Victorian side, and straying of stock into the Conservation Park have contributed to a lack of regeneration of native vegetation. In the north west of the Park, the swamp naturally drains into a "runaway hole" which contributes to recharge of the aquifer. In the early 1940s, a bank was constructed at the edge of the hole to hold back water for irrigation purposes and to create a summer swimming area.

Mullinger Swamp lies within the Kybybolite Environmental Association of Laut et al. (1977a). The Association is characterised by a gently undulating plain of Tertiary sands with local ferruginous cappings and scattered low dunes. Depressions, some of which contain wetlands or lakes, have been created by solution of the underlying limestone. Naracoorte Creek is one of the few integrated surface drainage features in this Association.

The soil of the wetland is an alkaline, poorly drained, deep, grey, self-mulching, cracking clay, while the surrounding areas associated with river red gum (*Eucalyptus camaldulensis*) open woodlands generally have alkaline, imperfectly drained, hard, apedal, mottled-yellow, duplex soils (Laut et al. 1977a). These soils support a river red gum open forest with a disturbed understorey of wallaby grass (*Danthonia* sp.), introduced grasses and pasture weeds such as Cape weed (*Arctotheca calendula*) around the edge of the Swamp. The composition and distribution of vegetation in the Park is determined largely by water levels. Numerous dead river red gums are scattered through the Park, indicating a change in the water regime. Jones (1978) has suggested that artificial drainage in Victoria has raised the water level. It has also been suggested that construction of a bank in the 1940s to retain water for irrigation was responsible for the death of the river red gums.



Mullinger Swamp

Conservation Park

534 Section number (Hd. of BINNUM)

Gate

Creek

State boundary

Road reserve

Unsealed road

Park boundary

0 m 400 800 1200

Figure 7

SMALL PARKS OF THE UPPER SOUTH EAST

Mullinger Swamp C.P.

The Park is fenced on all boundaries except the eastern boundary adjoining the Road Reserve. There are no fire access tracks in the Park because the cleared grassland vegetation affords easy perimeter access. However, as vegetation regeneration progresses, perimeter access tracks may be required. These should be constructed on both sides of the State border.

The Park is used mainly by local and district residents, for picnics, fishing and swimming. However, since the establishment of a swimming lake in Naracoorte, and the breaching of the bank at Mullinger, the Park has less attraction as a swimming area. The Park is used on occasions by field naturalists and birdwatchers. Apart from rubbish bins, no facilities are provided.

7.2 Management Prescription

The Park should be managed to ensure the conservation of its native fauna and vegetation. Management of the Swamp should be consistent and complementary in both States. Responsibility for managing the Swamp by two State Governments has resulted in differing approaches to management on each side of the State border. With the change in status of the Victorian section of the Swamp following the recommendations of the Land Conservation Council of Victoria, a consistent approach to management should be achievable. However, consistent management of the Swamp is hampered by the surveyed road through it. As it is unlikely the surveyed road will ever be needed, and would be difficult to construct through the Swamp, it should be incorporated in the Park under the *Roads (Opening and Closing) Act, 1932.* To cater for the needs of local landholders in moving stock in the area, a new road reserve should be established to the west of the Park.

Grazing of stock in this Conservation Park is unacceptable, and close liaison with the Victorian Department of Conservation, Forests and Lands should ensure grazing ceases in the Swamp and its surrounds in both States. However, the public will be able to continue traditional recreational activities such as fishing, swimming and boating.

The management objectives for this Park are to conserve the native vegetation, fauna and wetlands in the Park, and facilitate regeneration, particularly of river red gums. In order to fulfil these objectives, the following actions will be implemented.

	Priority
• exclude grazing from the Park	high
• liaise with Vic. Department Conservation, Forests and Lands and revise this Plan as a joint exercise for Swamp and surrounds	high
• investigate re-routing road around western edge of Swamp	high
• liaise with Naracoorte DC to close existing road on State border, then include it in the Park	high
• monitor public use and recreation impacts on Park, provide additional facilities (bins, barbecues, picnic tables) as required	high
• construct boundary access tracks if regenerating vegetation hampers perimeter access for fire fighting	low

8 PADTHAWAY CONSERVATION PARK

This is the Management Plan for Padthaway Conservation Park, adopted under the provisions of the *National Parks and Wildlife Act, 1972*. The Foreword and Introduction (Section 1) of this document form part of this Plan.

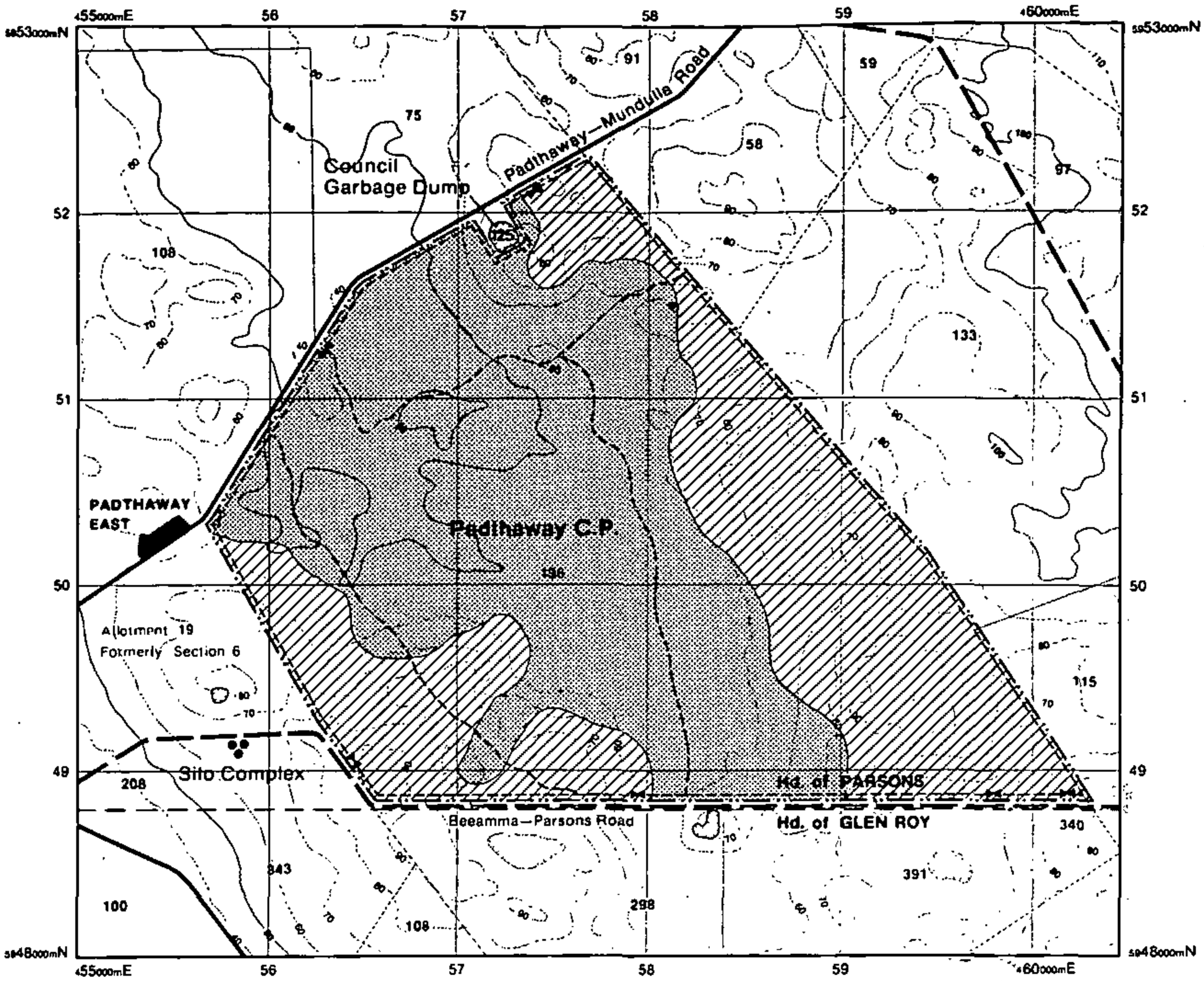
8.1 Park Description

Padthaway Conservation Park occupies an area of 984 ha in Section 136, Hd of Parsons, and is located two kilometres north east of the township of Padthaway (Figure 8). The area was gazetted as Padthaway National Park in 1971. With the implementation of the *National Parks and Wildlife Act, 1972*, the Park became Padthaway Conservation Park.

The Park is bounded on the west by a triangular block of scrub owned by the District Council of Tatiara, on its northern boundary by a sealed road, and on the south and east by cleared land used primarily for grazing. Section 125, a small area which intrudes into the north east of the Park, belongs to the District Council of Tatiara and is used as a rubbish dump. This dump is a source of wind-blown rubbish, mainly paper and plastic, being deposited in the Park.

The Park is located in the Naracoorte Environmental Association of Laut et al. (1977a). This Association is characterised by calcarenite dune ridges overlain by dunes or sheets of mobile sand. Narrow interdunal areas are poorly drained because of impermeable clay and marl which underlie the thin sand sheets.

Soils in the Park are generally shallow, alkaline, sandy soils with a reddish colour and are weakly structured, or are acid, deeper, bleached sands with a yellow-grey B horizon (Laut et al. 1977a). These soils support two vegetation associations; South Australian blue gum (*Eucalyptus leucoxylon*) - rough barked manna gum (*E. viminalis* subsp. *cygnetensis*) woodland, and brown stringybark (*E. baxteri*) low open forest. Two sub-associations have been identified; South Australian blue gum and pink gum open/low open woodland, and slaty sheoak (*Allocasuarina muelleriana*) open woodland. Part of the South Australian blue gum open forest understorey was cleared for cultivation. The control of weeds is a continuing problem in this area and periodic control work is undertaken. If the native understorey is able to establish, the weed problem may be reduced and eventually eliminated. Establishment of the native understorey would involve a concerted program of weed control, rabbit control, and if necessary, planting or seeding of native species.



WOODLAND—(OPEN FOREST)

***Eucalyptus leucoxylon* and/or**
E. viminalis* ssp *cygnetensis

LOW OPEN FOREST—TALL OPEN SHRUBLAND

***Eucalyptus baxteri* ±**
E. fasciculosa

Source: Davies (1982)

115 **Section number**

Gate

Borrow pit

Sealed road

Unsealed road

Tracks

Park boundary

Note: Fence follows Park boundary

0 km 1 2 3

Figure 8

SMALL PARKS OF THE UPPER SOUTH EAST

Padthaway C.P.

In December 1975, a fire burnt about one third of the Park, between the two north south tracks which were constructed to contain the fire. Protecting the Park from wildfire is particularly important at Padthaway. There are several potential sources of fire outside the Park, including the Council rubbish dump to the north east of the Park, and several areas close to the Park which need to be protected from fires originating in the Park. Potential sources of fire are the rubbish dump, the residential development at Padthaway East, and in the future, from proposed subdivisions to the west and south west of the Park.

As the vegetation of Padthaway Conservation Park is substantially representative of parks in both the Upper and Lower South East, the SANPWS conducted experiments in the Park to determine the effects on the vegetation of several different intensity burns. Four adjacent 25 ha plots which are topographically and floristically similar were established, each representative of a different fire regime: wildfire, spring burn, autumn burn and a control. The plots were established with a minimum of disturbance to the vegetation and where possible existing tracks were used for access.

The two tracks which run through the Park are used by the public, however, they are not graded or surfaced and are usually impassable to conventional vehicles in summer when the sand becomes soft. The Park is used primarily by local residents for picnics and nature study. No facilities have been provided.

8.2 Management Prescription

The Park should be managed to conserve its native vegetation and fauna.

The protection of people, adjacent property and Padthaway East township, need to be accorded a high priority in fire management. Monitoring of vegetation in the fire intensity trial plots should continue and additional research should be undertaken. The plots and surrounding areas must be protected from fire and disturbance to ensure accurate results are obtained in the experiments. Any recreational or management activity in the Park therefore needs to be directed away from experimental plots.

The public may use the Park for educational and appropriate recreational purposes. The local primary school at Padthaway East is well sited to use the Park as a teaching and learning resource, and staff and students of the school will be encouraged to use the Park for this purpose. A small number of picnic sites will be established in the formerly cleared area in the north of the Park.

Use of the two tracks running through the Park will be monitored to ensure continued public use does not degrade them or have negative impacts on the Park. A sign indicating that the tracks are impassable to two wheel drive vehicles in summer will be erected in a prominent position. Boundary access tracks are for management use only.

The objectives for the management of this Park are to protect the natural and cultural features of the Park while providing for public use and enjoyment, and an understanding of the Park's purpose and significance.

In order to fulfil these objectives, the following actions will be implemented.

	Priority
• maintain boundary and internal access tracks	high
• liaise with DC of Tatiara regarding dump burning and fencing	high
• continue research on the effects of fire on vegetation in the Park	high
• liaise with community groups and Padthaway East primary school to foster local interest in and understanding of the Park	mod.
• develop picnic sites in the Park	mod.
• assess rate and success of regeneration, and initiate planting and seeding if necessary, using seedstock from the Park	mod.
• erect signs in prominent locations to indicate that tracks are not passable to conventional vehicles in summer	high

9 TALAPAR CONSERVATION PARK

This is the Management Plan for Talapar Conservation Park, adopted under the provisions of the *National Parks and Wildlife Act, 1972*. The Foreword and Introduction (Section 1) of this document form part of this Plan.

9.1 Park Description

Talapar Conservation Park is located 40 km north west of Naracoorte, straddling the Harper Range Road (Figure 9). The Park occupies Sections 402, 373 and 374, Hundred of Glen Roy, is approximately 494 ha in area, and was gazetted in 1977.

The area has no integrated drainage network, and there are several small interconnected ephemeral wetlands in the eastern section of the Park. Drainage has severely reduced the area of wetlands in the South East, and in recent years there have been proposals for re-flooding some drained areas to recreate wetlands. It has been suggested that minor earthworks on the northern side of the Park would hold water in the Park's wetlands well into and possibly to the end of summer.

The Park is located in the Bool Lagoon Environmental Association of Laut et al. (1977a). Soils in the better-drained areas are generally alkaline, shallow, weakly structured sandy soils, while those associated with the poorly drained areas are generally moderately deep, black, self-mulching, cracking clays (Laut et al. 1977a). These soils support six major vegetation associations:

- mallee honey-myrtle (*Melaleuca brevifolia*) closed heath - open heath;
- brown stringybark (*Eucalyptus baxteri*) low open forest - low woodland;
- pink gum (*E. fasciculosa*) low woodland - low open woodland, in some places with South Australian blue gum (*E. leucoxylon*);
- pink gum low woodland - low open woodland;
- pink gum - South Australian blue gum woodland; and
- South Australian swamp paperbark (*M. halmaturorum*) open scrub - low open forest.

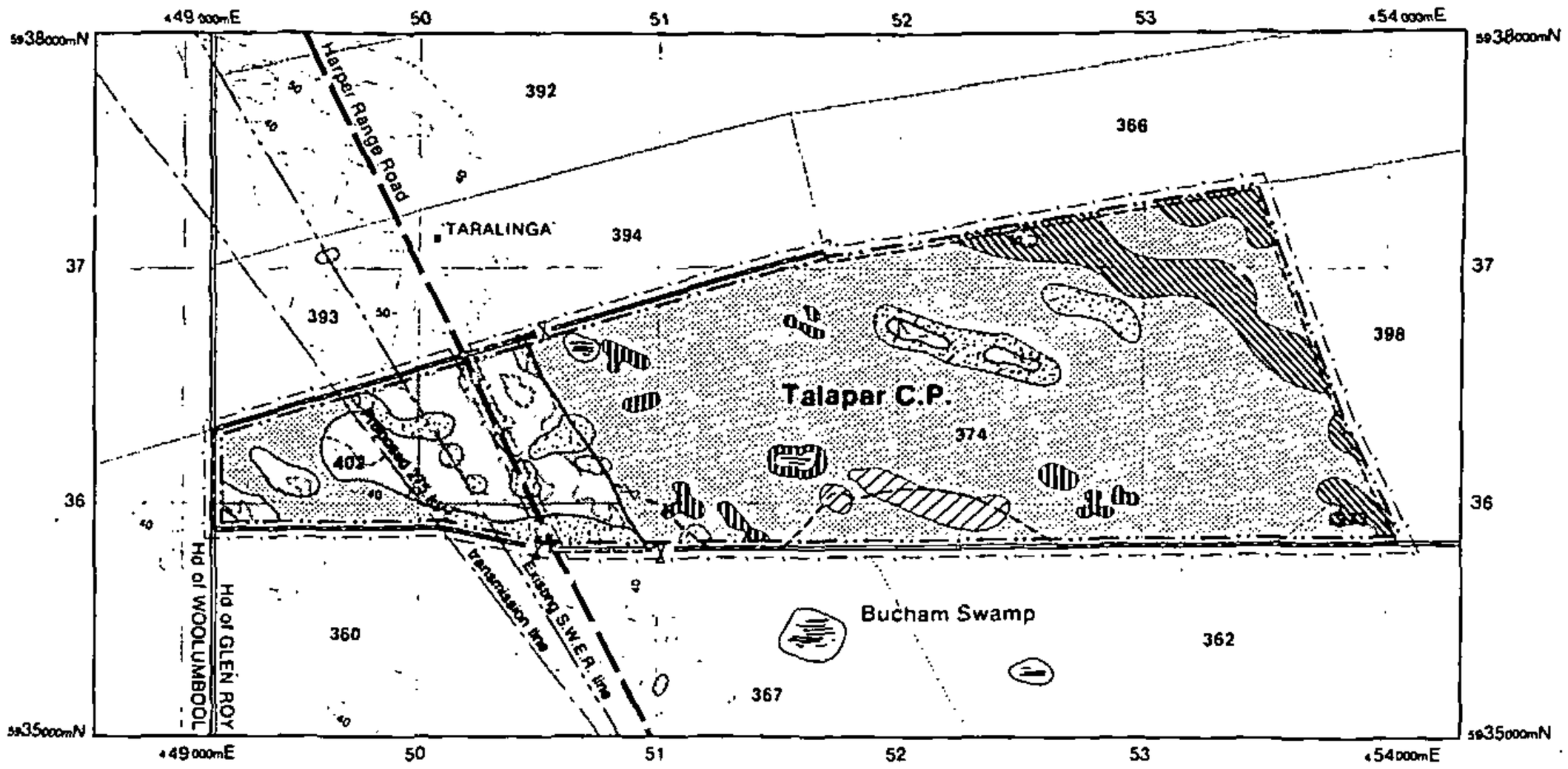
The Park receives little visitor use and no facilities are provided, however five metre wide boundary access tracks have been constructed on the perimeter of the Park. Low-lying areas are subject to inundation, resulting in access tracks flooding and becoming impassable, and necessitating control of vehicular movement.

9.2 Management Prescription

The objectives for management of the Park are to protect the natural and cultural features of the Park while providing for public use, enjoyment and understanding, however the present low level of visitor use does not warrant the provision of facilities for public use.

In order to fulfil these objectives, the following actions will be implemented.

	Priority
• maintain boundary tracks for management use	high
• liaise with Naracoorte DC to incorporate surveyed road on southern boundary into the Park	mod.



WOODLAND

Eucalyptus fasciculosa ***E. leucoxylon***

LOW OPEN FOREST—LOW WOODLAND

Eucalyptus baxteri

CLOSED HEATH—OPEN HEATH

Melaleuca neglecta ± ***M. uncinata*** ± ***Leptospermum juniperinum***

LOW WOODLAND—LOW OPEN WOODLAND

Eucalyptus fasciculosa **(over heath)**

Eucalyptus fasciculosa ± ***E. leucoxylon*** **(over** ***Melaleuca uncinata)***

OPEN SCRUB—LOW OPEN FOREST

Melaleuca halmaturorum

and/or

CLOSED SEDGELAND

Machaerina juncea ***Chorizandra enodis*** ***Lepidosperma laterale*** ***Leptocarpus brownii***

Source: Davies (1982)

402 **Section number**

Gate

Proposed gate

Borrow pit

Fence

Management access tracks

Tracks to remain open for public access

Surveyed road

Unsealed road

Lake, intermittent

Park boundary

0 km **1** **2** **3**

Figure 9

SMALL PARKS OF THE UPPER SOUTH EAST

Talapar C.P.

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