

Department for Environment and Heritage

Management Plan



Lincoln National Park

Incorporating Lincoln Conservation Reserve

2004



Government
of South Australia

Our Parks, Our Heritage, Our Legacy

Cultural richness and diversity are the hallmarks of a great society. It is these qualities that are basic to our humanity. They are the foundation of our value systems and drive our quest for purpose and contentment.

Cultural richness embodies morality, spiritual well-being, the rule of law, reverence for life, human achievement, creativity and talent, options for choice, a sense of belonging, personal worth and an acceptance of responsibility for the future.

Biological richness and diversity are, in turn, important to cultural richness and communities of people. When a community ceases to value and protect its natural landscapes, it erodes the richness and wholeness of its cultural foundation.

In South Australia, we are privileged to have a network of parks, reserves and protected areas that continue to serve as benchmarks against which we can measure progress and change brought about by our society. They are storehouses of nature's rich diversity, standing as precious biological and cultural treasures. It is important to realise that survival of species in 'island' reserves surrounded by agriculture or urban areas is uncertain, and that habitat links between reserves are essential for their long-term value as storehouses.

As a result of more than a century of conserving nature and cultural items, we possess a "legacy" which is worth passing on to future generations.

There are twelve essentials for the protection of our park environments:

- Recognition that a primary purpose of our national parks system is to conserve the wide diversity of South Australia's native plants and animals and to improve their chances of survival through active wildlife management.
- Recognition that all our parks also protect cultural legacy of relevance to both Indigenous and Non-indigenous people, and that Indigenous people have had cultural association with this land over many thousands of years.
- Freedom to improve our legacy by making additions to the park system -- enhancing existing protected areas and including landscapes and environments containing native plant and animal communities not already protected.
- Realisation that the continuance of our native species cannot be dependent upon island reserves alone but should be provided for in a regional landscape with linkages between natural areas to enhance the prospect of long-term survival.
- Recognition that there is potential for new and useful substances or genetic material to be found in native plant and animals.
- Recognition of economic and social benefits for local communities, which arise from the presence of national parks in their region and the consequent opportunities to offer service for visitors.
- Development of close relationships with the community, so that there is an understanding of the role of parks in conserving native wildlife, cultural items and in providing recreational opportunities.
- Promotion of community participation in making decisions on the management of parks, so that a sense of community ownership of the reserve system may be fostered, and so that parks and surrounding landscapes are managed in harmony.
- Appreciation that those qualities presented to visitors for their use and enjoyment in parks, should be the diversity of plants, animals and landscapes for which the parks were set aside.
- Understanding that development in a park should proceed where it:
 - contributes to the conservation of the environment;
 - provides for better appreciation of the need to conserve the diversity of plants and animals;
 - protects wildlife habitats and landscape (especially vulnerable and threatened species or communities); and
 - is necessary for management of the park.
- Reassurance, in support of our cultural character, that natural areas can survive even though those who care deeply for their survival may never visit them.

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Management Plan

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Incorporating Lincoln Conservation Reserve
2004

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



Government of South Australia

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FOREWORD

Lincoln National Park is one of the state's oldest reserves, 15,830 hectares having first been declared a Flora and Fauna Reserve in 1941. The reserve was re-proclaimed as a national park under the *National Parks and Wildlife Act* in 1972. Since then, adjacent land has been added so that, along with Memory Cove Wilderness Protection Area, approximately 31,531 hectares are now conserved.

Lincoln National Park is situated on the southeastern tip of Eyre Peninsula, includes several offshore islands and conserves some of the most scenic coastal and near-coastal land in Australia. Although partially exploited for firewood, pasture and agriculture in the early days of colonial settlement, the long years of reservation have brought about widespread regeneration of the native vegetation, so that today, the park has been recognised as possessing rare wilderness values.

The qualities of this relatively untracked coastal wilderness were recognised by the Wilderness Advisory Committee in a 1997 report that recommended the reservation of the Memory Cove area as a wilderness protection area under the *Wilderness Protection Act 1992*. This report was published concurrently with the draft management plan for Lincoln National Park in 1999, seeking public comment on a proposal to proclaim Memory Cove Wilderness Protection Area.

Subsequently, Memory Cove Wilderness Protection Area will be proclaimed as a reserve under the *Wilderness Protection Act*, and therefore no longer falls under the provisions of this plan of management. However, a new plan of management will be prepared for the wilderness protection area under section 31 of that Act as soon as practical after dedication of the reserve.

The plan for the remainder of Lincoln National Park, including nearby Lincoln Conservation Reserve, identifies significant physical, biological and recreational values and the management prescriptions attempt to balance the protection of natural and cultural resources with appropriate recreational use and enjoyment. Direction is provided with regard to vehicle and boat access, development of camping areas, day visit sites and walking trails, providing for a wide range of visitor activities within the park. The plan also recognises the significant role of volunteer and community groups participating in park maintenance and management activities. Such assistance is of great benefit to DEH in helping to achieve management goals.

This plan is now formally adopted under the provisions of section 38 of the *National Parks and Wildlife Act, 1972*.



JOHN HILL
MINISTER FOR ENVIRONMENT AND CONSERVATION



SYNOPSIS

Lincoln National Park has a significant profile in the local and broader South Australian community. It conserves magnificent coastal scenery of the Lower Eyre Peninsula; protects an area of wilderness of which there are few others in South Australia and no others on the Eyre Peninsula (Lesslie, 1981) and is rare in the whole of Australia; conserves a large tract of land capable of maintaining ecosystems that preserve populations of significant flora and fauna such as the Bush Stone-curlew (*Burhinus magnirostris*) and Rare Candles (*Stackhousia annua*); and presents a range of recreational opportunities for visitors.

Since the installation of a locked gate on Memory Cove Road in 1992, the Memory Cove region of the park was managed to conserve the wilderness values of the area. It was proposed in the draft version of this plan to formalise wilderness management by excising the area, in addition to several offshore islands, from Lincoln National Park and proclaiming them as a new reserve (Memory Cove Wilderness Protection Area) under the *Wilderness Protection Act 1992*. As soon as practical after this occurs, the wilderness protection area will receive a new plan of management under the provisions of the *Wilderness Protection Act*. Current access and visitor facilities will be maintained, but no new developments are planned for this area.

To conserve the landscape, biodiversity and recreational values of the park, the management of Lincoln National Park will be directed towards:

- maintaining and enhancing biological diversity by recognising and removing threats, restoring habitats and reintroducing locally extinct species where feasible, as part of an integrated regional program known as "Ark on Eyre";
- enhancing visitor experience by the provision of appropriate infrastructure and developing the park in a way that protects and showcases its natural values, in accordance with the recently developed *Parks on Eyre: Lincoln and Coffin Bay National Parks Landscape and Facility Plan* (DEH 2002);
- developing and maintaining partnerships with community and tourism industry groups; and
- protecting the wilderness values of the Memory Cove Wilderness Protection Area.

This management plan identifies the significant physical, biological and recreational values of Lincoln National Park. The management prescription attempts to balance the protection of natural and cultural resources with the recreational use and enjoyment of the park. Protection of key flora and fauna along with continued pest plant and animal control are recognised as fundamental management activities. Cultural resource issues are addressed, with particular reference to the current native title claims over much of Eyre Peninsula.

Recreational issues including vehicle access, camping and day visit areas, walking trails and boat access are considered, providing for a wide range of visitor activities within the parks. Appropriate commercial activities that comply with the provisions of the *National Parks and Wildlife Act 1972* are also discussed.

The western portion of the park also contains important groundwater resources, which provide approximately 10% of Port Lincoln's water supply. These resources are managed under an ongoing agreement with SA Water.

The plan recognises the significant role of volunteer and community groups participating in park maintenance and management activities. Such assistance is of great benefit to DEH in helping to achieve management goals.

The plan concludes with a summary of management actions and ascribes the priority and proposed duration of each.

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ABBREVIATIONS AND GLOSSARY OF TERMS

4WD	Four wheel drive vehicle
AMSA	Australian Maritime Safety Authority
CP	Conservation Park (gazetted under <i>National Parks and Wildlife Act 1972</i>)
CR	Conservation Reserve (gazetted under <i>Crown Lands Act 1929</i>)
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEH	The Department for Environment and Heritage
DEHAA	The (former) Department for Environment, Heritage and Aboriginal Affairs
DENR	The (former) Department of Environment and Natural Resources
DAARE	The Department of Aboriginal Affairs and Reconciliation
DWLBC	The Department of Water, Land and Biodiversity Conservation
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cwth)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	The International Union for Conservation of Nature and Natural Resources (The World Conservation Union)
LEPWATAC	Lower Eyre Peninsula Walking Trail Advisory Committee
NP	National Park (gazetted under <i>National Parks and Wildlife Act 1972</i>)
PAMS	Protected Area Management System (a computer database)
PIRSA	Primary Industries and Resources, South Australia

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1 INTRODUCTION

This document is the adopted management plan for Lincoln National Park. It combines the management plans for Lincoln National Park and Lincoln Conservation Reserve, which, unless otherwise specified, are referred to together as "the park" or "the reserve". The reserves have been considered together as they are located in the same geographic area and are used and supported by the local community. The park is located on southern Eyre Peninsula, which falls within the West Region of the Department for Environment and Heritage. The plan outlines proposals to effectively conserve the natural and cultural values of the parks, while providing for public use and enjoyment.

This management plan has been prepared and adopted in accordance with the *National Parks and Wildlife Act 1972*. Section 38 of the Act states that a management plan is required for each reserve. A management plan sets forth proposals in relation to the management and improvement of the reserve and the methods by which it is intended to accomplish the objectives of the Act in relation to that reserve.

Having formal community input into public land management is a requirement of the legislation and supported by park managers. The draft plan for Lincoln National Park was released for public exhibition in June 1999. At the close of the comment period, 19 submissions had been received. Issues raised in submissions included general support for the dedication of Memory Cove Wilderness Protection Area under the *Wilderness Protection Act 1992*, recommendations for increasing vehicle access to fishing sites and upgrading visitor facilities. All these concerns were considered by the Eyre Consultative Committee before comments of the SA National Parks and Wildlife Council were sought. A number of alterations have been incorporated as a result of the community consultation process.

Notice of official adoption of the plan was published in the *Government Gazette* and copies of the final plan are available for sale. Copies may also be viewed on the departmental website at: http://www.environment.sa.gov.au/parks/management_plans.html

Once a plan of management is adopted, its provisions must be carried out in relation to the reserve in question and no actions undertaken unless they are in accordance with the plan. However, the Act makes provision for amending adopted plans, and this process is similar to the one described above.

1.1 Park Description

Lincoln National Park is located on the southeastern tip of the Eyre Peninsula, approximately 15km southeast of Port Lincoln. The western boundary of the national park is marked by Sleaford Mere Conservation Park, which comprises the water body of Sleaford Mere. Lincoln Conservation Reserve is a *Crown Lands Act* reserve located immediately west of Sleaford Mere.

The southern coastline of the park is characterised by sandy surf beaches pounded by the Southern Ocean. Rugged headlands and steep cliffs dominate the southeastern coastline from Wanna to Cape Catastrophe and a large and spectacular unconsolidated dune field stretches from Sleaford Mere to Wanna. The eastern section of the park contains a series of low granite hills and outcrops, from Stamford Hill in the north to West Point in the south.

The waters of Thorny Passage provide some respite from wind and waves, with rocky shore platforms interspersed with narrow inlets and beaches. The northern coastline of Lincoln National Park fronts the calmer waterways of Boston Bay and Proper Bay and is typified by sheltered bays, sandy beaches and low rock platforms.

The park is accessible via the Sleaford Mere Road, with conventional vehicle access through the main entrance near Tulka. The park caters for conventional and four-wheel drive vehicles.

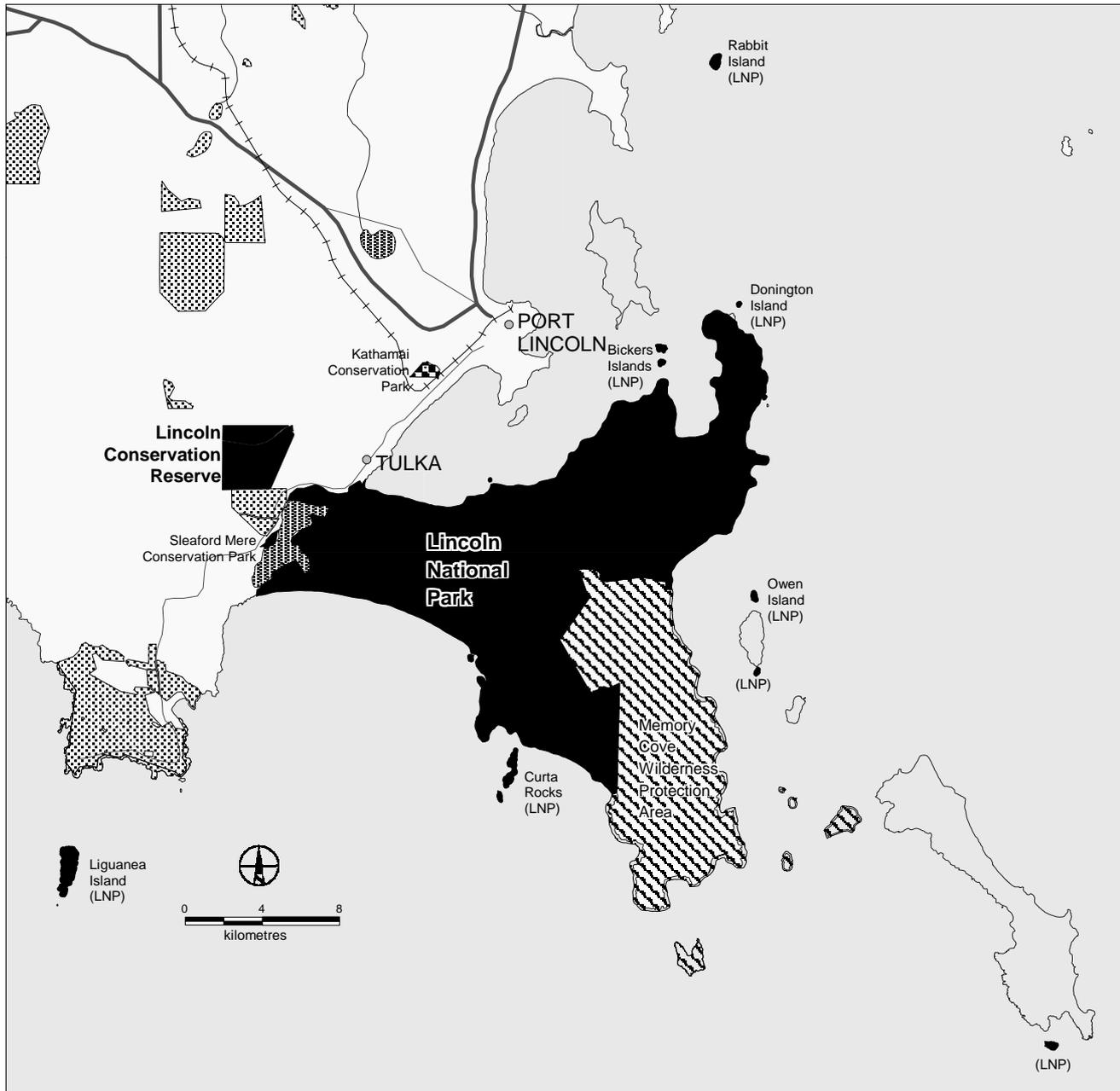


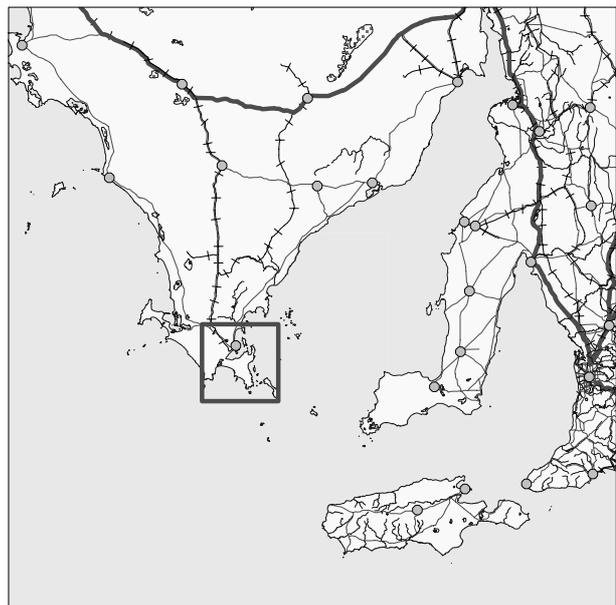
Figure 1

Lincoln National Park

Location

-  Park covered by plan
 -  Wilderness Protection Area
 -  Heritage Agreement
 -  Drainage
- LNP = Lincoln National Park

Map Produced from PAMS
 Projection: MGA Zone 53 (GDA 94)
 Date: 30 June, 2004



1.1.1 Climate

The climate of southern Eyre Peninsula is of the Mediterranean type. Changes of weather are associated with frontal systems which approach from the south-west. These frontal systems are most active in winter and spring bringing fairly reliable and frequent light to moderate rainfall in these seasons. The coastline of the peninsula facing the Southern Ocean is often exposed to gale force winds during the winter months, whereas the northern coast facing Proper Bay is more sheltered from the effects of these extreme conditions.

Mean daily maximum temperatures range from 25.4°C in January to 16.1°C in July. Mean daily minimum temperatures range from 15.6°C in January to 8.4°C in July.

Annual rainfall at Port Lincoln averages 491 mm. Most rain falls in the winter months, and is associated with southwesterly frontal systems. Rainfall records for June, July and August show mean monthly gaugings of 74, 80 and 69 mm respectively. There is an average of 124 rain days per year.

1.2 Regional Setting

Department for Environment and Heritage

Lincoln National Park is in the West Region of the Department for Environment and Heritage and one of 56 parks (328,904 ha) in the Eyre District, with staff based at the district headquarters in Port Lincoln.

The park is managed by 8 operational staff, supported by four administration staff, located at Port Lincoln. When appropriate and for specific tasks, casual or contract staff are hired.

Other *National Parks and Wildlife Act* reserves in the vicinity include Coffin Bay National Park, Kathai Conservation Park, Kellidie Bay Conservation Park, Murrunatta Conservation Park and Wanilla Conservation Park.

Local Council

Lincoln National Park is within the District Council of Lower Eyre Peninsula. This council area of some 4370 square kilometres is largely composed of large-scale farming properties with, more recently, diverse developments based on land-based aquaculture, vineyards and intensive animal husbandry.

Lincoln National Park falls within an area designated as 'Conservation Zone' in the Lower Eyre Peninsula District Council Development Plan, consolidated 28 August 2003. All developments in this zone are aimed primarily at preserving the natural features and character of the zone. Developments in this plan of management are wholly compatible with these objectives.

1.2.1 Biogeographic Regionalisation and Environmental Associations

The Interim Biogeographic Regionalisation of Australia (IBRA) provides a bioregional planning framework within which to identify the gaps and to set priorities for developing the National Reserve System. IBRA regions represent a landscape-based approach to classifying the land surface from a range of continental data on environmental attributes. In 1999, IBRA version 5.1 was developed with 85 bioregions delineated, each reflecting a unifying set of major environmental influences which shape the occurrence of flora and fauna and their interaction with the physical environment.

Lincoln National Park lies within the Eyre Yorke Block IBRA region which is described as:

"Archaean basement rocks and Proterozoic sandstones overlain by undulating to occasionally hilly calcarenite and calcrete plains and areas of aeolian quartz sands, with mallee woodlands, shrublands and heaths on calcareous earths, duplex soils and calcareous to shallow sands, now largely cleared for agriculture." (Environment Australia 2000).

The Eyre Yorke Block IBRA region totals 6,066,100 hectares. Less than 10% of the original native vegetation in the region is protected in reserves.

1.2.2 Contribution to the National Reserve System

Lincoln National Park forms part of the National Reserve System (NRS), which encompasses all existing protected areas managed and/or administered by State or Commonwealth nature conservation agencies.

Within the Eyre Yorke Block IBRA region, Laut *et al* (1977) recognised a series of Environmental Associations (EAs). Lincoln National Park conserves the following Environmental Associations:

- 57.3% of the Lincoln EA, described as an undulating calcarenite plain with widespread sand dunes, isolated hills and small lakes, with cliffs along the coast. The dominant vegetative covers are tall teatree shrubland, low woodland and coastal mallee, only a small part of which is used for grazing livestock. A further 23% of this association is conserved within Memory Cove Wilderness Protection Area.
- 69.4% of the Jussieu EA, which is described as an undulating plain with extensive dunes and cliffs along the coast. The vegetation consists of coastal mallee scrub and heathland. The remainder of this association is conserved within Memory Cove Wilderness Protection Area.
- 6% of the Cobbler Hill EA, which is described as an undulating limestone plain with low, laterite-capped hills. The vegetative cover is mainly degraded mallee woodland which is generally used for livestock grazing. The majority of this association (5.4%) is protected within Lincoln Conservation Reserve. A further 4.2% is conserved in two private properties, protected by Heritage Agreement, between Lincoln Conservation Reserve and Lincoln National Park.

There is a widely recognised benchmark that at least 15% of an original ecosystem should be conserved where possible and Lincoln National Park contributes significantly to the conservation of these ecosystems.

2 MANAGEMENT FRAMEWORK

2.1 Legislative Framework

National Parks and Wildlife Act 1972

The NP&W Act provides the authority by which the Minister for Environment and Conservation controls and manages all reserves in South Australia proclaimed under the Act. When managing reserves, DEH is required under section 37 of the Act to have regard to, and provide actions that are consistent with the following objectives stated in the Act:

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

Native Title Act 1993

Native Title is used to describe the interests Aboriginal and Torres Strait Islander People have in land and waters according to their traditional laws and customs. Federal legislation, in the form of the *Native Title Act 1993*, was enacted to:

- provide for the recognition and protection of native title;
- establish ways in which future dealings affecting native title may proceed and to set standards for those dealings;
- establish a mechanism for determining claims to native title; and
- provide for, or permit, the validation of past acts, and intermediate period acts, invalidated because of the existence of native title.

Any development proposed for a reserve must be valid in terms of the *Native Title Act 1993*.

This reserve is subject to a claim for a determination of native title by the Barngarla People. A 'determination' is a decision made by the courts as to who holds native title for an area.

This management plan is released and will be adopted subject to any native title rights and interests that may continue in relation to the land and/or waters. Nothing in the management plan is intended to affect native title. Before undertaking any future acts that might affect native title, DEH will follow the relevant provisions of the *Native Title Act 1993*.

However, in addition to the requirements of native title legislation, DEH is committed to developing partnerships with Aboriginal people. This may include a number of native title and Aboriginal heritage groups.

Consistent with South Australian Government policy, DEH is also keen to pursue Indigenous Land Use Agreements (ILUAs) where appropriate. ILUAs are voluntary agreements between a native title group and other people about the use and management of land and/or waters.

Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) represents a fundamental reform of former Commonwealth environment laws. The Act establishes a new Commonwealth approval process for assessment of proposed actions that are likely to have a significant impact on matters of national environmental significance and provides an integrated system for biodiversity conservation and management of important protected areas.

Matters that require assessment and approval of proposed actions under the EPBC Act 1999 are:

- any action that has, will have or is likely to have a significant impact on the following identified matters of national environmental significance:
 - World heritage properties
 - Ramsar wetlands of international significance
 - Nationally listed threatened species and ecological communities
 - Listed migratory species
 - Commonwealth marine areas
 - Nuclear actions (including uranium mining)
- any activity involving Commonwealth land that has, will have, or is likely to have a significant impact on the environment.

With regard to Lincoln National Park, the nationally **vulnerable** Slender-billed Thornbill (*Acanthiza iredalei*) occurs within the park. Commonwealth approval is required for any action that has, will have or is likely to have a significant impact on this species, in addition to any State approval that may be required.

Furthermore, in consultation with relevant State authorities, the Commonwealth Minister for the Environment and Heritage may develop and implement recovery plans and threat abatement plans for threatened species and ecological communities listed under the EPBC Act. Where applicable, DEH should contribute to and incorporate these plans into park management regimes and operational procedures.

Additional legislation, conventions and agreements with which DEH is obliged to comply are listed in Appendix A.

2.2 Management Plans

Management planning is a statutory requirement for all reserves prescribed in section 38 of the *National Parks and Wildlife Act 1972* and section 31 of the *Wilderness Protection Act 1992*. The management planning process is but a small part of a much larger, statewide hierarchy of management. This is directed from the highest level by state government policies and departmental priorities and implemented, on a day to day basis, at a regional and district level. Management plans provide a ministerially endorsed and legally binding framework for the use and management of *National Parks and Wildlife Act* reserves. They are intended to accommodate anticipated trends and community aspirations over a five to ten year time frame. The legislation anticipates that management plans will be formally reviewed from time to time, but there are no prescribed time limits for this to occur.

Management plans define what is considered acceptable activity in a reserve while still allowing park managers some flexibility in day to day decision-making. They should be proscriptive enough to prevent deleterious activities, or inappropriate developments, taking place. They are not intended to be comprehensive compendiums of resource information, nor are they heavily prescriptive action statements; other documentation covers those aspects. They do however, identify key values of reserves, appropriate utilisation and major issues of concern requiring action, thereby providing the community and park managers with a blue-print of how public land is going to be used and managed.

Management plans often foreshadow the preparation of 'delegate' plans to achieve the proposed objectives. Delegate plans are detailed, non-statutory action plans that provide additional details on how the actions, listed in the management plan, are to be progressed. With regard to Lincoln National Park, the development of a Fire Management Plan is proposed, and in 2002, the *Parks on Eyre: Lincoln and Coffin Bay National Parks Landscape and Facility Plan* was developed to guide the implementation of proposed improvements outlined in this plan. Although such in-house action plans are not subject to the same statutory processes as are formal management plans, DEH will continue to involve relevant stakeholders, other agencies and community groups in their preparation and implementation as part of the on-going management of the park.

Each year park managers, taking regional and district priorities into account, draw up work programs to implement some of the actions proposed in management plans. Whether these projects are actually undertaken is determined by, and subject to, the availability of resources (eg staffing and funding) and to any requirements of the Minister for Environment and Conservation and the department's Chief Executive, who take a statewide overview in setting departmental priorities and allocating resources.

2.3 Purpose of Proclamation

The core area of the park (15,830 hectares) was first dedicated as a Flora and Fauna Reserve in 1941 to conserve the natural environment and historic values of the area. It was declared as Lincoln National Park when the *National Parks and Wildlife Act* was passed in 1972, under section 27 of that Act, "by reason of the wildlife and natural features of that land".

During the next 20 years, the park was virtually doubled in size by adding land on Stamford Hill, Cape Donington, Wanna and many of the adjacent islands. Lincoln Conservation Reserve (1037 ha) was proclaimed in 1993 under the *Crown Lands Act 1929*. In June 1999, the boundary of the park was expanded to include all sections of land down to Mean Low Water Mark.

The areas, section numbers and dates of gazettal of each parcel of land comprising Lincoln National Park and Lincoln Conservation Reserve are provided in Appendix C.

2.3.1 Memory Cove Wilderness Protection Area

The southeastern portion of the park, including some of the nearby islands, was identified as having some of the highest quality wilderness values in the state (Lesslie 1981). Since the installation of a locked gate on the Memory Cove Road in 1992, the area has been managed in accordance with *Wilderness Protection Areas & Zones South Australian Code of Management* (DENR 1994) to preserve its undisturbed state.

With the release of the draft plan for Lincoln National Park in 1999, it was proposed to proclaim the Memory Cove area, plus Hopkins, Lewis, Little, Smith and Williams Islands, as a wilderness protection area under the *Wilderness Protection Act 1992*. This proposal received overwhelming support, leading to the area being excised from the park and formally proclaimed as Memory Cove Wilderness Protection Area.

Memory Cove Wilderness Protection Area is therefore no longer part of Lincoln National Park and is not covered by this plan. A new draft plan of management will be prepared for the wilderness protection area under section 31 of the *Wilderness Protection Act*. Until that occurs, the area will continue to be managed in accordance with the adopted *Wilderness Protection Areas & Zones South Australian Code of Management*.

Public access is by foot anywhere in the area and by vehicle along the Memory Cove Road. Existing camping facilities at Memory Cove will be maintained, but no new developments other than those necessary for the protection of wilderness values will be permitted.

2.4 Reserve Classification

All reserves proclaimed under the *National Parks and Wildlife Act 1972* are assigned to one of the classifications listed in the Act. The classifications provide a general statement of purpose for which the area was acquired. Appendix D contains a full list of reserve classifications.

2.4.1 IUCN Protected Area Management Category

The World Conservation Union (IUCN) has developed an international system for the classification of protected areas – the IUCN Protected Area Management Categories. Management objectives for all types of reserves are required to meet the IUCN definition of a protected area to be considered part of the National Reserve System, and all protected areas have been assigned to one of the IUCN protected area categories.

Lincoln National Park is classified as a "National Park" (IUCN category II), which is described as a "natural area of land and/or sea, designated to:

- (a) protect the ecological integrity of one or more ecosystems for present and future generations,
- (b) exclude exploitation or occupation inimical to the purposes of designation of the area and
- (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible." (IUCN 1994)

Management of Lincoln National Park will be consistent with the following IUCN Category II management objectives, that is, to:

- protect natural and scenic areas of national and international significance for spiritual, scientific, educational, recreational or tourist purposes;
- perpetuate, in as natural a state as possible, representative examples of physiographic regions, biotic communities, genetic resources, and species, to provide ecological stability and diversity;
- manage visitor use for inspirational, educational, cultural and recreational purposes at a level which will maintain the area in a natural or near natural state;
- eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation;
- maintain respect for the ecological, geomorphologic, sacred or aesthetic attributes which warranted designation; and
- take into account the needs of indigenous people, including subsistence resource use, in so far as these will not adversely effect the other objectives of management.

3 MANAGEMENT CONTEXT

3.1 Integrated Natural Resource Management

The management of Lincoln National Park must take into consideration broader regional conservation issues and complement or contribute to regional conservation initiatives. There has been a movement away from the traditional approach of focusing on natural resource issues in isolation and undertaking ameliorative actions to address issues at a localised scale. DEH is committed to a 'whole of landscape' approach to the management of natural resources, where the activities of Government agencies, community groups and individuals are strategically planned and integrated to achieve shared conservation objectives.

There are a number of landscape-scale conservation initiatives already in place with implications for the management of parks in the Coffin Bay area. These include 'Ark on Eyre', a program aimed at removing threats to biodiversity and restoring wildlife habitats and species on Eyre Peninsula.

Ark on Eyre

Lincoln National Park and other *National Parks and Wildlife Act* reserves within the West Region are being managed in the broader context of a planning initiative known as Ark on Eyre. The aim of this project is to enhance wildlife habitat and implement the recovery of threatened species across the region through integrated management of DEH reserves, SA Water land, local government land and voluntarily nominated, privately owned areas of remnant vegetation.

The initiative commenced in 2000, with funds granted from the Natural Heritage Trust and the Nature Foundation. The focus is primarily aimed at reversing the decline of threatened plant and animal habitat across the whole of Eyre Peninsula through ecological restoration programs and the engagement of the local community in regional pest plant and animal control to implement the recovery of regionally threatened or, in some instances through reintroduction, locally extinct species of wildlife.

Regional Biodiversity Planning

On-park biodiversity conservation should integrate with broader regional programs. In order to do this DEH has developed the *Biodiversity Plan for Eyre Peninsula, South Australia* (DEH 2002). This plan acts as a guide for the community and government on the biodiversity assets of the region, major threats and recommendations on priority management strategies for conservation. It provides information on the priority areas, vegetation types and species of the region, and strategic actions to assist in maintaining biodiversity for the future.

Landscape-scale management of vegetation and wildlife, as embodied in the '*NatureLinks* Implementation Strategy' (DEH 2003), enhances biodiversity conservation and actions in this plan will be implemented in a way that furthers the priority objectives identified in the *Biodiversity Plan for Eyre Peninsula, South Australia*.

3.1.1 NatureLinks

NatureLinks is a South Australian Government initiative that builds on and integrates other major conservation programs that are already occurring within the state eg the CARRS strategy, the threatened species recovery program and regional revegetation programs. Its main objective is to achieve "connected habitat across South Australia, comprising a comprehensive system of core protected areas buffered and linked by lands managed for conservation objectives". *NatureLinks* is not a prescriptive program but rather a philosophical approach to biodiversity conservation and ecologically sustainable development at a landscape scale.

Native vegetation on SA Water land connects the parks of the Coffin Bay area with Lincoln National Park, extending natural habitat to the entire southern portion of Eyre Peninsula.

Heritage Agreements

Within the local region, there are several private properties protected by Heritage Agreements under the *Native Vegetation Act 1991* that assist with the preservation of biodiversity (Figure 1). Relatively large tracts of native vegetation remain on private and public land to link these protected areas and provide stepping stones that facilitate the movement of species across the whole of the southern end of the peninsula. This greatly improves overall genetic diversity and

species robustness, boosting ecosystem sustainability. This is a fundamental principle of the NatureLinks strategy (DEH 2003).

3.1.2 Integrated Natural Resource Management Planning

An *Integrated Natural Resource Management Plan for Eyre Peninsula District* (DWLBC 2004) has been published, following comments on a draft from key stakeholders. The plan reviews the state of the natural resource assets of the region, examines the processes that threaten them, identifies opportunities for more effective management of those resources, and establishes a framework of broad actions and targets to guide the regional community in its implementation. It recognises water, soils and natural biodiversity as core natural resource assets but also incorporates cultural and primary production assets in recognition of the interconnectedness of social and economic aspects within NRM. Importantly, the plan provides the foundation for an investment strategy through which the community can access funding support for NRM actions.

3.1.3 Water Management Planning

Water Management Plans are the responsibility of Catchment Water Management Boards established under the *Water Resources Act 1997*, administered through the South Australian Department for Water, Land and Biodiversity Conservation (DWLBC) and generally developed in conjunction with Local Government. The intention of these plans is to develop strategies and guidelines that result in sustainable use of water resources on a catchment scale, by addressing ground and surface water use.

Settlements on the southern Eyre Peninsula rely on underground resources in the Uley Basin for their fresh water supplies. Most of this underground water is contained within land managed by SA Water, situated between Coffin Bay National Park and Lincoln National Park. Although the quality and quantity of water in this aquifer is considerably enhanced by the retention of native vegetation on SA Water land, the presence of national parks to the east and west also significantly improves the water supply. DEH and SA Water enjoy mutual benefits from an integrated approach to conservation management of the Uley Basin generally and regular liaison is maintained.

3.1.4 Comprehensive, Adequate and Representative Reserve System (CARRS)

The South Australian Government has developed a CARRS strategy in conjunction with the Commonwealth Government (Environment Australia's National Reserve System Program), which aims to establish a comprehensive, adequate and representative reserve system (CARRS) for the protection of Australia's biodiversity, according to the following principles:

Comprehensiveness: inclusion of the full range of ecosystems recognised at an appropriate scale across each bioregion.

Adequacy: ability to maintain the ecological viability and integrity of populations, species and communities.

Representativeness: those areas that are selected for inclusion in reserves reasonably reflect the biotic diversity of the ecosystems from which they derive.

The *Interim Biogeographic Regionalisation of Australia* (IBRA) provides a bioregional planning framework within which to identify the gaps in the current reserve system and to set priorities for establishing reserves. IBRA regions represent a landscape-based approach to classifying the land surface from a range of continental data on environmental attributes, eg climate, lithology, landform, vegetation and land-use. Each IBRA region has been allocated a priority for the establishment of protected areas at a national level (according to Priority Bioregions for the National Reserve System) and at a state level (according to the Priority Subregions for the CARRS strategy). The Environmental Associations described by Laut *et al* (1977) are also used to identify gaps in the reserve system in South Australia. The assessment of sites for addition to the reserve system in South Australia takes into consideration the presence of threatened ecosystems, threatened flora and fauna (especially Nationally threatened species), migratory species and unique or regionally important or unique habitat *eg refugia*.

3.2 Community Engagement & Management Partnerships

Active engagement of the community sector to establish a wide and dedicated support base is the cornerstone of natural resource management. Community capacity building can have significant flow-on effects in improving a region's environmental, social and economic wellbeing. This plan recommends actions that aim to provide the community as a whole with relevant information, to build individual and group skills, to encourage participation in natural resource management across the wider landscape, and to provide the necessary organisational and institutional support. In particular, DEH supports the Friends of Southern Eyre Peninsula Parks and their role in providing a vehicle for community involvement and stewardship.

DEH supports and promotes partnerships and cooperative management arrangements as the best way to progress integrated natural resource management. Achieving positive biodiversity and recreation outcomes requires the development of effective working relationships with other government agencies, local authorities, non-government organisations and the local community. With regard to the management of the parks of the Coffin Bay area, DEH endeavours to maintain links with the following:

- Local Government
- Animal and Plant Control Board
- District Soil Conservation Board
- Australian Plague Locust Commission
- South Australian Museum
- Department for Aboriginal Affairs and Reconciliation (DAARE)
- SA Water
- Native Title Claimants
- Aboriginal Heritage Committee
- Flinders University
- Primary Industries and Resources South Australia (PIRSA)
- Adjoining landholders
- Eyre Peninsula Catchment Water Management Board

DEH is committed to reconciliation and to the development of partnerships with the Nao/Barnjarla community to effectively manage the parks of the Coffin Bay area in a way that respects contemporary and traditional culture, knowledge and skills. Partnerships involve the delivery of programs that promote reconciliation, cultural awareness, Indigenous employment and training, cooperative management and indigenous cultural heritage management on parks.

3.3 History of Reserve Management

A draft management plan was first prepared for Lincoln National Park in 1989. Following public comment, the plan was adopted, but never gazetted.

Since the dedication of the park, management actions have attempted to preserve natural values and provide for public enjoyment. While most visitor developments have focussed on popular coastal recreation sites, large areas have remained undeveloped to preserve their wilderness qualities. Significant actions have included:

- conservation of wildlife habitat through control of pest plants and animals and rehabilitation of degraded sites;
- improving conventional vehicle access to popular sites, while retaining more rugged four wheel drive access to remote areas; and
- enhancing visitor experience through the provision of camp grounds, day visitor areas, lookouts and a network of walking trails.

3.4 Existing Management Arrangements

The Department for Environment and Heritage will manage Lincoln National Park to conserve natural and cultural resources, while continuing to provide and develop appropriate visitor services and facilities.

Commercial activities will be permitted under licence, where such activities do not conflict with the management objectives of the park.

Community and volunteer participation in park management will be encouraged, through the existing interest groups and other strategic partnerships. Computer based data storage and manipulation systems critical to the successful future management of the natural resources of the park will be maintained.

The western portion of the park will continue to be managed for the conservation and utilisation of groundwater supplies by SA Water under an ongoing management agreement.

The southeastern portion of the park will continue to be managed to enhance the wilderness qualities of the area and to maintain ecosystem integrity. Proclamation under the *Wilderness Protection Act 1992* will formalise wilderness management and a new management plan will be prepared for Memory Cove Wilderness Protection Area in accordance with section 31 of that Act.

- The management agreement with SA Water for the conservation and utilisation of groundwater supplies is contained in Appendix E; and
- The management agreement with ETSA Utilities regarding track maintenance under the powerline is detailed in 4.6.3 Public Utilities.

3.5 Management Philosophy & Strategic Directions

The role of reserves is predicated by the twin aims of the *National Parks and Wildlife Act*; to provide for public benefit and enjoyment and to conserve wildlife in a natural environment. Increasingly, the importance of biodiversity conservation is being recognised and the future use and management of reserves must address this issue. Proposed actions will need to be assessed with the ability to meet the primary objective of biodiversity conservation, which may result in public use becoming regulated to serve that aim.

Lincoln National Park and Conservation Reserve will be managed according to DEH policies and priorities. Strategic directions for the DEH are outlined in the *Department for Environment and Heritage - Strategic Plan 2002 - 2005*, which endeavours to achieve:

- *A Sustainable and Eco-efficient Society* – Viable, innovative and sustainable communities where individuals, households, businesses and government use resources efficiently, with minimal waste and minimal other environmental impacts.
- *Clean Air, Water and Land* – Healthy environments capable of supporting richly diverse life into the future.
- *Conserved Ecosystems* - Viable populations of native plants and animals and viable ecosystems for future generations.
- *Conserved and Celebrated Heritage* - Conservation of significant heritage to identify and celebrate the landscapes, human history and sense of place of the land now known as South Australia.
- *Sustainable Use of Natural Assets and Resources* - Sustainable use and enjoyment of natural assets and resources to enhance prosperity, a sense of community and quality of life.

DEH must optimise the use of the limited resources available for the conservation and maintenance of reserves, with priorities set on a statewide and then regional perspective.

With that proviso, DEH remains committed to its responsibilities as a public land manager and Lincoln National Park and Conservation Reserve will receive an annual allocation of resources. DEH believes that, in partnership with the community and other agencies, considerable advances can be made towards increasing overall protection of biological and cultural values, while ensuring sustainable and high-quality recreational opportunities for the community.

The vision for Lincoln National Park is a park, valued and managed by the community for its history, visual amenity, biodiversity and recreational values. To achieve this vision, DEH is keen to explore the possibility of partnership arrangements with agencies and organisations that have a legitimate interest in the management of this park. DEH recognises the importance of community and volunteer organisations and will continue to provide ongoing support and assistance, where possible.

4 MANAGEMENT PRESCRIPTION

4.1 Zoning

Section 39 of the *National Parks and Wildlife Act* provides for the designation of zones in a reserve and constrains the use of land in those zones to the conditions specified in an adopted management plan. Zoning of parks is a key tool of park management, ensuring that public use and enjoyment remains compatible with the protection of natural and cultural resources.

A zoning plan (Figure 2) has been developed to facilitate the provision and further development of visitor services and facilities, while safeguarding the natural and scenic values and features for which the park was constituted. Designated zones are:

Development Zones

These zones encompass camping and day visitor areas. Development of visitor facilities will be of modest scale and largely restricted to these zones. Developments may include vehicle and walking access, signs, campsites, toilets, fences, vehicle barriers, picnic facilities, viewing platforms, steps, boardwalks, barbecues, water supply, car parking or safety barriers. Any construction or development works will seek to complement the natural and cultural values of the park.

In 2002, DEH commissioned the preparation, in consultation with key stakeholders and community representatives, of *Parks on Eyre: Lincoln and Coffin Bay National Parks Landscape and Facility Plan*. This plan provides details of individual developments proposed at the Development Zones shown on Figure 2. These zones, being limited to up to a hectare or so in size, are too small to be delineated on a map at the scale shown in Figure 2. Consequently, they are represented by a symbol.

Natural Area Zone

This zone includes the majority of the park. Vehicle access is permitted along designated roads and tracks. Walkers are encouraged to use trails which provide access to popular destinations. Vehicle-based camping is permitted in designated campsites, while bushwalkers, using a "no trace" ethic may access the remainder of this zone. The zone will be managed as a buffer to Memory Cove Wilderness Protection Area to protect wilderness quality and natural and cultural resources. Developments in this zone will be restricted to roads, vehicle tracks, walking trails and essential services.

Restricted Access Zone

This zone includes lands that constitute the more biologically important or sensitive areas of the park. They are also the locations that exhibit the principal scenic values of the park. This zone comprises most of the offshore islands adjacent to the park. Public access through the zone is limited to persons on foot. Hikers, using the "no trace" ethic outlined in *Minimum Impact Code for wilderness use in South Australia* (DENR 1994), may camp within the zone but vehicles are prohibited except for park management purposes.

Many islands support important breeding colonies of seabirds and other animals. For this reason, access may be restricted during wildlife breeding periods. Visitor impact will be monitored, and the status of each island reviewed if negative impacts are determined.

Water Resource Zone

This zone includes the area managed cooperatively with SA Water for the conservation of the natural resources in the area and the protection and utilisation of the water resource. Access by vehicles, walkers and bicycles is permitted along nominated and designated roads, tracks and routes. Elsewhere within the zone access is permitted only on foot. Hikers, using the "no trace" ethic may camp throughout the zone and developments may only be constructed that do not impact on the groundwater resources.

Objectives

Zone the park to ensure appropriate public use, landscape protection and the conservation of wildlife habitats and cultural features.

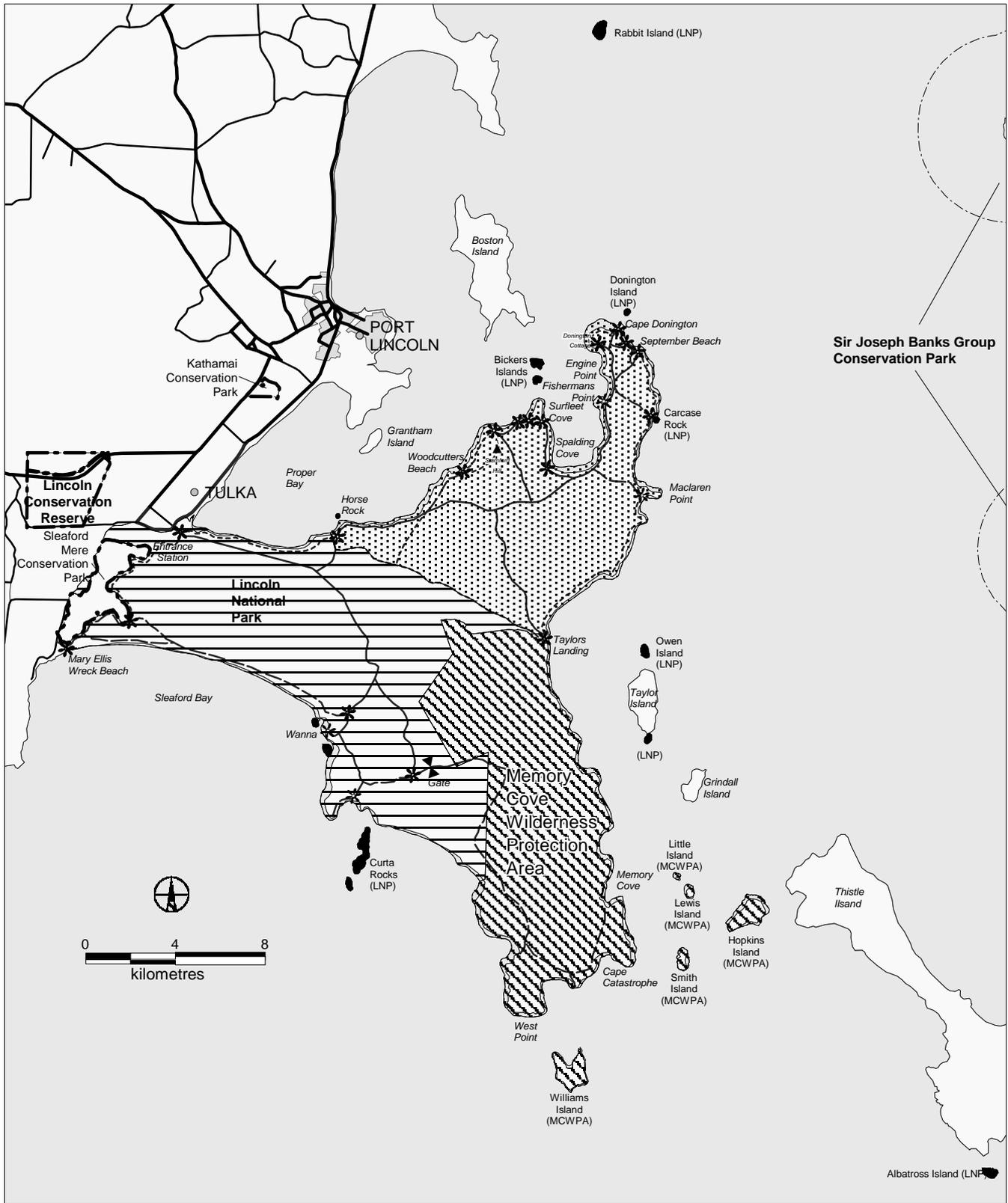


Figure 2

Lincoln National Park

Zoning

-  Wilderness Protection Area
-  Natural Area Zone
-  Restricted Access Zone (islands)
-  Water Resource Zone
-  Development Zone

- (LNP) Lincoln National Park
- (MCWPA) Memory Cove Wilderness Protection Area



Department
for Environment
and Heritage

Map produced from PAMS
Projection: MGA Zone 53 (GDA94)
Date: 7 July 2004

4.2 Natural Resources

4.2.1 Geology and Landform

Lincoln National Park occurs within the geological province known as the Gawler Craton formed between 2400 and 1490 million years ago. The ancient Archaean to Mesoproterozoic crystalline basement rocks (granite) of the Gawler Craton are now covered with a relatively thin layer of more recent sediments of Tertiary to Quaternary age (limestone/sand dunes).

Outcroppings of basement rocks (granite) within the park are generally restricted to coastal exposures, although minor inland outcrops do occur. These outcrops often form spectacular peaks inland and prominent points and bluffs on the coast. The majority of the park is covered with Quaternary and Tertiary sediments (limestone/sand dunes). The most extensive of these being the Bridgewater Formation, a white to fawn coloured calcarenite (limestone), often showing karstic weathering and forming the spectacular high and steep cliffs on the coast. Recent and Quaternary sand dunes also cover extensive areas.

An unconfined aquifer (underground water source) is located within the Pleistocene aeolianite deposit (wind blown sand) in the western portion of the park. Water is extracted from this aquifer, providing much of Eyre Peninsula's water supply (Engineering and Water Supply Department, 1983).

The Lincoln National Park basement outcrop is composed entirely of rocks of the Donington Granitoid Suite, named after Cape Donington, where good exposure occurs. These include gabbro-norite, enderbite, charnockite, alkali granite and granite gneiss rock types and comprise a major addition of new material to the earth's upper crust. This event occurred approximately 1843 million years ago during the Palaeoproterozoic (Schwarz, 1997).

The geology of the islands of the park generally reflects the geological history of the neighbouring mainland. On most islands, the crystalline basement is capped with Pleistocene calcareous aeolianite. However, the size of an island appears to be a limiting factor for the presence of calcareous aeolianite. Generally the smallest islands have no covering of calcrete, but it is assumed that they were once covered with it (Kinsman, 1973). Recent sands occur along protected shores forming narrow beaches.

Sleaford Mere Conservation Park consists of a shallow coastal brackish lake which contains some small islands. Leading from the water's edge are numerous unusual grey-black mud-like mounds which vary in size from a few centimetres to one metre. These are stromatolites, which occur in this type of saline environment, where they are formed by the accumulation of sand and silt on growing mats of algae. The Mere is bounded by steep sided sand dunes to the south and east, and by a gently undulating calcarenite landscape to the west.

4.2.2 Soils

Most of the park is covered with shallow, well-drained red-brown loams overlying the calcrete parent rock. These soils are generally alkaline in nature.

The Recent sands, mainly on the southwestern coastline of the park are deep, well drained and uniform. They are generally stabilised with coastal heath vegetation east of Wanna, but are mobile and unvegetated in the Wanna to Sleaford dune system.

Soils associated with the granite outcrops are generally skeletal or sandy loams, often with considerable gravel content.

4.2.3 Native Vegetation

Parts of Lincoln National Park and its associated islands have been exposed to a considerable amount of disturbance since European settlement. In a study of the plant ecology of lower Eyre Peninsula, Smith (1963) stated that most of the southern area that has remained uncleared "...must have been affected by fire, livestock, rabbits, competition from introduced species, and other influences due to settlement." This has resulted in a complex pattern of vegetation variation, particularly in the mallee open scrub associations, and has made vegetation mapping a difficult task.

Surveys in the park have recognised three basic vegetation types, a coastal dune association, a Drooping Sheoak (*Allocasuarina verticillata*) - Dryland Teatree (*Melaleuca lanceolata*) association and a complex of the mallee species *Eucalyptus diversifolia* and *Eucalyptus incrassata*. Specht *et al* (1974) recognised two additional associations from the park, namely the *Gahnia trifida*/*Gahnia filum* tussock grassland and coastal cliff vegetation.

Islands included within Lincoln National Park range in size from Donington Island (6.8 ha) to the larger Liguanea Island (187 ha). The size of the island influences the type of vegetation it can support. Of the group of islands associated with Lincoln National Park, none is large enough to have developed vegetation other than that found associated with the mainland coastline.

Grey Saltbush (*Atriplex cinerea*) is the dominant species in a narrow band just above high water mark on sandy beaches and in areas of deep sand. Above the beaches along the northern coastline of the park, there is either a narrow sand dune association with species such as Coast Daisy-bush (*Olearia axillaris*), Sheep Bush (*Geijera parviflora*) and Sea Box (*Alyxia buxifolia*) or, where low limestone outcrops occur above the beach, a narrow band of Swamp Paper-bark (*Melaleuca halmaturorum*). On coasts facing south and west, there is a transition from cliff vegetation to a low open scrub of Sea Box (*Alyxia buxifolia*).

Coastal heathlands occupy the transitional zone between the cliff edge communities and the mallee further inland. They occur as a dense, low-vegetation community on shallow soils with abundant outcropping limestone. Associated species include Dryland Tea-tree, Shiny Ground-berry (*Acrotriche patula*), Pale Turpentine-bush (*Beyeria lechenaultii*), Thyme Riceflower (*Pimelea serpyllifolia*), Black-anther Flax-lily (*Dianella revoluta*), Coast Velvet-bush (*Lasiopetalum discolor*) and Salmon Correa (*Correa pulchella*).

The vegetation of the dune systems in the southern portion of Lincoln National Park is a closed heath dominated by Coastal Bearded-heath (*Leucopogon parviflorus*), and is typical of the vegetation on the deep white dune sands. Associated species include Coast Daisy-bush, Coastal Wattle (*Acacia longifolia* var *sophorae*), an unnamed wattle (*Acacia leiophylla*), Karkalla (*Carpobrotus rossii*) and Sword Rush (*Lepidosperma gladiatum*). In some areas, scattered trees of Drooping Sheoak are found, and beneath these, the dense carpet of fallen leaves and stems suppresses most understorey growth. In other areas, understorey species more characteristic of the mallee and coastal heath associations such as Shiny Ground-berry and Dryland Tea-tree occur in the dune systems.

Areas of bare drifting dune sand occur along the southern coastline from Wanna to Sleaford. Colonising plant communities of Rolling Spinifex (*Spinifex hirsutus*), Knobby Club-rush (*Isolepis nodosa*) and Cushion-bush (*Leucophyta brownii*) occur in these areas, together with Coast Daisy-bush shrubland.

A large proportion of Lincoln National Park is covered with mallee eucalypts. They are also found in remnant patches on the larger islands (Grantham, Taylor and Thistle Islands). These comprise a mixture of associations dominated by an open scrub of either Coastal White Mallee (*Eucalyptus diversifolia*) or Yorrell (*Eucalyptus gracilis*) open scrub.

Dryland Teatree open scrub is a distinctive vegetation type in some places that grades into the mallee associations. In many areas, this is probably an indicator of heavy grazing in the past. The tea-trees reach two metres in height and form a virtually pure stand with either a variety of introduced grasses and herbs beneath, or scattered bushes of Coast Velvet-bush and Coastal Bearded-heath.

The other vegetation type that undoubtedly represents a distinctive association in its own right, but which has been extensively modified by past land use, is the Drooping Sheoak woodland. A broad variety of understorey species occur in this association.

Areas that have been completely cleared of their natural vegetation in the past can still be seen in the Surfleet, Donington and Wanna areas of the park. The majority of introduced weed species are restricted to these areas. Where native vegetation is beginning to re-establish, Common Boobialla (*Myoporum insulare*) forms a characteristic low open scrub vegetation formation.

Another characteristic vegetation type is associated with the elevated outcrops of igneous rocks at Stamford Hill and hills to the northwest of Memory Cove. The Sticky Hop-bush (*Dodonaea*

viscosa) low shrubland also includes Rock Wattle (*Acacia rupicola*), Fan Pomaderris (*Pomaderris flabellaris*), Lilac Hibiscus (*Alyogyne huegelii*), Rock Fern (*Cheilanthes austrotenuifolia*), Guinea-Flower (*Hibbertia* sp A) and Drooping Velvet-bush (*Lasiopetalum schulzei*).

Areas subject to inundation in winter support a variety of vegetation types depending on the salinity of the water. Pillie Lake and an area near Maclaren Point are typical saline swamps that dry completely in summer. They are surrounded by a narrow band of Dryland Tea-tree closed scrub with a very open understorey of tussocks of Chaffy Saw-sedge (*Gahnia filum*) and scattered plants of Leafless Ballart (*Exocarpos aphyllus*), Seaberry Saltbush (*Rhagodia candolleana*), Coast Bonefruit (*Threlkeldia diffusa*) and Karkalla.

Species of particular conservation significance include:

<i>Sagina procumbens</i>	no other record on Eyre Peninsula
<i>Millotia major</i>	restricted to Eyre Peninsula and the Nullarbor
<i>Prostanthera serpyllifolia</i>	restricted distribution on southern Eyre Peninsula and southern Yorke Peninsula
<i>Grevillea pauciflora</i>	uncommon within its range on Eyre Peninsula, Yorke Peninsula and Kangaroo Island
<i>Pomaderris flabellaris</i>	species at risk
<i>Spyridium leucopogon</i>	restricted to Eyre Peninsula
<i>Anthocercis anisantha</i>	disjunct geographical distribution on southern Eyre Peninsula
<i>Stackhousia annua</i>	rare
<i>Acacia dodonaeifolia</i>	rare

Some vegetation associations within the park have been affected by past farming practices, other land uses, fire, pest plants and animals. Many of these areas are naturally regenerating.

The native vegetation of Lincoln National Park will be managed to maintain maximum ecosystem integrity and diversity. Priority will be given to actions aimed at conserving environments essential for rare or endangered species (eg grassland and Bush Stone-curlew habitat).

Revegetation programs utilising both direct seeding and tube stock planting have been undertaken in several degraded areas throughout Lincoln National Park. Many of these programs have been undertaken or supported by volunteer groups, including the Friends of Southern Eyre Peninsula Parks. These projects will be expanded as part of the regional initiative known as "Ark on Eyre".

Plant species of conservation significance within the park should be recorded in the PAMS database. Threats will be identified and actions necessary for their conservation implemented.

Objectives

Protect vegetation associations and species of conservation significance.

Actions

- Integrate vegetation rehabilitation and habitat restoration programs with regional pest plant and feral animal control.
- Identify and monitor populations of plants of conservation significance and develop and implement management programs for their conservation if necessary.
- Continue revegetation where necessary to improve visitor amenity and address degraded vegetation.

4.2.4 Native Fauna

The broad range of habitats within the park supports a diverse fauna. Native terrestrial mammals are few, consisting of only three species, or about 20% of the original total. Farming practices and other land uses have modified many of the native vegetation associations within the park. Many of the now locally extinct species suffered a sudden and severe decline during the first 10 to 15 years of the 20th century, due to a combination of factors related to colonial activities in the region. These include Tammar Wallaby (*Macropus eugenii*) and Common Brushtail Possum (*Trichosurus vulpecula*), which were trapped by the thousands for their skins. Other recently extinct, local species include Bilby (*Macrotis lagotis*), Brush-tailed Bettong (*Bettongia penicillata*), Burrowing Bettong (*Bettongia lesueur*), and Quoll (*Dasyurus* sp).

The remaining ground-dwelling native mammal species are the Western Grey Kangaroo (*Macropus fuliginosus*), Bush Rat (*Rattus fuscipes*) and Western Pygmy-possum (*Cercartetus concinnus*). The Chocolate-wattled Bat (*Chalinolobus morio*) and Lesser Long-eared Bat (*Nyctophilus geoffroyi*) have also been recorded from the park.

An intensive, ongoing fox-baiting program in the park has begun to show dividends in the increased numbers of vulnerable species (eg Bush Stone-curlew) and paved the way for the re-introduction to the park of threatened and previously extinct mainland fauna. Brush-tailed Bettongs from Venus Bay Conservation Park were released on Donington Peninsula in Lincoln National Park in 1999. Since supplemented by further re-introductions of animals collected on St Peters Island, the bettongs are now becoming established and breeding successfully in the park.

Although some mammal species have declined or become extinct in the park, Western Grey Kangaroos have increased in numbers beyond that which would have made up the original, pre-European population. This has been due to the increased availability of fresh water from artificial sources and pasture from previous land clearances as much as the demise of its principal predator, the Dingo, and the cessation of hunting since the park was proclaimed. This artificially elevated population of kangaroos has an appreciable negative impact on native vegetation and greatly suppresses both natural and deliberate revegetation in the park.

Because the artificially elevated population of kangaroos compromises ecological restoration and the conservation of significant flora, the population will be monitored and, if necessary culled, to reduce total grazing pressure.

Animal species of conservation significance in the park include the Australian Sea-lion, New Zealand Fur-seal, Bush Stone-curlew, Slender-billed Thornbill, Southern Emu-wren, Western Whipbird, Hooded Plover, Osprey and White-bellied Sea-eagle.

White-bellied Sea-eagle (*Haliaeetus leucogaster*) and Osprey (*Pandion haliaetus*) nest along the coastline, usually on a detached pinnacle or rocky stack, safe from disturbance. Both species are moderately common in the park but are generally uncommon in South Australia, and are vulnerable to human interference. The availability of undisturbed coastal cliff habitats and rocky islands offshore makes the area a significant breeding refuge for these birds. Many occur in remote areas, but those in proximity to recreational sites require active management to prevent human interference.

Coastal heath vegetation provides habitat for the Southern Emu-wren (*Stipiturus malachurus parimeda*), White-browed Scrubwren (*Sericornis frontalis*), New Holland Honeyeater (*Phylidonyris novaehollandiae*) and a host of other species.

Western Whipbird (*Psophodes nigrogularis*), first recorded from the park in 1966, and the endangered Southern Emu-wren frequent dense, undisturbed coastal mallee vegetation typical of the Memory Cove Wilderness Protection Area. Both species are sensitive to changes in habitat resulting from altered fire regimes and other causes, including recreational activities. Emu (*Dromaius novaehollandiae*) also frequent the dune systems, attracted by the fruit of the Coastal Bearded-heath.

The mallee areas were once home to numerous Malleefowl (*Leipoa ocellata*), but all that had been found until recently in the park were the remains of old nesting mounds. In 2003, following the success of the fox-baiting program in the park and surrounding land, a re-introduction program was initiated, with the release of four Malleefowl in the park. Early indications are that this program will be successful. At least one of the birds released in 2003 has begun working a

mound that has been found to contain both eggs and new hatchlings. Whether this bird has paired with a survivor of the original Malleefowl population in the park or not is yet to be determined, but the fact alone augurs well for continued efforts at re-introduction.

The Port Lincoln Parrot (*Barnardius zonarius zonarius*) and Common Bronzewing (*Phaps chalcoptera*) remain common throughout the mallee vegetation. Areas previously cleared for farming now provide habitat for Galahs (*Cacatua roseicapilla*), Australian Ravens (*Corvus coronoides*) and Australian Kestrels (*Falco cenchroides*). Rock Parrots (*Neophema petrophila*) feed on low vegetation fringing the coastline.

Bush Stone-curlews (*Burhinus grallarius*) are regularly recorded at mainland locations within the park during night surveys that are conducted quarterly, and indicate that fox-control is assisting the survival of this species

Pied Oystercatcher (*Haematopus ostralegus*), Hooded Plover (*Charadrius rubricollis*) and Red-capped Dotterel (*Charadrius ruficapillus*) breed on beaches within the park during summer. It is expected that these species will continue to benefit from the fox control program in the park.

Reptiles recorded from the park include Rosenberg's Goanna (*Varanus rosenbergi*), Master's Snake (*Drysdalia mastersii*) and Black Tiger Snake (*Notechis ater*). Reptiles of particular conservation significance include those listed in Table 1:

Table 1 Reptiles of conservation significance

Species	Common Name	SA Status*
<i>Amphibolurus muricatus</i>	Jacky Lizard	Rare
<i>Bassiana trilineata</i>	Western Three-lined Skink	Rare
<i>Ctenophorus fionni</i>	Peninsula Dragon	Endemic
<i>Delma inornata</i>	Olive Snake-lizard	Rare
<i>Delma mollerii</i>	Adelaide Snake-lizard	Endemic
<i>Morelia spilota</i>	Carpet Python	Vulnerable
<i>Pseudonaja inframacula</i>	Peninsula Brown Snake	Endemic
<i>Varanus rosenbergi</i>	Heath Goanna	Rare
<i>Varanus varius</i>	Tree Goanna	Rare

* see Appendix D for status definitions.

Offshore islands support extensive breeding populations of seabirds and marine mammals. Breeding colonies and haul-outs of the Australian Sea-lion (*Neophoca cinerea*) and New Zealand Fur-seal (*Arctocephalus forsteri*) occur on many of these islands. Bottle-nosed Dolphins (*Tursiops truncatus*) and Common Dolphins (*Delphinus delphis*) are frequently seen within the waters around the park. Southern Right Whales (*Balaena glacialis australis*) are regularly seen along the southern coastline of Lincoln National Park during early winter, as they migrate towards their breeding grounds at the head of the Great Australian Bight.

The two seal species have been the subject of a cooperative survey and monitoring program with the CSIRO. Australian Sea-lion colonies are relatively stable, while the population of New Zealand Fur-seals appears to be increasing moderately following the cessation of extensive hunting during the 19th century.

In October 1998, the then Minister for Environment and Heritage launched the regional habitat rehabilitation and wildlife re-establishment program known as "Ark on Eyre". This initiative is planned to coordinate regional pest plant and feral animal control with vegetation rehabilitation and endangered species conservation and breeding programs, in order to re-establish viable populations of endangered and locally extinct fauna, where feasible.

Objectives

Maintain and enhance where feasible the diversity of native fauna in the parks by the protection and enhancement of the quality and diversity of wildlife habitats.

Ensure wildlife programs are based on best available knowledge and are implemented in consultation with wildlife specialists.

Minimise human disturbances to wildlife.

Actions

- Collate information on species of conservation significance, monitor populations and if necessary, develop and implement management programs for their conservation.
- Integrate regional pest plant and feral animal control with vegetation rehabilitation and habitat restoration, and where feasible, reintroduce locally extinct or endangered native animal populations.
- Promote the positive outcomes of the "Ark on Eyre" program in the parks to the wider community to encourage regional participation, maximising biodiversity outcomes.
- Monitor population trends and impacts of Western Grey Kangaroos within the mainland parks and if necessary, reduce the kangaroo population to a sustainable level by targeted culling.
- Monitor and manage the impact of recreational activities on key wildlife species (eg Hooded Plover, Osprey and White-bellied Sea-eagle).
- Continue the study of the Bush Stone-curlew to provide baseline population data for use as an indicator species to determine the success of the fox baiting program.
- Encourage scientific research to enhance wildlife management.

4.2.5 Introduced Plants

Pest plants occurring within Lincoln National Park and Conservation Reserve can be broadly separated into two groups: species that aggressively invade native vegetation and those that do not. Species that compete with native vegetation include African Boxthorn (*Lycium ferocissimum*), Myrtle-leaved Milkwort (*Polygala myrtifolia*), Aleppo Pine (*Pinus halepensis*) and Bridal Creeper (*Asparagus asparagoides*). Future control programs will focus on these species.

African Boxthorn occurs both on the mainland and on some of the islands, particularly the Bickers Islands. The seeds, contained within a palatable fruit, are spread mainly by birds.

Myrtle-leaved Milkwort and Dolichos Vine (*Dolichos lignosus*) have been recorded in the park only in the last few years between Sleaford Mere and the main park entrance, having escaped as adventitious seedlings from garden plantings nearby. An extensive infestation of Myrtle-leaved Milkwort occurs to the north and west of Lincoln National Park, including Lincoln Conservation Reserve.

Occasional Aleppo Pines occur throughout the park. These have been controlled as they are encountered. Aleppo Pine control will continue on an opportunistic basis, except for the Tulka boundary, where removal requires a programmed approach.

Bridal Creeper is widespread across lower Eyre Peninsula. Since the major fire in the Tulka area in February 2001, a program was initiated to control this invasive weed, under the title of "Operation Phoenix". Species-specific leafhoppers and a rust fungus have been established throughout the park where Bridal Creeper is present.

33 species of introduced plants have been recorded within Lincoln National Park. Most are relics of the past agricultural land uses of the park and include Salvation Jane (*Echium plantagineum*), Horehound (*Marrubium vulgare*), Onion Weed (*Asphodelus fistulosus*), African Daisy (*Senecio pterophorus*) and introduced pasture grasses. As these species do not aggressively invade native vegetation, control is directed at eradication around recreational sites. Revegetation sites and areas of natural regeneration have shown a significant decline in these species.

In collaboration with the Lower Eyre Peninsula Animal and Plant Control Board, French Plume-moth was released in 1995 to control Horehound near Engine Point on Donington Peninsula. This biological control agent has successfully established and is currently suppressing Horehound in a small area. The Spanish Plume-moth was also released in Lincoln National Park in 1997, but results of its success are yet to be determined.

Marijuana (*Cannabis sativa*) crop sites have been discovered in Lincoln National Park. These have legal as well as environmental implications. Eradication programs in conjunction with the SA Police force will be continued.

Objectives

Reduce the negative impacts of pest plants on wildlife habitats in the park.

Prioritise pest plant programs to ensure maximum park and community benefit.

Promote community understanding of pest plant impacts on the natural environment and encourage participation in regional programs.

Actions

- Undertake, where practicable, control of invasive pest plant species as part of the regional integrated wildlife restoration programs.
- Continue the programs to eradicate African Boxthorn, Aleppo Pine and Myrtle-leaved Milkwort, Dolichos Vine, Horehound and Bridal Creeper from the park.
- Monitor the effectiveness of weed eradication programs and implement new techniques when available.
- Increase awareness in the local community of the invasive nature of some ornamental garden plants (eg Myrtle-leaved Milkwort and Dolichos Vine) and encourage replacement with suitable indigenous species.
- Control non-invasive pest plant species in sites subject to disturbance.

4.2.6 Introduced Pathogens

Cinnamon Fungus (*Phytophthora cinnamomi*) is technically classified as a water mould or Oomycota but is generally referred to as a fungus. It is an introduced soil-borne pathogen that kills a wide range of native Australian plant species by attacking their root system and reducing or stopping the movement of water and nutrients within the plant.

The disease spreads quickly downhill with the movement of water through the soil. It can also spread slowly in any direction through root-to-root contact. The spread of *Phytophthora* has been dramatically increased by human activities, particularly by moving soil, gravel and plant material on vehicles, footwear and camping equipment.

The disease has not yet been positively identified in the park, but conditions are favourable for its existence. Vigilance is required, and basic measures to reduce the chance of introduction of foreign pathogens will be undertaken. Principally, this includes ensuring that no potentially contaminated soil enters the park, either accidentally adhering to unwashed vehicles or through the importation of contaminated road or other building material.

Objective

Prevent the introduction and spread of *Phytophthora cinnamomi* in the reserve.

Actions

- Comply with the provisions of the *Threat Abatement Plan For Dieback Caused By The Root-Rot Fungus Phytophthora cinnamomi* (Environment Australia, 2001).
- Increase public and staff awareness of the potential for introduction and establishment of *Phytophthora cinnamomi*, the plant species susceptible to it and indicators of its presence.
- Ensure that all soil is removed from all earth-moving and construction equipment entering the reserve, to reduce the risk of *Phytophthora* introduction.
- Provide boot-cleaning stations for track users if necessary.

4.2.7 Introduced Animals

Five species of introduced animals have been recorded in Lincoln National Park, namely the House Mouse (*Mus domesticus*), European Rabbit (*Oryctolagus cuniculus*), Red Fox (*Vulpes vulpes*), Feral Cat (*Felis catus*), feral Honeybee (*Apis mellifera*) and, historically, Horse (*Equus caballus*).

Rabbits were first seen in the area during the mid-1880s. Within Lincoln National Park, myxomatosis outbreaks occur annually in late spring, keeping rabbit numbers at low to moderate levels. The arrival of Rabbit Haemorrhagic Disease (formerly Rabbit Calicivirus Disease) on lower Eyre Peninsula has further reduced the rabbit population, although the disease is not as effective at controlling rabbits on lower Eyre Peninsula as it is in more arid areas. Rabbit control within the park has in the past comprised of warren ripping, fumigation and baiting, and this will continue.

Prior to 1996, foxes occurred throughout the park, favouring modified areas and beaches. Since this time, a saturation baiting program has been undertaken, achieving widespread control. Monitoring of the Bush Stone-curlew population is being undertaken as an indicator of the success of fox control in the park and region, with significantly positive results.

Feral Cats occur throughout Australia. It is expected that a small percentage of the park population will be controlled as a result of fox baiting, but cats' preference for fresh meat limits the effectiveness of dried or buried baits. Further control methods are being investigated.

Honeybees, which have escaped from apiary sites scattered throughout the region, have become established, from time to time, in the park. These animals pose a threat to visitors, but more importantly, occupy scarce animal habitat, denying tree hollows to nesting wildlife. Outbreaks are controlled opportunistically.

A small number of horses that once remained from original agricultural landuse were removed from the Wanna area of the park in 1996. A Fallow Deer was sighted in 1997, but no further sightings have been made.

Emphasis will be placed on developing integrated pest control programs, to maximise effectiveness based upon the known inter-relationships between pest plant and animal species.

Objectives

Restore wildlife habitat and minimise the impacts of feral animals on the parks.

Actions

- Encourage the restoration of wildlife habitats by developing an integrated control program for pest plants and animals.
- Continue the program to eradicate rabbits, foxes and cats from mainland parks.
- Investigate methods of feral bee control and initiate where appropriate.

4.3 Cultural Heritage

4.3.1 Aboriginal Heritage

For millennia, the Eyre Peninsula has been home to Aboriginal people. Tindale (1974) reports that the Aborigines living in the area now known as Lincoln National Park were members of the Nauo people, whose traditional lands of about 20,000 square kilometres took in the southwestern part of Eyre Peninsula (Tindale, 1974). Within this area they mainly occupied the coastal scrub country.

Schurmann (1879) gives some insight into their lifestyle. In addition to meat and some varieties of fish, a wide range of vegetable food was collected. The Karkalla or Pigface (*Carpobrotus rossii*) fruit grew in great abundance which provided a "comparatively glorious life" for the Aborigines who made good use of this bounty. Large numbers of people congregated in the sandhills between Coffin Bay and Sleaford Bay to harvest nondo beans, the green pods of Coastal Wattle (*Acacia longifolia* var *sophorae*). Larger game such as kangaroos and emus were speared and smaller animals such as wallabies and kangaroo-rats were forced from the scrub with the use of fire. Fish traps have been found in Porter and Proper Bays.

The area is rich in Aboriginal cultural heritage. Some local Aboriginal places are described in the story of Pulyallana, a legendary character held responsible for creating many prominent landmarks around the southern tip of Jussieu Peninsula. These include the offshore islands, a cave, rocks and boulders (Ross, 1983). A number of sites of Aboriginal significance have been described within Lincoln National Park, however no comprehensive survey has been carried out to date.

The Aboriginal people suffered from European contact. The period of early contact with Europeans was particularly bitter and violent. Sealers in the early 1800s kidnapped Aboriginal women from Eyre Peninsula, often taking them to Kangaroo Island. After colonial settlement of South Australia, there were numerous armed conflicts between Aborigines and Europeans in the area (Tindale, 1974).

Early European visitors noted evidence of Aboriginal occupation. Brush wurleys observed at Memory Cove were described as "straggling bark huts". Flinders noted in 1802: "...traces of natives were found so recent that although none of the inhabitants were seen, they must have been here no longer than a day before." W Westall, the artist aboard *Investigator*, depicted a bark hut in a landscape painting titled "Entrance to Port Lincoln", painted from behind Memory Cove.

Dreaming

For Aboriginal people, land and waters have many interconnected complex meanings and values. The significance of land and waters is central to Aboriginal people's lives: at birth, death, ceremonies and socially, whilst hunting, gathering camping, and travelling. The term "Dreaming" is the term used to describe the combination of these aspects of life, religion, mythology, law and history which includes the past, the present and the future.

The land or waters that an Aboriginal person has a traditional or contemporary association with is commonly referred to as "Country." Both "Country" and "Dreaming" are complex concepts that are difficult for Non-Indigenous people to understand. For example, "Dreaming" can be a site located in song, in physical space or embodied in an object. Its physical, social or psychological importance can vary according to the speaker's traditional country, gender, age and personal experience. For these reasons the "Dreaming" is rarely mapped in the western sense but the significance of a site is integral for Aboriginal people.

Furthermore, mythological sites associated with these stories are known only to the Aboriginal people with cultural knowledge of the area. These sites are often landscape features which can be one or many trees, rocky outcrops, riverbeds or water holes. These sites physically represent the ancestors and their activities in the story with the knowledge and "Dreamings" associated with these sites passed down through stories of travellers, ancestors and mythological beings. Many "Dreaming Stories" travel throughout an area and may be known as a "Dreaming Trail" or "Track". Some stories focus on specific "sacred sites". These stories and traditions exclusively belong to Aboriginal people. Who tells them, where they are told, to whom they are told and when, are all a part of their culture and must be respected.

Barnjarla/Nauo Aboriginal Group Culture and Heritage

The Barnjarla/Nauo people are the traditional owners of the land comprising Lincoln National Park. The land and waters of the southern Eyre Peninsula have a strong connection with the Barnjarla/Nauo people. Before white settlement the Barnjarla/Nauo people managed and preserved the coastal and inland environment, which provided important seasonal food resources.

Along with white settlement came diseases, dispersal, the occupation of land and water supplies, which often resulted in violent conflict. The Barnjarla/Nauo people were progressively dispossessed and their ability to maintain a traditional lifestyle diminished, which led to segregation and the loss of language, traditional stories, ceremonies, significant and sacred sites, hunting and gathering techniques, and many other important cultural and heritage issues. These issues had a huge impact on the population, which dwindled significantly. However, the Barnjarla/Nauo people continue to practice their culture, language and traditional associations.

The Aboriginal Heritage Act 1988

Under the *Aboriginal Heritage Act 1988*, the South Australian Government is responsible for the protection and preservation of sites, objects and remains of significance to Aboriginal people. The

Department of Aboriginal Affairs and Reconciliation maintains a Central Archive of more than 6000 site recordings of Aboriginal sites.

The *Aboriginal Heritage Act 1988* defines a site as 'An area of land that is of significance to Aboriginal tradition, Aboriginal archaeology, anthropology or history.'

Site types include:

Archaeological sites, campsites, middens, artefact manufacturing sites. These may occur in isolation or in conjunction with other sites. These may contain scattered pieces of stone leftover from the manufacture of tools, stone or clay hearths, and food remains such as shellfish or animal bone. Middens are characterised by large deposits of shells. They may also contain animal bone, charcoal, stone tools and possibly skeletal remains.

Burial sites. Can be historic or pre Contact. In some areas burials are marked with stones, logs or brushwood at the head or sides of the grave, however most burial sites are only recognisable when they become exposed by erosion or by disturbance. Many are found in sandy areas where they are readily exposed through erosion.

Quarry sites - stone tool, grindstone and ochre quarries. Quarries can be identified from signs of chipping or hammering on suitable rock outcrops and from associated surface scatters of flaked stone.

Stone arrangements- ceremonial, hunting hides, and fish traps. Arrangements can be made out of stone timber or earth. They are distinguished by large or small arrangements of stones laid out in patterns on relatively clear ground, but can also be found across watercourses as fish traps.

Mythological sites. Mythological sites are dreaming sites. These may include natural features in the landscape, such as single trees, rock formations and waterholes to mountain ranges.

Historic sites. Historic sites can include missions; ration depots, birthplaces and fringe camps.

Paintings and engravings. Painting and engraving sites are widely distributed and are found in a range of environments where suitable rock surfaces, shelters and overhangs are found.

Scar trees. Scar trees exhibit scars on the trunk or limbs where bark has been removed for various purposes to make canoes, shields, dishes or shelters. These are also termed Culturally Modified Trees.

Land, developed or undeveloped can contain sites. Sites relate to living patterns and use of environmental resources such as water, animal and vegetable foods and stone by Aboriginal people. They also relate to spiritual beliefs, and ceremonial activities.

Certain landforms in the park that are likely to contain evidence of Aboriginal pre-historic occupation include:

- *Claypans, lakes and estuaries* (stone artefact scatters, shell middens, rock art, stone arrangements, campsites or ovens)
- *Rocky outcrops* (quarries, rock art, rock holes, stone arrangements, ceremonial religious sites, stone artefact scatters)
- *Dunes* (stone artefact scatters, shell middens, burials, campsites or ovens)
- *Bush or forested areas* (stone artefact scatters, campsites or ovens)

Currently several sites are listed on the Central Archive for Lincoln National Park. However, these recordings do not reflect a comprehensive survey of the park. To promote better cultural heritage management in the park, further research needs to be undertaken to identify and record all sites of significance.

To ensure the protection of sites and to avoid inadvertent damage, DEH shall consult with DAARE and the appropriate Aboriginal Heritage Committee before commencement of any development works.

The Department for Environment and Heritage acknowledges that local Aboriginal communities have a special relationship with the parks of southern Eyre Peninsula. The Department also acknowledges that opportunities exist, and should be mutually developed, to increase Aboriginal

involvement in many areas and aspects of park management. There are clearly benefits to park management, and to the use and enjoyment of the park by visitors if Aboriginal people who have traditional affiliation with the land are involved in its care.

Therefore DEH will, within the context of Government policy, work with the Barngarla/Nauo people to develop mechanisms to enable them to strengthen their cultural links with the parks and explore opportunities for commercial enterprises.

Lincoln National Park is included in two native title claims. The first claim was lodged in April 1996 by the Barngarla Families (Australian Native Title Tribunal File Number SC96/4). This claim covers the entire Eyre Peninsula, adjacent coastal waters and a large area of pastoral land to the north, primarily the Gawler Ranges and a small part of the central Flinders Ranges. The claim was accepted by the National Native Title Tribunal in August 1996, however mediation proceedings are yet to be initiated.

The second claim was lodged on behalf of the Nauo/Barngarla people in November 1997 (Australian Native Title Tribunal File Number SC97/8). This claim incorporates land and coastal waters of southern Eyre Peninsula from Streaky Bay in the west to Cowell in the east.

DEH will consult with appropriate Aboriginal people with regard to significant site works and development proposals. In addition to the Department's commitment to developing relationships with local Aboriginal communities, DEH has a responsibility to comply with the provisions of the *Aboriginal Heritage Act 1998*.

Aboriginal employment initiatives were established within the District in the early 1990s, leading to the employment of an Aboriginal Park Assistant.

Lincoln National Park contains a number of Aboriginal archaeological sites. Archaeological surveys of the parks have not been undertaken, although numerous sites have been recorded and registered. Identification of sites, in conjunction with representatives of the Native Title claimants and local Heritage Committees, will facilitate better protection of important cultural resources.

4.3.2 Post-colonial Heritage

Colonial history in the Port Lincoln area is first recorded in Matthew Flinders' voyage of discovery aboard the *Investigator* in 1802. He surveyed and mapped much of the coastline of lower Eyre Peninsula, naming many sites in and around Lincoln National Park in the process. French explorer Nicolas Baudin in the *Géographe* followed a short time later, after his famous meeting with Flinders at Encounter Bay near Victor Harbor.

Matthew Flinders erected a plaque at a site he named Memory Cove, after the tragic loss of eight crew. Eight of the islands in Thorny Passage were also named in their memory. In 1841 a monument was erected on Stamford Hill, commemorating Flinders' voyage.

Farming and grazing began in the area now occupied by the park in the mid to late 1800s and continued until the mid 1900s. The first section of the park was established as a Flora and Fauna Reserve in 1941, and the park has now doubled in size to its present 31,531 hectares.

Some sites of interest relating to early colonial exploration and settlement include:

Cape Catastrophe

A prominent navigational landmark used by ocean-going sailing ships throughout the late nineteenth and early twentieth centuries, Cape Catastrophe was often the first land sighted and recorded in the log of cargo traders from Europe and North America.

Memory Cove

Flinders' water supplies were low, so he dispatched eight of his crew in the ship's cutter to search for water. The cutter was seen returning from land but it never reached the ship. The boat was eventually found floating bottom upwards, but no trace of the crew was ever found. Flinders named many features in memory of this tragedy, including Cape Catastrophe and Memory Cove. Thistle, Taylor, Owen, Smith, Lewis, Little, Hopkins and Williams Islands were named after the lost crewmembers. A commemorative copper plaque was erected by Flinders, which gradually

deteriorated, and has since been replaced with a replica. The original plaque is now located in the SA Maritime Museum, Port Adelaide.

Stamford Hill and Flinders Monument

Flinders named many features in this area after places in his native Lincolnshire, including, Stamford Hill, Cape Donington, Spalding Cove and Grantham Island. Following the disaster at Memory Cove, Flinders sailed north around Cape Donington into Proper Bay. Stamford Hill was used as a vantage point in the ongoing search for water, which was eventually found by digging a shallow well near Tulka.

In 1841, Sir John Franklin, then Governor of Van Diemen's Land, commissioned the erection of a monument to Flinders, and his wife, Lady Franklin, arrived from Tasmania to supervise its construction on Stamford Hill. Sir John Franklin had served with Flinders on the *Investigator* forty years earlier.

Stamford Hill and Flinders Monument are major visitor attractions in Lincoln National Park. A landscape architect was contracted in 1997 to plan for the development of the summit and facilities. The design recommendations will be assessed, reviewed if necessary, and implemented.

Cape Donington

First occupied in 1875 under a Pastoral Lease, Donington Peninsula changed leaseholders ten times between 1892 and 1946. Donington Cottage was constructed at around the turn of the century and was later occupied by a lighthouse-keeper. The cottage was extensively renovated during 1996, maintaining its heritage style. It is now available as rental accommodation for park visitors. Further development of this site, including revegetation and landscaping will be undertaken.

Shipwrecks

Many shipwrecks have occurred along the rugged coastline of the park. Shipwrecks in the Cape Catastrophe area include the cutter from the *Investigator* (1802) and the *Glen Morry* (1967). The fishing vessel *Alternative* was wrecked near Memory Cove in 1884 and the tuna boat *Degei* was wrecked near Cape Donington in 1974. Wreck Beach in Sleaford Bay was named after the *Mary Ellis*, which went aground there in 1907.

Sealing and Whaling

Sealing occurred for a few decades in the early 1800s, but seal numbers were depleted so quickly that interest rapidly turned to whaling. A whaling station operated in Spalding Cove from 1828 to about 1832. By the late 1840s whaling vessels were becoming uncommon along the coast, due to diminishing whale numbers.

Colonial activity

This included farming, grazing, woodcutting and guano mining. Cleared areas, wells, ruins, fence lines and farm machinery remain as testament to early occupation.

Sites of historic colonial significance will be managed to conserve their cultural value. Where appropriate, interpretation materials may be installed to enhance visitor experience. A register of historic colonial sites is listed in Table 2.

Table 2: Cultural Sites, Lincoln National Park

State Heritage Register

Memory Cove - Flinders Tablet	(Site No 6028-14214)
Stamford Hill/Flinders Monument	(Site No 6028-10221)

Other cultural sites of note

Black Well	Sleaford Mere ruins
Carcase Rock Well	Spalding Cove whaling station
Donington Cottage	Stella's Hut
Follett's Flat Hut and Well	Surfleet Cove tank and ruins
Myoporium Flat Well	Tulka Sheep Dip and Yards
Mary Ellis wreck	Wanna Flat Waterholes
Memory Cove - Survey Datum Mark	Wanna Well
Old Tulka Homestead	Woodcutter's Ruin/Well/Woodpile
Original Flora and Fauna Reserve	Woodcutter's Walking Track Well

Objectives

Conserve and protect significant cultural heritage sites and provide appropriate interpretive material.

Develop and strengthen Aboriginal involvement in Lincoln National Park.

In conjunction with nominated Aboriginal representatives, protect and interpret Aboriginal culture and cultural sites.

Actions

- Consult Barngarla/Nauo people who have a traditional association with the land, Native Title claimants and relevant State and Federal Aboriginal heritage authorities, in decisions regarding the management of Barngarla/Nauo cultural heritage and before proceeding with any significant development works within the reserve, obtain a cultural heritage survey from the appropriate authority, under the provisions of the *Aboriginal Heritage Act 1988*.
- In cooperation with the Department of Aboriginal Affairs and Reconciliation, the Heritage Branch of DEH and other relevant authorities and organisations, identify, record, protect, restore and monitor known or relocated sites and items of archaeological, anthropological, cultural and historical significance located in the park and establish a priority action list for site conservation. Barngarla/Nauo and historic cultural heritage sites require conservation plans to facilitate appropriate management.
- In consultation with the Barngarla/Nauo community, the Heritage Branch of DEH and other relevant authorities, research cultural and historic sites and stories that relate to the park. All sites should be recorded to the standards set by the Heritage Branch of DEH and/or DAARE and submitted for inclusion on either the DAARE Central Archive and/or the State Heritage Register.
- Where appropriate, develop interpretive material and tourism programs for visitors. Interpretive material may include web site, brochures, site signage and displays.
- With the assistance of the local Aboriginal people, identify all local Aboriginal community groups with an interest in Lincoln National Park. Contact, develop and support forums that achieve an ongoing dialogue with all groups.
- Continue to support Aboriginal interest in employment in park operations.
- Seek comment and endorsement from Aboriginal people for all park literature containing reference to Aboriginal culture or sites.
- Upgrade Stamford Hill and walking trail facilities.
- Continue to develop and maintain Donington Cottage for rental accommodation.

4.4 Fire Management

The predominant mallee vegetation in the park is very prone to bushfires, but is also generally able to regenerate well following fire. Native animals, however, can be disadvantaged regionally if large tracts of vegetation are destroyed in any single or in frequent fires. In remnant stands of fire-prone vegetation, it is desirable to maintain a mosaic of differing stages of post-fire regeneration, both to enhance the variety of animal habitat available in the region, and to minimise the possibility of a single fire event destroying very large tracts of animal habitat.

DEH has a responsibility to manage all aspects of fire in its reserves. Fire management is guided by DEH fire management planning. A Fire Response Plan has been prepared for parks in the Eyre District as well as a Fire Management Plan for Lincoln National Park in consultation with CFS, the district Bushfire Prevention Committee and other key stakeholders, interest groups and neighbours.

These plans will be reviewed and updated regularly and form the basis of ongoing fire management. The Fire Management Plan for Lincoln National Park will:

- identify natural and cultural heritage values and built assets;
- provide a framework for the management of wildfire suppression, including identification of strategic access and control lines;
- provide a framework for prescribed burning for ecological management and fuel reduction purposes; and
- identify performance indicators.

Planned fires, where appropriate and ecologically sustainable, will be used to reduce fuel hazards with the aim of protecting life and property.

The impact on wildlife of wood gathering by visitors and the minimisation of potential ignition sources are primary considerations in the management of campfires. Specific fire sites will be provided in camping areas and alternative fuel sources will be encouraged to limit impacts.

Objectives

Manage fire to ensure the protection of life and property, the maintenance of biodiversity and the protection of natural, cultural and built values.

Actions

- Review the DEH Eyre District Fire Response Plan and Lincoln National Park Fire Management Plan as required in association with CFS and other stakeholders.
- Provide information about Park Fire Bans to visitors.
- Maintain strategic fire breaks within the park.
- Provide campfire sites within the park and permit the use of fire only at these sites by visitors who have supplied their own fuel from outside the park.
- Investigate off-park fuel sources and develop a strategy to make this available to visitors.
- Prohibit the collection of firewood from the park.

4.5 Recreation and Tourism

Lincoln National Park is a popular venue for a variety of outdoor recreation activities, including sightseeing, bushwalking, four-wheel driving, fishing, boating and diving.

The Jussieu Peninsula is noted for its scenic qualities, with Lincoln National Park conserving some of the most spectacular scenery of the Lower Eyre Peninsula.

Visitor use of the park is concentrated around the coast. The rugged southern coastline and the protected bays and beaches along the eastern and northern shores are the park's major attractions for both day visitors and campers.

Many visitors to Lincoln National Park enjoy water-based recreational activities, including fishing, diving and boating. Popular areas include the northern coast between Horse Rock and Cape Donington, Taylors Landing and safe anchorages along Thorny Passage. Until recently, some boat visitors behaved inappropriately in the park, lighting fires on beaches, exercising their dogs and littering. Proclamation of the Lincoln National Park boundary to mean low water mark in 2001

allows the provisions and Regulations of the *National Parks and Wildlife Act* to now apply to beaches, and it is expected that inappropriate behaviour on beaches will subside.

4.5.1 Vehicle Access

Conventional Vehicles

The main park entrance near Tulka provides conventional vehicle access to the Cape Donington, Taylors Landing and Wanna areas, along an unsealed road. A network of smaller roads provide access to popular recreational sites, including Stamford Hill, Surfleet Cove, Spalding Cove, Fishermans Point, September Beach and Taylors Landing.

Maintenance of these roads is expensive. Consideration will be given to upgrading conventional vehicle access roads within the park to improve visitor experience and reduce maintenance cost.

Four Wheel Drive Vehicles (4WD)

Several tracks within Lincoln National Park are suitable for 4WD vehicles only. These include Woodcutters Beach, Carcase Rock, Maclaren Point and the road to Memory Cove. An extensive, marked 4WD route traverses the Sleaford-Wanna dune system. This route negotiates unconsolidated sand dunes and 4WD vehicles can become bogged in loose sand. The track is a major attraction, however, providing a challenging and rewarding experience for visitors with 4WD vehicles.

Figure 3 identifies those tracks that are available for public access. All other tracks are closed to public vehicles and will be either rehabilitated where appropriate or maintained for emergency and management use.

Speed limits apply to all roads and tracks in the park.

Objective

Provide appropriate vehicle access in Lincoln National Park.

Actions

- Restrict public vehicle access to the roads and tracks shown in Figure 3.
- Maintain the designated conventional access roads and upgrade if possible.
- Maintain all other designated vehicle access roads to a safe, satisfactory standard.
- Close inappropriate vehicle tracks and rehabilitate where necessary.
- Monitor vehicle use and address public risk and environmental issues.

4.5.2 Boat Access

Recreational activities in the park are often water-based. Many people use the waters around the park to fish, sail, canoe, dive, swim, surf and explore. As these activities mostly occur outside the park boundaries, they do not fall within the jurisdiction of the management plan. Many people however, gain access to the park by boat, and, provided permission has been granted, this is the only way visitors may access some islands.

When visitors enter the park from a boat, they are subject to the provisions of the Act and the management prescriptions outlined in this plan.

Objectives

Ensure that beaches are managed in accordance with the *National Parks and Wildlife Act* and objectives of this plan.

Actions

- Ensure visitors who enter the park by boat comply with the *National Parks and Wildlife Act*, its Regulations and with the provisions of this plan.

4.5.3 Walking Trails

Several walking trails are located within Lincoln National Park. The Investigator Trail follows the coastline to Taylors Landing, then turns inland to Sleaford Bay and exits the park at Mary Ellis Wreck Beach. A network of smaller loop trails exists in the Stamford Hill, Surfleet Cove, Taylors Landing and Spalding Cove areas.

The provision and nature of walking trails within the park will be reviewed through the development and implementation of a Lincoln National Park Walking Trail Plan, which will be developed in consultation with the community.

Investigator Trail

The Investigator Trail has been proposed to form a loop around the coastline of the lower Eyre Peninsula including Port Lincoln, Lincoln and Coffin Bay National Parks and Coffin Bay township. If completed, the trail would be approximately 350km long. The trail has incorporated existing smaller walks, including the Parnkalla Trail along the Port Lincoln foreshore.

The inaugural meeting of the Lower Eyre Peninsula Walking Trail Advisory Committee (LEPWATAC) determined the objective of the committee: "To plan and facilitate the construction of a walking trail...taking in as much of the coastline as possible...also having regard to...[the] conservation of any sensitive areas including vegetation, wildlife and heritage areas."

Within Lincoln National Park, the Investigator Trail follows the coastline north to Cape Donington, then south to Taylors Landing. The trail then returns to Pillie Lake along the Taylors Landing walking trail before heading south to Sleaford Bay. It then traverses the Sleaford Bay shoreline before returning via Sleaford Mere to the park entrance.

Originally, it was proposed that the trail follow the coastline south of Taylors Landing to Memory Cove, and continue along the southern coastline to Mary Ellis Wreck Beach. Due to the following reasons, DEH determined that the trail should not proceed through the Memory Cove Wilderness Protection Area:

- Memory Cove Wilderness Protection Area is one of the few remaining wilderness areas of the Lower Eyre Peninsula.
- The *Wilderness Protection Act* does not allow for the construction of new trails.
- Advice from the Vegetation Management Board is that clearance would not comply with the provisions of the *Native Vegetation Act 1991*.
- The existing wilderness quality of the area is a key marketing attraction for the region.
- The existing network of trails is considered adequate to meet the needs of walkers. DEH is fully committed to maintain the existing 85km of Investigator Trail in the park.

Taylors Landing Walking Trail

Originally the access road to Taylors Landing, this walk has been established following relocation of the road. The trail departs from a car park at Pillie Lake, traversing mallee and tea-tree scrub before emerging at Taylors Landing 12km to the east.

Stamford Hill trail network

A network of small trails link the Investigator Trail to Stamford Hill, Woodcutters Beach, Surfleet Cove and Spalding Cove. The trails provides opportunities for loop walks from each of the campgrounds in the area. In addition, carparking is provided at the base of Stamford Hill and along the Cape Donington Road south of Woodcutters Beach.

Objectives

Provide and maintain appropriate walking trails within Lincoln National Park.

Actions

- Develop and implement a Lincoln National Park Walking Trail Plan in consultation with the community.
- Provide signs for the trailhead of each walking trail and interpretive material where appropriate.
- Monitor the use of walking trails to assist with future management.

4.5.4 Entry and Camping Fees

Entry and camping fees apply within Lincoln National Park. These fees are prescribed in Regulations under the *National Parks and Wildlife Act*, and are varied from time to time in accordance with DEH policy.

Camping fees were implemented when the National Parks and Wildlife Service was established in 1972. An entry fee for the park was introduced in April 1995, following an extensive period of public consultation. Annual passes, four-week holiday passes and statewide passes are now available for park visitors. Fees are paid into a General Reserves Trust fund, and are used to improve visitor services and facilities within Lincoln National Park.

A self-registration system was established at the park entrance station in 1995. This system has proven to be extremely cost-effective due to its high level of acceptance and the reduced requirement for rangers to sell camping permits.

Objectives

Provide effective means for the collection of entry and camping fees within Lincoln National Park.

Actions

- Monitor and ensure compliance with the self-registration system at the Lincoln National Park entrance station.
- Establish and maintain a database of visitor statistics.
- Ensure that park visitors have adequate opportunity to purchase annual vehicle passes within the Port Lincoln township.
- Inform park visitors of projects funded through entry and camping fee revenue.

4.5.5 Camping and Day Visit Areas

Camping and day visit areas are located throughout the park, as shown in Figure 1. The provision of camping and day visit areas will be in accordance with section 4.1 Zoning. Details of site upgrades are described in *Parks on Eyre: Lincoln and Coffin Bay National Parks Landscape and Facility Plan* (DEH 2002), which has been developed in consultation with the local community.

Donington Cottage

Donington Cottage was built around 1899 by William Argent, who farmed and cut fence posts and firewood in the Cape Donington area. Farming in the area was abandoned in the 1940s. Donington Cottage was substantially upgraded in 1996, and is now available as rental accommodation for park visitors.

Built around 1899, Donington Cottage was substantially upgraded in 1996, and is now available as rental accommodation for park visitors.

Surfleet Cove

Located on the northern coastline of the park, Surfleet Cove is a sheltered sandy beach with large mallee trees providing shade over much of the camping area. It is the most popular site in the park, providing opportunities for camping, walking, fishing and boating. A toilet and limited drinking water are provided. A post and rail fence defines the campsites and delineates beach access. The area is accessible by conventional vehicles, caravans and boats. Little Surfleet is located approximately 1km west of Surfleet Cove. Situated behind a sand dune, this site is close to a shallow north-facing beach. The site accommodates up to 3 tents, and is accessible by conventional vehicle. No facilities are provided.

Spalding Cove

Located at the southern end of Spalding Cove, this site is shaded by large mallee trees. The access track winds through dense tea-tree vegetation and with care may be accessed by conventional vehicles. The shallow beach limits boat access to the site. No facilities are provided.

Fishermans Point

Located on the eastern shoreline of Spalding Cove, Fishermans Point is also shaded by large mallee trees but is more exposed to westerly winds. The site is accessible to conventional vehicles and caravans. Boat access is available to a beach immediately north of Fishermans Point. A toilet and limited drinking water are provided.

Engine Point

Located on the Donington Peninsula, Engine Point is a popular fishing spot. The site is surrounded by low coastal vegetation, which provides limited shelter against cold westerly winds. Limited access is available to conventional vehicles. No facilities are provided.

Donington Beach

Located on the tip of Donington Peninsula, the beach faces to the north. The site is quite exposed, but is popular during the warmer months. No facilities are provided.

September Beach

Located to the south of Cape Donington, September Beach is a popular camping and fishing site. The camping area is separated from the beach by a low sand dune, which provides some shelter. The site is accessible to conventional vehicles and caravans, and is particularly popular during the warmer months. Toilets and limited drinking water are provided.

Carcase Rock

Situated at the top of Thorny Passage, Carcase Rock itself lies a short distance offshore. The camping area is set amongst low coastal mallee vegetation. No facilities are provided. The site is accessible by 4WD only.

Maclaren Point

Maclaren Point lies several kilometres to the south of Carcase Rock, and provides a popular fishing location. Camping is available amongst the low coastal mallee vegetation. No facilities are provided. The site is accessible by 4WD only.

Taylor's Landing

A popular location, Taylor's Landing was traditionally used to provide boat access for transporting sheep from the mainland to Taylor's Island. Today the site provides for recreational boat launching and camping. The site is accessible to conventional vehicles. A toilet and limited drinking water are provided.

Woodcutters Beach

Located on the northern coastline of the park, Woodcutters Beach is a small site surrounded by low coastal mallee vegetation. The site accommodates two vehicles only and no facilities are provided. The site is accessible by 4WD only.

Horse Rock

Also located on the northern coastline of the park is this open campground. Horse Rock itself lies a short distance offshore. The camping area is flanked by low coastal vegetation. No facilities are provided. The site is accessible by conventional vehicles and caravans.

Stamford Hill

South of Surfleet Cove Stamford Hill provides a vantage point from which to view Port Lincoln and surrounding waters. At the top of Stamford Hill, Flinders monument commemorates Matthew Flinders and his 1802 voyage. A good quality walking trail with signs and seating is provided.

Wanna

The clifftop viewing area at Wanna provides spectacular views west along Sleaford Bay.

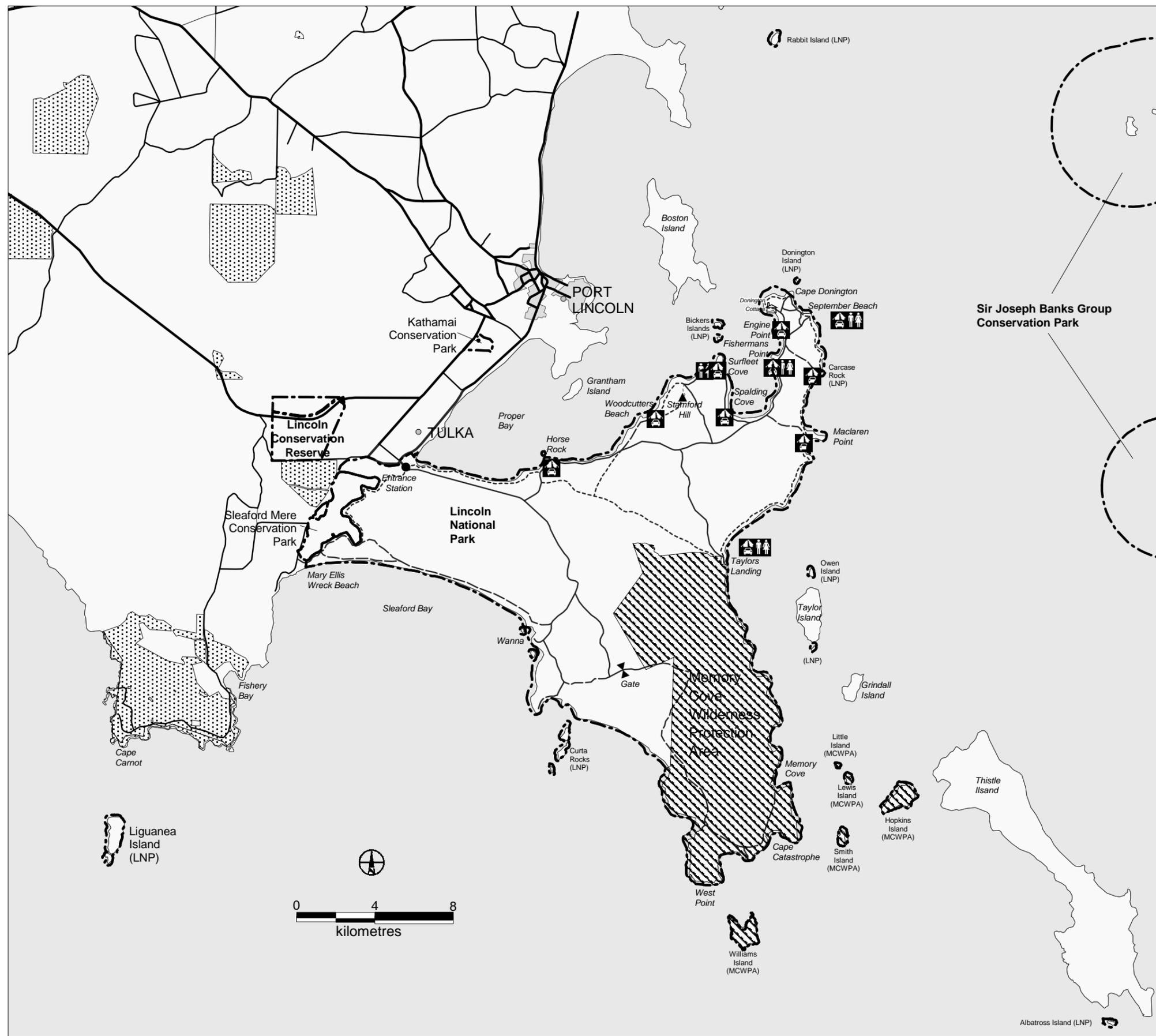


Figure 3

Lincoln National Park

Features

- Sealed Road
- Unsealed Road
- Four-wheel Drive Track
- Walking Trail
- Park Boundary
- Camping (vehicle access)
- Toilets
- Heritage Agreement
- (LNP) Lincoln National Park
- (MCWPA) Memory Cove WPA

Map produced from PAMS
 Projection: MGA Zone 53 (GDA94)
 Date: 5 July 2004

Back of Figure 3 (A3)

Sleaford-Wanna 4WD Track

A marked 4WD track crosses the Sleaford-Wanna dune system. This traverses massive mobile dune systems, limestone pavements and a variety of vegetation types.

Millers Hole/Salmon Hole

Both sites are cliff top vantage points for salmon fishing. These sites are popular with recreational fishermen.

Curta Rocks

A rough 4WD track leads to a parking area adjacent to Curta Rocks. The bay and surf beach are popular with 4WD visitors, surfers and recreational fishermen.

Mary Ellis Wreck Beach

On the southwestern park boundary, the Mary Ellis Wreck Beach is a popular day visit and surfing destination. Mobile sand dunes lead onto a flat surf beach.

Objectives

Provide appropriate facilities at camping and day visit sites within Lincoln National Park.

Actions

- Maintain and improve existing camping and day visit areas within Lincoln National Park in accordance with *Parks on Eyre: Lincoln and Coffin Bay National Parks Landscape and Facility Plan* (DEH 2002).
- Undertake rehabilitation of camping and day visit areas where necessary.
- Operate Donington Cottage as rental accommodation for park visitors while taking its inherent heritage values into account.
- Utilise revenue generated from Donington Cottage to maintain and improve the building and surrounds in keeping with its historic character.

4.6 Commercial Activities and Other Landuse

4.6.1 Tour Operators

Several commercial tour operators utilise Lincoln National Park. All operators are required to apply for a Commercial Licence, pursuant to the *National Parks and Wildlife Act 1972*. Permits are issued to applicants who meet DEH requirements. Licence fees are paid into a General Reserves Trust Fund, which is used to improve visitor services and facilities within parks of the region.

Objectives

Regulate commercial tours within the park to ensure their activities are compatible with park values and comply with the objectives of the *National Parks and Wildlife Act 1972*.

Actions

- Issue Commercial Licences to tour operators, subject to compliance with this plan and the provisions of the *National Parks and Wildlife Act 1972*.
- Utilise revenue generated from Commercial Licence fees to improve visitor services and facilities within the parks.

4.6.2 Other Commercial Activities

A number of commercials have been filmed in Lincoln National Park. Commercial filming in parks requires a Commercial Filming Agreement to be obtained, pursuant to the Regulations of the *National Parks and Wildlife Act 1972*. Filming fees are paid into a General Reserves Trust fund and used to improve visitor services and facilities within the parks.

Commercial filming and photography in parks requires a Commercial Filming Agreement to be obtained, pursuant to the *National Parks and Wildlife Act 1972*. Fees are paid into the local General Reserves Trust, which is used to improve visitor services and facilities within these parks.

Other commercial activities will be considered where such activities do not conflict with the objectives of management under the Act and this plan.

Objectives

Regulate commercial activities within Lincoln National Park to ensure they are compatible with park values and comply with the objectives of this plan and the *National Parks and Wildlife Act 1972*.

Actions

- Issue Commercial Licences/Leases for commercial activities, subject to compliance with this plan and the provisions of the *National Parks and Wildlife Act 1972*.
- Issue Commercial Filming Agreements for filming and photography within Lincoln National Park where appropriate.
- Utilise revenue generated from commercial licence fees to improve visitor services and facilities within Lincoln National Park.

4.6.3 Public Utilities (ie SA Water, ETSA Utilities and Department of Transport)

There are alien tenures within the Lincoln National Park. They are held by SA Water, ETSA Utilities and Department of Transport (Marine and Harbours). No new alien tenures will be permitted in the park except under exceptional circumstances.

DEH liaises with all public utilities regarding management of vegetation near services to ensure that maintenance and clearance is compatible with park values.

SA Water

In 1963 the western portion of the park was designated as Lincoln Basin Water Reserve to provide an additional water supply for the Eyre Peninsula community. A significant proportion (approximately 10%, or nominally 1,000ML per year) of Port Lincoln's water supply is derived from this land.

In 1989 the (then) Engineering and Water Supply Department (now SA Water) relinquished the Lincoln Basin Water Reserve, to allow land to be added to the park. These 1989 additions to the park are detailed in Appendix C and comprise the Water Resource Zone shown in Figure 2 (see 4.1 Zoning).

The management agreement between DEH and SA Water is contained in Appendix E.

ETSA Utilities

An ETSA Utilities powerline runs from the park entrance to the Cape Donington lighthouse. This powerline also services the park entrance station, SA Water pumping stations and Donington Cottage. ETSA manages the easement for these power lines by periodically pruning vegetation. Prior to vegetation pruning, ETSA notifies DEH of its intention.

Department of Transport (Marine and Harbours)

The Australian Maritime Safety Authority (AMSA) operates the lighthouse at Cape Donington and a Navaid Facility on Williams Island. The Cape Donington lighthouse now occupies a 4 hectare site and the Navaid Facility on Williams Island occupies a .24 hectare site.

Objectives

Ensure that SA Water, ETSA and Department of Transport have regard to DEH policies and the Regulations under the *National Parks and Wildlife Act 1972*.

Ensure that maintenance of the marine navigation aids does not impact negatively on the natural assets of the parks.

Have regard to leases conditions and the DEH shack site policy for national parks and reserves.

Actions

- Require SA Water and ETSA Utilities to obtain licences for the maintenance of infrastructure and access to facilities which exist on parks but are not subject to existing easements or agreements.
- Ensure relevant authorities liaise with DEH with regard to the maintenance of marine navigation aids.

4.6.4 Aquaculture

Aquaculture activities including tuna, mussel and crayfish farming have been developed within the waters of Boston Bay, adjacent the coastline of the park. Incidental impacts on the park include netting, ropes and other rubbish from aquaculture sites and tender vessels washing up on the beaches. Park management should be directed at ensuring that aquaculture activities have minimal impact on the park.

Objectives

Minimise the impacts of aquaculture activities on park values.

Actions

- Liaise with PIRSA (Aquaculture) and the aquaculture industry to assist with the appropriate implementation of the *Lower Eyre Peninsula Aquaculture Management Plan* (PIRSA 1997 and as amended).
- Review new applications for aquaculture tenure and monitor the impacts of existing aquaculture to ensure there is minimal impact upon the biological and scenic values of Lincoln National Park.

4.7 Management Arrangements

4.7.1 Partnerships and Cooperative Management

The Department for Environment and Heritage supports and promotes partnerships and cooperative management arrangements to establish integrated natural resource management. This requires the development of substantial working relationships with government agencies, local authorities and local communities.

With regard to Lincoln National Park, this involves developing working relationships with neighbours, local land managers, aquaculturists, Heritage Agreement owners, the representative Aboriginal Heritage Committee and Native Title Claimants.

DEH also recognises the importance of developing ongoing partnership arrangements, participating in regional management programs and contributing to community organisations and boards including Landcare groups, Soil Conservation Boards, Animal and Plant Control Boards and Local Government.

DEH is committed to reconciliation and to the development of partnerships with the Barngarla/Nauo community to cooperatively manage Lincoln National Park in a way that respects contemporary and traditional culture, knowledge and skills. Partnerships involve the delivery of programs that promote reconciliation, cultural awareness, Indigenous employment and training, cooperative management and Indigenous cultural heritage management on parks.

Furthermore, the South Australian Government is keen to pursue Indigenous Land Use Agreements (ILUAs) which are voluntary agreements between native title groups and other people about the use and management of country.

Partnership arrangements should be developed to provide a positive direction for the shared development and management of the park to fulfil the objectives of this plan.

Objectives

Develop and maintain partnerships and/or working relationships with organisations, statutory bodies and others to assist with the management of the park and help fulfil the reserve's potential without compromising its natural values.

Actions

- Consult with the local council, relevant management boards, the local community and other relevant bodies to explore the benefits of partnership arrangements that will support future management decisions on issues of common interest.
- Involve the Barngarla/Nauo community, Native Title Claimants and the nominated Aboriginal Heritage Committee in the cooperative management of the reserve and the preservation of Indigenous cultural heritage.
- Encourage and contribute to the development of partnership arrangements to integrate biodiversity and recreation management in the region, with organisations that have an interest in contributing to the sustainable management of the park.
- Promote discussion with Aboriginal people who have a traditional association with the land comprising the park to better understand and appreciate their culture, lifestyle and knowledge of the reserve.

4.7.2 Community and Volunteer Involvement

The Friends of Southern Eyre Peninsula Parks formed in 1995 and have a strong focus on Lincoln National Park. The purpose of a Friends Group is to provide assistance with the care and maintenance of parks and to serve as an information source for park visitors. Such community assistance is of great benefit to DEH in helping to manage parks.

The Lower Eyre Peninsula Four Wheel Drive Club maintains guideposts along the Sleaford-Wanna dune system access route and undertakes numerous projects throughout the park. Other volunteer and community-based groups active within the Lincoln National Park area include the Society for Growing Australian Plants and the DEH Eyre Consultative Committee.

Such community assistance is of great benefit to DEH in helping to manage parks and to provide links with the broader community.

Objectives

Develop and encourage community support for management of Lincoln National Park.

Actions

- Provide opportunities for volunteer and community groups by facilitating the implementation of programmed activities.

4.8 Future Directions

4.8.1 Additional Land

Lincoln Conservation Reserve, 1,037 ha in area, lies more than one kilometre to the north west of Lincoln National Park, but is connected to the national park by well-vegetated private land over which a Heritage Agreement has been established under the *Native Vegetation Act* to protect its biodiversity values. It is dedicated as a conservation reserve under the *Crown Lands Act 1929*, which makes no provision for protection from impacts due to unregulated use by visitors (eg camping, traverse by vehicle, use of firearms, dogs, etc.).

In order to better protect the natural values of Lincoln Conservation Reserve, it should be dedicated under the *National Parks and Wildlife Act* and added to Lincoln National Park.

Other land adjacent to the park with high biodiversity values should be assessed if it becomes available for sale in order to determine if it meets criteria in accordance with the DEH CARRS program and, if it is considered that the land will improve the comprehensiveness, adequacy and representativeness of the reserve system in the region, it should be acquired and also added to the park.

Objectives

Improve the park's capacity to protect valuable biodiversity values of the Lower Eyre Peninsula.

Actions

- Assess the biodiversity values of any land near the park that might become available for purchase and, if it meets the criteria for reservation, take steps to acquire it and add it to the park.
- Dedicate Lincoln Conservation Reserve as an addition to Lincoln National Park.

5 SUMMARY OF MANAGEMENT ACTIONS

ACTION	PRIORITY	DURATION
Zoning		
Zone the park to ensure appropriate public use, landscape protection and the conservation of wildlife habitats and cultural features.	High	Ongoing
Native Vegetation		
Integrate vegetation rehabilitation and habitat restoration programs with regional pest plant and feral animal control.	High	Ongoing
Identify and monitor populations of plants of conservation significance and develop and implement management programs for their conservation if necessary.	High	Ongoing
Continue revegetation where necessary to improve visitor amenity and address degraded vegetation.	High	Ongoing
Native Fauna		
Collate information on species of conservation significance, monitor populations and if necessary, develop and implement management programs for their conservation.	High	Ongoing
Integrate regional pest plant and feral animal control with vegetation rehabilitation and habitat restoration, and where feasible, reintroduce locally extinct or endangered native animal populations.	High	Ongoing
Promote the positive outcomes of the "Ark on Eyre" program in the parks to the wider community to encourage regional participation, maximising biodiversity outcomes.	High	Ongoing
Monitor population trends and impacts of Western Grey Kangaroos within the mainland parks and if necessary, reduce the kangaroo population to a sustainable level by targeted culling.	High	Ongoing
Monitor and manage the impact of recreational activities on key wildlife species (eg Hooded Plover, Osprey and White-bellied Sea-eagle).	High	Ongoing
Continue the study of the Bush Stone-curlew to provide baseline population data for use as an indicator species to determine the success of the fox baiting program.	Medium	Ongoing
Encourage scientific research to enhance wildlife management.	Medium	Ongoing
Introduced Plants		
Undertake, where practicable, control of invasive pest plant species as part of the regional integrated wildlife restoration program known as "Ark on Eyre".	High	Ongoing
Continue the programs to eradicate African Boxthorn, Aleppo Pine and Myrtle-leaved Milkwort, Dolichos Vine, Horehound and Bridal Creeper from the park.	High	Ongoing
Increase awareness in the local community of the invasive nature of some ornamental plants in gardens (eg Myrtle-leaved Milkwort), and encourage their replacement with suitable indigenous species.	Medium	Ongoing
Control non-invasive pest plant species in sites subject to disturbance.	Low	Ongoing
Introduced Pathogens		
Comply with the provisions of the <i>Threat Abatement Plan For Dieback Caused By The Root-Rot Fungus Phytophthora cinnamomi</i> (Environment Australia, 2001).	High	Ongoing
Increase public and staff awareness of the potential for introduction and establishment of <i>Phytophthora cinnamomi</i> , the plant species susceptible to it and indicators of its presence.	Medium	Ongoing

ACTION	PRIORITY	DURATION
Ensure that all soil is removed from all earth-moving and construction equipment entering the reserve, to reduce the risk of Phytophthora introduction.	High	Ongoing
Provide boot-cleaning stations for track users if necessary.	Low	Ongoing
Introduced Animals		
Encourage the restoration of wildlife habitats by developing an integrated control program for pest plants and animals.	High	Ongoing
Continue the program to eradicate rabbits, foxes and cats from mainland parks.	High	Ongoing
Investigate methods of feral bee control and initiate where appropriate.	Medium	Ongoing
Cultural Heritage		
Consult Barngarla/Nauo people who have a traditional association with the land, Native Title claimants and relevant State and Federal Aboriginal heritage authorities, in decisions regarding the management of Barngarla/Nauo cultural heritage and before proceeding with any significant development works within the reserve, obtain a cultural heritage survey from the appropriate authority, under the provisions of the <i>Aboriginal Heritage Act 1988</i> .	High	Ongoing
In cooperation with the Department of Aboriginal Affairs and Reconciliation, the Heritage Branch of DEH and other relevant authorities and organisations, identify, record, protect, restore and monitor known or relocated sites and items of archaeological, anthropological, cultural and historical significance located in the park and establish a priority action list for site conservation. Barngarla/Nauo and historic cultural heritage sites require conservation plans to facilitate appropriate management.	High	Ongoing
In consultation with the Barngarla/Nauo community, the Heritage Branch of DEH and other relevant authorities, research cultural and historic sites and stories that relate to the park. All sites should be recorded to the standards set by the Heritage Branch of DEH and/or DAARE and submitted for inclusion on either the DAARE Central Archive and/or the State Heritage Register.	High	Ongoing
Where appropriate, develop interpretive material and tourism programs for visitors. Interpretive material may include web site, brochures, site signage and displays.	Medium	Ongoing
With the assistance of the local Aboriginal people, identify all local Aboriginal community groups with an interest in Lincoln National Park. Contact, develop and support forums that achieve an ongoing dialogue with all groups.	Medium	Ongoing
Continue to support Aboriginal interest in employment in park operations.	Medium	Ongoing
Seek comment and endorsement from Aboriginal people for all park literature containing reference to Aboriginal culture or sites.	High	Ongoing
Upgrade Stamford Hill and walking trail facilities.	Medium	12 months
Continue to develop and maintain Donington Cottage for rental accommodation.	Medium	Ongoing
Fire Management		
Review the DEH Eyre District Fire Response Plan and Lincoln National Park Fire Management Plan as required in association with CFS and other stakeholders.	High	Ongoing
Provide information about Park Fire Bans to visitors.	Medium	Ongoing
Maintain strategic fire breaks within the park.	High	Ongoing

ACTION	PRIORITY	DURATION
Provide campfire sites within the park and permit the use of fire only at these sites by visitors who have supplied their own fuel from outside the park.	Medium	2 years
Investigate off-park fuel sources and develop a strategy to make this available to visitors.	Medium	3 years
Prohibit the collection of firewood from the park.	High	Ongoing
Vehicle Access		
Restrict public vehicle access to the roads and tracks shown in Figure 3.	High	Ongoing
Maintain the designated conventional access roads and upgrade if possible.	High	Ongoing
Maintain all other designated vehicle access roads to a safe, satisfactory standard.	High	Ongoing
Close inappropriate vehicle tracks and rehabilitate where necessary.	Medium	2 years
Monitor vehicle use and address public risk and environmental issues.	Medium	Ongoing
Boat Access		
Ensure visitors who enter the park by boat comply with the <i>National Parks and Wildlife Act</i> , its Regulations and with the provisions of this plan.	Medium	3 years
Walking Trails		
Develop and implement a Lincoln National Park Walking Trail Strategic Plan in consultation with the community.	Medium	3 years
Provide signs for the trailhead of each walking trail and interpretive material where appropriate.	Medium	2 years
Monitor the use of walking trails to assist with future management.	Medium	Ongoing
Entry and Camping Fees		
Monitor and ensure compliance with the self-registration system at the Lincoln National Park entrance station.	High	Ongoing
Establish and maintain a database of visitor statistics.	Medium	Ongoing
Ensure that park visitors have adequate opportunity to purchase annual vehicle passes within the Port Lincoln township.	High	Ongoing
Inform park visitors of projects funded through entry and camping fee revenue.	Medium	Ongoing
Camping and Day Visit Areas		
Maintain and improve existing camping and day visit areas within Lincoln National Park in accordance with <i>Parks on Eyre: Lincoln and Coffin Bay National Parks Landscape and Facility Plan</i> (DEH 2002).	High	Ongoing
Undertake rehabilitation of camping and day visit areas where necessary.	Medium	Ongoing
Operate Donington Cottage as rental accommodation for park visitors while taking its inherent heritage values into account.	Medium	Ongoing
Utilise revenue generated from Donington Cottage to maintain and improve the building and surrounds in keeping with its historic character.	Medium	Ongoing
Tour Operators		
Issue Commercial Licences to tour operators, subject to compliance with this plan and the provisions of the <i>National Parks and Wildlife Act 1972</i> .	Medium	Ongoing

ACTION	PRIORITY	DURATION
Utilise revenue generated from Commercial Licence fees to improve visitor services and facilities within the parks.	Medium	Ongoing
Other Commercial Activities		
Issue Commercial Licences/Leases for commercial activities, subject to compliance with this plan and the provisions of the <i>National Parks and Wildlife Act 1972</i> .	Medium	Ongoing
Issue Commercial Filming Agreements for filming and photography within Lincoln National Park where appropriate.	Medium	Ongoing
Utilise revenue generated from commercial licence fees to improve visitor services and facilities within Lincoln National Park.	Medium	Ongoing
Public Utilities		
Require SA Water and ETSA Utilities to obtain licences for the maintenance of infrastructure and access to facilities which exist on parks but are not subject to existing easements or agreements.	Medium	12 months
Ensure relevant authorities liaise with DEH with regard to the maintenance of marine navigation aids.	Medium	Ongoing
Aquaculture		
Liaise with PIRSA (Aquaculture) and the aquaculture industry to assist with the appropriate implementation of the <i>Lower Eyre Peninsula Aquaculture Management Plan</i> (PIRSA 1997 and as amended).	High	Ongoing
Review new applications for aquaculture tenure and monitor the impacts of existing aquaculture to ensure there is minimal impact upon the biological and scenic values of Lincoln National Park.	High	Ongoing
Partnerships and Cooperative Management		
Consult with the local council, relevant management boards, the local community and other relevant bodies to explore the benefits of partnership arrangements that will support future management decisions on issues of common interest.	High	Ongoing
Involve the Bangarla/Nauo community, Native Title Claimants and the nominated Aboriginal Heritage Committee in the cooperative management of the reserve and the preservation of Indigenous cultural heritage.	High	Ongoing
Encourage and contribute to the development of partnership arrangements to integrate biodiversity and recreation management in the region, with organisations that have an interest in contributing to the sustainable management of the park.	Medium	Ongoing
Promote discussion with Aboriginal people who have a traditional association with the land comprising the park to better understand and appreciate their culture, lifestyle and knowledge of the reserve.	Medium	Ongoing
Community and Volunteer Involvement		
Provide opportunities for volunteer and community groups by facilitating the implementation of programmed activities.	Medium	Ongoing
Additional Land		
Assess the biodiversity values of any land near the park that might become available for purchase and, if it meets the criteria for reservation, take steps to acquire it and add it to the park.	Medium	Ongoing
Dedicate Lincoln Conservation Reserve as an addition to Lincoln National Park.	Medium	2 years

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APPENDIX A: Legislation, Conventions and Agreements

South Australia
<i>Aboriginal Heritage Act 1988</i>
<i>Animal and Plant Control Act (Agricultural Protection and Other Purposes) 1986</i>
<i>Biological Control Act 1986</i>
<i>Catchment Water Management Act 1995</i>
<i>Coast Protection Act 1972</i>
<i>Country Fires Act 1989</i>
<i>Equal Opportunity Act 1984</i>
<i>Environment Protection Act 1993</i>
<i>Development Act 1993</i>
<i>Harbors and Navigation Act 1993</i>
<i>Heritage Act 1993</i>
<i>Historic Shipwrecks Act 1981</i>
<i>Mining Act 1971</i>
<i>National Trust of South Australia Act 1955</i>
<i>Native Title (South Australia) Act 1994</i>
<i>Native Vegetation Act 1991</i>
<i>Occupational Health, Safety and Welfare Act 1986</i>
<i>Petroleum Act 1940</i>
<i>Prevention of Cruelty to Animals Act 1985</i>
<i>Roads (Opening and Closing) Act 1991</i>
<i>Recreational Greenways Act 2000</i>
<i>Soil Conservation and Land Care Act 1989</i>
<i>Water Resources Act 1997</i>
<i>Wilderness Protection Act 1992</i>
Commonwealth
<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i>
<i>Disability Discrimination Act 1992</i>
<i>Environment Protection and Biodiversity Conservation Act 1999</i>
<i>Native Title Act 1993</i>
<i>Natural Heritage Trust Act 1996</i>
International
<i>Japan / China Australia Migratory Bird Agreements (JAMBA, CAMBA)</i>
<i>Ramsar Convention</i>
<i>World Heritage Convention</i>

APPENDIX B: Park Classification

Parks are established for the conservation of biodiversity and cultural heritage and the environmentally responsible use of our natural resources. The classification of parks provides a general statement of purpose for which the area was acquired.

Classifications under the *National Parks and Wildlife Act 1972*, the *Crown Lands Act 1929* or the *Wilderness Protection Act 1992* are as follows:

Recreation Parks (RP) - areas of significance under the *National Parks and Wildlife Act*, managed for public recreation and enjoyment in a natural setting;

National Parks (NP) - areas proclaimed under the *National Parks and Wildlife Act* considered to be of national significance due to wildlife, natural features of the land or cultural heritage;

Conservation Parks (CP) - areas under the *National Parks and Wildlife Act* that are protected for the purpose of conserving wildlife or the natural or historic features of the land, where the development of visitor facilities tends to be kept to a minimum;

Game Reserves (GR) - areas set aside under the *National Parks and Wildlife Act* for the conservation of wildlife and the management of game at prescribed times for controlled seasonal hunting;

Regional Reserves (RR) - areas proclaimed under the *National Parks and Wildlife Act* for the purpose of conserving wildlife or natural or historical features while allowing responsible use of the area's natural resources (ie. mining);

Conservation Reserves (CR) - land currently set aside for conservation of natural and cultural features under the *Crown Lands Act 1929* and held under the care, control and management of the Minister for Environment, that for various reasons were not proclaimed under the *National Parks and Wildlife Act, 1972*;

Wilderness Protection Areas (WPA) - land set aside under the *Wilderness Protection Act 1992* to protect natural and remote areas.

APPENDIX C: Lincoln National Park Land Parcels

(22,272.55 ha)

Gazettal Date	Plan	Parcel	Description
2004	D64387	A101	littoral mainland
2004	D64387	A103	littoral mainland
2004	D64397	A3	part (closed) Memory Cove Road
2004	D64397	A5	part (closed) Memory Cove Road

17/06/1999	D35926	A1	
17/06/1999	D35926	A2	
17/06/1999	D35926	A3	
17/06/1999	D35926	A6	Islands - Sleaford Bay
17/06/1999	D60678	A54	Bickers Isles. Formerly D35926 A12
17/06/1999	D60678	A53	Formerly D35926 A13
17/06/1999	D60678	A56	Donington Island. Formerly D35926 A14
17/06/1999	D60678	A55	Added when D60678 created
17/06/1999	D27674	A107	
17/06/1999	D28257	A4	
17/06/1999	H510200	S35	
17/06/1999	D35926	A11	Bickers Isles. Reduced in area when D60678 created
17/06/1999	D27674	A104	
17/06/1999	D35926	A22	Albatross Island
17/06/1999	D35926	A7	Curta Rocks
17/06/1999	D35926	A8	Curta Rocks
17/06/1999	D35926	A9	Curta Rocks
17/06/1999	D35926	A10	Curta Rocks
17/06/1999	D35926	A15	Carcase Rock
17/06/1999	D35926	A16	Owen Island
17/06/1999	D27674	A106	
17/06/1999	D27674	A105	
17/06/1999	D35926	A23	Horse Rock
17/06/1999	H844200	S865	Horse Rock
17/06/1999	D35926	A24	Unnamed Island - Shag Cove
17/06/1999	H860200	S955	Unnamed Rock - Shag Cove
17/06/1999	D27674	A100	
17/06/1999	D27674	A101	
17/06/1999	D27674	A102	
17/06/1999	D27674	A103	
17/06/1999	D35926	A5	Islands - Sleaford Bay
17/06/1999	D35926	A20	Liguanea Island

Gazettal Date	Plan	Parcel	Description
28/09/1989	H510900	S44	
28/09/1989	H510200	S18	
28/09/1989	H510200	S27	
28/09/1989	H510200	S33	
28/09/1989	H510200	S34	
28/09/1989	H510900	S28	
28/09/1989	H510900	S30	
28/09/1989	H510900	S31	
28/09/1989	H510900	S33	
28/09/1989	H510900	S519	
28/09/1989	H860300	S956	
28/09/1989	H860300	S957	
28/09/1989	D26838	A2	
28/09/1989	D26838	A3	
28/09/1989	D26838	A4	
28/09/1989	H510900	S32	

03/07/1986	H510200	S40	
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30/05/1985	H510200	S38	
30/05/1985	H510200	S37	
30/05/1985	H510200	S39	

09/02/1984	H510200	S28	
09/02/1984	H510200	S16	Bickers Islands
09/02/1984	H510200	S26	
09/02/1984	H510200	S29	
09/02/1984	H510200	S30	
09/02/1984	H510200	S31	
09/02/1984	H841100	S864	Carcase Rock
09/02/1984	H841700	S867	Donington Island
09/02/1984	H510200	S17	Bickers Islands

16/07/1981	H510200	S32	
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07/12/1978	H510200	S9	
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09/09/1976	H510200	S19	
09/09/1976	H510200	S20	
09/09/1976	H510200	S21	
09/09/1976	H510200	S24	
09/09/1976	H510200	S25	

Gazettal Date	Plan	Parcel	Description
27/04/1972	H510200	S2	
27/04/1972	H510200	S3	
27/04/1972	H510200	S5	
27/04/1972	H846900	S866	Owen Island
27/04/1972	H840000	S798	Albatross Island
27/04/1972	H845100	S877	Liguanea Island
27/04/1972	H848000	S395	Rabbit Island
27/04/1972	H510200	S4	
27/04/1972	H841300	S871	Curta Rocks
27/04/1972	H841300	S870	Curta Rocks
27/04/1972	H841300	S869	Curta Rocks
27/04/1972	H510200	S14	
27/04/1972	H841300	S872	Curta Rocks

Lincoln Conservation Reserve land parcel

(1036.6 ha)

11/11/1993	H510600	S490	Exclusive of all necessary roads
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Memory Cove Wilderness Protection Area

(9258.78 ha)

2004	D64387	A102	littoral, mainland
2004	D64397	A1	part (closed) Memory Cove Road
2004	D64397	A2	part (closed) Memory Cove Road
2004	D64397	A4	part (closed) Memory Cove Road
2004	D64397	A6	part (closed) Memory Cove Road
17/06/1999	D35926	A21	littoral Hopkins Island
17/06/1999	D35926	A18	littoral Lewis Island
17/06/1999	D35926	A17	littoral Little Island
17/06/1999	D35926	A19	littoral Smith Island
09/09/1976	H510200	S22	coast reserve mainland north
09/09/1976	H510200	S23	coast reserve mainland south
27/04/1972	H510200	S6	
27/04/1972	H510200	S12	
27/04/1972	H510200	S13	
27/04/1972	H845400	S873	Little Island
27/04/1972	H845000	S874	Lewis Island
27/04/1972	H849500	S875	Smith Island
27/04/1972	H844100	S876	Hopkins Island
17/06/1999	D19500	A2	Williams Island

APPENDIX D: Conservation Status Codes

Australian Conservation Status Codes

The following codes are based on the current listing of species under Section 179 of the *Environmental Protection and Biodiversity Conservation Act 1999*.

- EX Extinct:** there is no reasonable doubt that the last member of the species has died.
- EW Extinct in the Wild:** known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CE Critically Endangered:** facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- E Endangered:** facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- V Vulnerable:** facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD Conservation Dependent:** the species is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

Note: Prescribed criteria as defined under the IUCN Red List of Threatened Species.

South Australian Conservation Status Codes

The following codes are based on the current listing of species under Schedules of the *National Parks and Wildlife Act 1972*, as amended in 2000.

- E Endangered:** (Schedule 7) in danger of becoming extinct in the wild.
- V Vulnerable:** (Schedule 8) at risk from potential or long term threats which could cause the species to become endangered in the future.
- R Rare:** (Schedule 9) low overall frequency of occurrence (may be locally common with a very restricted distribution or may be scattered sparsely over a wider area). Not currently exposed to significant threats, but warrants monitoring and protective measures to prevent reduction of population sizes.

Regional Status Codes

The categories below apply to the species distribution at a regional level.

Mammals, Reptiles & Amphibians

There are no regional conservation status categories developed for mammals, reptiles or amphibians to date (2002).

Birds

Regional conservation status for birds follow Carpenter and Reid (1998) *The Status of Native Birds in the Agricultural Areas of South Australia*;

The regions are defined as follows;

ML	Mount Lofty	MN	Mid-North	SE	South-Eastern	KI	Kangaroo Island
MM	Murray Mallee	EP	Eyre Peninsula	YP	Yorke Peninsula		

Plants

Regional conservation ratings for plants follow:

Lang, P.J. & Kraehenbuehl, D.N. (2001). Plants of Particular Conservation Significance in South Australia's Agricultural Regions.

January (2001) update of unpublished database: Florlist. Department for Environment and Heritage.

The regions are as defined by the State Herbarium (Plant Biodiversity Centre), illustrated in the back cover of 'A List of the Vascular Plants of South Australia (Edition IV)' (Ed. Jessop, 1993).

NW	North-Western	FR	Flinders Ranges	NL	Northern Lofty	SL	Southern Lofty
LE	Lake Eyre	EA	Eastern	MU	Murray	KI	Kangaroo Island
NU	Nullarbor	EP	Eyre Peninsula	YP	Yorke Peninsula	SE	South-Eastern
GT	Gairdner-Torrens						

In order of decreasing conservation significance:

- X** **Extinct/Presumed extinct:** not located despite thorough searching of all known and likely habitats; known to have been eliminated by the loss of localised population(s); or not recorded for more than 50 years from an area where substantial habitat modification has occurred.
- E** **Endangered:** rare and in danger of becoming extinct in the wild.
- T** **Threatened:** (*Plants only*) likely to be either Endangered or Vulnerable but insufficient data available for more precise assessment.
- V** **Vulnerable:** rare and at risk from potential threats or long term threats that could cause the species to become endangered in the future.
- K** **Uncertain:** likely to be either Threatened or Rare but insufficient data available for a more precise assessment.
- R** **Rare:** has a low overall frequency of occurrence (may be locally common with a very restricted distribution or may be scattered sparsely over a wider area). Not currently exposed to significant or widespread threats, but warrants monitoring and protective measures to prevent reduction of population sizes.
- U** **Uncommon:** less common species of interest but not rare enough to warrant special protective measures.
- Q** **Not yet assessed:** but flagged as being of possible significance.
- N** **Not of particular significance** (*Plants only*) Also indicated by a blank entry.
- C** **Common** (*Birds only*) Also indicated by a blank entry.
 - **Occasional Visitor Only** (*Birds only*) Not considered of conservational status.

APPENDIX E: Management Agreement with SA Water

Background

The western portion of the park is designated as a Water Resource Zone. The zone is managed jointly by the Department for Environment and Heritage and SA Water Corporation, for the protection and utilisation of the groundwater resource and the conservation of the natural resources in the area.

Statement of Intent

In view of the commitment of the Government to the conservation and proper management of the land and groundwater resources of the Jussieu Peninsula it is essential that the area be managed with one accord. As a consequence the Waterworks Reserve pertaining to Section 18, Hundred of Flinders, Sections 28, 30-33, 44, 519, Pt Allot 3 of DP 26838, Hundred of Sleaford and Allot. 2, 4 and Pt Allot 3 of DP 26838, Hundred of Lincoln was resumed and included in Lincoln National Park.

The management conditions herein outlined, maintains the interest of SA Water Corporation in relation to the protection of the area's groundwater resources and the associated operating water supply facilities. Provision is also made for the development of new water supply areas.

Definitions

'SA Water' means the Chief Executive of SA Water Corporation and, in the relevant context, employees of SA Water.

'Director' means the Director, Biodiversity and Heritage Division, Department for Environment and Heritage and, in the relevant context, employees of that Department.

'Zone' means the area of land comprised in the Water Resource Zone being the former Waterworks Reserve situated on Section 18, Hundred of Flinders, Sections 28, 30-33, 44, 519, part Allot. 3 of DP 26838, Hundred of Sleaford and Allot. 2, 4 and part Allot. 3 of DP 26838, Hundred of Lincoln.

'WRG' means Water Resources Group.

Objectives

- Provide for the protection of the zone's groundwater resources and recharge processes.
- Provide for the maintenance, operation, replacement and installation of all water supply extraction, storage, reticulation and associated facilities.
- Provide for the monitoring of groundwater resources and for investigation into new extraction areas.
- Allow for the development of new water supply and monitoring facilities.
- Protect the quality of groundwater in the zone and to preclude any management practices that may degrade the quality.
- Manage the groundwater resources according to a Catchment Management Plan.

Management practices

The following practices will apply to land and water resource management in the zone:

- SA Water shall have free and unrestricted use of the zone for the operation, maintenance, repair, replacement and testing of production and monitoring bores, pumping plant, power and ancillary works and buildings.
- SA Water shall be permitted to investigate groundwater resources and to construct and develop new water supply and monitoring facilities wherever required within the zone.
- SA Water shall be permitted to take any measures necessary for the preservation of natural recharge areas, for the enhancement of recharge in such areas, or for the provision of artificial recharge.
- SA Water shall be permitted to cut, remove or clear vegetation necessary for any of the practices described in the above paragraphs subject to the Native Vegetation Act.

- The Director will allow SA Water access to the facilities and investigation areas in the zone notwithstanding any restrictions on public access described in this plan.
- The Director must obtain the approval of SA Water before clearing vegetation, constructing any buildings, structures or other facilities, or undertaking any change of land use in the zone.
- The Director will not sink any bore or discharge any waste material in the zone without the approval of SA Water.
- The Director will undertake all necessary measures to protect the groundwater resource against pollution, or deterioration of water quality or quantity, and to control or prohibit activities that could cause such degradation. Such measures to include changes of land use or vegetation cover, exclusion of the public from sensitive areas, including use of noxious substances in recharge areas.
- SA Water will prepare a Catchment Management Plan in accord with the criteria set out below.

Catchment Management Plan

SA Water will prepare a Catchment Management Plan for the Zone. The Plan will include:

- an inventory and map of existing SA Water facilities;
- new water resources investigation and development processes;
- water quality and quantity protection provisions;
- prohibited public access areas; and
- definition of water resource management features, including:
 - natural recharge areas;
 - sensitive areas;
 - works and reticulation areas; and
 - present and possible future production areas.

SA Water will seek and have regard to the views of the Director in the preparation of the Catchment Management Plan.

The Catchment Management Plan will be incorporated into the Lincoln National Park Plan of Management by way of formal amendments to that Park Plan of Management.

The Catchment Management Plan may be amended at any time by SA Water subject to SA Water seeking and having regard to the views of the Director. Any amendment proposed by the Director will be subject to the approval of SA Water.

General matters

All buildings, structures, improvements and facilities existing or constructed within the zone by SA Water for water supply purposes will be the property of SA Water.

In the event of SA Water wishing to withdraw from the use of the zone, SA Water shall be compensated for:

- the value of any SA Water buildings, structures, improvements or facilities at that time which the Director requires for park management purposes;
- the original perpetual crown lease acquisition costs incurred by SA Water in 1964 (ie \$41,833); and
- the lease-back acquisition cost incurred by SA Water in 1985 ie (\$12,000).

SA Water will not be liable for, nor obliged to mitigate or remedy, any effects upon the environment caused by the withdrawal of groundwater.

A

Aboriginal people	5, 22, 23, 24, 25, 27, 38, 41, 43
<i>Acacia dodonaeifolia</i>	17
<i>Acacia leiophylla</i>	16
<i>Acacia longifolia</i> var <i>sophorae</i>	16, 22
<i>Acacia rupicola</i>	17
<i>Acanthiza iredalei</i>	6
<i>Acrotriche patula</i>	16
Adelaide Snake-lizard	19
African Boxthorn	20, 21, 40
African Daisy	20
Aleppo Pine	20, 21, 40
<i>Allocasuarina verticillata</i>	16
<i>Alyogyne huegelii</i>	17
<i>Alyxia buxifolia</i>	16
<i>Amphibolurus muricatus</i>	19
<i>Anthocercis anisantha</i>	17
<i>Apis mellifera</i>	22
Aquaculture	37, 43, 44
<i>Arctocephalus forsteri</i>	19
Ark on Eyre	ii, 9, 17, 19, 20, 21, 40
<i>Asparagus asparagoides</i>	20
<i>Asphodelus fistulosus</i>	20
<i>Atriplex cinerea</i>	16
Australian Kestrels	19
Australian Ravens	19
Australian Sea-lion	18, 19

B

<i>Balaena glacialis australis</i>	19
<i>Barnardius zonarius zonarius</i>	19
Barngarla	5, 11, 25
<i>Bassiana trilineata</i>	19
<i>Bettongia lesueur</i>	18
<i>Bettongia penicillata</i>	18
<i>Beyeria lechenaultii</i>	16
Bilby	18
Black Tiger Snake	19
Black-anther Flax-lily	16
Boston Bay	1, 37
Bottle-nosed Dolphins	19
Bridal Creeper	20, 21, 40
Brush-tailed Bettong	18
Burrowing Bettong	18
Bush Rat	18
Bush Stone-curlew	ii, 17, 20, 22, 40

C

<i>Cacatua roseicapilla</i>	19
<i>Cannabis sativa</i>	20
Cape Catastrophe	1, 25, 26
Cape Donington	7, 15, 26, 28, 29, 30, 31, 32, 36
Carcase Rock	27, 29, 32, 47, 48
Carpet Python	19
<i>Carpobrotus rossii</i>	16, 22
CARRS	39
Cat	22

<i>Cercartetus concinnus</i>	18
Chaffy Saw-sedge	17
<i>Chalinolobus morio</i>	18
<i>Charadrius rubricollis</i>	19
<i>Charadrius ruficapillus</i>	19
<i>Cheilanthes austrotenuifolia</i>	17
Chocolate-wattled Bat	18
Cinnamon Fungus	21
Coast Bonefruit	17
Coast Daisy-bush	16
Coast Velvet-bush	16
Coastal Bearded-heath	16, 18
Coastal Wattle	16, 22
Coastal White Mallee	16
Common Boobialla	16
Common Bronzewing	19
Common Brushtail Possum	18
Common Dolphins	19
<i>Correa pulchella</i>	16
<i>Corvus coronoides</i>	19
<i>Ctenophorus fionni</i>	19
Cushion-bush	16

D

<i>Dasyurus</i> sp	18
<i>Delma inornata</i>	19
<i>Delma mollerii</i>	19
<i>Delphinus delphis</i>	19
<i>Dianella revoluta</i>	16
<i>Dodonaea viscosa</i>	17
<i>Dolichos lignosus</i>	20
Dolichos Vine	20, 21, 40
Donington Cottage	26, 27, 31, 35, 36, 41, 42
Donington Peninsula	20, 26, 32
<i>Dromaius novaehollandiae</i>	18
Drooping Sheoak	16
Drooping Velvet-bush	17
Dryland Teatree	16
<i>Drysdalia mastersii</i>	19

E

<i>Echium plantagineum</i>	20
<i>Equus caballus</i>	22
ETSA Utilities	12, 36
<i>Eucalyptus diversifolia</i>	16
<i>Eucalyptus gracilis</i>	16
<i>Eucalyptus incrassata</i>	16
European Rabbit	22
<i>Exocarpos aphyllus</i>	17

F

<i>Falco cenchroides</i>	19
Fallow Deer	22
Fan Pomaderris	17
<i>Felis catus</i>	22
Fire Management Plan	6, 28, 41
firewood	28, 31, 42
Fishermans Point	29, 32
Flinders	23, 25, 26, 27, 32, 51, 52
fox	18, 19, 20, 22, 40

French Plume-moth	20	<i>Marrubium vulgare</i>	20
G		<i>Mary Ellis</i>	26, 27, 30, 35
<i>Gahnia filum</i>	16, 17	Master's Snake.....	19
<i>Gahnia trifida</i>	16	Matthew Flinders	25, 32
Galahs	19	<i>Melaleuca halmaturorum</i>	16
<i>Geijera parviflora</i>	16	<i>Melaleuca lanceolata</i>	16
General Reserves Trust	31, 35, 36	Memory Coveii, 1, 4, 7, 12, 13, 16, 18, 23, 25, 26, 27, 29, 30, 49	
<i>Grevillea pauciflora</i>	17	<i>Millotia major</i>	17
Grey Saltbush.....	16	<i>Morelia spilota</i>	19
Guinea-Flower	17	<i>Mus domesticus</i>	22
H		<i>Myoporum insulare</i>	16
<i>Haematopus ostralegus</i>	19	Myrtle-leaved Milkwort.....	20, 21, 40
<i>Haliaeetus leucogaster</i>	18	N	
Heath Goanna	19	National Parks and Wildlife Act	5
<i>Hibbertia</i> sp A	17	Native Title	5, 25, 37, 38, 43, 45
Honeybee.....	22	<i>NatureLinks</i>	9, 10, 44
Hooded Plover.....	18, 19, 20, 40	Nauo.....	22, 23, 25, 37, 38
Horehound	20, 21, 40	<i>Neophema petrophila</i>	19
Horse.....	22, 28, 32, 47	<i>Neophoca cinerea</i>	19
House Mouse	22	New Holland Honeyeater.....	18
I		New Zealand Fur-seal.....	18, 19
IBRA.....	iv, 3, 4	Nicolas Baudin	25
<i>Investigator</i>	23, 25, 26, 30	<i>Notechis ater</i>	19
<i>Isolepis nodosa</i>	16	<i>Nyctophilus geoffroyi</i>	18
J		O	
Jacky Lizard.....	19	<i>Olearia axillaris</i>	16
Jussieu Peninsula	23, 28, 52	Olive Snake-lizard.....	19
K		Onion Weed.....	20
Karkalla	16, 17, 22	Operation Phoenix.....	20
Kellidie Bay	21	<i>Oryctolagus cuniculus</i>	22
Knobby Club-rush.....	16	Osprey.....	18, 20, 40
L		P	
<i>Lasiopetalum discolor</i>	16	Pale Turpentine-bush.....	16
<i>Lasiopetalum schulzenii</i>	17	<i>Pandion haliaetus</i>	18
<i>Le Geographe</i>	25	Peninsula Brown Snake	19
Leafless Ballart.....	17	Peninsula Dragon.....	19
<i>Leipoa ocellata</i>	18	<i>Phaps chalcoptera</i>	19
<i>Lepidosperma gladiatum</i>	16	<i>Phylidonyris novaehollandiae</i>	18
Lesser Long-eared Bat.....	18	<i>Phytophthora cinnamomi</i>	21, 40, 44
<i>Leucophyta brownii</i>	16	Pied Oystercatcher.....	19
<i>Leucopogon parviflorus</i>	16	Pillie Lake.....	17, 30
Lilac Hibiscus	17	<i>Pimelea serpyllifolia</i>	16
Lincoln Conservation Reserve1, 4, 7, 20, 39, 43, 49		<i>Pinus halepensis</i>	20
Little Surfleet	31	Point Sir Isaac	29
<i>Lycium ferocissimum</i>	20	<i>Polygala myrtifolia</i>	20
M		<i>Pomaderris flabellaris</i>	17
Maclaren Point	17, 29, 32	Port Lincoln Parrot	19
<i>Macropus eugenii</i>	18	Proper Bay	1, 3, 26
<i>Macropus fuliginosus</i>	18	<i>Prostanthera serpyllifolia</i>	17
<i>Macrotis lagotis</i>	18	<i>Pseudonaja inframacula</i>	19
Malleefowl	18	<i>Psophodes nigrogularis</i>	18
Marijuana	20	Q	
Marine and Harbours	36	Quoll	18
		R	
		Rabbit.....	22, 49

Rabbit Haemorrhagic Disease.....	22	Surfleet Cove tank and ruins.....	27
<i>Rattus fuscipes</i>	18	Swamp Paper-bark	16
Red Fox.....	22	Sword Rush.....	16
Red-capped Dotterel.....	19	T	
<i>Rhagodia candolleana</i>	17	Tammar Wallaby	18
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