

COORONG NATIONAL PARK

South East

SOUTH AUSTRALIA

MANAGEMENT PLAN



COORONG NATIONAL PARK

MANAGEMENT PLAN

NATIONAL PARKS AND WILDLIFE SERVICE
A Division
of the
Department of Environment and Planning

December, 1990

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

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DEPARTMENT OF ENVIRONMENT AND PLANNING

FOREWORD

The Coorong National Park in the south-east of South Australia is an area of considerable recreational, biological, geological and cultural interest. The reserve preserves a typical set of coastal ecosystems and provides an important refuge for many waterfowl and migratory birds. It also presents modern day examples of age-old geological processes, contains a rich array of archaeological and historical resources and serves as a major focus for recreational and tourist-oriented activities.

This diversity of roles led to some major conflicts between interest groups when the first draft management plan for the Coorong was released for public comment in 1984.

Since that time there has been a range of consultative processes put into place to ensure that the best possible compromise between interest groups can be developed. This plan is the product of that consultative process. It presents modified management proposals for the Coorong National Park which I now consider to be an acceptable compromise between protection of natural and cultural resources and controlled recreational use of the magnificent physical, biological and scenic environments.

The revised draft plan was released for public comment on the 22nd December 1988, resulting in one hundred and eight (108) submissions from interested individuals and organisations. The issues that received the most attention were vehicular access along the ocean beach, facilities development, pest plants and animals, and vehicular access within the park.

All comments received were appreciated and the number of responses indicates the importance, both nationally and to this State of the Coorong. The success of the intensive public involvement in the plan's preparation is reflected in this final document.

Following consideration of the public representations and advice by the Reserves Advisory Committee, the plan has now been formally adopted under Section 38 of the National Parks and Wildlife Act as the Plan of Management for the Coorong National Park. This plan applies to the Coorong National Park and will apply to the Coorong Game Reserve and ocean beach upon these areas being constituted as national park.

I believe that with responsible management, the natural features of this important area can be maintained and enhanced for the enjoyment of our future generations.

Susan Lenehan
MINISTER FOR ENVIRONMENT AND PLANNING

ACKNOWLEDGEMENTS

Many people have contributed to the formulation of this plan.

Staff of the Australian National Parks and Wildlife Service assisted the South Australian National Parks and Wildlife Service to prepare an earlier draft of this plan which was released for public comment in early 1984.

Many private individuals and organizations have offered suggestions and points of view.

The National Parks and Wildlife Service Coorong and District Consultative Committee provided a forum for public discussion and assisted in the preparation of "issue statements" to facilitate further community dialogue.

The District Councils of Lacepede and Meningie have played a strong and positive role on behalf of their local communities. They have assisted in the development of co-operative management arrangements to ensure that sound and fair management practices have been adopted.

Mrs Joy Creaser of Murray Bridge cheerfully and voluntarily gave her time and expertise to the difficult task of word-processing earlier versions of this document.

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1. INTRODUCTION

This Plan of Management has been prepared in accordance with the National Parks and Wildlife Act 1972. Section 38 of the Act states that plans of management are required for all reserves and that such plans should "set forth proposals" in relation to the management and improvement of each reserve and the means by which it is proposed to accomplish the objectives of the Act for that particular reserve.

A draft plan of management for the Coorong National Park and Game Reserve was released for public comment in December 1988. One hundred and eight submissions were received from individuals and organizations.

After considering these submissions and after advice from the Reserves Advisory Committee, the Minister has adopted this plan of management. Notice of such official adoption is published in the Government Gazette and copies of the plan are available for sale to the public.

A similar process applies for any amendment proposed to a plan of management. Once a plan of management is adopted, its provisions must be carried out in relation to the reserve in question and no operations undertaken unless they are in accordance with the plan.

Coorong National Park fulfills a number of significant functions. Principally, the reserve forms one of the most important wetland areas in the southern regions of Southern Australia. This importance lies in the area's significance as a migratory wader and waterfowl refuge. On this basis the area has been accepted for inclusion on the I.U.C.N List of Wetlands of International Importance.

The Coorong Lagoon not only provides an important summer refuge but also serves as a physical barrier to the Youngusband Peninsula, one of the few remaining areas close to major population centres which is remote from development and activity. The Coorong already has a significant role for public use, enjoyment and education, and it is anticipated that it will, over time, play an increasing role in regional and state tourism. This plan outlines proposals to effectively balance future demands of visitor use in the national park with its continued conservation.

A draft Plan of Management for Coorong National Park and Coorong Game Reserve was released for public comment in 1984. That plan, jointly prepared by the Australian National Parks and Wildlife Service and the South Australian National Parks and Wildlife Service, evoked a significant public reaction, particularly from nearby residents, due to its recommendations relating to limitations on public access by vehicles to Youngusband Peninsula. Since that time extensive dialogue has occurred to explore compromise solutions to the access issue.

Rather than repeat the comprehensive resource descriptions of the former document, this plan has been restricted to a brief analysis of major management issues and to presentation of proposals for future management.

The National Parks and Wildlife Service maintains an extensive bibliography and reference collection of resource information on the park.

Further information about the park and this plan may be obtained from:

The Manager
Mallee Region
National Parks and Wildlife Service
P.O. Box 444
MURRAY BRIDGE S.A.5253

2. MANAGEMENT CONTEXT

2.1 International Agreements and Conventions

The National Parks and Wildlife Service has special obligations to manage and protect wildlife and wetland habitat in the Coorong because of their recognition under two international agreements entered into by the Commonwealth Government.

2.1.1 Wetlands of International Importance

Coorong National Park and the Coorong Game Reserve area are included on the List of Wetlands of International Importance maintained by the International Union for the Conservation of Nature and Natural Resources (IUCN). The List is constituted under Article 2 of the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) which entered into force on 21st December, 1975. Australia entered into the convention without reservation as to ratification on 8th May, 1974. The Coorong National Park and Coorong Game Reserve area, when accepted for listing, were considered to meet the following criteria:

(a) Quantitative Criteria

- * regularly supports in excess of 122,000 waders as a summer population.
- * regularly supports 1% of the total Cape Barren Goose population as a summer refuge area.
- * regularly supports 1% of all breeding pairs of Black Swan.

(b) General Criteria

- * supports an appreciable number of rare, vulnerable or endangered species (Cape Barren Goose)
- * is of special value for maintaining the genetic and ecological diversity of the region because of the quality and peculiarities of its flora and fauna.
- * regularly supports the largest breeding habitat of the Australian pelican and species such as crested tern, fairy tern, pied oyster catcher, chestnut teal.
- * the inclusion of indigenous plant communities such as musk grass (Lamprothamnion populosum)

(c) Wetlands

- the international significance of the hypersaline Coorong lagoon which is a particular good examples of this type of wetland.

2.1.2 International Migratory Birds Agreements

Two agreements entered into by the Commonwealth Government with the Government of Japan and the Government of the Peoples Republic of China protect birds that migrate between those two countries and Australia. In addition the agreement with Japan (JAMBA) protects birds in danger of extinction.

2.2. National Parks in South Australia

The classification which a reserve receives on being dedicated under the National Parks and Wildlife Act is a general statement of the purpose for which that area of land was acquired.

A National Park is a large area relative to surrounding land uses of national significance by virtue of its scenic, geological, geomorphological, biological, cultural and historical qualities in which public inspiration, enjoyment and activities are to be major considerations.

Reserves dedicated under the National Parks and Wildlife Act are a part of a regional pattern of land use. The management of those areas aims at minimising disturbance to natural and cultural resources. Other land uses - agriculture, forestry, aquaculture etc., are distinguished by community acceptance of environmental modification. Reserves therefore can provide for only a limited part of the range of land uses in any region.

2.3 Regional Context

When European explorers and settlers first visited the south-east of South Australia in the 1830s they found a large population of Aborigines and the area rich in wildlife. In the arid areas away from the coast and northward, towards and beyond the River Murray, the land was covered with dense mallee and heath scrub. Further south there were large expanses of lakes and seasonally flooded swamps while in high rainfall areas dense stringybark forests were found. Large numbers of Aborigines lived in this region. Due to the plentiful food supply in the area they led a partially sedentary existence along the River Murray, around Lakes Alexandrina and Albert and along the Coorong.

The character of the South-East has changed profoundly since white settlement, to the extent that in most places it would not be recognizable to the early settlers. The first pastoral leases were taken up near Mt. Gambier in 1839 and from that time the land has been increasingly modified for crops and grazing. Native woodlands, forests and heaths have been replaced by sown pastures, parklands of

scattered native trees and introduced pine trees. In addition, many formerly permanent swamps and most seasonally flooded plains have been drained by a widespread system of channels and drains (Laut et al., 1977).

The first phase of settlement involved extensive grazing of cattle and sheep. This was followed by sub-division into smaller holdings for farming. As population pressures built up, the supply of suitable land became restricted and draining of the wetlands of the South-East commenced in 1863. Implicit in the policy of draining land for development purposes was the almost complete destruction of the native vegetation. The benefits of this work were the greater population that could be sustained and the wealth that flowed from increased agricultural production. On the other hand, all but scattered remnants of the native flora disappeared and the wildlife of the region diminished accordingly.

In 1974 Specht et al. examined the conservation status of plant communities in South Australia and concluded that most native plants had become restricted to a few remnants of native vegetation, especially in the settled districts of the State. They concluded that soon the majority of native plant species would be restricted to national parks and other areas specifically set aside for their protection. At that time in the South-East and Murray Lands regions, 67 plant alliances were recorded of which 31 species (or 46 percent) were not conserved in reserves.

As a result of destruction of large areas of native vegetation native mammals suffered a major reduction in species and numbers. Although some species were destroyed as vermin, the mammals in general were diminished as a result of loss of habitat. In a 1980 environmental impact study on the effects of land drainage, the South East Drainage Board estimated that of the 42 native mammals thought to exist in the region at the time of white settlement, 12 had become extinct and another eight were rare, indicating a substantial reduction in the status of mammals as a whole. A similar situation exists for native birds where of the 227 species, seven are now considered to be locally extinct or rare. These include the Australian bustard, magpie goose, ground parrot, grey crowned babbler, orange bellied parrot, southern white face and the red capped robin.

Closer settlement of the South-East and Murraylands and, in recent years, increasing free time has resulted in a growing demand for outdoor recreation. To many people national parks are regarded as outstanding areas worth visiting. They are a recognised destination, particularly for first time visitors and are an important recreational resource. The popularity of a natural area is often to a large degree a function of its status as a national park. As such, national parks are important contributions to local, state and national economies and are an integral part of the tourism industry. On the other hand, there has also been a growing awareness and appreciation of native flora and fauna and this has resulted in numerous areas being set aside principally for nature conservation purposes.

Camping reserves were established in the northern part of the Coorong as early as 1901 and in the following years various Acts were applied to protect flora and fauna. Coorong National Park was established in 1966 to conserve the distinctive landscape, the coastal dune system, the lagoons, wetlands and coastal vegetation and the great variety of birds, animals and fish that live in or visit the area. The Game Reserve area also conserved these features but was to emphasise the conservation and management of waterfowl. The park forms one of the largest conservation areas in the region, only Ngarkat and Billiatt Conservation Parks being of comparable or larger size. The latter, however, are inland and in more arid areas so that the Coorong assumes particular significance as the largest protected area of coastal dunes and wetlands in the region.

As a habitat for numerous species of migratory birds and as a refuge for birds in times of drought, the Coorong is important in a national sense. The Coorong is also an archaeological site of national importance with middens and burial sites throughout the park giving evidence of Aboriginal occupation over many thousands of years. Taken together, these factors account for the Coorong National Park's significance in regional nature conservation and for its special importance in the State reserve system as an area of national and international biological and heritage significance.

The Coorong National Park extends from the Murray Mouth south along the coast for approximately 130 km. The total area of the park is approximately 46,800 hectares. The park provides a wide range of recreation experiences and provides a powerful image of waterfowl, coastlines, fishing and fluctuating weather conditions which are key features in attracting visitors from local areas as well as from more distant places.

3. OBJECTIVES OF MANAGEMENT

3.1 Wetlands of International Importance

As an area listed in the convention of Wetlands of International Importance, Coorong National Park will be managed in accordance with the Articles of that Convention.

The objectives of management for the park (as stated below) are consistent with the requirements of the Convention.

3.2 National Parks

The following general objectives relate to the Management of National Parks in South Australia.

- (a) the preservation and management of wildlife;
- (b) the preservation of historic sites, objects and structures of historic or scientific interest within reserves;
- (c) the preservation of features of geographical, natural or scenic interest;

- (d) the destruction of dangerous weeds and the eradication or control of noxious weeds and exotic plants;
- (e) the control of vermin and exotic animals;
- (f) the control and eradication of disease and injurious affection of animals and vegetation;
- (g) the prevention and suppression of bush fires and other hazards;
- (h) the encouragement of public use and enjoyment of reserves and education in, and a proper understanding and recognition of, their purpose and significance; and
- (i) generally the promotion of the public interest.

In addition, the following specific objectives apply to the Coorong National Park:

- * To protect endangered, vulnerable and rare species;
 - * To control fire so as to minimise threats to life, property and the natural and cultural resources of the reserves;
 - * To provide a range of recreation facilities in selected areas so as to enhance visitor access and enjoyment;
- To develop interpretation and education programmes and prepare information about recreation opportunities, resources and management;
- * To contribute to regional and State tourism while protecting the natural values of the park.

4. COORONG IN PERSPECTIVE

The long, shallow, saline lagoon, more than 100 km in length that is the Coorong, is separated from the Southern Ocean by the continuous sand dunes of Youngusband Peninsula. Of equal importance are the series of shallow ephemeral salt lakes in the southern end of the park; the natural processes occurring in these environments are of international importance. The Coorong National Park comprises an area of world-wide biological significance. It contains representative samples of coastal habitats and an unusual set of aquatic habitats.

On the exposed face of the fore-dune and on the mobile dunes, colonising plants such as spinifex, two-horned sea rocket, the introduced sea-spurge and marram grass bind the sand. Further towards the crests of the dunes, where the vegetation has managed to find a hold, grows a more diverse typical dune scrub of coastal wattle and sandhill daisy. Older consolidated dunes, with umbrella canopies of mallee, provide a backdrop to the Coorong. Tea-trees and samphires fringe the lagoons and ephemeral wetlands.

The Coorong is a breeding ground for rare coastal bird-life and a drought refuge for many species of Australian waterbirds. These include various

species of waterfowl such as grey teal, chestnut teal, mountain duck and black swan. The five species of cormorants that occur in South Australia are found within the Coorong and some breed on the islands in the South Lagoon. Gulls, terns and grebes gather in the waters of the Coorong and a wide range of land birds occur in the surrounding dunes. The Coorong also provides habitat for the rare orange-bellied parrot and for other migratory species such as little terns and red-necked stints. The latter species migrates to Australia from as far afield as Siberia.

The Coorong is also a major breeding ground for the Australian pelican. During a good breeding season 3000 to 4000 pelicans gather on the islands that make up the pelican nurseries. The same islands also provide permanent breeding grounds for terns and seagulls. It is important that these birds remain undisturbed, and so the islands and a distance of 140 metres around each, have been declared Prohibited Areas. Some of the northern islands within the lagoon are not part of the Coorong National Park but are reserved for use by Aboriginals.

Prior to white settlement, Aboriginal occupation of the Coorong area was based on a rich and complex marine economy. Historically, Aboriginal people established settlements along the Coorong coastal margins where food could be obtained from the ocean beach, peninsula, lagoon and hinterland. They developed fishing techniques that involved use of bulky rafts, made from reeds and bark canoes, and a range of high quality nets.

This culminated in a large resident population about 2300 years ago which quite conceivably involved a succession of family ownerships of land and a highly organised social order. These remarkably successful fishing people called themselves the Ngarrindjeri (also Narrinyeri), a term meaning 'belonging to men' that refers five groups who were closely related by a common economic base, kinship ties, and ritual exchange networks.

The Coorong was the territory of a single group of the Ngarrindjeri, called the Tanganekald, a name which was compounded from the local place name for the inland margins of the Coorong estuary, Tenggi, and the word for language, kalde. The name Coorong is derived from the Aboriginal word Karangh, meaning narrow neck. The tribe once roamed over a territory covering a total area of some 2000 square kilometres of rich coastal wetlands and sandhills.

Today the historically large Aboriginal settlement of the Coorong is marked by the extraordinary number of habitation sites including shell middens and mounds, cooking ovens, campsites and cemeteries.

5. MANAGEMENT FRAMEWORK

Policies developed for the park are summarized below. They have been developed within the constraints of:

- * State Government Policy
- * The National Parks and Wildlife Act, 1972 and Regulations
- * National Parks and Wildlife Service policies
- * Community attitudes and expectations at National, State, Regional and Local level.

5.1 Natural and Cultural Resources

5.1.1 Management of Coastal Land Systems

The Coorong National Park provides active examples of geomorphological processes which have dominated the recent geological history of south-eastern South Australia.

The Coorong is located at the edge of the Padthaway Ridge. This ridge is an uplifted area between the Murray Basin to the north-east and the Gambier Embayment of the Otway Basin to the south. Both basins were inundated by the sea at various times between 50 and 15 million years ago.

Of special geological interest in the Coorong area are the series of shallow, ephemeral lakes south of Salt Creek and the Coorong Lagoon which have formed in depressions in the pleistocene dune topography. The waters of these lakes are actively precipitating an unusual variety of fine grained calcium and magnesium carbonate minerals including dolomite. Modern examples of active dolomite precipitation are rare and the particular association of carbonate minerals found in the Coorong is unique (C. Von der Borch, pers. comm.)

Features of interest to visitors include these carbonate lakes along with both active and stable modern dune systems. The latter areas are very susceptible to impacts of vehicles and stock. The fore-dune of the peninsula plays an important role in the stability of the whole dune system. Much of the Coorong National Park consists of the sand dunes of the Younghusband Peninsula. This peninsula forms the barrier between the Southern Ocean and the Coorong Lagoon. The structure and stability of the Peninsula is constantly changing naturally through the actions of wind, water and vegetation. Fossil horizons indicate the existence of former periods of stability and instability with large scale sand drift on the Peninsula.

Encroachment of some dunes on the western shore of the Coorong Lagoon have made folds in the plastic muds of the lagoons edge. The structure of the mudfolds can be changed by vehicular traffic along the lagoon margin.

Management Objectives

- * To preserve the landscape of the Coorong National Park.
- * To protect dunes and dune forming processes, particularly those of Younghusband Peninsula
- * To protect the mudfolds on the western edge of the Coorong Lagoon, including the maintenance of their formation.
- * To protect the carbonate lakes and the unique conditions required for their formation.

- * To acquire greater scientific knowledge of the geological processes of the Coorong.
- * To encourage public appreciation and understanding of the geology and its importance in the natural system of the Coorong region.
- * To acquire greater scientific knowledge of the natural environments associated with the Coorong.

Management Actions

1. Prevent unauthorised removal or destruction by people, of soil, stone or other geological materials.
2. Dune areas will be protected especially through the management of vehicular access.
3. Mudfold formations on the lagoon edges will be protected especially through the control of vehicular access.
4. Carbonate lakes and stromatolite formations will be protected especially through control of vehicular access.
5. Management-oriented research and monitoring will be carried out on visitor use, feral animals, fire, roads, and other disturbances. In general, management practices in the park will aim to minimise soil disturbance.
6. Scientific research and monitoring of natural systems and processes will be encouraged.
7. An interpretation programme emphasising the geological history of the Coorong region, and the formation and fragility of mudfolds, stromatolites and the carbonate lake systems will be initiated. Participants will receive information on how to minimize their impact on the geological resources of the park.

5.1.2 Water Management

The hydrological regime of the Coorong National Park is determined by a complex interaction of water from a number of sources including sea water, the River Murray, rainfall and groundwater. The main features are a large saline to hyper-saline water body (the Coorong Lagoon), freshwater soakages and a number of ephemeral saline lakes. The ephemeral salt lakes, as sensitive integrators of the balance between rainfall, evaporation and temperature, are probably of special significance (W. D. Williams, submission). They have a valuable role as sites at which environmental change (e.g. Greenhouse effect) can be monitored.

The waters provide an important feeding area for water birds and migratory waders, and are part of a complex ecosystem which supports a wide range of aquatic plants and animals. During the summer influx of migratory birds and waterfowl, the freshwater soakages are one of the few sources of freshwater for fauna in the predominantly saline environment. Regional developments that have affected the water regime

include the Upper South East Drainage Scheme and the barrages that influence water flow from the River Murray. A report on the effects of drainage on ground water in Counties Cardwell and Buckingham and the subsequent effect on the Coorong was published in 1983 for the Minister of Water Resources. Although the report concluded that surface drainage in the south-east of South Australia has had no significant overall effect on the volume of freshwater inflow to the Coorong, the matter continues to be subject to public conjecture.

A major factor influencing Coorong salinity is the present day lack of peak flow coming down the Murray River due to the controlling structures along that river system.

Management Objectives

- * To ensure water quality and quantity suitable for native flora and fauna, especially waterfowl, migratory waders and native fish populations is maintained.
- * To ensure protection of freshwater soakages from damage caused by people and their activities.
- * To acquire greater scientific knowledge of the water regimes of the Coorong.
- * To consider the requirements of other relevant authorities which may influence water quality and quantity.
- * To consider biological benefits which may be obtained by redirecting excess freshwater from the upper south-east area into the southern portion of the Coorong Lagoon.
- * To develop an understanding by visitors of the water regimes of the Coorong National Park.

Management Actions

1. The Service will continue to liaise with other relevant authorities to ensure the continuation of suitable water quality and quantity for native fauna especially waterfowl, migratory waders and native fish populations.
2. Commercial recreational activities (boating etc.) or other existing commercial activities (commercial fishing) which utilise the water resources of the Coorong National Park may be permitted if they can be undertaken without conflicting with objectives set in this management plan.
3. Vehicular access to the edge of fresh water soakages and other activities which threaten the integrity of soakages will be prohibited.
4. A hydrological monitoring programme to provide long term data on the water regimes of the Coorong will be established.

5. An environmental assessment will be encouraged into a proposal to redirect freshwater from the upper south-east into the southern Coorong Lagoon.
6. Research likely to lead to better understanding of factors influencing water quality and quantity in the Coorong region will be encouraged.
7. Information materials likely to increase visitor awareness and understanding of the water regime of the Coorong will be made available.

5.1.3 Vegetation Management

Although the terrestrial vegetation of the park has been extensively studied (Douglas et al., SADEP, 1982) little investigation has been directed to the complex saline environment of the lagoon.

Terrestrial vegetation on the Youngusband Peninsula is characterised by typical coastal colonizers such as spinifex, coastal daisy, coastal wattle, currant bush etc. The dynamic pioneer nature of vegetation growing on mobile dunes necessitates sensitive management.

The lagoon edges and the ephemeral lakes are characterised by salt marsh genera such as Sarcocornia, Halosarcia. These salt marsh communities form a significant link with related salt marshes of southern Australia. They are fringed with dense stands of "swamp" paper bark or "tea tree" (Melaleuca halmaturorum).

Mallee-grassland communities are widespread in the southern and mainland sections of the park. Mallee areas dominated by species such as Eucalyptus diversifolia occur in shallow sandy soils overlying calcrete. A diverse range of grassland communities reflects the history of farming and grazing in the park.

All communities except perhaps the lagoon communities have a mix of native and introduced plants.

Introduced plants within the park present a major management problem. Many species are scheduled pest plants and in some areas represent the dominant species (in terms of abundance). Eighty of the 278 species recorded are introduced. It is estimated that 30% of the vegetation on the Youngusband Peninsula is made up of introduced plants including marram grass, horehound, false caper, bridal creeper and African boxthorn. While efforts are being made to control infestations of introduced plants, some plants have replaced native flora as either dune stabilisers (eg. Euphorbia) or nesting areas for native bird species. Methods of control of introduced plants are often hampered by accessibility, the sensitive nature of the soils and the cultural significance of the area.

Prior to dedication as a park the Coorong and Youngusband Peninsula was extensively grazed by introduced stock (sheep and cattle) and burnt to encourage "feed". On the mainland side sections of the Melbourne road were used as a travelling stock route.

Past grazing history along with the introduction of the rabbit is seen as the major cause for pest plant infestation. The recent acquisitions

of lands such as Parnka Point are indicative of the management problems facing the Service. The management of pest plant problems cannot be seen in isolation from cause and effect. Control programmes need to combine effective rabbit control and revegetation with standard pest plant control methods. Some pest plant species are not being suppressed by native species eg. bridal creeper. Special attention will be required to control such species.

Significant plant communities within the park include the more natural sections of the Youngusband Peninsula and the lagoon edges, particularly the saltmarsh and "tea-tree" communities. Although no communities appear to be under threat (except from encroachment by introduced pest plants), changes in salinity within the lagoon are likely to effect saltmarsh and tea-tree communities. Protection of these more natural sections should receive special attention to maintain the natural integrity of the park.

Vehicular traffic, through or along plant communities also constitutes a threat. The linear nature of the park and it's vegetation requires management strategies to be geared to regulating visitor traffic across vegetation communities rather than along them.

Management Objectives

- * To provide special protection to sensitive and important plant communities such as sensitive dune communities and lagoon fringe communities.
- * To restore to something approaching a natural condition, areas which have been damaged by introduced plants, animals or human activities.
- * To acquire greater scientific knowledge of the plant species and communities in the park especially aquatic and lagoon fringe communities.
- * To develop strategies for visitor recreation and enjoyment which are least likely to further damage plant communities.
- * To inform the public about plant communities and their ecological relationships.
- * To develop strategies to control or manage introduced plants especially those which affect adjoining agricultural communities or which threaten the viability of native plant communities.

Management Actions

1. As part of the interpretative programme for the park, information will be provided and interpretation undertaken of the characteristics and distribution of native vegetation.

Special attention will be given to:

- (a) Lagoon aquatic communities
- (b) Sand dune and pioneer communities

- (c) Adaptation of plants to saline and semi-arid conditions.
 - (d) Aboriginal and Early European use of plants.
2. Research and accurate recording of changes to sand dune communities and Lagoon/ephemeral lake communities will be encouraged. Special attention will be directed to aquatic flora research and the role of these plants in the ecosystem.
 3. A comprehensive pest plant and animal control plan (see also section 5.1.4) designed to reduce the impact and spread of pest plants and animals will be prepared and implemented. The plan will need to reflect both State and local Board priorities for pest plant and animal control, be achievable over a specified period of time and be subject to constant review and update.

Emphasis will be on:

- (a) Preventing additional pest plants from establishing; for example on road and highway verges, management of vehicles to defined tracks (a major contributor to the spread of pest plants) and preventing the introduction of non indigenous plants.
 - (b) Pest plants and animals of significance to adjoining agricultural lands, in accordance with the schedule lists in the Animal and Plant Control Act 1986.
 - (c) Pest plants such as bridal creeper which are infiltrating and competing in areas of relatively pure stands of natural vegetation.
4. Continued liaison will occur with Coonalpyn Downs/Meningie and Lacepede/Tatiara Pest Plant and Animal Boards to ensure that strategies to control pest plants and animals are in keeping with regional strategies.
 5. Research into alternative methods of pest plant and animal control will be encouraged. In particular, research directed toward possible biological control of species such as bridal creeper and African boxthorn will be strongly supported.
 6. Strategies for rehabilitation of pest plant infested areas may include controlled grazing, prescribed burning and direct seeding techniques. Such land management techniques are especially relevant in areas such as the former Potter's land and Parnka Point Peninsula.
 7. Revegetation works will be implemented as an integral part of pest plant control programmes and also for maintenance of degraded campsites and picnic areas.
 8. In visitor areas revegetation projects priority will be given to the following locations:
 - (a) Tea-tree Crossing Campground

- (b) Margit Wreck Campground
 - (c) 42 Mile Crossing Campground
 - (d) Trevorrows Cemetery
 - (e) Day visitor areas; Noonameena, Chinamans Well, Mark Point and Salt Creek.
 - (f) Long Point and Parnka Point Camping area.
9. In order to reduce the impact of wildfire, a fire plan will be developed which will outline fire protection strategies paying particular attention to protection of fringe lagoon communities, particularly dense stands of Melaleuca halmaturorum (see section 5.1.6).
 10. Closer liaison with the Ngarrindjeri community will be developed to promote information and understanding of Aboriginal knowledge and use of native plants (see section 5.1.5).
 11. Other than the use of marram grass plantings to stabilise mobile sand-dunes, a park wide policy of revegetation using indigenous species will be adopted. Shack licensees will be provided with information on suitable species that may be planted within the park. Wherever practicable, plants will be propagated from parent plants of local provenance.
 12. A road and track access system will be developed to, wherever possible, avoid sensitive areas such as salt marshes, lagoon edge communities and freshwater soakages. Access tracks will generally be routed across vegetation types rather than travel along them to minimise disturbance.

5.1.4 Fauna Management

The importance of the Coorong National Park as a wildlife refuge is recognized internationally (see section 2.1).

While such recognition is principally due to its wetland habitats and migratory bird species, the area also serves as habitat for a variety of terrestrial fauna, particularly bird species.

Significant species within the Coorong include:

- * Hooded plover - listed as "Vulnerable" (i.e. in Schedule 8 of the National Parks and Wildlife Act 1972) - breeding habitat on the beach and fore-dunes.
- * Orange-bellied parrot - listed as "Endangered" (i.e. in Schedule 7 of the National Parks and Wildlife Act, 1972) - winter feeding on the ocean beach and salt marsh areas.
- * Rufous bristle bird - listed as "Vulnerable" - breeding habitat in coastal heath.

- * Little tern - listed as "Endangered" - single breeding record.

Locally significant species within the Coorong include:

- * Australian pelican - the world's largest permanent breeding colony.
- * Crested and fairy terns - significant breeding habitat on lagoon islands and coastal sections.
- * Mallee fowl - regular breeding in southern mainland sections of the park.
- * Chestnut teal - significant breeding habitat in southern lagoons and lakes on mainland side of the Coorong.

The Coorong is especially important as a summer refuge for waterfowl and migratory birds. The dependence of waterfowl and waders on the freshwater soakages along the edge of the Coorong Lagoon is a major consideration in the conservation and management of these species.

Little is known of waterfowl movements in the Coorong ecosystem.

As with vegetation, introduced animals have had a significant effect on the Coorong's natural system. Rabbits are responsible for the lack of regeneration of many native plants species as well as leading to the introduction of pest plant and exacerbating soil erosion. The effect of foxes and cats on the native animal population has not been measured in the Coorong, however reports of numbers would indicate that their probable effect is significant. It is recognised that rabbits can be a significant source of food for foxes and cats. Any control programmes undertaken on rabbits have to be met with programmes on foxes and cats. Foxes are believed to have a significant impact on ground nesting birds such as the hooded plover.

Management Objectives

- * Give special protection to vulnerable and endangered species in the park especially through habitat management.
- * To protect waders and other locally significant species.
- * To conserve waterfowl populations.
- * To conserve native fish populations in the Coorong Lagoon whilst providing for appropriate sustainable fishing.
- * To encourage public appreciation and understanding of fauna and of interactions between fauna and the physical environment and plant communities of the Coorong.
- * To control pest animals species especially those which affect:
 - (a) natural habitat
 - (b) neighboring agricultural land.
 - (c) success of breeding in native populations.

Management Actions

1. Priority will be given to encouraging research into the ecology of endangered, vulnerable or rare species and to research which has direct management implications.
2. Continued liaison will occur between the National Parks and Wildlife Service and traditional landowners (Ngarrindjeri) so as to develop mutual understanding and to provide information for visitors of Aboriginal knowledge and use of native animals (see also section 5.1.5).
3. Continued liaison will occur with the Department of Fisheries and with professional and amateur fishing groups to ensure that fishing activities are geared for long term sustainable use.
4. A pest animal control plan will be developed in conjunction with neighbouring boards and which complements the pest plant control plan. The plan will concentrate on the control of foxes, rabbits, cats and feral goats, especially on or near; adjoining landholders, sensitive vegetation communities, areas undergoing rehabilitation and breeding habitats of threatened native animals.
5. Recreation activities will be controlled to ensure minimal impact upon native fauna.
6. Management strategies will emphasise protection of habitat of locally and nationally significant species such as the orange-bellied parrot, Australian pelican, hooded plover, rufous bristle bird and crested, fairy and little terns. Such strategies may include declaration of Prohibited Areas (under Section 42 of the National Parks and Wildlife Act) or restrictions over some recreation activities which may disturb species, especially during breeding periods. Control of vehicle access along the ocean beach will be required during some of the hooded plover breeding season (see section 5.3.2)
7. As part of the information and interpretive programme, information will be provided on native fauna distribution, ecology and use. Attention will be paid to locally significant species.

5.1.5 Cultural Resources Management

Human habitation of the Coorong has involved two distinct periods of settlement. Colonization of the coast by the Ngarrindjeri led to the development of a thriving hunter-gatherer economy. The arrival of immigrants in the early 19th Century marked the commencement of pastoralism and changes in land use. Despite the more recent changes in land use the Ngarrindjeri have retained their close affinity with the Coorong region.

The archaeological traces of the Coorong Aboriginal cultural heritage are a fragile, non renewable resource with the potential to provide invaluable information about the history of settlement. The traces on the Youngusband Peninsula are in danger of damage due to the activities of people, especially

off road vehicle use. The Ngarrindjeri community fear continued use will damage existing midden sites and burial grounds.

Some structures and sites of European history in the reserve provide an insight into life during early settlement. Some of these are already included on the Register of State Heritage Items and some people also consider shack sites within the park to also have cultural significance.

Management Objectives

- * Through consultation with Ngarrindjeri to further record, preserve and investigate Aboriginal middens and other sites of archaeological interest in order to develop a more comprehensive understanding of Aboriginal society prior to recorded history.
- * To record and preserve burial sites and sites of significance to Aboriginal people.
- * To continue liaison with relevant authorities and traditional owners on any planned developments within the park.
- * To record and preserve sites, objects and structures of historical significance.
- * To encourage public appreciation and understanding of the cultural heritage of the Ngarrindjeri.

Management Actions

1. Unauthorized removal of any cultural material will be prohibited.
2. In dealing with cultural sites close liaison will be maintained with the Heritage Conservation Branch of the Department of Environment and Planning and with the Ngarrindjeri community.
3. Where resources permit and where rabbit control programmes have not been effective, rabbit proof fencing will be erected around cultural sites threatened by rabbit activity.
4. Pest plant species, such as African boxthorn, which threaten cultural sites will be controlled.
5. Particular attention will be given to protecting sites, objects and structures that are on the Register of State Heritage Items.
6. Other sites, objects and structures will be assessed for inclusion on the Register of the National Estate or the Register of State Heritage Items. Such sites will include the "Old Martins Inn" Ranger House, the bridge ruins at Salt Creek, Coolatoo Homestead ruins and hut, Stony Well, Coorong Crossing, sections of the old telegraph route, Dodds Outstation on the Younghusband Peninsula, Hacks Homestead ruins, Margit Wreck, Sheep Rug Well and Mark Point Well.

7. The policy relating to shacks will be based on the following principles:
- (a) life tenure will be granted to existing lease holders under a new lease arrangement,
 - (b) a condition of any lease will be the removal of the shack when the lease lapses,
 - (c) site rental will be determined and reviewed by the Valuer-General.
8. Before any shacks are removed a survey will be made of structures that may have heritage value. Such structures may be retained for historical interpretation purposes, leased as holiday accommodation or made available for short term community purposes.
9. Comprehensive site surveys of the cultural resources of heritage areas will be carried out prior to the development of day visitor facilities there.
10. All Aboriginal cultural sites will be left insitu, except where the provisions of the Aboriginal Heritage Act, 1988 permit removal for study or display. Ngarrindjeri Communities will be actively encouraged to undertake or commission research and study into sites within the park. Where necessary protection works will be undertaken under supervision of the Service and local Heritage Committees. Sites for general public interpretation will be selected in consultation with the Heritage Committee and Ngarrindjeri community members.
11. Interpretive displays will be erected at selected sites. Where this is not possible, information on relevant sites will be made available to visitors. Interpretation of Aboriginal history and sites will be done in consultation with the Ngarrindjeri community.

5.1.6 Fire Management

Although little is known about fire ecology in the Coorong coastal environment, unplanned fires are rare. It is accepted that fire ignition from lightning strikes is a natural occurrence.

Few fires have been recorded in the park in recent history and wildfire is not considered a major management problem. However, because the area is visited by a large number of people and adjoins private lands, basic fire protection programmes need to be implemented to ensure the protection of human life and property.

Careless use of fire by the visiting public also has the potential to start wildfire.

It is desirable that sensitive plant communities such as mature stands of swamp paper bark or "tea-tree" (Melaleuca halmaturorum) and areas undergoing revegetation programmes be protected from fire.

In some situations the use of fire as a management tool is appropriate.

Management Objectives

- * To control fires which may endanger human life, which could cause damage to park assets or burn into adjoining land.
- * To control fires which may threaten sensitive plant and animal communities which are adversely affected by fire.
- * To encourage research into the behaviour and effects of fire in order to develop more efficient fire protection and habitat management programmes.
- * To protect the natural wood resource in the park.
- * To inform park users about the role of fire in the Coorong environment and about the safe use of fire when camping.

Management Actions

1. Prepare a fire management plan which provides strategies for fire protection of high visitation areas, adjoining private lands and fire sensitive vegetation communities.
2. Ban the use of insitu wood for camp fires, but allow wood to be brought into the park for this purpose. The use of portable gas cooking fires will be encouraged.
3. Wood fires will not be permitted in day visitor areas, where camping is also not permitted.
4. Information about restrictions on the use of wood fires, bushfire safety and the potential hazard of unattended fires will be made available for park visitors.
5. Owing to the sensitivity of soil types and plant communities strict controls will be placed on use of earth moving machinery for fire control; as the disturbance of soil through the construction of fire breaks may lead to damage greater than that caused by the fire.
5. Wherever possible indirect methods of fire control will be used such as; use of aircraft and retardants, deployment of ground crews and backburning will be employed. This will be especially relevant where fires are burning on the Youngusband Peninsula.
7. Fire may be used as a management tool especially as a part of revegetation programmes or for fuel reduction in modified plant communities. Possible detrimental effects of deliberate fires, such effects on soil stability or weed growth, will be considered.
8. Advice will be provided to shack lessees to assist them with their responsibility to protect their shacks from fires.

9. Close liaison will be maintained with local volunteer Fire Brigade Associations to ensure compatible control programmes. This will include involvement in joint training exercises.
10. Use of earth moving machinery in the control of fires will only be permitted if in the opinion of the controlling officer there is danger of loss of life or damage to adjoining capital assets.

5.2 Information and Interpretation

The Coorong National Park is characterised by dynamic sand dunes, their saline lagoons and the ephemeral lake system. As well, its international significance as wetlands, the presence of rare and endangered wildlife and its Aboriginal history provides unparalleled opportunities to fascinate and hold the interest of visitors.

While good interpretation programmes provide a richer experience for visitors, such interpretation and environmental education programmes also assist in the protection of natural and cultural features by facilitating appropriate public use.

Frequently the significance of the Coorong as a national park and as a wetland of international importance has not been fully recognised by visitors. Also, there is a strong community expectation about the Coorong that information should be readily available.

Numerous physical, biological and historic features occur in the park which are suitable as foci for interpretation and information. For ease of access and control of visitor movement such programmes are conveniently located near day visitor areas, camping areas and visitor centres, as well as at nearby population centres.

Close links between the National Parks and Wildlife Service and the local Ngarrindjeri community also provide an opportunity for that community to be involved in cultural interpretation programmes relating to the park.

Management Objectives

- * To provide interpretation and education programmes designed to increase public enjoyment of the area and to further public awareness and appreciation of the purpose and significance of the Coorong National Park.
- * To encourage joint interpretative programmes with other authorities, groups, landowners and in particular the Ngarrindjeri community.
- * To develop self funding interpretative programmes.

Management Actions

1. A comprehensive information, education and interpretation programme encompassing the following features will be developed:
 - general information boards and maps.

- brochures, booklets, posters and other materials about the national park.
 - information on specific features such as flora, fauna, geology, wilderness and Aboriginal history.
 - keyed maps and brochures for interpretative walks.
 - major interpretative displays at Salt Creek and Meningie.
 - an education programme for tourist industry personnel who provide information to the public about the Coorong.
 - the Ngarrindjeri community will be encouraged to become involved in the provision of information and interpretation services.
 - guided educational tours and experiential activities will be provided at selected times and locations.
2. Park management centres at Salt Creek and Meningie will be designed, staffed and maintained to encourage visitors to enter and gain information on the park and its features. The feasibility of using the present Noonameena facility as a resource centre will also be considered.
 3. Links will be established with tour operators and other outside agencies to ensure that mutually appropriate information and promotional materials are developed.
 4. Costs associated with the production of interpretative material may be recovered through sales.
 5. Local media and community groups will be regularly informed about issues, developments and activities within the park.
 6. Volunteer groups will be encouraged to become involved in interpretation and information programmes.
 7. Thematic interpretation programmes will be developed which concentrate on features such as the ephemeral lake and lagoon system, wilderness, birds or Aboriginal culture.
 8. Detailed proposals for interpretation associated with specific site developments can be found below (see section 5.3. Visitor)

5.3 Visitor Management

The Coorong National Park constitutes a major regional and State recreational area. An extensive range of activities occur there. They include:

- (a) Beach users - recreational and professional fishing, camping, walking, off-road vehicle driving.
- (b) Lagoon users - professional and amateur fishing, boating, canoeing, powerboating, yachting, sailing, sail-boarding, swimming.

- (c) Day visitors - attractions adjacent to major roads are the foci for short term visits. Natural, cultural and scenic features are the major attractions.
- (d) Family camping - passive, formal or informal camping mostly in the southern sections of the park.

Although recreation pursuits such as fishing have a distinct seasonality; visitation occurs throughout the year. Peak visitation occurs during the spring, summer and autumn months and in particular during the Australia Day weekend and the Easter period. No accurate figures exist for visits to the park but it has been estimated that the park receives approximately 200,000 visitor days each year.

Beach and lagoon fishing activities correspond with movements of particular species. Although the management of fish populations is the responsibility of the department of Fisheries, the National Parks and Wildlife Service maintains a close liaison with that Department in order to monitor relationships between fish populations and other wildlife and the food chains which support them. The movement of people within the park (be they fishermen or not) is, the responsibility of the National Parks and Wildlife Service.

The potential of the Coorong to attract greater numbers of visitors is high, especially if information, access and facilities were to be improved.

The siting of recreation and tourist facilities and services must be considered in the light of both visitor needs and the requirement to protect natural systems.

The physical constraints of the park affect visitor access and the level of development. The coastal dunes and the lagoon itself are major physical constraints to the development of visitor facilities. These same barriers are the very features which give the Coorong its wilderness qualities, which many people would like to see retained.

Management Objectives

- * To retain the natural characteristics of the park as the main features to be enjoyed by visitors.
- * To ensure that all visitors can obtain quality experiences without detriment to the overall values of the park.
- * To offer a balanced diversity of tourist and recreation opportunities appropriate to the Coorong National Park.
- * To minimise risk to life and property.
- * To minimise conflict between user groups.
- * To inform the public about the choices they have in seeking a recreation opportunity in the park.

Management Actions

1. Recreation use zones as identified in Figure 1 will be managed for separate purposes so as to minimise conflict between different recreation activities and between park visitors and the natural resources of the park.

The zones area:

- (a) Wilderness Zone - no facilities, no motorized access;
 - (b) Natural Zone-limited facilities, limited motorized access;
 - (c) Day Visitor Zone - simple facilities, motorized access;
 - (d) Development Zone - formal facilities, safe convenient experience.
2. The provision of recreation opportunities will be matched with staff and management capabilities.
 3. A development plan outlining the location, design and staged construction of capital facilities in the Natural and Day Visitor zones will be prepared and progressively implemented as resources permit.
 4. Strategies for the management of each zone are outlined below.

5.3.1 Wilderness Zone

This zone comprises the majority of the northern section of Youngusband Peninsula, which is distinctly separated from the rest of the Coorong National Park by the Coorong Lagoon. The area provides a feeling of space and natural attractiveness, little disturbed by technological impact.

Many visitors to the park recognize its "wilderness values" and consider that the remoteness and naturalness are major attractions of the area.

Implicit in this is the recognition of both the area's significance as an important Aboriginal cultural area and the sensitive, dynamic nature of the sand dunes. The area includes breeding habitat for the hooded plover, freshwater soakages, mud-fold sites and important waterfowl and wader refuges.

Visitors to this zone generally spend more than 24 hours and enter it by foot. Access to the edge of the zone is either along the beach by vehicle or by boat.

The development of motorized access or facilities in this zone would be detrimental to its wilderness qualities of remoteness and primitiveness.

Management Objectives

- * To provide maximum protection to the natural environment and cultural heritage sites.
- * Allow for visitor use which does not require mechanised access within the zone.

Management Actions

1. Define the zone as that part of the Coorong National Park which lies behind the first fore-dune of the Younghusband Peninsula, north of Princes Soak Track to Barkers Knoll near the Murray Mouth. Small exclusions within this area which do not form part of the zone are areas around Barkers Knoll, Panmuring Point and Gnurlung Point. A narrow band of natural zone also occurs between low water mark and the first foredune (along the ocean beach) and across Younghusband Peninsula where it is crossed by the existing Parnka Track.
2. No facilities will be provided within the zone other than simple signs, structures for disseminating information brochures and occasional pedestrian track markers.
3. The use of mechanised vehicles within the zone will be prohibited, except for essential management purposes.
4. Large groups such as schools etc. will be encouraged to use low impact camping techniques in the wilderness zone. In addition the length of stay by large groups in any one location will be discouraged to reduce site impact. Camping adjacent to freshwater soaks will not be permitted within the zone. These soaks provide important watering points for native animals during the summer months.
5. While management and regulation within the zone will be minimal, visitors to the area will be encouraged to register their visit at a National Park Office. Such registration will allow for provision of information to the visitor about the area and help to ensure that visitor safety is maintained.
6. In accordance with action 4 (above) the use of portable fuel stoves will be encouraged to reduce the impact of wood fires. Wood fires within the zone will be permitted however only where the wood (dead material) is carried in from outside the park. No living material except that for immediate consumption will be permitted within the zone or the park. The size of campfires in the zone should be restricted to the minimum required for cooking and personal comfort. This should mean that fires should conform to the Country Fires Act size of less than one (1) square metre. The impact of fires will be closely monitored; any areas showing signs of significant impact will be closed to wood fueled fires.
7. There has been some debate on the amount of broken bottle refuse left within the zone. This refuse is usually in the form of used drink containers eg. beer bottles. To reduce the impact of broken glass, there will be a restriction on the use of glass drink containers within this zone of the park. Visitors will be encouraged to use, reusable plastic or metal drink containers.

5.3.2 Natural Zone

(a) General Description

This area is characterised by natural features similar to those of the Wilderness Zone but because it is less remote it receives relatively high visitation. The sensitivity of the zone to human impacts is no less than that of the Wilderness Zone and consequently the development of facilities, provision of information and enabling of motorized access must be designed to encourage sensitive and appropriate recreation use.

Parts of the zone such as "The Sahara" (in the northern extremity of the Youngusband Peninsula) experience substantial visitation due to their inherent attractiveness, while visitation levels in other areas reflect particular recreation activities (e.g. ocean beach fishing). The concept of this zone allows access (motorized or otherwise) to an area for informal activities such as camping, fishing, picnicking and boating.

It is important to recognize that the zone includes important cultural sites, breeding habitat for vulnerable species, and significant natural features such as soakages and ephemeral lakes. Within the zone there are also areas declared prohibited under Section 42 of the National Parks and Wildlife Act.

This zone is no less significant than the Wilderness Zone but because of easier accessibility it is subject to higher levels of visitor pressure. The provision of simple facilities in strategic locations can greatly assist in minimising impacts from unregulated visitor traffic.

The waters of the Coorong lagoon are included in this zone. This zoning recognizes that appropriate use of motor boats is acceptable in these areas.

The Natural Zone also includes the landward side of the Coorong lagoon where man-modified habitats dominate and where management needs to consider existing direct vehicular access.

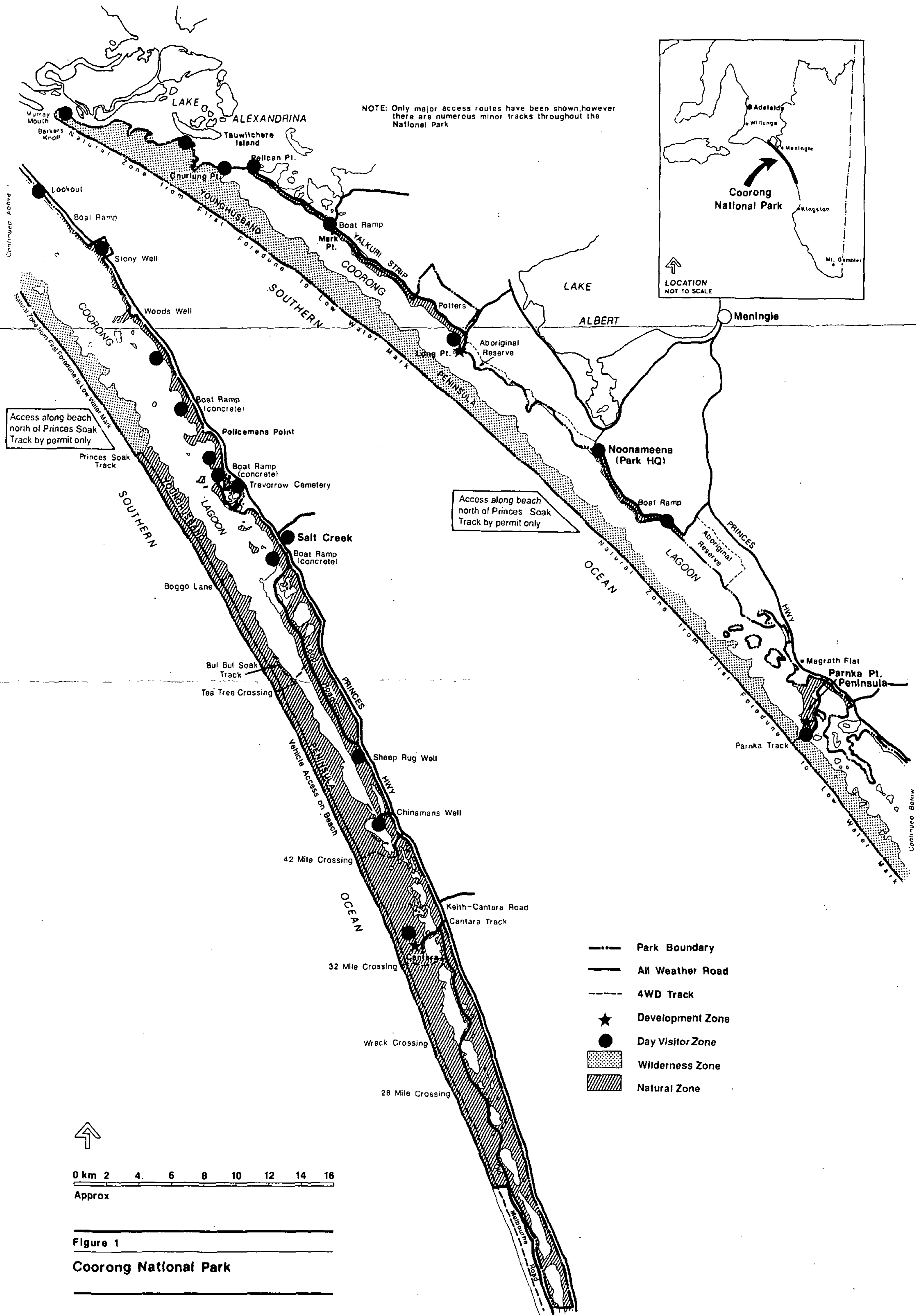
The diverse history of land-use in the Coorong area, combined with more recent upgrading and re-routing of the Princes Highway, has resulted in a complex system of roads, tracks and vehicular access routes. Many of them serve no useful purpose.

(b) Management of the Ocean Beach

The entire western boundary of the park will be extended to low-water-mark along the ocean beach. The whole of the ocean beach, between the first foredune of the Youngusband Peninsula and low-water-mark, is placed within the Natural Zone and is an area where vehicle access is permitted (subject to conditions).

Management Objectives

- * To maintain the environment as close as possible to its natural state while enabling dispersed use by visitors.

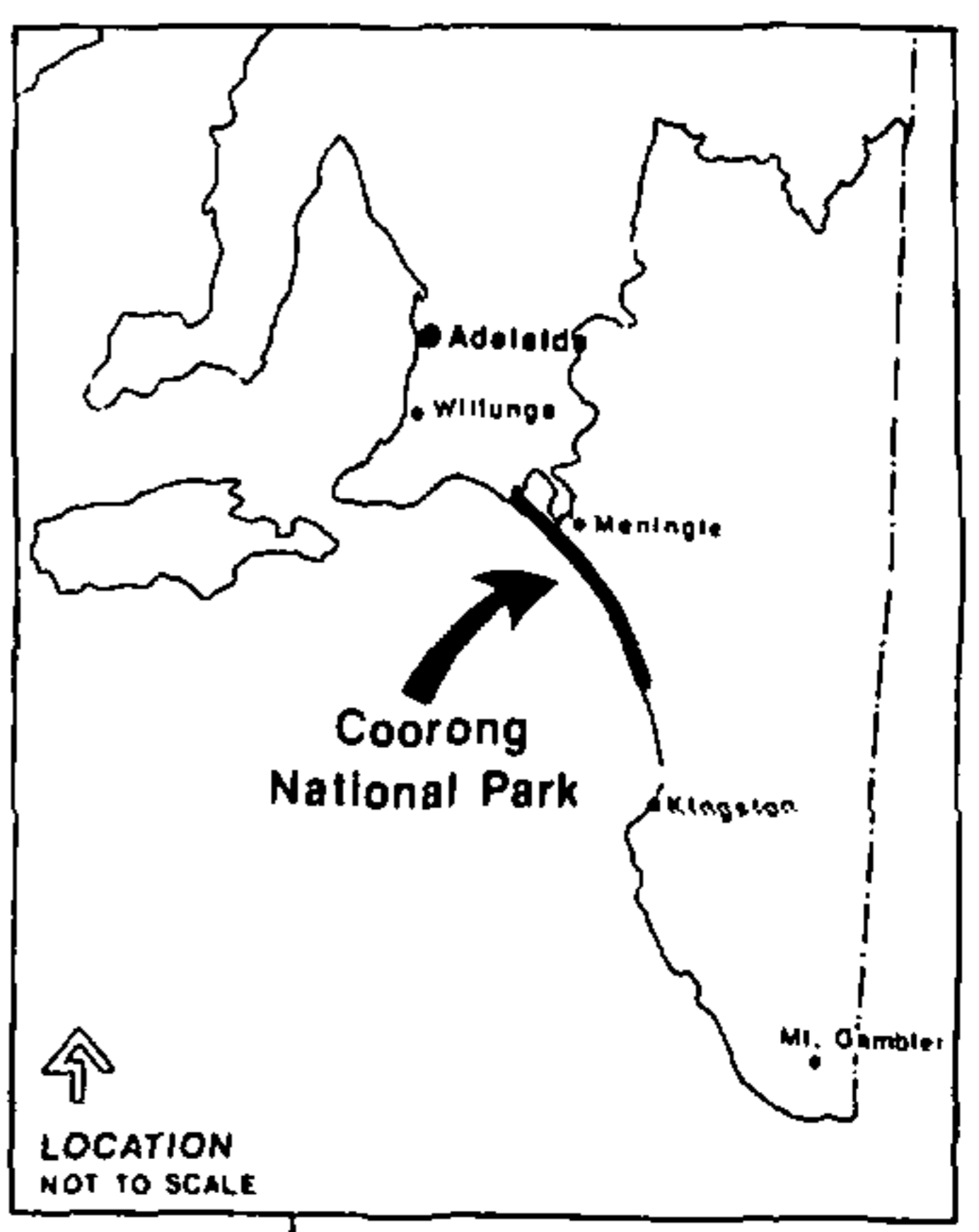


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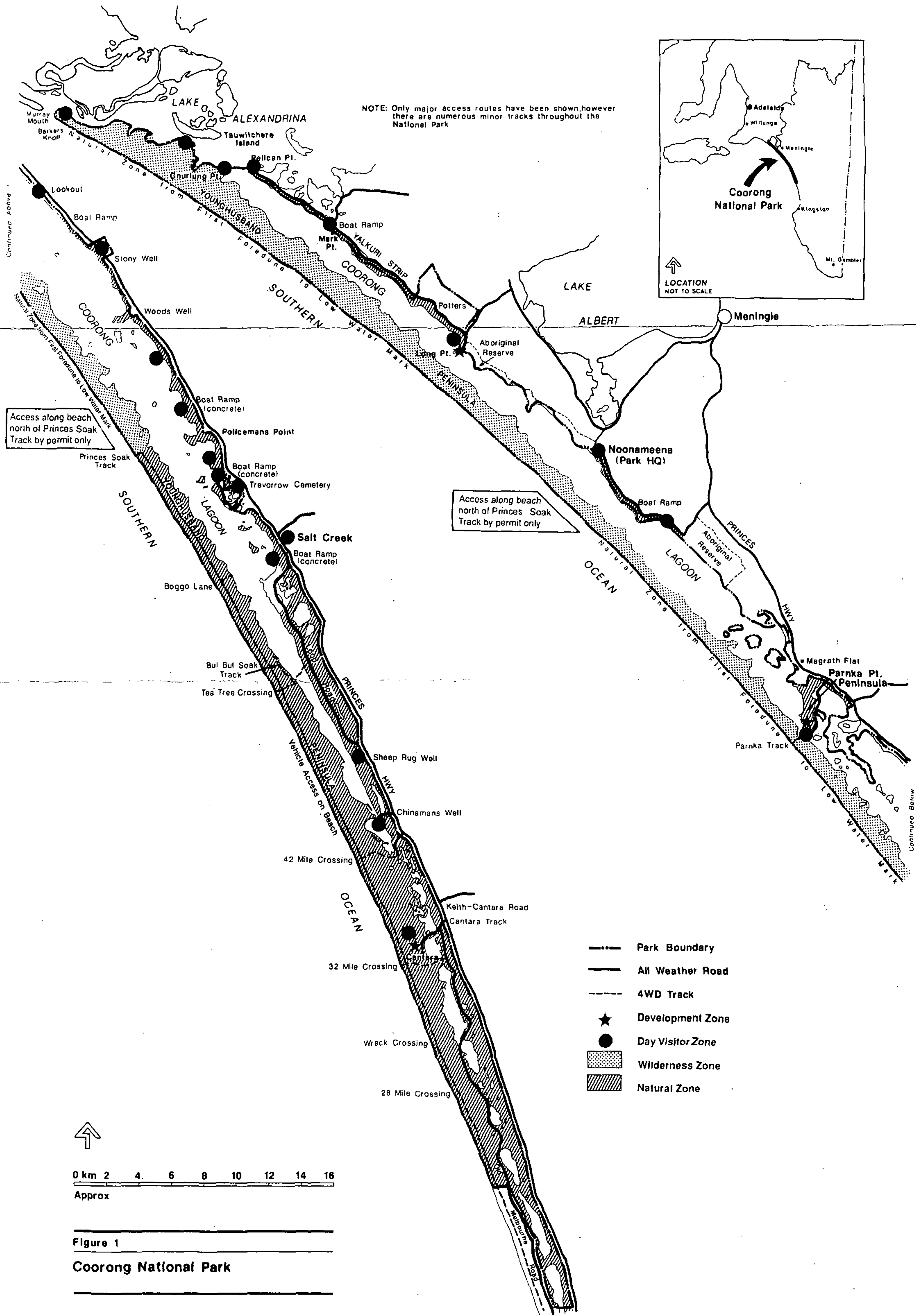
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Access along beach north of Princes Soak Track by permit only

Access along beach north of Princes Soak Track by permit only



NOTE: Only major access routes have been shown, however there are numerous minor tracks throughout the National Park



- * To encourage appropriate forms of recreation such as fishing, bushwalking, canoeing and sailing that will not impair the natural state of the area.
- * To allow for a broad range of visitor experiences.
- * To provide information about appropriate use of the area especially information about sensitive sites or habitats.
- * To provide for vehicular access along designated roads, tracks and routes including access along the ocean beach during periods when conflict with wildlife using the beach will be minimal.
- * To provide special protection to particular sites, areas and features in the zone.

Management Actions

1. This zone will comprise parts of the Coorong National Park including the whole of the former Game Reserve area and:
 - (a) The waters of the Coorong Lagoon
 - (b) National park areas on the northeast side of the Coorong Lagoon.
 - (c) The whole of the Coorong National Park south of Princes Soak Track.
 - (d) The following areas of the northern section of Youngusband Peninsula:
 - the northern end of Youngusband Peninsula (south of the Murray Mouth) including Barkers Knoll and Waterhole Point,
 - Panmuring Point
 - Gnurlung Point
 - the narrow section of ocean beach, (between low water mark and the first foredune) along the Youngusband Peninsula north of Princes Soak Track to Murray Mouth.
2. Informal vehicle based camping (including from boats) will be encouraged in most of the zone; however vehicles will be required to remain on designated tracks or within five metres of designated campsites.
3. Vehicle access along the ocean beach (between low-water-mark and the first foredune) will continue to be permitted, subject to certain conditions and restrictions:
 - * a permit will be required for vehicles to be driven north of the Princes Soak Track. Vehicles being used for professional fishing, park management or emergency purposes will be exempt from this permit requirement.
 - * between Tea Tree Crossing and Murray Mouth a non-vehicle access period will apply between 24 October and 24 December each year.

- * After a period of five years from the adoption of this plan, these arrangements will be reviewed.
While driving on the ocean beach visitors will be encouraged to keep within intertidal zone or drive along a single track when driving along the upper parts of the beach below the first foredune.
- 4. Vehicles will not be permitted to drive behind the foredune area except where tracks are designated in this plan, or in the situations where alternative tracks are designated in accordance with this plan. Campsites will be identified within or just behind the foredune area and visitors will be permitted to take their vehicles to these locations.
- 5. The Tea-tree Crossing Track will be marked by posts and will continue to provide vehicular access to the ocean beach when trafficable. Parts of this crossing are flooded during winter months and consequently, during these periods, prospective users will be encouraged to contact National Parks and Wildlife Service staff at Salt Creek or Meningie to determine the condition of the track before attempting to cross.
- 6. Subject to the availability of funds and a feasibility study, the existing 4WD track at Forty-Two Mile Crossing will be re-aligned and upgraded to allow access by conventional (2WD) vehicles to a car park immediately behind the fore-dune of the ocean beach on Younghusband Peninsula. The car park will be planned to discourage access onto the beach by 2WD vehicles.
- 7. A crossing of at least of 4WD standard will be maintained in the vicinity of the existing Thirty-Two Mile Crossing. Realignment and possible upgrading at this crossing via the Cantara Homestead will be considered in conjunction with any development proposal in the Cantara Development Zone (see 5.3.4).
- 8. The two southern-most crossings (Wreck Crossing and Twenty-Eight Mile Crossing) run almost parallel some 5.6 Kilometers apart. Both crossings are mainly used by recreational fishermen using 4WD vehicles to gain access to the beach or popular fishing locations. Both of the existing tracks have either erosion or access problems. The Wreck crossing is impassable during winter and the 28 Mile Crossing has an encroaching dune problem. Considering the fragile nature of the dune system it is appropriate under the objectives of this zone to close one of the crossings to motorized access. Various user groups are divided as to which track should be closed if any. This is due to a "traditional" fishing preference for particular sections of the beach. In view of the current situation both tracks will remain open until a single alternative track can be located within the area. The single track alternative should consider camping for visitors on the Coorong side and all weather access.
- 9. The Barkers Knoll Track at the northern end of Younghusband Peninsula will remain open to authorised users i.e. professional fisherman and permit holders.
- 10. All remaining vehicle access tracks across Younghusband Peninsula to the beach in this zone will be closed to vehicular traffic.

11. Subject to the availability of funds, major tourist routes and access roads to tourist facilities will be upgraded and maintained for all-weather 2WD access. Such roads include the 15 km section of the Old Melbourne Road south of Salt Creek known as "The Loop Road" and the Long Point Road. These roads will be surfaced with local rubble taken from borrow-pits outside Park boundaries. Co-operation and financial assistance will be sought from the Department of Tourism and from the District Councils of Meningie and Lacepede. The Loop Road will be sign posted to discourage "through" traffic.
12. The relevant District Councils will also be approached to upgrade and maintain roads under their control which travel into or through the Park. These include Noonameena Road (Coorong Road), Old Melbourne Road (South of Cantara) Mark Point to Pelican Point Road and Long Point Road.
13. Pending outcomes of investigations into alternative access routes and carparks, in the Boggo lane and Princes Soak areas, existing designated tracks will be maintained. The alternative routes should consider provision of safe access to a carpark on the Coorong lagoon with boat launching capabilities.
14. Vehicles will not be permitted on the Coorong "Lake-bed" or foreshore, other than across Tea-tree Crossing or the Bul Bul Soak Track. Access across the ephemeral lake beds will also be prohibited as these areas are of special significance.
15. Recreation activities will be encouraged in this zone subject to relevant regulations and to the objectives of this zone.

Recognized and accepted activities include:

- bushwalking, canoeing, sailing, orienteering camping (vehicle, boat or foot based),
- nature Walks - including extended walking trails,
- fishing (ocean rod fishing and lagoon net fishing),
- nature study (flora, fauna and geological study).

16. While the development of facilities in this zone will depend on the extent of use and location, they will be limited to basic facilities in keeping with the natural and informal nature of the zone. Such facilities may include: track markers (vehicle and walking), pit toilets, picnic tables at formal campsites, water supplies at large formal camp areas (e.g. Tea-tree Crossing, 42 Mile, Margit Wreck, Parnka Point, Long Point), fireplaces in formal camp sites, information shelters and signs, direction signs and campsite identification signs.
17. Information and interpretation programmes (see section 5.2) will be directed towards advising on appropriate use of the zone, identification of significant natural features, and importance of locally significant flora, fauna and cultural features.
18. Information signs and self-guided walks/drives will be centred around areas of major activity. Such areas may include: Tea-tree Crossing, 42 Mile Crossing, 32 Mile Crossing, Margit Wreck Crossing, Old Melbourne Road (south of Cantara to the southern park

boundary), the area known as Dunns crossing (trappers camp), the Loop road from Salt Creek to Sheep Rug Well, Parnka Point, Camp Coorong to Noonemeena, Long Point, Mark Point, Pelican Point, Gnurlung Point, Panmuring Point, the Northern tip of the Younghusband Peninsula and Barkers Knoll.

19. Use of generators by visitors will be confined to specific sections within some major designated camping areas and along the ocean beach strip between low water mark and the front of the first fore-dune. This includes those campsites designated within the fore-dune area.
20. Wood fires will be permitted within the zone (subject to any Country Fire Service or National Parks and Wildlife Service seasonal bans); however because wood is a scarce resource in the reserves visitors will be required to bring their own wood from areas outside of the reserves.
21. Visitors will be expected to remove all personal litter and rubbish from the park. In addition to being unsightly, litter and rubbish encourage pest animals such as foxes and cats. These animals directly affect the breeding success of native animals such as hooded plovers.
22. Horse riding will be permitted along those roads and tracks that are open to vehicular access. Groups undertaking horse riding activities along these tracks will require permission to camp with their horses in the park. Special conditions with regard to the feeding, corralling and cleaning of horses will need to be applied. There is a need to prevent browsing by horses and the introduction of pest plants through their manure.
23. Modern hovercraft are highly mobile vehicles which are less limited by the physical attributes of the Coorong than are most other vehicles. Indiscriminate use of these craft could have a major effect on the extensive and shallow mud flat areas which are prime habitat for migratory waders. The use of hovercraft within this or any other zone in the reserve will therefore not be permitted other than for emergencies, management purposes or by special arrangement.
24. Boat ramps will be provided within the zone to allow for access by amateur and professional fishermen, and hunters accessing hunting locations. The location of boat ramps which are to be developed and promoted for general visitor use are identified in Figure 1. Other boat ramps will be available for emergency use and for use by authorised professional fishermen. These are listed as:

* Lesters	* Cliff-Eight mile
* Fridge	* Blacks Shack
* Applekamps	* Gibbs
* Gillespies	* Eraides
* Richards(22 mile)	* Stony Well
* Obornes	* Woods Well Point
* Jacks Flat	* Chimney
25. Permanent boat mooring facilities will not be permitted however temporary mooring facilities may be permitted subject to the Harbors

Act and authorization from the Director of National Parks and Wildlife Service. The temporary mooring of house boats will be permitted in the waters of the Coorong National Park in accordance with the above camping regulations.

26. The addition of the ocean beach Crown lands to the park will be determined by the Minister(s) responsible for Lands and Environment and Planning.
27. A proclamation will be issued to allow dogs to travel through the park to, and along, the ocean beach, subject to them being under appropriate control.
28. The Service may designate new tracks in response to seasonal conditions and to improve access for visitors within the zone. Alternatively, tracks may be closed to prevent environmental degradation.

5.3.3 Day Visitor Zone

Day visitors to the park include local people, passing tourists, educational groups and campers. They visit the Coorong throughout the year. Day visitor areas are generally accessible to motorized vehicles, have a higher level of facilities in comparison to other areas of the reserve and are usually found at major natural or cultural features or near to access corridors. The national and international significance of the Coorong as a conservation area requires that the provision of recreation opportunities within the two reserves be consistent with the protection of wildlife and cultural features and the continuation of geomorphological processes.

Management Objectives

- * To provide detailed information and interpretation programmes on sites of natural and cultural significance.
- * To ensure that recreation opportunities provided are consistent with the protection of natural and cultural features and processes.
- * To compliment recreation opportunities provided elsewhere in the region.
- * To provide facilities appropriate to the level and type of recreation use of the area.
- * To provide recreation opportunities for aged and disabled visitors.

Management Actions

1. Information shelters and signs consistent with the natural and/or cultural significance of the area will be provided.
2. The Murray Mouth and Panmuring Point will be accessed principally by boat. Motor car access will be provided to all other dayvisitor areas. Wherever possible such access will be of a standard suitable for two wheel drive vehicles.

3. Depending on location and visitor numbers some or all of the following low key facilities may be provided at day visitor areas: toilets, picnic tables and chairs, fireplaces (where camping is permitted), gas barbecues, shelters, car parks, nature trails (guided or self-guided), bird hides, boat ramps.
4. Such facilities may be provided at the following specific locations:
 - entrances at both ends of the Coorong National Park.
 - entrances to designated access tracks within the park.
 - Margit Wreck.
 - Cantara Homestead.
 - 42 Mile Crossing
 - Chinaman Well
 - Sheep Rug Well
 - Tea-tree Crossing
 - Salt Creek and surrounding areas.
 - Bul Bul Soak
 - Sandspit Crossing
 - Trevorrow Cemetery
 - Jacks Point
 - Stony Well
 - Highways Department Lookout (near Braeside)
 - Parnka Point
 - Noonameena
 - Long Point
 - Mark Point
 - Mark Point Well
 - Pelican Point
 - near the Murray Mouth
 - Panmurung Point
 - Boat ramps as shown in Figure 1.

5. Facilities for overnight campers may be provided at Margit Wreck, 42 Mile Crossing Tea-tree Crossing, Parnka Point, Long Point, Mark Point, Pelican Point, Barkers Knoll area, near the Murray Mouth. Camping will not be permitted in other day visitor areas.

5.3.4 Development Zone

As indicated in the introduction to this section the Coorong National Park has potential for increased recreation and tourist use. The reserves are close to Adelaide and to new tourist and recreation destinations at Goolwa and Hindmarsh Island. The potential for increased visitation lies in the rapid growth of tourism and in particular the increasing focus on natural areas and the demand for visitors to "experience" rather than simply "see" such areas.

Natural beauty, wildlife and remote area experiences are the very essence of the Coorong which consequently is expected to become increasingly popular for visitors to the area.

As visitor numbers increase it is important that proper management arrangements be in place to minimise the impact of visitors on the park and to ensure a proper standard of facility is available to enable the visitor to enjoy and understand the park.

Visitors facilities can be in the form of accommodation, day use facilities, or education and interpretation facilities or combinations of these elements.

Management Objectives

- * To extend the range of public use and enjoyment opportunities available to visitors.
- * To provide foci for park visitation as a means of reducing visitor impact.
- * To provide foci for park interpretation and education programmes.
- * To provide a mechanism to support natural resource management programmes.
- * To ensure that visitor developments in the region harmonise with the natural landscape of the reserves and consider environmental impacts.

Management Actions

1. Assess need for and nature of any facilities by studies which will include examination of:
 - (a) environmental values (biological, physical and cultural)

- (b) visitor needs
 - (c) marketing issues
 - (d) regional planning issues
 - (e) infrastructure needs (access, water, sewerage, power and energy)
2. Define for possible future use as Development Zones those areas surrounding Cantara Homestead, Parnka Point Peninsular and Long Point.
 3. Prior to any proposals being considered for Parnka Point, a detailed study will be undertaken into the use of the immediate area by any "vulnerable" or "rare" species. The study will include an assessment of the use of the area by the orange bellied parrot
 4. Undertake detailed studies outlining the extent of facilities, environmental guidelines and management arrangements envisaged for each location.
 5. While precise details on the nature of each development need to be assessed separately and is dependant on the characteristics of each site, it is envisaged that the following may be provided:
 - (a) low key accommodation, including cabin or bunkhouse style facilities.
 - (b) formal camping areas including services for caravans and car based camping. The level of site development may include electrical and water services to sites.
 - (c) information facilities including nature walks and information shelters.
 - (d) picnic shelters and tables.
 - (e) associated visitor services such as small boat hire and guided tours.
 - (f) toilets and ablution facilities.
 - (g) provision of roads and car parks within the zone.
 - (h) resource centres including; meeting areas, laboratory facilities [for natural history study), mess room etc.
 - (i) housing for caretaker staff.
 5. Determine the most suitable implementation strategy being either Service managed developments or through leases or licenses granted under Section 35 of the National Parks and Wildlife Act, 19726.

6. Assess the environmental impact of any development proposal and ensure it's acceptability before proceeding with any strategy.
7. Pending preparation of the studies and assessment of proposals, the three sections of this zone will be managed as if they were day visitor areas (Cantara and Long Point) or Natural Zone (Parnka Point) - see section 5.3.2 above.

5.4 Administration

Administratively the Coorong National Park is part of the Mallee Region in the Central Region of the National Parks and Wildlife Service. The Region has within it 22 separate reserves and also has responsibility for off-park wildlife management. The Region is bounded by Kingston SE and Bordertown in the south and extends to Mannum and Meribah in the north. In addition to it's own rangers, park assistant and clerk, the District is supported by specialist staff based at Murray Bridge and scientific and other support staff in Adelaide.

The linear nature of the park and the physical barrier provided by the Coorong Lagoon make day today management of the area difficult. Ideally, staff and administrative infrastructure should be located at or near centres of visitor activity. Field staff are presently located at Noonameena (12 km west of Meningie) and at Salt Creek (60 km south of Meningie). While Salt Creek is a reasonably central location for management of the Coorong National Park it makes the remotemanagement of the large Mallee parks in the central portion of the district difficult. Noonameena is remote from major visitor access corridors.

Ideally staff numbers should reflect the requirement both to ensure adequate levels of protection of natural values and to provide for visitor needs. This is not being achieved with current resources and more effective strategies need to be developed. The involvement of volunteers can complement permanent staff as can appropriate use of leases and concession arrangements.

The present staff complement includes representatives of the traditional owners of the Coorong, the Ngarrindjeri.

Management Objectives

- * To ensure that an administrative structure exists which can cope with ongoing management of the park and any additional demands made by this plan.
- * To ensure that staff are trained and competent in their fields of management.
- * To provide adequate and suitably located administrative facilities to support park objectives
- * To ensure that the staff complement includes representatives of the traditional owners of the Coorong i.e. Ngarrindjeri or their descendants.

Management Actions

1. Maintain the existing Salt Creek office as a key day visitor location.
2. Upgrade and maintain the existing workshop facilities of Salt Creek and Noonameena.
3. Relocate the existing Noonameena office to the township of Meningie and, as resources become available, upgrade this location so that it becomes the park headquarters. This relocation will place the office on a prime visitor route and will allow visitors improved access to information.
4. Subject to interest by a suitable organization, lease the existing Noonameena office a resource centre.
5. Liaise with the Ngarrindjeri community to promote greater Aboriginal involvement in reserve management programmes.
6. Encourage liaison between the National Parks and Wildlife Service staff and user organizations such as the recreational vehicle clubs, field naturalist groups, Murray Valley League and professional fishermen to ensure informed decision making.
7. Encourage volunteers to become involved with park projects through such organizations as Friends of the Coorong.
8. Provide training to staff, contract employees and volunteers to ensure competent and safework practices.
9. Conduct regular patrols to provide information, monitor changes and enforce provisions of the National Parks and Wildlife Act and Regulations.
10. Initiate alternative administrative arrangements for the funding of the reserves.
11. Utilise the General Reserves Trust provisions of the National Parks and Wildlife Act to raise revenue by activities including the sale of information and promotional materials, the conduct of guided tours, sponsorship, and the charging of concessionaire fees.

5.5 Research and Monitoring

The Coorong is an area of world wide biological significance. It contains representative samples of coastal and salt influenced terrestrial habitats as well as an unusual set of aquatic habitats.

A function of research is to develop greater understanding of natural systems, their use and effective management. The National Parks and Wildlife Service reserve system provides an important resource for research into natural systems. Results of such research can have implications not only for park management but also for broader social and economic activities.

An important factor in research, especially pure scientific research is the potential for conflict with other park uses. Furthermore, uninformed park managers may unknowingly alter the results of an experiment. Strategies therefore need to be developed which minimise interaction between research and other uses to ensure that research projects do not diminish the quality of natural values or conflict with management programmes.

With an estimated 200,000 visitor days per annum in the Coorong it may be expected that there would be significant impact on natural values. Such impact requires careful monitoring to provide information for future management strategies.

Management Objectives

- * To encourage and where appropriate support research and monitoring of the physical, biological and cultural features of the Coorong National Park including its use by visitors.
- * To minimise disturbances to visitors and to the natural values of the park from scientific programmes.
- * To monitor changes to the park resulting from visitor use.
- * To monitor changes to flora, fauna, water and landform resulting from natural processes, the effects of introduced species and changes in surrounding land-uses.

Management Actions

1. Individual projects requiring further research are identified in preceding sections of this plan. Of particular significance is research into:
 - (a) understanding of the hydrology of the Coorong Lagoon and ephemeral lakes
 - (b) endangered and vulnerable species or species of local significance
 - (c) alternative methods of pest plant and animal control especially pest species such as African boxthorn or bridal creeper which directly affect park values.
2. The National Parks and Wildlife Service will encourage and facilitate such research in the Coorong National Park.
3. A methodology will be developed and implemented to monitor visitor use and impact.
4. Detailed and accurate monitoring programmes will be promoted, especially of:
 - (a) waterfowl numbers, movements and breeding patterns
 - (b) breeding success, behaviour and numbers of other species significant to the State and the Coorong such as the hooded plover and orange-bellied parrot.

- (c) changes in the natural system such as sand-dune stability, water levels and water quality.
5. The National Parks and Wildlife Service will liaise directly with other organizations, groups and individuals undertaking research to ensure that there is minimal conflict between researchers and other park uses.
 6. Comprehensive records of research and monitoring programmes will be maintained.
 7. Further research into the effects of, and inter-relationships between drainage schemes in the South East, water flows from the Murray River and water quality of the Coorong will be undertaken in conjunction with other relevant authorities.

5.6 Concessions Management

The Coorong is a park of international significance close to Adelaide which is subject to considerable visitor use pressure.

To ensure the increasing levels of visitor use do not degrade the park environment it is essential that appropriate management arrangements are established to provide visitor facilities and services in a way that both protects the park and makes the park available to the public.

The strategy adopted to provide the facilities and services depends on the nature of those products and the site. The products can be provided by normal Government resource allocations or as leases or licenses granted under Section 35 of the National Parks and Wildlife Act. The latter strategy (concessions) can be a useful management tool to achieve management objectives.

Management Objectives

- * To supplement and complement the resources and skills of the National Parks and Wildlife Service through selective participation of lease or licence activities which are consistent with other park management objectives.
- * To provide as wide as possible a variety of appropriate recreation opportunities for visitors.

Management Actions

1. Review existing licenses for alien land uses to ensure their consistency with this plan of management.
2. Consider any strategy for concession arrangements within the guidelines of this plan of management, the National Parks and Wildlife Act, 1972 and the National Park and Wildlife Service Policies document. In particular any concession will be expected to comply with the following guidelines:
 - (a) the concession must be consistent with the preservation of

park values.

- (b) the use of the facility or service provided should enhance the appropriate use and enjoyment of the reserve or otherwise contribute to objectives of this plan.
- (c) any major structural development will require a detailed environmental impact assessment.
- (d) no major structural developments will be permitted other than in the Development Zone identified in this plan.
- (e) any structural development provided by a concessionaire will be at his/her expense and will be located and will provide services in such a manner as to minimise harm to the natural environment and to preserve aesthetic values.
- (f) concession rights will be conditional, and the operation of the concession will be monitored. Failure to operate appropriately will render the concessionaire liable for financial penalty or cancellation of rights.
- (g) advertising or promotion of a concession will be required to be in harmony with the values of the Coorong and will only be undertaken with the approval of the District Ranger.
- (h) concessionaires will be required to hold relevant industry qualifications and may be required to participate in training programmes conducted by the Service.

6. PLAN IMPLEMENTATION AND PRIORITIES

This section provides a summary of the key management proposals outlined in the plan and gives an indication of the priority and duration of each proposal.

Once this plan is approved by the Minister under Section 40 (1) of the National Parks and Wildlife Act, 1972 no operations can be undertaken within Coorong National Park except in accordance with this plan. However, if after adequate investigation, operations not included in the plan are found to be justified, this plan may be amended in accordance with Sections 38 (2) and 38 (3) of the Act.

Action	Priority	Duration
<u>Management of Land Formations - Plan Ref. 5.1.1.</u>		
* Prohibit use of vehicles in sensitive areas.	high	ongoing
* Undertake erosion and rehabilitation reserves	high	ongoing
* Provide information on geographical features and geology	moderate	short
<u>Water Management - Plan Ref. 5.1.2.</u>		
* Encourage research into lagoon ecology and factors affecting water quality and quantity	high	ongoing
* Continue liaison with other managing authorities	high	ongoing
* Investigate any concrete proposal for increasing freshwater inputs into the Coorong Lagoon	high	ongoing
<u>Vegetation Management - Plan Ref. 5.1.3.</u>		
* Encourage research into aquatic flora and it's role in the Coorong ecosystem	high	long
* Continue Pest Plant control programmes	high	ongoing
* Initiate rehabilitation programmes:-		
(a) pest plant affected areas	high	ongoing
(b) around visitor areas	high	long

Fauna Management - Plan Ref. 5.1.4.

- | | | | |
|---|---|----------|---------|
| * | Encourage research into endangered, vulnerable and locally significant species. | high | long |
| * | Undertake pest animal control programmes | high | ongoing |
| * | Provide information on locally significant animals | moderate | short |

Cultural Resource Management - Plan Ref. 5.1.5

- | | | | |
|---|--|----------|---------|
| * | Maintain close liaison with Ngarrindjeri Community on site management. | high | ongoing |
| * | Undertake protective works on sites. | high | ongoing |
| * | Assess specified European sites for listing on the Heritage Register. | moderate | short |
| * | Issue new leases for shacks | moderate | short |

Fire Management - Plan Ref. 5.1.6

- | | | | |
|---|--|----------|---------|
| * | Prepare Fire Management Plan | high | short |
| * | Limit the use of major plant in fire control | moderate | ongoing |
| * | Reduce fuels in modified grassland areas. | moderate | long |
| * | Regulate the use of wood for camp fires. | high | short |

Information and Interpretation - Plan Ref. 5.2

- | | | | |
|---|--|----------|---------|
| * | Develop and implement an interpretation and information programme. | high | long |
| | | high | short |
| * | Establish Salt Creek and Meningie offices as information outlets. | high | short |
| * | Establish Noonameena as an resource centre | moderate | short |
| * | Liaise with individuals and groups involved with tourism to develop a regional approach to visitor services. | high | ongoing |

Visitor Management - Plan Ref. 5.3

- | | | | |
|---|---|------|---------|
| * | Prepare and implement a development plan for provision of park facilities | high | short |
| * | Encourage low impact, recreation use. | high | ongoing |
| * | Encourage registration of use to monitor levels and impact of use. | high | ongoing |
| * | Prohibit mechanised vehicle use | high | ongoing |
| * | Encourage use of portable gas fires for cooking. | high | ongoing |

Natural Zone - Plan Ref. 5.3.2

- | | | | |
|---|--|----------|---------|
| * | Establish permit system for beach vehicle access north of Princes Soak Track | high | short |
| * | Issue proclamation to allow dogs on ocean beach | high | short |
| * | Establish consultation on beach access | high | 5 years |
| * | Upgrade 42 Mile Crossing for 2 WD vehicles | moderate | short |
| * | Investigate alternative access and car parks at Boggo Lane and Princes Soak | high | short |
| * | Close 28 Mile Crossing to vehicular access | high | short |
| * | Develop low key facilities picnic tables. etc. | high | long |
| * | Provide information signs and self guided walks/drives | moderate | long |
| * | Restrict use of generators to defined areas | high | ongoing |
| * | Ban use of hovercraft by private individuals | high | ongoing |

Day Visitor Areas - Plan Ref. 5.3.3.

- | | | | |
|---|--|------|------|
| * | Provide 2WD vehicle access where ever possible | high | long |
|---|--|------|------|

* Provide facilities
e.g. shelters, bird-hides
guided walks moderate long

* Provide information and
interpretation high ongoing

Development Zone - Plan Ref. 5.3.4

* Assess need for and nature of
facilities moderate short

ö
* Undertake detailed studies
outlining the extent of
facilities. moderate short

* Assess and monitor impact
of any development high ongoing

Park Administration - Plan Ref. 5.4

* Relocate Noonameena Office
to Meningie high short

* Relocate Noonameena Office
to Meningie high short

* Upgrade and maintain workshops
at Salt Creek and Noonameena. moderate long

* Liaise with Ngarrindjeri
community to promote involve-
ment in park management
programmes. high ongoing

* Encourage participation by
volunteer groups and user
groups in park projects. moderate ongoing

* Ensure that staff complement
includes individuals from the
Ngarrindjeri community high ongoing

* Ensure safe working conditions
and practices are adhered high ongoing

* Provide training for staff
and volunteers high ongoing

Research and Monitoring - Plan Ref. 5.5

* Encourage appropriate research
programmes moderate ongoing

* Monitor visitor use and impact high ongoing

- | | | | |
|---|---|------|---------|
| * | Monitor wildlife numbers, movements and breeding | high | ongoing |
| * | Encourage research into the interrelationships between hydrological systems in the Coorong, the Murray River and the upper south-east | high | long |

Concession Management - Plan Ref. 5.6

- | | | | |
|---|--|------|---------|
| * | Review existing and proposed licenses for alien uses | high | ongoing |
| * | Consider and determine concession applications | high | ongoing |
| * | Utilise revenue raised from concession arrangements to assist land and wildlife management programmes. | high | ongoing |

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