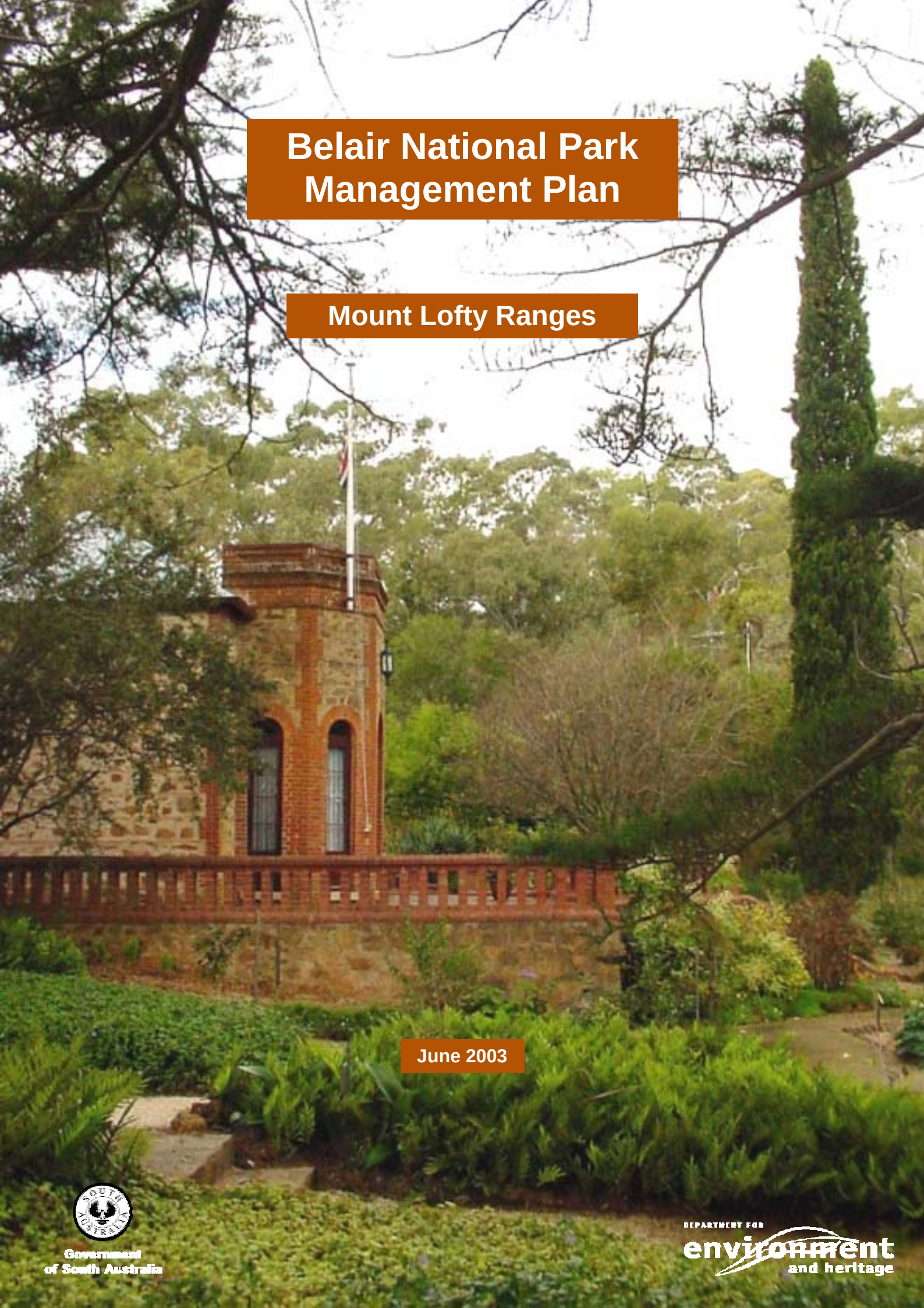
Belair National Park Management Plan

Mount Lofty Ranges

June 2003



Government of South Australia

DEPARTMENT FOR environment and heritage

Our Parks, Our Heritage, Our Legacy

Cultural richness and diversity are the marks 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.
- Provision of valued natural areas for people to be at one with nature and for personal and spiritual refreshment.

BELAIR NATIONAL PARK MANAGEMENT PLAN

Mount Lofty Ranges **South Australia**

June 2003

Department for Environment and Heritage

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

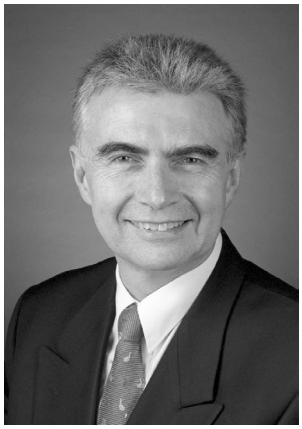
Belair National Park is a cherished icon for the citizens of Adelaide and for many other South Australians. It was the State's first national park, proclaimed in 1891 after years of sustained community effort. Its management history reflects the many changes that have occurred in community attitudes and aspirations over the decades since. It was the starting point for the comprehensive system of national parks that today, encompass almost a quarter of the State.

More than a century later, Belair National Park provides an ideal focus for conserving, celebrating and appreciating our natural and cultural heritage. The park's 840 hectares are fulfilling an increasingly important role in conserving some of the natural biodiversity of the Mount Lofty Ranges. Located just minutes from the surrounding suburbs, it is also a highly valued recreation resource for many local residents and visitors.

This plan of management is the second to be adopted for the park. It outlines a series of objectives and actions for the future use and management of what, I believe, is a significant community asset. The actions in the plan are intended to facilitate the implementation of high quality conservation programs and ecologically sustainable improvements to visitor facilities.

Given the history and status of Belair National Park, there is much interest in its future and numerous people have contributed to the development of this plan of management. That strong commitment, enthusiastic input and many helpful suggestions are gratefully acknowledged.

I now formally adopt the plan of management for Belair National Park under the provisions of section 38 of the *National Parks and Wildlife Act 1972*. I would encourage you to read the plan and visit and enjoy this special park.



JOHN HILL

MINISTER FOR ENVIRONMENT AND CONSERVATION

SYNOPSIS

Situated just 13 kilometres south of the centre of Adelaide in the Mount Lofty Ranges, Belair National Park contains approximately 840 hectares of valuable remnant bushland, formal recreation facilities and a number of commercial operations. Importantly, Belair is Australia's second oldest National Park and is, therefore, also highly treasured for its historical value. The park is situated within the Adelaide Hills with excellent vehicular access to the inner metropolitan area. The park's topography is varied, ranging from the gently undulating land of the western sector to the more rugged ridges and valleys of the eastern sector. The park's topographic variety, together with its proximity to the urban area, makes it extremely attractive for a range of outdoor recreational uses. These recreation uses include bush-walking, jogging, picnicking, tennis, golf and cricket to name a few.

Belair's attractive natural environment and quality recreation facilities have ensured that the park has been well used and loved by many South Australians over the last 112 years. In particular, Belair has traditionally played an important recreation role in the lives of South Australians. It has been the venue for many large company picnics and has become known for its formal recreation facilities such as the golf course, tennis courts and cricket ovals.

Over recent years, the environmental and heritage values of the park have gained a stronger focus amongst both the community and park managers. It is clear that the park has an extremely important conservation function as one of the few remaining areas of the Adelaide Hills characterised by largely intact remnant vegetation. The park is home to many rare and endangered species and provides an important 'stepping stone' to other 'islands' of remnant vegetation throughout the Hills. Over the years, the environmental value of the park has been compromised through disturbance from human activity. Activities such as stock grazing, tree felling and heavy human traffic, together with the spread of exotic plants and feral animals have resulted in significant pressure being placed on the park's natural systems. Additional pressure is placed on the park due to its relative ecological isolation from other environmentally significant areas. This isolation is further exacerbated by the presence of significant physical barriers such as the Adelaide to Melbourne railway and the surrounding road network.

With this in mind, it is clear that park management must regard the protection and enhancement of the park's environmental values as their major priority. However, it is also important that the park continues to allow for a range of informal and formal recreation activities. While the very nature of these recreation activities means that they will, to varying degrees, impact on the environmental values of the park, the careful management of these activities will minimise the impact. Belair, more than most South Australian National Parks, must achieve a delicate balancing act between the promotion of environmental values and the provision of a range of recreation facilities. The main role of the Management Plan for Belair National Park is to perform this balancing act.

This Management Plan has developed the following vision and management objectives to provide strong, clear and achievable management directions for the park:

Vision

- Conserving, celebrating and appreciating our natural and cultural heritage.

Management Objectives

- Strengthen the regional contribution of Belair National Park in the context of the Mount Lofty Ranges natural environment and open space systems.
- Conserve and enhance the natural environmental values of Belair National Park for future generations by arresting, and where possible, reversing biodiversity loss.
- Retain a diverse range of recreational activities within Belair National Park and manage these to minimise their impact on the natural and heritage values of the park.
- Conserve and promote the indigenous and post colonial settlement heritage values of Belair National Park.
- Encourage positive visitor experiences through the provision of well-designed and maintained facilities in appropriate locations with minimal impact on the natural environment.

- Provide supportive opportunities to educate visitors and the wider community about the natural and cultural values of Belair National Park.
- Ensure that Park management and maintenance practices are consistent with the principles of ecological sustainable development and in accordance with current best practice.
- Continue to involve a diverse range of community, education and scientific groups in appropriate management of Belair National Park.
- Contain existing commercial activities within current lease boundaries and ensure their operation is consistent with the natural and heritage values of Belair National Park.
- Ensure that any new commercial activities support existing park activities and are consistent with the natural and heritage values of the park.

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ABBREVIATIONS AND GLOSSARY OF TERMS

ALRM:	Aboriginal Legal Rights Movement
Biodiversity:	Biodiversity encompasses the variety of all life, the different plants, animals, micro-organisms, the genes they contain and the ecosystems, which they inhabit.
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:	Department for Aboriginal Affairs and Reconciliation
Ecologically	Sustainable Development: Development which meets the needs of the present without compromising the ability of future generations to meet their own needs.
Ecosystem:	A Community of animals and plants, considered as a total unit within its physical environment
GIS:	Geographic Information System
ha:	Hectares
IUCN:	The International Union for Conservation of Nature and Natural Resources (The World Conservation Union)
km:	Kilometres

ACKNOWLEDGMENTS

Department for Environment and Heritage wish to thank all those who participated in the community and stakeholder consultation process during the preparation of this Management Plan. In particular, the contribution of the following organisations and community groups who were part of a Reference Group for the Management Plan is acknowledged:

- Friends of Belair National Park
- Friends of Old Government House
- Sturt Consultative Committee
- City of Mitcham
- Adelaide Hills Council
- Heritage branch of DEH
- Country Fire Service
- State Aboriginal Heritage Committee
- Coalition to Save Belair National Park

The contribution of consultant planner Alex McDonald, the staff of the Adelaide Region and the Reserve Planning Section, DEH, who collated the submissions and finalised the plan is acknowledged.

The valuable assistance received from other groups and individuals, who at various times provided information or comment, is also acknowledged. Those persons either provided informative pre-draft comments or made written submissions when the draft plan was out on public exhibition. The final plan, as adopted, has benefited from their contribution.

1 INTRODUCTION

This management plan has been prepared 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 should set 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.

Upon completion of a draft plan, an announcement is made in the Government *Gazette* and the plan is placed on public exhibition for three months. During this period, any interested person may make submissions, which are then referred with the plan, to the South Australian National Parks and Wildlife Council for their comments and suggestions.

Having formal community input into public land management is a requirement of the legislation and supported by park managers. Because of the high level of interest in the future of this icon park, the consultation process undertaken for the plan was quite extensive. Hassel P/L were contracted as consultants, a community reference group was convened (and met regularly) and three public meetings were held. A number of the persons who made formal submissions commented favourably on the consultation process undertaken.

The draft plan for Belair National Park was released for public exhibition in June 2001. At the close of the comment period, 57 written submissions had been received. From the comments made in submissions, the most concern seems to have been about horse riding and to a lesser extent, orienteering. These and other issues were considered by the Sturt Consultative Committee before going to the SA National Parks and Wildlife Council (after review by the Reserve Planning and Management Advisory Committee).

The Minister, after considering all representations, may then adopt the management plan with or without alterations. In the case of the plan for Belair National Park, a number of alterations have been incorporated as a result of the community consultation process. Notice of official adoption is published in the Government *Gazette* and copies of the final plan are made available for sale to the public. They may also be viewed on the departmental website:
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 does make provision for amending adopted plans and this process is similar to the one described above.

Delegate plans are referred to in the text of this management plan. These are detailed, non-statutory action plans through which the objectives of this management plan, once adopted, will be achieved. The principles endorsed in this management plan will provide a mandate and adequate guidance to develop delegate planning documentation.

This document is the adopted management plan for Belair National Park. This reserve is located in the Mount Lofty Ranges, which falls within the Adelaide Region of the Regional Conservation Directorate of the Department for Environment and Heritage (DEH). The plan outlines proposals to effectively conserve the natural and cultural values of the park, while providing for public use and enjoyment.

2 MANAGEMENT FRAMEWORK

Management planning is a statutory requirement for all reserves prescribed in S38 of the *National Parks and Wildlife Act 1972* and S31 of the *Wilderness Protection Act 1992*. The management planning process is but a small part of a much larger, state-wide 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.

DEH regional staff have been assigned primary responsibility for preparing management plans and undertaking the associated community consultation process. A standard management planning process is mandated, to ensure that all statutory obligations are met.

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 the key values of reserves, the appropriate utilisation and the 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 provide additional details on how the actions, listed in the management plan, are to be progressed. With regard to Belair National Park, the development of a Fire Management Plan, Vegetation Management Plan, Visitor Services & Facilities Plan, Liability & Risk Management Plan and a Volunteer Management Plan are proposed. 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 state-wide overview in setting departmental priorities and allocating resources.

2.1 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:

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);

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

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*;

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

2.2 Government Policy and Legislation

When managing reserves, DEH is required under section 37 of the *National Parks and Wildlife 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.

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

2.3 Native Title

"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, 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 Kaurna 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.

2.4 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 Belair National Park, twelve nationally threatened species occur within the park. Commonwealth approval is required for any action that has, will have or is likely to have a significant impact on these nationally threatened species in addition to any State approval 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.

3 MANAGEMENT CONTEXT

3.1 Purpose of Reserve

Belair National Park is listed on the Register of the National Estate and on the State Heritage Register as a State Heritage Area. It was South Australia's first national park, the land having been acquired by the South Australian Government in 1840 and proclaimed (after a long public campaign) as the National Park in 1891. In addition to this, the park is the second oldest National Park in Australia after Royal National Park in New South Wales. The park has not always been known as a national park and was, during 1972, reclassified as a Recreation Park. On the park's centenary in 1991, the title of National Park was reinstated in recognition of the park's heritage status.

IUCN Classification

Belair National Park is classified as a Natural Monument (IUCN category III), described as a protected area managed mainly for conservation of specific natural features. DEH will incorporate the following category III objectives in management of Belair National Park:

- To protect or preserve in perpetuity specific outstanding natural features because of their natural significance, unique or representational quality, and/or spiritual connotations.
- To an extent consistent with the foregoing objective, to provide opportunities for research, education, interpretation and public appreciation.
- To eliminate and thereafter prevent exploitation or occupation inimical to the purpose of designation.
- To deliver to any resident population such benefits as are consistent with the other objectives of management (IUCN, 1994).

3.2 Location and Park Features

Belair National Park is situated 13 kilometres south of the Adelaide Central Business District and lies between the Adelaide Hills townships of Belair to the west and Upper Sturt to the east (Figure 1). Covering an area of approximately 840 hectares, the park comprises Sections 675, 701 and 1037 in the Hundred of Adelaide.

The park can be divided into two readily definable areas, notable for their different degree of human modification. The central and western area has been extensively developed for recreation purposes while the balance of the park to the east has been maintained essentially as natural bushland.

The park is readily accessible from both metropolitan Adelaide and the Adelaide Hills via Upper Sturt Road (the main vehicular entrance) and Sheoak Road (pedestrian access only). The park also contains an internal road network that provides excellent access for vehicles to the recreation areas and limited vehicular access to the natural bushland conservation areas. Trails for bush walking and for fire fighting purposes have been constructed throughout the conservation area. Unfortunately, other trails have been developed unofficially by visitors and these have required remedial measures to discourage use and promote regeneration.

3.2.1 Climate

Belair National Park experiences cool wet winters and warm, dry summers. The mean January maximum temperature is 27°C cooling down to a minimum of 15°C at night while the mean July maximum is 12°C with a minimum of 7°C at night. The mean rainfall received at Belair is 723mm exhibiting a seasonal bias towards winter with most rainfalls occurring between May and September. Given the variation in the park's elevation of between 200 and 500 metres, annual rainfall also varies from approximately 750mm in the west to 1,000mm in the higher eastern portions (Bureau of Meteorology, 2000).

3.3 Regional Setting

Belair National Park is located in the Mount Lofty Ranges which, together with the Adelaide Plains, probably held the State's richest source of biodiversity before Colonial settlement (Turner, 2000). This was mainly due to the high rainfall of the area. Since settlement, the vast majority of the Mount Lofty Ranges has been cleared of native vegetation and only 15% or 50,193 hectares remains today. Importantly, approximately only 4% of this remnant vegetation is held within *National Parks and Wildlife Act* reserves (Long, 1999).

In a wider context, the Mount Lofty Ranges contains the vast majority of the native vegetation still remaining within the metropolitan area. Figures indicate that approximately 88% of native vegetation in the metropolitan area has been cleared since colonial settlement with the remaining 12% mainly located within the Adelaide Hills and to the north of Outer Harbour in the coastal mangrove /samphire community (Turner, 2000).

With these figures in mind, it is clear that Belair National Park plays an extremely important biodiversity conservation role, both at a regional, state and national level. Consequently, on-park biodiversity conservation and recreation management should complement broader regional programs.

A series of overview plans are being developed, that will set priorities for conservation programs and recommend strategies to retain, restore, re-establish and provide links between remnant native vegetation. Belair National Park falls within the scope of the *Biodiversity Plan for the Mount Lofty Ranges* currently in preparation by DEH. A number of strategic plans to assist with coordinating recreational activities have also been prepared - a relevant example being the *State Mountain Bike Plan for South Australia* that was released in 2001.

The role of Belair and other *National Parks and Wildlife Act* reserves within the region is recognised by the current State Government planning initiative known as the Greater Mount Lofty Ranges Parklands "Yurrebilla", the name given in recognition of the Kaurna Aboriginal culture and heritage. The aim of this project is to establish a common management framework for land managed by DEH, Forestry SA, SA Water, Planning SA and voluntarily nominated privately owned areas throughout the Mount Lofty Ranges. The project will, firstly, identify common issues such as pest plants and recreation management, and secondly, develop regional level policies that will enable a consistent management approach to be adopted throughout the region.

Belair is highlighted by the project as a key site due to its heritage significance. Also, the project recommends that a feasibility study be undertaken into the possibility of developing a walking trail between Belair and Black Hill Conservation Park.

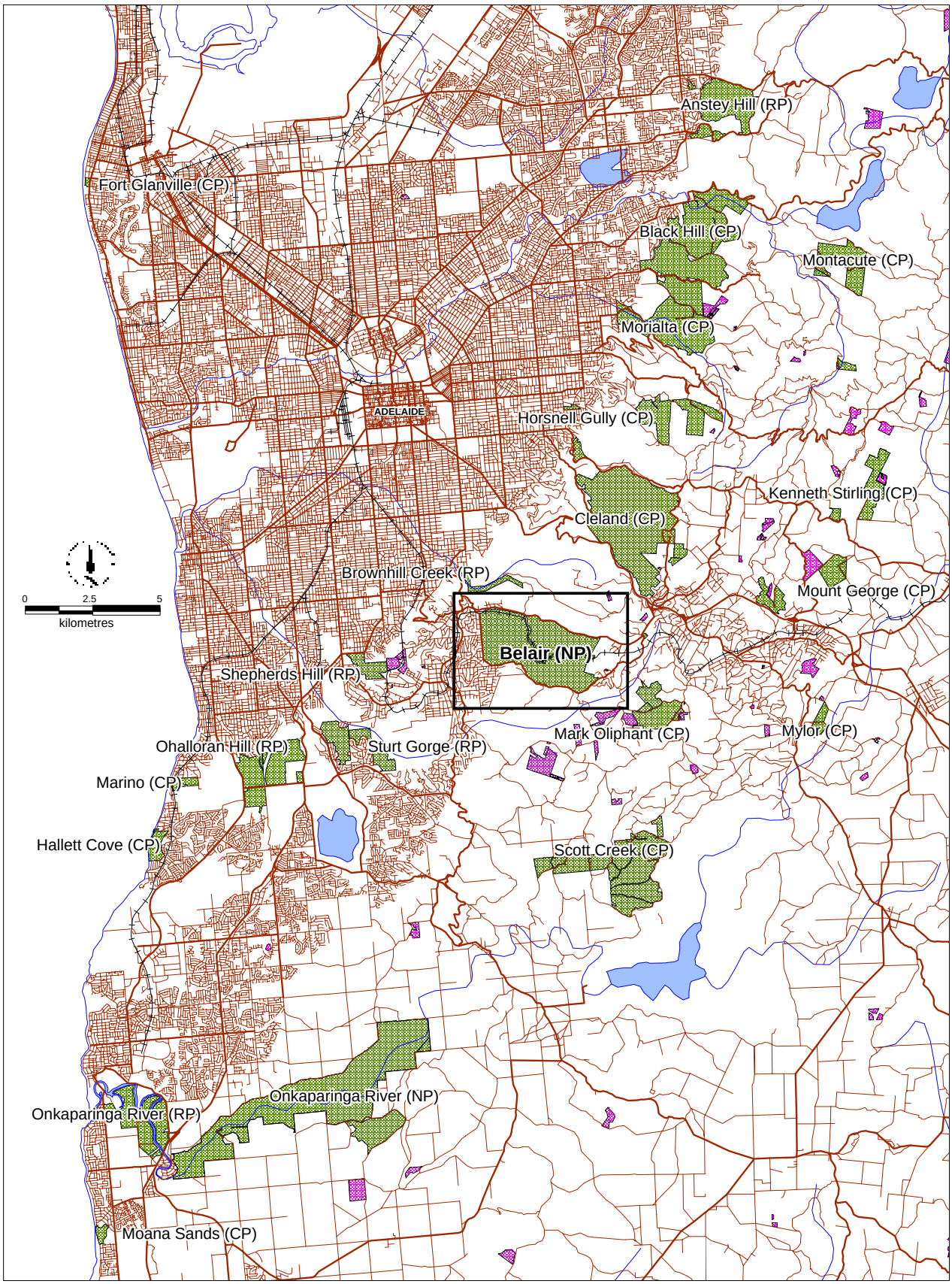
Aside from its conservation and heritage value, Belair is also a valuable regional recreation resource. It contains many well-maintained and patronised formal recreation facilities such as ovals and tennis courts, while also catering for a growing number of informal recreation uses through the provision of facilities such as bushwalking trails. In addition, the park is an important component and 'through route' of a number of wider regional recreation trails catering for both walkers and horse riders. It is important that the park continues to contribute to these regional networks and is also aware and involved in any new plans for other regional recreation networks such as cycling.

3.4 History of Reserve Management

Belair National Park has traditionally been known for its provision of quality recreation opportunities that attract visitors from throughout the metropolitan area. In contrast, other nearby reserves such as Cleland and Morialta have become recognised for the provision of different opportunities, such as interpretation and education (Cleland), and bush walking (Morialta).

Over recent years, the cultural and heritage values, together with the conservation value of the park have gained a stronger focus. It is now better known that Belair plays an important environmental role through its representation of vegetation communities and associated fauna of conservation significance

The natural qualities of the park, including the terrain and vegetation, are some of the main attractions for an increasingly diverse population of visitors. In addition, the integration of natural and semi-natural bushland with the park's many recreational facilities contribute significantly to the park's appeal to the broader community. Further detail of past management arrangements and techniques are described in Section 4.3.2.



LEGEND

- Road
- Main Road
- Railway
- NPWSA Reserve
- Heritage Agreement
- Hydrology

Figure 1

Belair National Park

Location

3.5 Existing Management Arrangements

Belair National Park is located within the Adelaide Region of the Regional Conservation Directorate of the Department for Environment and Heritage. DEH has park management responsibilities including park operations, projects and planning, visitor facilities, biodiversity, administration, visitor services and visitor information.

It is apparent that, in comparison with the rest of the South Australian reserve system, a relatively high number of staff and high proportion of available resources has been allocated to Belair. This is in recognition of the park's cultural and environmental importance as well as the high degree of recreation management responsibilities of staff.

It is important to note the ongoing staff commitment to natural resource management. This commitment has been evident over a large number of years, resulting in the establishment of several innovative management techniques. Recent innovations have included the preparation of a Vegetation Management Plan and the establishment of programs to monitor and protect endangered species.

Furthermore, significant staffing resources are allocated to visitor management within the park such as the collection of fees, the provision of basic visitor information as well as maintaining and cleaning visitor facilities. Opportunities exist to redirect human resources away from basic visitor management tasks to other park management activities through partnerships with the private sector. It should be noted that entrance fees are retained and used to support on-park projects. Over the years, this funding source has made a significant contribution to improved facilities and biodiversity conservation.

Importantly the park management has established effective and successful partnerships with a number of agencies and community groups to better manage activities within the park. These include:

- The Patawalonga Catchment Water Management Board – to improve water quality and restore watercourses within the park;
- The Mount Lofty Ranges Animal and Pest Control Board – to develop joint vermin control programs;
- Region One Country Fire Service – to develop joint management and planning and response to wildfire;
- The Friends of Belair National Park – to manage volunteer works in liaison with park management;
- The Friends of Old Government House – to develop cooperative work programs with park management;
- Threatened Plant Action Group – to identify coordinated programs to protect species of conservation significance;
- Green Corp and Australian Trust Conservation Volunteers – coordinating volunteer project work; and
- The Department of Correctional Services – provide human resources for maintenance projects.

In addition, a number of local schools have informal arrangements with the park and play an important role in park management.

Other formal management agreements that exist within the park include the railway land, which is managed by Australian Rail Track Corporation, the Caravan Park and Golf Course (both currently leased to Murtfam Pty Ltd), and the Belair Nursery currently managed by State Flora.

3.6 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 however, the importance of biodiversity conservation is being recognised and the future use and management of reserves must take that into account. Proposed management actions will need to be assessed in the light of the ability to meet the primary objective of biodiversity conservation – this may result, in some circumstances, in public use taking a subordinate place.

Management Philosophy

It is important that this management plan clearly specifies a philosophy of management for Belair National Park – a philosophy that provides a framework, which will direct park management and set principles for its future use and development. The management philosophy for Belair National Park has five principal components:

- The park should be managed to provide a high quality, natural environment that the public can appropriately use and experience.
- Areas within the park where the natural systems remain structurally intact, or where species or communities are of particular value, should be actively managed for their long-term conservation. Areas within the park where natural systems have been damaged or are under significant threat should be the focus of activities aimed at their restoration.
- Ensure that cultural and historical elements are enhanced.
- The park should be a place where the public awareness of the role of Department for Environment and Heritage, its aims and objectives, and the reserve system that it manages, can be improved.
- Ensure that the park is being managed so that recreational pursuits are in conformity with the preceding philosophical elements.

Management Vision

The following vision has been developed to provide an overarching direction for all future management activities within the park. The vision promotes the conservation, heritage and recreation values of Belair and encourages their continuation into the future. Conserving, celebrating and appreciating our natural and cultural heritage.

Management Objectives

- Strengthen the regional contribution of Belair National Park in the context of the Mount Lofty Ranges natural environment and open space systems.
- Conserve and enhance the natural environmental values of Belair National Park for future generations by arresting, and where possible, reversing biodiversity loss.
- Retain a diverse range of appropriate recreational activities within Belair National Park and manage these so that their impact on the natural and heritage values of the park is negligible.
- Conserve and promote the Aboriginal and Colonial heritage values of Belair National Park.
- Encourage positive visitor experiences through the provision of well-designed and maintained facilities in appropriate locations with minimal impact on the natural environment.
- Provide supportive opportunities to educate visitors and the wider community about the natural and cultural values of Belair National Park.
- Ensure that Park management and maintenance practices are consistent with the principles of ecological sustainable development and in accordance with current best practice.
- Continue to involve a diverse range of community, education and scientific groups in appropriate management of Belair National Park.
- Contain existing commercial activities within current lease boundaries and ensure their operation is sustainable and consistent with the natural and cultural heritage values of the park.
- Ensure that any new commercial activities support existing park activities and are sustainable and consistent with the natural and cultural heritage values of the park.

4 MANAGEMENT PRESCRIPTION

4.1 Zoning

One of the main management tools available for use in Management Plans is the allocation of specific zones over the park. Typically, these zones reflect existing land uses and contain objectives that allow for their continued existence. In this way, high disturbance activities such as those surrounding formal recreation facilities can be restricted to specific areas or zones. In the same way, areas of high environmental value can be zoned to protect them from potentially damaging activities.

In addition, the development of an appropriate zoning plan with associated policies can effectively:

- identify appropriate land uses and activities within each zone;
- channel management resources to priority areas;
- illustrate management objectives and priorities to the public and community groups; and
- provide a degree of certainty regarding future development within zones – for example, ensuring that new trails or recreation facilities are not developed in conservation areas.

In most cases, zones are defined by recognisable boundaries such as watercourses, sealed roads and walking trails.

The following pages describe the purpose as well as objectives and strategies for the proposed zones shown on Figure 2 – Zoning Plan.

Objectives

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

<u>Conservation 1 Zone</u>

The Conservation 1 Zone takes in a number of vegetation management regions or precincts within the park, all of which have been identified by DEH (the Vegetation Management Plan has been instrumental) as being of highest conservation value. In recognition of this, the zoning plan distinguishes these regions as priority conservation areas for park management.

Unstructured recreation activities with low environmental impacts such as walking, photography and bird watching are encouraged within the Conservation 1 Zone. In contrast, activities which, in the opinion of DEH, may result in environmental degradation or where insufficient knowledge exists on their environmental impact, will not be allowed.

Actions

- As a priority, ensure that staff resources are channelled towards the protection and enhancement of native vegetation communities and fauna habitats within the zone.
- Protect the environmental values of the zone through the exclusion of the following activities:
  - horse riding
  - orienteering (except on designated tracks and trails)
  - motor vehicular or motor cycle traffic except for management or emergency purposes.
  - trail cycling
  - dogs
- Focus available resources on the protection and rehabilitation of the zone through the effective coordination and education of environmental volunteer groups.
- Raise the community's awareness of the environmental significance of the zone through the preparation of promotional material and installation of signage. Ensure all visitors to the park, including cyclists, horse riders and bush walkers, are aware of the zone's boundaries and management restrictions.
- Ensure that existing walking trails within the zone do not bisect communities of significant vegetation. Where this may occur, the trail should be realigned or should incorporate design techniques such as boardwalks or railings to avoid pedestrian impact on vegetation.

Conservation 2 Zone

The Conservation 2 Zone contains the majority of the park's natural bushland and is, therefore, a zone where activities should be compatible with the environmental values of the area. Importantly, the zone performs a significant role in biodiversity protection for the Mount Lofty Ranges region – a key consideration for the management of the park.

Informal recreation is an important and appropriate activity within the Conservation 2 Zone. The zone contains many of the park's most scenic walking trails as well as much of the proposed trail cycling and horse trails. Formal recreation activities such as those requiring ovals or which could potentially damage the environment are inappropriate within the Conservation 2 Zone.

The zone also contains the Adelaide to Melbourne railway line that presents some significant management issues. The railway creates a major barrier to movement within the park, with the only walking access points being over the two tunnels and through Echo Tunnel.

Actions

- Ensure that native vegetation communities and fauna habitats within the Conservation 2 Zone are protected and enhanced.
- Encourage low impact, informal recreation activities such as bush walking within the zone and prohibit formal recreation activities such as team sports. Dogs may be taken into the Conservation 2 Zone as long as they are restrained on leads.
- Allow for controlled trail cycling and horse riding in accordance with the strategies outlined in section 4.6.
- Allow orienteering as approved and under conditions specified by park management.
- Initiate discussions with Australian Rail Track Corporation to investigate access issues throughout the park.
- Develop management strategies to minimise the impact of human activity and the spread of invasive weeds on the border of the Conservation 2 Zone and the Recreation Zone.

Heritage/Recreation Zone

The Heritage/Recreation Zone encompasses a significant portion of the western and central area of the park and extends, finger like, along Minno Creek and Saddle Hill Road to the east. The zone incorporates an extensive network of good quality recreational, sport and picnic opportunities for people to enjoy in natural settings. In particular, it contains:

- formal recreation ovals such as Karka, Willows, Long Gully, Gums and Main;
- the adventure playground;
- Gold Escort Ground;
- the Visitor/Administration and Volunteers centres;
- many of the park's tennis courts; and
- the park's maintenance facilities.

Although the majority of the zone is highly modified (the result of many years of intensive recreation and institutional use) this modification gives the zone its special historic character and should be conserved where appropriate. The zone also is home to a number of significant heritage features of the park including Old Government House. Within the zone, heritage sites of varying significance, should be recognisable entities. They should be designated as historic precincts to confirm their historic significance and to recognise their contribution to the cultural landscape of the park (see Section 4.3.2 – Colonial Heritage).

Actions

- Maintain the current provision of recreation facilities within the zone while also creating additional opportunities for people to recreate. Existing recreation facilities should be enhanced with due recognition of the zone's setting within semi-natural bushland and the need to protect environmental and cultural values.

- Permit the following recreation activities within the Recreation Zone at appropriate locations:
  - barbecues/Picnics – in designated picnic areas;
  - orienteering – as approved and under conditions specified by park management;
  - oval based sports and events - football, cricket and special events eg Parks Festivals;
  - cycling – on sealed roads and designated tracks and trails;
  - horse riding – on designated horse trails;
  - netball – using existing facilities;
  - tennis – within existing facilities;
  - walking – on designated walking trails;
  - festivals and special events; and
  - dogs restrained on leads.
- When new recreation and sport activities consistent with the above list are proposed and when licences or permits for existing activities are renewed, DEH shall assess each proposal without prejudice and on its merits in accordance with the following criteria:
  - the potential impact on the natural values of the park including damage to vegetation, noise, pollution etc;
  - the potential impact on the heritage and cultural values of the park;
  - the potential impact on other user groups – both unstructured and structured;
  - the need to redirect park resources to manage the activity or to provide and maintain new or existing facilities; and
  - ensuring that the proposed activity is cost neutral to park management.
- Ensure that other activities that may be appropriate within the park but have not been listed in the above strategy are assessed on their merits using the criteria outlined above.
- Continue to consult with the community and relevant committees regarding recreation management within the park.

Golf Course/Caravan Park Zone

This zone contains the Golf Course and Caravan Park, both of which are leased by Department for Environment and Heritage to a private operator. The golf course was originally constructed as a 9-hole course in 1934 and extended to 18 holes in 1941. In 1977 the golf course was redeveloped and in 1982 the lease of the golf course was tendered out to the private sector as a result of a State Government Public Accounts Inquiry. Murtfam Pty Ltd has a lease on the Caravan Park to the year 2017 and on the Golf Course to the year 2036. The Belair Park Country Club has an area of 50 hectares with 18 holes and a par 72 rating. Over 50,000 rounds of golf are played annually and participants range from beginners to tournament professionals.

The Management Plan recognises that the two facilities have long-term leases and also have a long history of tenure within the park.

Strategies

- Recognise the continued operation of the Golf Course and Caravan Park.
- Retain the golf course within its current lease area as an 18 hole public facility and ensure that its management and operations are consistent with the park's objectives and current best practice.
- Encourage a sensitive upgrade of the Caravan Park using principles of ecologically sustainable development within the current leased area.

Plant Nursery Zone

The Plant Nursery has a long-standing history within the park. The Management Plan recognises its existence as a legitimate land use and allows for its continued operation. Issues relating to the future management and operation of the nursery are unclear at the time of writing this plan. Currently, State Flora manages the nursery but is investigating options to privatise their operations. It is appropriate, therefore, that a review of the nursery be undertaken in association with a review of the Management Plan.

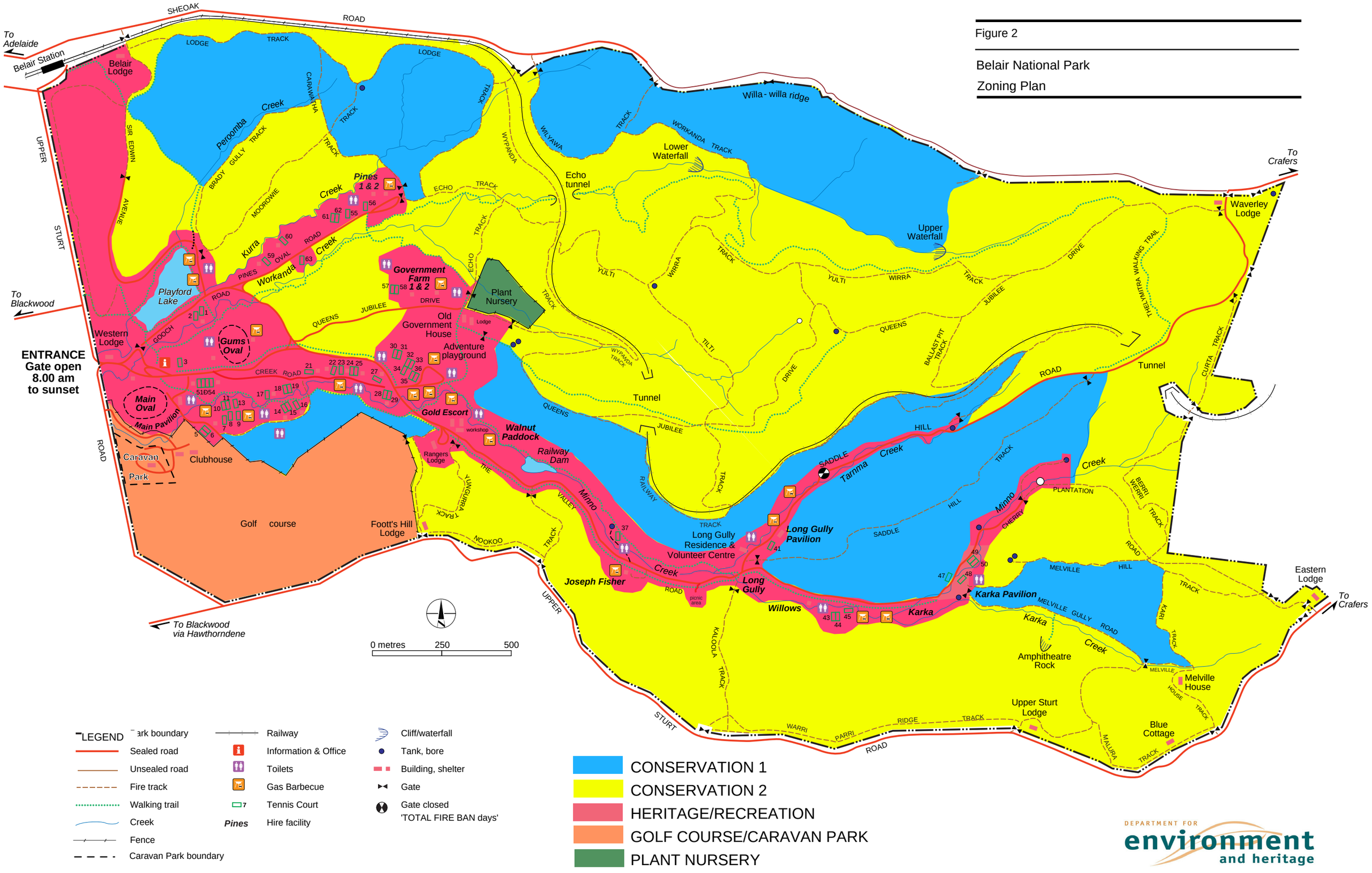
Actions

- Allow for the continued operation of the Plant Nursery within its existing leased area during the life of this Management Plan.
- Ensure that the nursery continues to provide a service to the public and is managed as a key element of the park rather than as a stand-alone commercial operation.
- Ensure that any new buildings or permanent structures are consistent with the Visitor Services and Facilities Plan referred to in Section 4.5.

Figure 2

Belair National Park

Zoning Plan



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4.2 Natural Resources

4.2.1 Regional Context

Background

As highlighted in Section 3, Belair National Park makes a significant contribution to biodiversity conservation, not only to the Mount Lofty Ranges but also to the State as a whole. It is important, therefore, to view the park within its regional context and to develop policies and partnerships that can enhance both the park and the surrounding area's natural environment.

This can be achieved by ensuring that park management has a 'voice' in local and regional planning initiatives such as Council open space strategies and the Greater Mount Lofty Ranges Park.

Objective

Strengthen the regional contribution of Belair National Park in the context of the Mount Lofty Ranges natural environment and open space systems.

Actions

- Establish formal and informal links between park management and other authorities with responsibilities for natural resource management within the Mount Lofty Ranges. The purpose of these links will be to facilitate the sharing of information as well as the implementation of effective regional environmental planning initiatives. Organisations that should be involved include, the Patawalonga Catchment Water Management Board, City of Mitcham, Adelaide Hills Council and the Mount Lofty Ranges Catchment Program.
- Investigate and if appropriate, pursue opportunities to establish vegetated links between the park and other adjacent areas of native vegetation.
- Ensure that the management objectives of Belair are adequately represented within current and future regional planning initiatives such as the Greater Mount Lofty Ranges Parklands 'Yurrebilla'.

4.2.2 Geology and Landform

The sharp boundary between the western, open, undulating country and the higher, eastern section (see Figure 3 – Landform and Roads) is defined by the Clarendon-Ochre Cove fault, a steep, south-easterly dipping fault plane, along which the rock system to the east has moved upwards relative to the western section. This has caused older rocks to be exposed to the east of the fault line.

Both these ancient rock sequences belong to the Late Precambrian Burra Group and are approximately 700 to 750 million years old. They were deposited within the Adelaide Geosyncline, a great trough of sedimentation that lasted about 250 million years and extended from Kangaroo Island in a broad arc to the northern Flinders Ranges region. Burra Group sandstones and siltstones were deposited in shallow Precambrian seas and later folded and metamorphosed into the slates, phyllites (a slaty rock with shiny mica flakes on its cleavage surfaces) and quartzites that we now see in the park. This phase of tectonic activity, called the Delamerian Orogeny, reached its culmination about 500 million years ago when the folded and metamorphosed rocks were thrust upwards along steeply dipping fault planes to form the embryonic Mount Lofty Ranges.

These Delamerian structural trends strongly influenced the position of the younger Tertiary faults: for example, the Clarendon-Ochre cove fault, which delineates the Saint Vincent Basin and present ranges. These younger movements began about 55 million years ago, coinciding with rifting between southern Australia and Antarctica. Movement along these fault planes has continued intermittently until the present time.

At the undulating, western end of the park, the rocks are mainly slates and phyllites of the Belair sub-group, but east of the escarpment the older Saddleworth Formation also includes numerous thin, resistant, quartzite bands. These bands exert significant effects on the topography and are primarily responsible for the two waterfalls along Workanda Creek. A poor exposure of Stonyfell Quartzite, predominantly a white feldspar-rich quartzite, occurs in the south-eastern section of the park. This is the oldest of the Burra Group units exposed in the park and is the unit which forms Mount Lofty and which has been extensively quarried in the Adelaide Hills region.

Much younger rocks of Late Tertiary age are exposed at the western end of the park. These are flat-lying, iron-rich sandstones, deposited by freshwater streams which dissected an ancient, laterite-capped, tableland surface about 3 million years ago. The ancient laterite-capped, tableland itself still forms a resistant but weakly defined plateau surface dissected by numerous small creeks.

4.2.3 Soils

The soils in the park are mainly duplex soils (podzols) developed on fine-grained slates, phyllites and quartzites. They consist of a greyish, sandy loam horizon overlying mottled, sometimes blocky clays.

Topography exerts a strong influence on differences in colour, depth and texture. Ridge slopes are characterised by hard, pedal, red and mottles yellow duplex soils of moderate depth; valley soils tend to be deep, sandy, apedal mottled yellow duplexes. Shallow, reddish loamy soils occur on ridge crests. Apedal duplex soils have developed on the laterite surfaces of tableland remnants in the western section of the park. The latter are moderately deep acid soils with a loamy surface horizon overlying a mottled yellow-red-brown clay containing ironstone concretions.

Since the Pleistocene period, erosion of the block-faulted hills has resulted in varied soil formation. Remnants of the former lateritic podzol soils are left on ridgetops, but where this soil has been completely eroded, other soils have developed under the influence of their modern environment. Depending upon the parent rock material, these comprise two major types:

<u>Skeletal Quartzitic</u>

These are very siliceous rocks that are highly resistant to weathering. They break up into chunks that weather very slowly, resulting in infertile quartz-rich soils. In isolated areas where the finer, sandy fragments gather, a podzol soil has developed and has been leached by the moist environment, resulting in the finer fragments being washed down to form a sandy-clay subsoil. This soil is low in plant nutrients and is acid throughout.

<u>Grey Brown Podzol</u>

The argillaceous or clay rocks on the other hand, weather rapidly into soil minerals and, although erosion is active, soil material does tend to accumulate over most of the ridges. In contrast to the rugged topography of the quartzitic hills, these are gentle and rounded. The soil often becomes leached to form distinct clay-loam surface and clay subsoils, both if which are acid in reaction and generally low in nitrogen and phosphorous content. Although relatively fertile, these soils, which cover the major proportion of Belair National Park, become more leached and consequently less fertile in the higher rainfall areas.

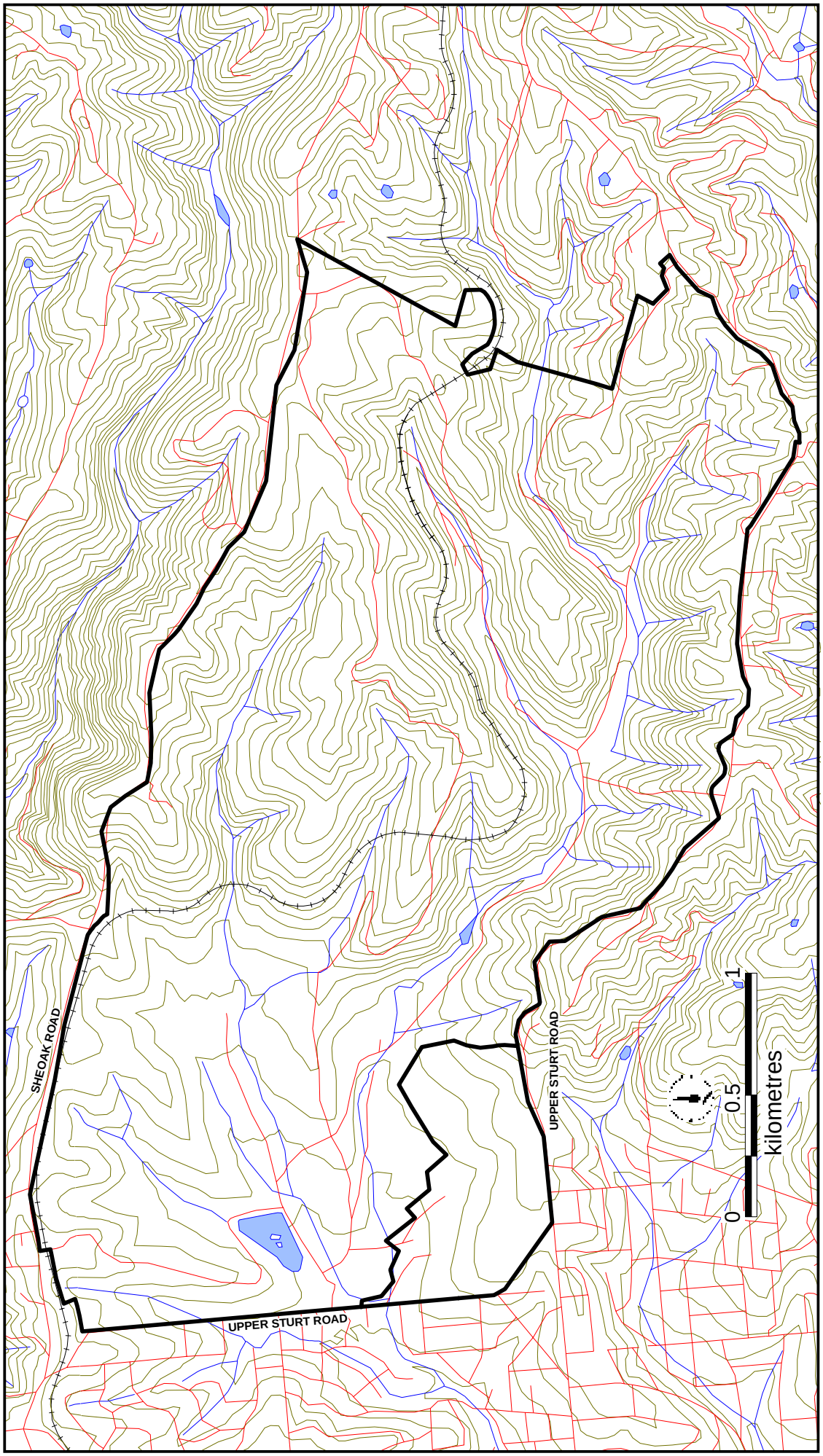


Figure 3

Belair National Park

Landform and Roads

4.2.4 Hydrology

A number of creeks run through the park including Peroomba Creek, Kurra Creek, Workanda Creek and Minno Creek. The park's water supply is supplemented by a number of deep bores within the park, which are used for irrigation and for the toilets. Mains water is also connected.

Under natural conditions, creeks reach equilibrium between natural erosion forces and the land cover of the original floodplain and catchment area. Extensive changes to land cover have disturbed this balance and as a result of settlement, vegetation clearance, changes in land use and urban development, the creek systems have entered a new cycle of instability and stream bank and stream bed erosion. In terms of catchment issues, Belair National Park receives some urban run-off from surrounding properties, but most input comes via the creek systems. It would be desirable if all the water entering the park was of the highest quality and in volumes similar to natural flows.

At the same time, on-park activities should not degrade water quality, increase run-off or create down-stream impacts either. Uncontrolled public use and loss of aquatic and riparian vegetation can exacerbate these changes. The potential for erosion and the resultant siltation of creeks is therefore seen as a park management issue. It would be desirable to restore the creek environments in the park to a condition that more approaches 'natural' and ameliorate any impacts of urban run-off elsewhere in the park.

Adelaide's Mediterranean climate and its topography of slopes and plains, plus the human-induced changes to ground cover and drainage mentioned previously, can lead to rapid run-off when it rains. Flooding is most likely to occur after a long duration of rainfall, due to the combined effects of run off from the surrounding urban area and a substantial contribution from the up-stream catchment, which becomes saturated in these long duration storms.

The Patawalonga Catchment Water Management Board (PCWMB) are responsible for improving water quality through improved catchment management practices and can assist park management by ensuring that all activities along the creeks of the catchment are compatible with the preservation of natural flows and the conservation of biodiversity. By this means, all aspects of the natural resources of the catchment can be effectively managed for the benefit of the public and the natural environment.

The PCWMB has prepared a Biodiversity Action Plan for Sturt River/Minno Creek that develops complementary strategies to this management plan. DEH should cooperate with the PCWMB and the City of Mitcham to implement/maintain flood mitigation measures, which may contribute to the reduction of flood damage in the catchment. Creek bank restoration should be a priority, as should the development of strategies to utilise stormwater from both within the park and externally.

DEH also has an interest in landowners adjacent to the reserve and upstream of the reserve managing remnant native vegetation in a manner that protects and improves natural biodiversity and contributes to the creation of biological corridors and improved catchment water quality. To facilitate integrated natural resource management throughout the catchment, DEH recognises the importance of developing ongoing partnership arrangement with officers of the PCWMB and participating in regional catchment management programs.

Actions to address riparian management issues undertaken in the park need to continue in conjunction with the Patawalonga Catchment Water Management Board. Developing new and enhancing existing partnerships with other natural resource management organisations will be a priority in the immediate future.

Actions

- In collaboration with the Patawalonga Catchment Management Board continue the environmental restoration of Minno Creek. In particular, ensure that existing adjacent recreation activities are compatible with the environmental values of the creek.
- Minimise the use of water throughout the park through efficient storage, irrigation and re-use where appropriate.

4.2.5 Native Vegetation

The presence of rare and threatened plant species, the recent re-establishment of native animals and the possible re-introduction of plants and animals, highlight the need to manage the park in a way which protects its flora and fauna. Given that the community places a high value on conserving the biodiversity and habitats within Belair National Park, it is important that this asset be conserved for future generations so that they too can be enriched by their experiences of its natural environments.

Although to the casual observer, much of the vegetation within the park seems to have remained in a natural state, the vegetation structure has actually been significantly altered since Colonial settlement and is no longer representative of the original ecosystem. For example, human activity over the last 165 years has modified the structure of the vegetation by:

- altering the fire strategy – ie less frequent fires which are 'hotter' and more intense due to a build up in fuel loads;
- harvesting trees by logging and bark stripping which has led to a lack of old growth; and
- stock grazing.

In particular, vegetation with southern aspects with a cool and moist microclimate has suffered most from weed infestation.

Although much of the eastern sector of the park is comprised of native vegetation and is therefore of high conservation value, the western sector also contains significant vegetation communities. The western sector is predominantly open, gently undulating country accommodating *Eucalyptus microcarpa* (Grey Box) and *Eucalyptus camaldulensis* (Red Gum) woodland with a grassy understorey. Neagle (1995) highlights that *E.microcarpa* is "much deleted but a few large examples still remaining in South Australia." Davies (2000) claims that the 'most significant conserved example of *Eucalyptus microcarpa* woodland occurs in Belair National Park'

It is important to note that the park contains a number of plant species of significance at a national, state and regional level. Appendix B identifies these species. For example, according to Davies (1995) 'the largest population of the nationally threatened orchid *Prasophyllum pallidum* in the Adelaide Hills' is located in the park. It is important that baseline data is improved to enable park management to better protect these species and their habitats. The Department for Environment and Heritage has developed a threatened species database to this end.

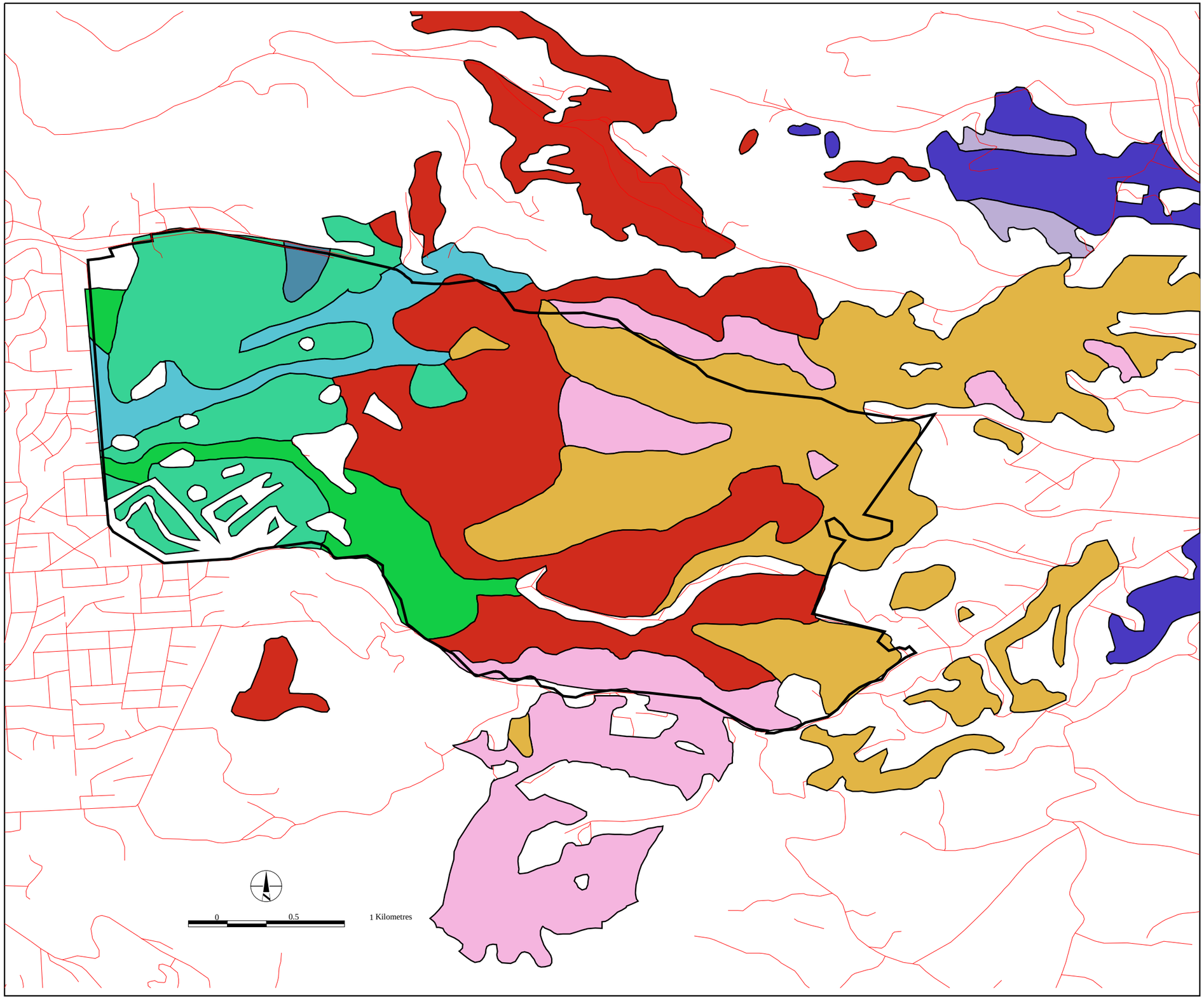
As part of the management of the conservation of Belair National Park, there is a need to introduce appropriate management techniques to ensure biodiversity in the park is retained. Davies (1997) and others have made recommendations on the how this might best be achieved.

One of the major threats to biodiversity is the soil-borne fungus *Phytophthora cinnamomi* that affects the health of trees and shrubs 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 and can also spread slowly in any direction through root to root contact. The spread of *Phytophthora* is dramatically increased by human activities, particularly by moving soil, gravel and plant material on vehicles, footwear and camping equipment.

While only one confirmed small outbreak of *Phytophthora* has been documented to date (2003) it is important that ongoing monitoring and management of this serious threat occurs on a regular basis throughout the park. Park managers need to take all necessary precautions when planning earth-moving operations. Potentially contaminated soil should not be imported into the park. The high level of recreational use (horses, bicycles and walkers) is also a factor, given the potential for spread of this disease. Siting, designation and repair and re-location of tracks and trails should be undertaken with this potential problem in mind. The DEH officer who is responsible for dealing with the *Phytophthora* problem should be encouraged to sample this park and provide advice, as and where necessary.

Figure 4

Belair National Park
Vegetation Associations



LEGEND

Roads

Park Boundary

Vegetation

- Eucalyptus camaldulensis / Eucalyptus leucoxylon
- Eucalyptus camaldulensis / Eucalyptus microcarpa
- Eucalyptus fasciculosa
- Eucalyptus leucoxylon / Eucalyptus viminalis
- Eucalyptus microcarpa / Eucalyptus fasciculosa
- Eucalyptus obliqua
- Eucalyptus obliqua / Eucalyptus baxteri
- Eucalyptus obliqua / Eucalyptus cosmophylla
- Eucalyptus obliqua / Eucalyptus fasciculosa

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The management of native vegetation within the park is guided by a document produced by DEH staff in 1998 known as the "Vegetation Management Plan". The document advocates a strategic approach to conservation management based on the following principles of environmental science and land management:

- The clear identification of natural vegetation associations and ecosystems and any species of rated conservation significance contained within;
- The clear identification of threatening pest plants and effective abatement strategies; and
- The strategic prioritisation of threat abatement strategies and of resources based on clear, achievable and sustainable objectives.

Vegetation Associations of the park are illustrated in Figure 4. The information is based on data from Planning SA and is also expressed in the following table.

Vegetation Associations

Regional Floristic Description (Planning SA)	Total Area (ha) in Mount Lofty Ranges	% Protected in Mount Lofty Ranges	Area (ha) in Belair NP
Eucalyptus. obliqua, E. fasciculosa over *Acrotriche serrulata, Gonocarpus tetragynus, Hibbertia exutiacies, Lepidosperma semiteres* Woodland	2290	14	64
E. obliqua over *Ixodia achillaeoides, Dianella revoluta, Gonocarpus tetragynus, Pultenaea daphnoides* Woodland	2538	17	200
E. leucoxylon ssp., *E. viminalis* ssp., over *Acacia pycnantha, Scaevola albida* Woodland	1916	35	244
E. microcarpa E. fasciculosa over *A. pycnantha, Astroloma humifusum, Olearia ramulosa* Woodland	472	61	164
E. camaludensis var., *E. microcarpa* over **Olea europaea* Woodland	131	35	46
E. fasciculosa, over *Calytrix tetragona, Astroloma conostephioides* Low woodland	388	77	5
E. camaludensis var., *E. leucoxylon* ssp. over **Briza maxima, *Linum trigynum* Low Open Woodland	740	46	61

* Exotic Species

Source: Appendix 1.4. (Long 1999)

Objectives

Conserve and enhance the natural values of Belair National Park for future generations by arresting, and where possible, reversing biodiversity loss.

Ensure that Park management and maintenance practices are consistent with the principles of ecological sustainable development and in accordance with current best practice.

Actions

- As a high priority, use the Vegetation Management Plan to effectively protect and enhance identified vegetation precincts of high conservation value.
- Undertake research to refine and update the Vegetation Management Plan on an ongoing basis.
- Undertake additional research into *Phytophthora* to determine its presence within the park and to develop appropriate management strategies to control its spread. Tactics should include issues of operational hygiene and potential infestation through recreational activities, taking account of possible *Phytophthora cinnamomi* introduction/spread when planning access routes or management and development works that involve movement of soil or machinery.

4.2.6 Native Fauna

Although significantly disturbed by human activity, the park provides an important refuge for native animals within the Mount Lofty Ranges. Many of these species are listed as significant and their protection should be the focus of park resources. A list of Fauna and their conservation status can be found in Appendix C.

In terms of mammals, recent observations and records of sightings of mammals suggest that there are now nineteen native mammal species occurring within the park. These include the Short-beaked Echidna, the Yellow-footed Antechinus, the Common Ringtail and Common Brush-Tail Possum, the Western Grey Kangaroo, the Water Rat, the Bush Rat and eight species of bats. The Southern Brown Bandicoot is classified as endangered on a national scale under the *Environment Protection and Biodiversity Conservation Act 1999* and vulnerable in South Australia under the *National Park and Wildlife Act 1972*.

Belair National Park is not considered part of the former distribution range of the Koala or Red Kangaroo. These species probably result from deliberate introductions from the native fauna enclosure, which was established in 1958 and maintained until 1972, when most of its occupants were released into the park.

A total of nineteen species of reptiles, including five snakes have been recorded in the park. Of the latter, only the Eastern Brown Snake is common. Although capable of administering a fatal bite, this species is relatively shy and not prone to biting without provocation. Other reptiles within the park include the Shingle-Back, the Bearded Dragon and the Eastern Blue-Tongued Lizard.

The park's amphibian population includes the Eastern Banjo Frog, the Spotted Grass Frog, the Brown Froglet, the Brown Toadlet and the Brown Tree Frog. The Southern Bell frog is also recorded and listed as Vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999.* They are found along creeklines, around edges of pools, dams and at other damp locations.

The introduction of exotic species of fishes into the park's watercourses and water bodies has been to the detriment of native species and has led to the point where the only remaining native species is the Minnow. Introduced species include the Golden Carp, the Redfin Perch and the Brown Trout.

The bird population in the Mount Lofty Ranges has been considerably affected by habitat reduction. Within Belair National Park more than 137 native bird species have been recorded. Many of these, however, are transient visitors and do not breed in the park, or indeed, in the Mount Lofty region. Probably less than 50 per cent of this number can be regarded as permanent residents of the park and at least eight of the remaining 50 per cent are naturalised introduced species.

Some of the more commonly observed birds include the Australian Grebe, Little Pied Cormorant, White Faced Heron, Pacific Black Duck, Maned Duck, Australian Hobby, Dusky Moorhen, Galah, Rainbow and Musk Lorikeet, Red-rumped Parrot, Laughing Kookaburra, Black-faced Cuckoo-shrike, Scarlet Robin, Superb Fairy-wren, various thornbills, particularly the Striated Thornbill, various honeyeaters, the Red-browed Firetail, Australian Magpie-lark, Australian Magpie and the Little Raven. On the other hand, the Brown Tree-creeper is in very low numbers.

The Messmate Stringybark areas in the east of the park provide habitat for more secretive species such as the Bronzewings. These ground-dwelling species appear to be becoming less common in the park. This decline may be due to predation from foxes, cats and domestic dogs. Other species, such as the honeyeaters have a preference for the South Australian Blue Gum covered areas.

Park management encourages tertiary students to use the features of the park for research projects and scientific investigations to increase the knowledge base for all parties. In recent times, a group has actively studied the habits and changes to the southern brown bandicoot community in the park. The study noted that the numbers of bandicoots are increasing and the population is reintroducing itself into a larger area of the park. This increase has been enhanced by a recovery program put in place by DEH that includes seasonal fox control.

Such findings are essential to the responsible management of communities of flora and fauna species. It is noted, however, that more research into the patterns and movement of species is required throughout the park. Although the impact of non-indigenous species has hitherto been of most concern, the impact on the environment of overabundant native species is also becoming an issue. The large numbers of Rainbow Lorikeets and increasing numbers of Koalas, for example, have the potential to affect biodiversity and degrade the value of the park as a wildlife refuge. Management intervention may eventually be required but research is needed before that occurs.

Of particular importance to the native fauna population is the identification and protection of habitats within the park. These habitats include fallen logs and tree hollows. In particular, the Recreation Zone contains a number of significant red and blue gums that are homes to birds, possums and bats and should be protected from human impact. In addition, park management should ensure that visitors do not remove logs lying on the ground.

The use made by native animals of introduced vegetation also needs to be taken into consideration. For example, bandicoots and wrens are known to inhabit blackberry thickets, and creating alternative habitat for these animals should be an integral component of pest plant removal programs. DEH has conducted trials in Melville Gully in relation to the interaction of bandicoots and blackberries.

Strategies

- Continue to undertake research to identify "habitat communities" and develop management strategies to protect these from threat.
- Further develop the Vegetation Management Plan to incorporate significant fauna habitats and recommend management actions.
- Support research into native species and develop and implement management programs where necessary.

4.2.7 Introduced Plants

Throughout the post colonial settlement history of the park, human activity has led to the spread of introduced plants – both intentionally and unintentionally. Some of these introduced plants are now considered to be 'cultural plantings' and as much a part of the heritage of the park as the built form. Many of the exotic trees in the park have value in addition to their heritage – they may be rare, good botanical specimens, shade trees or of high amenity value. They should be protected.

Other plantings however, such as the ash and willows along the creeklines are considered pests that should be removed to enable the restoration of the creek. Park management needs to develop strategies that protect cultural plantings while also protecting the conservation values of the park. Information and public education should be a component of any control programs. Removal of introduced plants should be linked to rehabilitation/revegetation initiatives to ensure habitat replacement for native species that have come to depend on pest plants for their survival.

The Vegetation Management Plan contains recommended actions to control the spread of introduced plants, the majority of which are located west of the railway line, into vegetation communities of conservation significance. These actions should be progressed as a matter of priority.

Actions

- Ensure the effective control of pest plants (and serious environmental weeds) within the park, while ensuring that exotic trees with heritage value or other significance are protected.
- Liaise with Australian Rail Track Corporation to develop a program to control pest plants on railway property within or adjacent to the park.
- Ensure that areas of the park not under direct day to day management by DEH have arrangements in place (eg as lease conditions) for the effective control of pest plants.

4.2.8 Introduced Animals

Given the park's proximity to the urban area, pressure from domestic and other introduced animals is a constant issue for park management. In particular, predatory animals such as foxes and cats have a perceivable impact on small mammals, birds and reptiles. In addition, there are also wandering domestic dogs, rabbits, hares, rats and mice.

Careful management through integrated pest control programs is required to ensure that pest numbers are reduced with minimal impact on native flora and fauna. Information and public education should be a component of any control programs.

Actions

- Ensure the effective control of pest animals within the park.

4.3 Cultural Heritage

4.3.1 Aboriginal Heritage

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.

Aboriginal Occupation

The Kaurna people occupied the land now conserved by Belair National Park (Tindale 1974). The environment provided important resources for the Kaurna, but with colonisation the Kaurna were progressively dispossessed. The lack of information pertaining to the original inhabitants is directly related to the intensive settlement of the Adelaide plains during the 19th century that had a devastating effect on the Kaurna people and their culture. From an initial population of approximately 650 and occupying a territory of 7,200 square kilometres, the Kaurna were reduced through disease and dispersal so that within 50 years of colonial settlement they no longer lived a traditional life close to Adelaide (National Parks and Wildlife SA, 1999).

Today, Kaurna people live on their country and practice their culture and language. Some of the language and traditional stories have been recorded, however, to date the full extent of Aboriginal heritage at Belair has not been comprehensively researched.

According to one researcher, there are no known direct relationships between known Aboriginal sites or traditions and the area of Belair National Park. It is also possible due to the fact that Belair appears to be part of an ill-defined territorial boundary separating the traditional land of the Kaurna people of the Adelaide plains from the Peramangk people of the eastern Mount Lofty Ranges (Fitzpatrick, 1997). As such, it could be speculated that both groups used to frequent the Belair area for a range of purposes but may not have stayed for extended periods. Rather, it is likely that Belair was a common ground utilised in a co-operative manner for a variety of seasonal resources. Access to Belair was probably gained through the Sturt River Valley.

It is likely, however, that the park may lie near important dreaming places telling of the formation of the Mount Lofty Ranges. It is important to recognise the importance of the region to descendants of the traditional inhabitants. The most likely dreaming story relating to the Belair area tells of the giant ancestral being known as Ngarna. Although details of the Ngarna story are limited, Norman Tindale, a long time Ethnologist at the South Australian Museum, describes the story thus:

> *"The whole spine of the Mount Lofty Ranges, viewed from the northwest, was regarded as the body of an ancestral man, a giant who attacked them from the east and was killed there. His body stretches from Mount Lofty to Nuriootpa, a distance of over 35 miles (60 km), and the twin summits of Mount Lofty and Bonython are jureilda, "the two ears" of the being, a name now perpetuated as the township of Uraidla, having passed over, a little distorted as to pronunciation into our culture." (Fitzpatrick, 1997)*

However, due to historical or cultural reasons, any knowledge of the of the cultural heritage of the region may be privileged to selected Kaurna people and therefore unable to be recorded.

Given the lack of existing information, it is considered important that further research be undertaken in order to gain a better understanding of the Aboriginal occupancy and use of the area.

Aboriginal Heritage Act 1988

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.

Any 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 at Belair likely to contain evidence of Aboriginal pre-historic occupation include:

- *Claypans, lakes, creeks 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)
- *Bush or forested areas* (stone artefact scatters, campsites or ovens)

The South Australian Government is responsible for the protection and preservation of sites objects and remains of significance to Aboriginal people. The Department for Aboriginal Affairs and Reconciliation maintains a Central Archive of some 6000 site recordings of Aboriginal sites.

Currently 4 sites are listed on the Central Archive for Belair National Park. These sites are culturally modified trees, and were documented in a report by James Knight and Malcolm Lane in 2001. These recordings do not reflect a comprehensive survey of the park. To promote better cultural heritage management at Belair National Park further research needs to be undertaken to identify and record sites of significance on the park.

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

Management of Aboriginal sites is largely at the direction of authorised Aboriginal Heritage Committees, constituted under the *Aboriginal Heritage Act 1988*. DEH has, and will continue to, liaise with Aboriginal people with an interest in the area.

4.3.2 Colonial Heritage

South Australia has a rich and diverse range of buildings, structures and features that have been established since European settlement in the late 1830s. There is a strong community appreciation of the part that these heritage places play in our environment. As places of cultural heritage significance they can enhance the quality of life for people and can contribute tangible and demonstrable rewards through tourism and recreational opportunities.

The Heritage Act 1993 provides for places of State heritage value to be entered in the State Heritage Register, whilst the Development Act 1993 allows local communities to include local heritage places in Council Development Plans.

The key heritage resources within parks include places that are entered in the State Heritage Register, State Heritage Areas, and places/areas identified as being of local heritage value or of historical interest to the park.

Belair National Park is significant as South Australia's first national park (1891) and was for much of its life known simply as 'The National Park'. It was the second national park in Australia after Royal National Park near Sydney (1879) and one of the earliest in the world. Established after a campaign over more than a decade, it signifies the growing public commitment at the time to the retention of natural areas for both conservation and recreation. However, the 1891 Act had a strong recreational rather than conservation focus.

Evidence of the park's subsequent history under the management of appointed Commissioners is apparent in the ovals, pavilions, exotic tree plantings and other improvements which reflect changing conceptions of recreation and conservation.

The park was created on land originally set aside in the 1840s as the Government Farm and contains the first Governor's summer residence built in 1859. The following is an abbreviated history of the park since the 1840s. Specifics of the land tenure history of Belair National Park are provided in Appendix D.

Government Farm and Old Government House 1840 - 1876

Following permanent settlement by Nicholas Foott in 1839, the Government acquired land, part of which is the present park, in 1840 for use as a government farm to agist stock.

In 1858 "a cottage residence" was built on the farm to provide a summer residence for the Governor. This building, now known as "Old Government House", was the official summer residence of the Governor until 1880 when the mansion at Marble Hill was built. A keeper's cottage (which subsequently became the governor's servants' quarters) had been erected on the Government Farm in 1840.

The Campaign to Establish a National Park 1877 – 1891

In 1881 when the Government proposed to subdivide the farm into small agricultural holdings, public opposition led to the launch of a campaign to prohibit the sale of the farm and reserve it as a public recreation park.

In October 1883, the Government passed a Bill to prevent the sale of the land but without restrictions on its use.

In 1886, 202 hectares of the farm were set aside as a forest reserve and the forester in charge occupied the house.

Commercial forest plantations, clearing for firewood and sleepers and the development of an area for recreation, including the planting of a maze near Belair Railway Station were activities which occurred during the next decade, while the campaign continued to have Belair set aside as a public park.

The Field Naturalists' section of the Royal Society of South Australia were opposed to clearing of vegetation and other farm management practices. They supported the conservation of the Government Farm as a National Park. Their main objective was always the preservation of fauna and flora. Prominent campaigners for the park included Walter Gooch and Sir Edwin Smith, who continued to be involved after proclamation. In political circles, the concept of a National Park was supported mainly for recreation and this was the primary focus of the dedication in 1891.

National Park Established 1891

On 19 December 1891, the Governor assented to the Act to establish a National Park at Belair comprising 809 hectares and "dedicated for the sole purpose of a public national recreation and pleasure ground". The Park was the second national park in Australia and the tenth in the world.

The Park was managed by 12 Commissioners who concentrated initially on developing the park as a viable recreation ground with little emphasis given to the protection of native flora and fauna.

Tree Planting 1882 – 1923

Early tree plantings consisted of poplars and willows along the creeks and sequoias, oaks, pittosporums, as well as many Australian species in the valleys.

In 1908 a decision was made to do no more planting east of the railway so that the part of the park could be left in its natural state. The Commissioners came under some pressure to preserve and protect native fauna and flora.

In 1922, 700 Japanese Cherry Trees were planted in Sparkes Gully to commemorate the Allied Victory of the First World War.

The next year the Commissioners decided that all future tree plantings would be "indigenous to the state" to conform to the naturalness of the park.

Development of Park Facilities 1894 – 1929

In the early years of the park, income derived from bark stripping, firewood sales and depasturing stock was spent developing ovals and facilities for visitors.

The first oval, Main Oval and tennis courts were constructed in 1894 and by 1927 there were nine sports grounds and 42 tennis courts. Three pavilions were erected to allow for "indoor" eating at Main Oval and Long Gully. Refreshment rooms were considered a necessary adjunct to these pavilions. Numerous arbors were constructed to provide additional shelter and drinking water, toilets and coppers for heating water provided next to arbors and pavilions. Large numbers of people visited the park with trade picnics being very popular.

Problems facing the park included infestation by weeds and damage caused by feral animals including rabbits and foxes.

Road construction and maintenance was expensive. Many visitors travelled by train leading to a new railway station being provided at Minno Siding (later known as Long Gully) to allow access to the heart of the park.

Depression and Second World War 1929 – 1945

The Depression in the 1930s and the Second World War had a significant impact on visitation levels and revenue sources. Park management resorted to timber felling and sheep grazing. The only new development in this time was the nine-hole golf course developed as a means of raising revenue in the winter months. As the Government's annual grant was withdrawn, even maintenance activities were curtailed.

During the Second World War the park was used for military camps.

Post War Period 1947 – 1960s

With Government grants restored and an increase in visitation, the park Commissioners focused on increasing the revenue from hire of facilities. Once again trade picnics and social club gatherings brought large numbers of people to the park. However, by 1960 the Commissioners were concerned about over use of the park and increasing impacts of vehicles and visitors on the natural environment.

An estimated 500,000 people visited the park in 1963. Most of these travelled by car, increasing pressure on car parking areas and access roads.

Park Management in the 1970s and 1980s

Much of the management effort of the 1970s was put into limiting vehicle access and attempting to revegetate degraded areas.

In 1972, the National Parks Commission ceased to exist and control of the park passed to the National Parks and Wildlife Service.

Amid controversy, the golf course was redeveloped in 1973. The destruction of natural habitat to achieve this provoked demonstrations of public concern for the natural values of the park. Almost thirty years later, these values remain at the core of community concern about the current use and management of the park for the benefit of natural ecosystems and the enjoyment of future generations.

In 1989 the first Management Plan for Belair Recreation Park was formally adopted. This document has served the park well by providing a long-term management direction as well as establishing specific objectives and strategies for the development of the park. The majority of these specific strategies have been successfully completed.

Amongst other things that happened during this period, the Orienteering Association of South Australia prepared orienteering maps for the park, which subsequently formed the base map for the *Orienteering Use of Belair National Park, February 1998* guidelines.

Objective

Conserve and promote the indigenous and post colonial settlement heritage values of Belair National Park.

Actions

- Consult Aboriginal 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 Aboriginal cultural heritage.
- Develop a constructive working relationship with the relevant Aboriginal Heritage Committee as nominated by the State Heritage Committee.
- Before proceeding with any development works within the reserve, obtain an assessment and clearance from the appropriate authority, under the provisions of the *Aboriginal Heritage Act*.
- Identify, record, protect, restore and monitor known or relocated sites and items of archaeological, anthropological, cultural and historical significance located in the park, in cooperation with the Department for Aboriginal Affairs and Reconciliation, the Heritage branch of DEH and other relevant authorities and organisations. Aboriginal and historic cultural heritage sites require conservation plans to facilitate appropriate management.
- In association with the Heritage branch of DEH, prepare design guidelines to ensure that future development of and around heritage sites is sympathetic to the heritage values of the place.
- Research and inventory, historic sites and stories that relate to the history of the park and where appropriate, promote these sites to visitors through interpretive material and by encouraging the development of tours to heritage places throughout the park.
- Develop interpretive material including brochures, site signage and displays where appropriate.
- Encourage and support archaeological, anthropological and historic studies within the park. All sites located during these surveys should be recorded to the standards set by the Heritage branch of DEH and/or DAARE and submitted for inclusion on the DAARE Central Archive and/or State Heritage Register.
- With the endorsement of the Heritage branch of DEH, undertake a heritage study of the park, that includes, but not limited to, investigating the heritage value of the following:
  - area around the maze and original access track;
  - sugar gum grove along Sir Edwin Avenue;
  - plant nursery;
  - garden area around Old Government House;
  - site of the 1936 scout jamboree;
  - historic dwellings;
  - railway dam;
  - Joseph Fisher area;
  - Long Gully and Karka area;
  - Japanese cherry plantation;
  - original stockyards, Gold Escort Ground, Walnut Paddock, Commissioner's Shack and the site of Foott's cottage;
  - original steps to National Park station, Tarnma running track, original path from Long Gully station; and
  - Main Oval and pavilion, Gooch Road original entrance, gaol sites, first kiosk site and well.

  The study should identify what sites should be designated as historic precincts within the park. It should also include a survey of trees with heritage and other significance to assess the value of the trees and their contribution to cultural landscapes and also develop a replacement strategy.
- Ensure that the Visitor Facilities and Services Plan (refer to 4.5 below) achieves the endorsement of the Heritage branch of DEH and DAARE.
- Promote and support the ongoing conservation and public appreciation of Old Government House. Special recognition should be given to the fact that it contains the earliest indoor bathing pool in South Australia and displays early construction techniques and materials.

4.4 Fire Management

Fire management is a significant issue for the park. Given that much of the terrain is well vegetated with high fuel loads, fire management mechanisms are a necessary component of the park's management plan. Currently, the park has an annual bushfire prevention program in place which addresses a range of issues, including servicing all bores, monitoring water storage tanks, slashing alongside access tracks, undertaking prescribed burning, and irrigating all ovals and picnic areas to be used as "safe havens" in the event of a wildfire. On days of extreme fire danger, the park may be closed to the general public.

Actions

- Comply with provisions of the *Country Fires Act 1989*.
- Evolve the fire management strategy for the park and continue active working relationships with the Country Fire Service and Bushfire Prevention committees.
- Explore the use of fire for ecological purposes in conjunction with due scientific process.
- Develop a Fire Management Plan that incorporates prevention and wildfire analysis with reference to the Vegetation Management Plan, and in conjunction with the Country Fire Service and other stakeholders.

4.5 Infrastructure and Built Assets

The park contains a significant number of built assets and visitor infrastructure, much of which is extremely valuable and should be maintained and enhanced (see Figure 5 – Park Features). A considerable proportion of this relates to the provision of recreation facilities within the park. There are a number of asset management issues requiring attention within the park. For example, the existing park entrance requires improvement with respect to a "sense of arrival" parking, payment of fees, hire of facilities and provision of information. In addition, recreation facilities within the park require maintenance and periodic replacement. Also, as visitor requirements change, additional facilities may be needed.

These issues will be addressed by a delegate "Visitor Facilities and Services Plan". As submissions indicated that proposals for changes to the park entrance were of some concern to the community, further public input will be sought once site planning for a new entrance gets underway and details are known. It is also important that the type of entrance and associated information provision infrastructure matches the profile of the park user.

Park management should seek to achieve the following outcomes in the provision of infrastructure and built assets within the park:

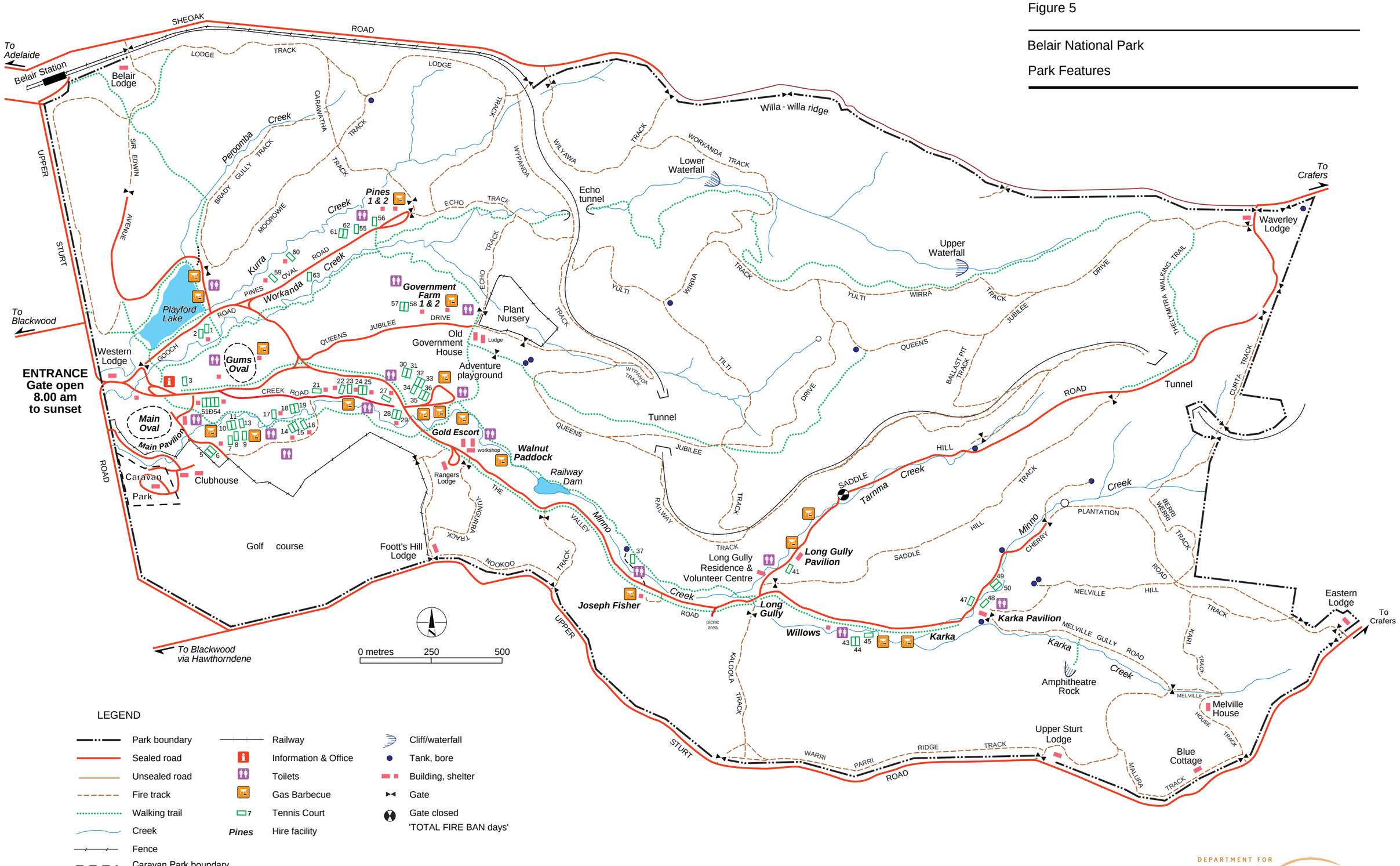
- enhancing positive visitor experiences;
- ensuring that visitors continue to value the facilities they use; and
- a more efficient use of park management resources.

In relation to risk management, DEH may undertake unspecified public works that are essential to meet contemporary standards of public safety provided there are no viable alternatives. These works must be subject to ministerial approval and should not be inconsistent with the management intent. There is also a need for DEH to establish a public liability/risk management plan for the park.

Figure 5

Belair National Park

Park Features



The Management Plan recognises that the Commonwealth or organisations operating under the authority of Commonwealth legislation (eg telecommunications carriers) may undertake actions within the park subject to ministerial approval, even though they may not be referred to in specific terms in a management plan, provided that such actions are not inconsistent with the objectives of that plan and are demonstrably in the public interest. It is noted, however, that given the park's State Heritage listing, most proposals would need to comply with State planning laws.

Objective

Encourage positive visitor experiences through the provision of well-designed and maintained facilities in appropriate locations.

Actions

- Investigate and if appropriate, pursue opportunities for entering into a partnership with private enterprise to establish a combined visitor information centre and entrance point to the park. This facility may also coordinate all booking and financial transactions for entrance fees and hiring of recreation facilities including tennis courts and ovals.
- Prepare a 'Visitor Facilities and Services Plan' with design guidelines for future recreation facilities and public amenities to ensure that a consistent high quality theme is evident across the park.
- Develop a master plan within the Visitor Facilities and Services Plan for the redevelopment and upgrade of the park entrance. The master plan should investigate the following:
  - establishing a sense of arrival – ie visitors should recognise that they are entering a significant National Park;
  - car parking – both temporary and long term. Currently vehicles are parking in an ad-hoc manner on Upper Sturt Road verge to avoid paying the entrance fee;
  - combining the caravan park/golf course entrance with the park entrance to promote the two components as being part of the same park;
  - establishing a landscape theme which is representative of the park's native vegetation; and
  - contributing to the heritage status of the park.
- Continue the preparation of and maintain a detailed review and inventory of all park assets, noting condition, location and maintenance issues. Also, undertake a survey of park visitors to ascertain their satisfaction with facilities and suggestions for improvement.
- Initiate a program to upgrade, maintain, consolidate and install new facilities based on the results of the review, inventory and the facilities plan.

4.6 Recreation and Tourism

Background

Belair offers a broad range of highly valued recreational opportunities that include sports ovals, picnic grounds and tennis courts for hire, walking trails, cycling trails and the Tom Roberts Horse Trail (see Figure 6). The value of Belair as a major destination for recreation user groups is recognised and supported by DEH. Furthermore, the role of Belair staff as visitor and recreation managers is equally recognised and supported. New initiative to enhance and/or create further recreational opportunities within the park should be encouraged.

Recent trends in recreational participation nationally and in South Australia, indicate an increasing interest in informal, outdoor recreation in semi-natural and natural settings with an emphasis on individual based recreation activities.

While the proportion of aged members of the population is increasing, there is a growing recognition of the importance of physical activity in continued health and well-being. Young people on the other hand, are looking for excitement and challenge as demonstrated by the growing popularity of "extreme sports".

It is important that Belair continues to provide facilities and opportunities for recreational pursuits which meet the needs of visitors, including local residents, that are consistent with the conservation of the park's natural assets. It is also important that Belair recognises its place within the broader recreation context of the Mount Lofty Ranges. Recreation management in Belair should not be considered in isolation from surrounding publicly owned land.

Clearly, particular recreation activities have different levels of impact on the natural environment. This has been recognised in this plan through the identification of a zone of high conservation significance. Recreation activities with the potential for detrimental impacts on the environment, such as trail cycling, horse riding and dogs, should be excluded from this zone.

Objective

Retain a diverse range of recreational activities within Belair National Park and manage these to minimise their impact on the natural and heritage values of the park.

Actions

- Develop a scientific monitoring program to determine the impact on trails and vegetation of walkers, horse riders, orienteering and cyclists.
- In association with recreation user groups, develop a trail users 'Code of Conduct', which enables walkers, horse riders, and cyclists to all safely enjoy their park experience, in a way which ensures that the conservation values of the park are enhanced. The 'Code of Conduct' shall clearly indicate environmental protection responsibilities, interaction with other recreation user groups and penalties for infringements.

4.6.1 Visitor Use

The western sector of Belair National Park is home to the golf course, the Caravan Park and the main entrance. Many of the recreational facilities are located in this area, including a number of ovals and tennis courts, toilet blocks and barbecue facilities. The combination of a range of informal and formal facilities and recreation opportunities found in the western section of the park make this area a focus of significant management effort.

The eastern and northern sectors of the park provide an array of opportunities for informal recreation such as bush walking, bird watching and photography. Given that this area of the park mainly consists of natural bushland of high conservation value, the accommodation of recreational uses presents issues that require a significant response from management. Ensuring that visitors comply with park rules and respect the relatively undisturbed nature of this section of the park is a challenge for management, as the nature of, and pattern of use may ultimately result in the degradation of the environment.

Visitor Statistics

In recent years, Belair National Park has experienced a recognisable change in the nature of visitors to the park. Recent studies have observed that smaller groups of people are visiting the park to use the recreation facilities and that larger social clubs are not using the park for functions and gatherings as much as they had done previously. While a smaller number of visitors are accessing the park by car, it has been observed that an increasing number of persons are accessing the park by walking in from adjoining suburbs. This appears to be directly related to the introduction of the entry fee in 1987.

Seasonal variation in visitor numbers occurs with peaks in autumn and spring with attendance lower in the extreme temperatures of summer and winter. An increase in both informal and formal sports has been observed. For example, Aldgate Cricket Club and St John's Grammar School use the park as their home base and this has resulted in an increase in the hire of the Main Oval and the Gum Oval. The park is enjoyed by people for walking and personal fitness. Many of these visitors access the park on foot from adjoining suburbs.

DEH is currently undertaking a qualitative 12 month research project to determine visitor needs and recreation trends throughout a number of National Parks including Belair. Preliminary data from this project indicates that the total annual visitation to Belair is 358,619 making it the second most visited reserve in South Australia after Mount Lofty Summit (Cleland Conservation Park). The data also indicates that visitation has been trending upwards over the last ten years.

4.6.2 Vehicle Access

Many of the roads in the eastern and northern areas of the park are closed to public vehicular use and are used by walkers, researchers and nature lovers.

Apart from the golf course entrance, the park has one through gate that allows limited vehicular access between 8:00 am and sunset. Roads may be closed on days of total fire ban in the Mount Lofty Ranges. All roads open to the public are bitumen with a 40 km per hour speed limit. A number of emergency or fire trails are located throughout the park and public access is restricted by locked gates.

DEH is concerned about vehicle parking outside the park (eg the golf course car park and outside park entrances) and will investigate and if appropriate, pursue alternative parking opportunities. Consultation will be required with the City of Mitcham and Transport SA.

Actions

- In association with Local Government, investigate and if appropriate, pursue alternative parking opportunities outside of the park.

4.6.3 Walking Trails

The park is a popular attraction for walkers and provides a number of walking trails of varying lengths and difficulty (see Figure 5 – Park Features). In addition, there are a variety of old trails and unofficial trails that have been developed opportunistically by park visitors. The park is also linked into the regional trail network (eg the proposed Yurrebilla Trail).

Walking is considered an appropriate and desirable activity within the park. The Management Plan recognises the potential impacts that dogs can have on the environmental values of the park. To address this issue, dogs will not be allowed in the Conservation 1 Zone. Suitably restrained dogs on designated walking trails will continue to be allowed in the Conservation 2 and Heritage/Recreation Zones. This plan proposes that a thorough review be conducted of the existing trail system as a base for future management decision making.

Actions

- Conduct a comprehensive review and inventory of the walking trail system within the park. The review should identify:
  - the appropriateness of trails for either retention or regeneration;
  - maintenance issues such as wash outs;
  - inconsistencies with the Vegetation Management Plan ie trails that bisect vegetation communities of high conservation value; and
  - access for people with disabilities.
  - gradients;
  - signage;
- Based on the results of the trail review, initiate a program to upgrade and improve the walking trail network by:
  - better defining and sign posting trails;
  - establishing a hierarchy of trails based on the difficulty and duration of the walk;
  - introducing heritage and environmental ‘themed’ trails;
  - providing links to existing and planned trails outside the park;
  - preparing detailed brochures on individual walks with commentary and photos;
  - eliminating and rehabilitating trails, where appropriate, considered to be an unnecessary part of the network or which involve an unjustifiable drain on maintenance resources;
  - closing or alternatively, incorporating design techniques to protect vegetation such as boardwalks and/or railings, on trails which traverse areas of high conservation value; and
  - developing safe crossings over the railway, in particular work with Australian Rail Track Corporation to promote the development at Gate 6 Sheoak Road to link with the Pony Ridge regional walking trail.
- Provide and promote walking trails that are accessible to people with disabilities. These trails should be constructed in accordance with Australian Standards and should ideally have a destination or a number of environmental and/or heritage attractions along the route.

4.6.4 Cycling

Cycling is considered an appropriate and desirable activity within certain areas of the park. In particular, cycling is encouraged along the sealed road network on which cyclists should be given preference over motor vehicles.

Over the last decade and since the previous Management Plan was released, a number of different forms of cycling have evolved. It is important to differentiate between these various forms of cycling in order to develop effective management policies to guide their use within the park. Broadly, there are three forms of cycling currently taking place within the park both legally and illegally:

- Road cycling – an authorised use restricted to the sealed road network. Some sealed roads, however, are not open to the public while others may be too steep.
- Trail cycling – currently an unauthorised use on fire tracks and walking trails.
- Downhill 'extreme' cycling – currently an unauthorised and undesirable use in the park.

Ongoing consultation with the cycling community, in conjunction with the Office for Recreation and Sport, will help overcome problems and identify opportunities for recreational cycling through the park. It will also facilitate the creation of appropriate links where regional cycling trails exist.

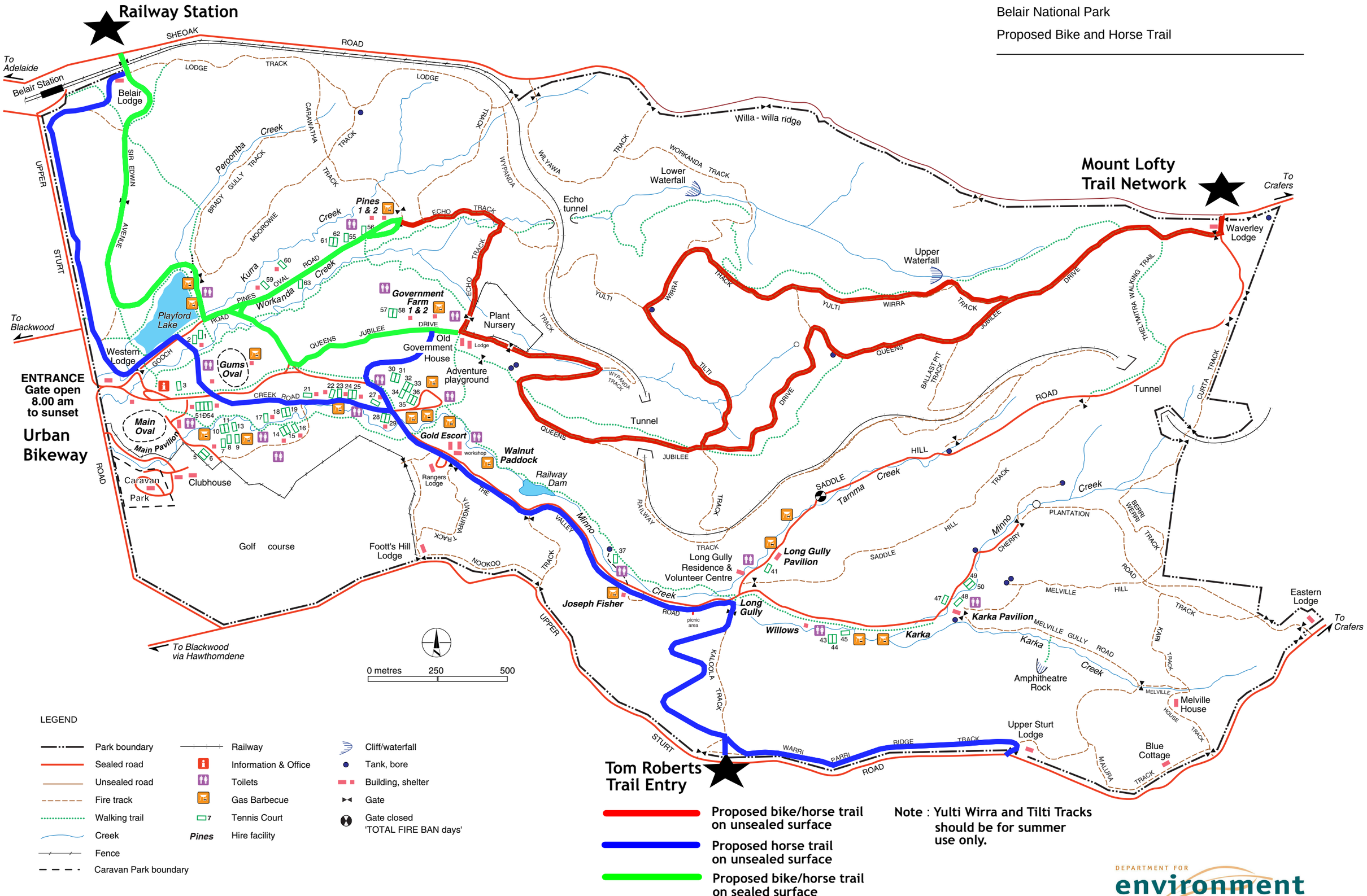
Actions

- In consultation with recognised bicycle user groups, develop a network of trails suitable for recreational trail cycling (see above). In particular, DEH will work closely with BicycleSA in the spirit of the objectives of this plan. Based on the proposed route illustrated in Figure 6 the design, development and operation of the cycle trail network shall be guided by the following principles:
  - Cycle trails shall not be designated in high conservation areas as identified in the Vegetation Management Plan and reflected in the zones prescribed in this plan (eg trail cycling is not permitted in Conservation 1 Zone);
  - Trail cycling shall be confined to specified trails and shall not be permitted on trails or bushland that is not designated as part of the cycle trail;
  - Cycle trails shall be:
    a) of a width to minimise conflicts between other cyclists and walkers and also to allow a clear line of vision to upcoming obstacles and other trail users;
    b) of a gradient which will not restrict access to the recreational cyclist and will not lead to significant erosion problems; and
    c) constructed of materials which minimise erosion while providing an appropriate surface for trail cycling.
  - Trails shall be clearly sign posted to ensure cyclists and other user groups are aware of the exact alignment of the trail. A map of the cycle network shall be developed and widely distributed; and
  - Organised cycling races or cross-country events shall not be permitted.
- Provide a loop within the trail cycling network for cyclists to complete, with either Waverley Lodge, Belair Lodge or the Main Entrance as the entry and exit point. A looped trail will reduce the potential for conflict between users and provide additional interest for cyclists. In addition, links should be provided to other existing and planned cycle trails outside the park.

Figure 6

Belair National Park

Proposed Bike and Horse Trail



- Promote cycling on sealed roads throughout the park by:
  - reviewing the main entrance for cyclist and pedestrian safety;
  - installing signs warning vehicles that cyclists are present; and
  - investigating the construction of traffic calming devices on problem road sections known for speeding and enforcing existing speed limits.

4.6.5 Horse riding

Horse riding has a long tradition in Belair National Park, tracing back to 1840, when Governor Gawler set aside the area for an agistment farm for resting government owned horses and bullocks. During the 1850's, the Commissioner of Police took charge of the farm and used it for horses employed in the Gold Escorts and other police services.

In more recent decades, recreational horse riding has been a notable and distinctive feature of park use. Many of today's riders have enjoyed the same trails for over 30 years. The trail network was most recently formalised, and marked, in accordance with the 1989 Management Plan, through a successful consultation arrangement between park management and Horse Owners of the Southern Mt Lofty Ranges. A brochure and code of practices for horse uses was jointly developed, with a subsequent high degree of compliance by riders.

These trails have formed an integral part of the wider regional Tom Roberts Horse Trail, providing a safe riding experience, in a national park setting.

The location of the current trails was seen to be in accordance with conservation principles and information at the time. A monitoring process was also to be instituted in order to gauge any trail impacts. This latter methodology has been informal, and as a result, it is difficult to effectively gauge impacts over the last few years.

However, the availability of the Vegetation Management Plan has placed new requirements on the siting of all trails. While recent studies into the environmental impacts of recreation horse riding have been undertaken interstate, there has been no specific research into the impact of horses within Belair National Park. This plan, therefore, adopts a precautionary approach to trails, and proposes that a number of the existing trails be revised.

Actions

- Provide for the continuation of horse riding as one of the park's recreation uses, through the provision of an agreed trail network in accordance with the Vegetation Management Plan. This should be achieved through reference to the proposed horse trail illustrated in Figure 6 and adherence to the following guidelines:
  - Horse riding will only be provided on specified trails that form part of a network, and on any roads open to vehicles. An exception may be granted to horse owners living adjacent the park for the purpose of accessing the horse trail at the discretion of the park Manager;
  - Recreation trail riding (walking pace) will be permitted, whereas activities that involve off-trail or fast riding will be prohibited;
  - Safe riding practices will continue to be encouraged as part of the proposed recreation users Code of Conduct;
  - Passage through high conservation areas will be reviewed to minimise environmental impacts, while trails in areas of less significance will continue;
  - Trails will have appropriate grades, track surfaces, adequate drainage, clear visibility, appropriate width and height clearance. To ensure that trails are ecologically sustainable, new routes will be investigated and developed that achieve sustainable outcomes;
  - As a guide to park managers, where horse trails are not excluded from areas of environmental significance, they will be facilitated in areas of historical horse activity; and
  - Subsequent revision of horse trails will be based on the findings of the proposed trail users monitoring program.

4.6.6 Orienteering

In association with the Orienteering Association of SA, DEH previously developed guidelines for allowing a limited number of orienteering events in the park each year (refer to map *Orienteering Use of Belair National Park, February 1998*). The guidelines identified 'exclusion areas' (in essence the areas of highest conservation value as designated in the Vegetation Management Plan) within which orienteerers were to stay on roads and designated walking trails.

The provisions of this management plan supersede those guidelines. Orienteering is not allowed in areas of highest conservation value (identified as Conservation 1 Zone in this Management Plan) except on designated tracks and trails – indistinct and minor trails must not be used. In the Conservation 2 and Heritage/Recreation Zones this activity is permitted if approved and held under conditions specified by park management.

The approval of park management must be sought (and obtained) before any orienteering event is held. In granting approval, rangers are able exercise flexibility and use their discretion in imposing limitations and setting conditions appropriate to seasonal and environmental factors. This is necessary to avoid adverse impacts on vegetation during times of flowering, for example. Neither should orienteering take place in areas known to be, or suspected to be, infected with the soil-borne fungus *Phytophthora cinnamomi*.

Actions

- Allow for the continuation of orienteering as a legitimate recreation activity within the park in accordance with the following principles:
  - Organised orienteering activity shall only occur in areas that have not been designated as high conservation areas and are considered to be free from *Phytophthora*; and
  - Approval from park management will be required before organised orienteering events.

4.6.7 Children's Play Facilities

Belair National Park attracts families with children of all ages. The present Adventure Playground has been enjoyed by children for many years. Within a natural environment, the inclusion of children's play facilities needs to be handled sensitively with respect to colour, materials, and scale to minimise the visual impact.

Actions

- As part of the Visitor Facilities and Services Plan, investigate and if appropriate, pursue the installation of a second adventure style playground for children within a semi-natural environment in the Recreation Zone with the aim of increasing environmental awareness through play.

  Such a facility should include:
  - opportunities for children to interact with natural features such as watercourses and mature trees; and
  - the incorporation of other complementary facilities such as toilets and picnic areas.

4.6.8 Ovals / Tennis Courts

Ovals continue to be hired for social club and family gatherings, although this use has declined to an extent in recent years. Ovals and playing fields are also hired by local clubs and school teams. Current arrangements with St John's Grammar School and the Aldgate Cricket Club contribute important revenue to the park and are consistent with the recreational goal.

It is considered that, in principle, ovals, playing fields and tennis courts should remain. There are some tennis courts, however, that are inappropriately located in areas of high conservation significance. These courts should be removed and relocated, if demand warrants this, within the Recreation Zone. Some tennis courts may need to be upgraded to a safe standard for social tennis.

Actions

- Maintain ovals and tennis courts and associated facilities to a standard suitable for social use.
- Ensure that clubs wishing to use facilities of competition standard contribute to the increased costs of maintenance required to achieve and maintain those standards.
- Remove those tennis courts within the zone of high conservation significance and consider their relocation to appropriate sites within the recreation zone.

4.6.9 Entry Fees

Entry fees were introduced in 1987 in line with DEH policy. Although the impact of the fee introduction on visitation levels has not been quantified, anecdotal evidence suggests that a number of patrons now prefer to walk into the park rather than drive and incur the entry fee. This has led to car parking issues, especially at the main entrance and within the golf course car park. It should be noted however, that entrance fees are retained by DEH and used to support on-park projects. Over the years, this funding source has made a significant contribution to improvements in facilities and to biodiversity conservation. As this may not be obvious to visitors, more information should be provided to the public on the benefits deriving from the application of their entrance fees.

4.6.10 Interpretive Information

One of the most effective ways to ensure that places are protected from over use and damage, is to provide opportunities which combine experience with information. Learning occurs through formal education programs and projects linked to school and tertiary curricula. An increased awareness of the importance of the park's natural and heritage features can be provided informally through signs, brochures, an interpretative centre with displays and conducted tours.

Objective

Increase opportunities to educate visitors and the wider community about the natural and cultural values of Belair National Park.

Actions

- Establish links with other parks in the Mount Lofty Ranges to develop a regional approach to the provision of educational activities.
- Work with the Department for Education in the development of an "Education Pack" for distribution to primary and secondary schools promoting the environmental and heritage values of Belair. Encourage school field trips within the park under the guidance of rangers.
- Involve tertiary students in environmental and historical research projects of benefit to the management of the park.
- Develop a marketing strategy for the park with clear guidelines for promotional brochures of park features, interpretive signage within the park and tour operations.
- Review existing park signage and develop a consistent approach to the design and provision of signage including directional, educational and interpretive signs.

4.7 Commercial Activities and Other Landuses

4.7.1 Leases and Licences

Some stakeholders are concerned about the alienation of public parks by an intrusion of commercial activities. While existing leased activities within the Belair National Park are currently accepted, any expansion is likely to be opposed. In addition, it is important that these commercial operations are managed in ways that do not threaten the natural environment or heritage features of the park. The potential exists for the Caravan Park to complement the qualities of the park, building stronger links between tourist and visitor accommodation and an experience of the park's attractions.

It is recognised that the provision of food and drink within the park and the sale of appropriate items such as maps, books, etc, can increase visitor satisfaction. Such activities need to be provided through mobile or low impact sales outlets or in association with appropriately designed park facilities.

Leases and licences in Belair National Park (June 2003) are listed in Appendix E.

Objectives

Contain existing commercial activities within current lease boundaries and ensure their operation is consistent with the natural and heritage values of Belair National Park.

Ensure that any new commercial activities support existing park activities and are consistent with the natural and heritage values of the park.

Actions

- Restrict existing leases to boundaries current as at 2001.
- As a lease condition, ensure that the introduced grasses used on the golf course do not spread into the adjoining Conservation Zones.
- Encourage a sensitive upgrade of the Caravan Park ensuring that its future operation and built form is of a high standard and is consistent with the natural values of the park and principles of ecological sustainable development.
- Investigate and if appropriate, pursue opportunities to develop "heritage house" style short-term accommodation within existing houses in the park.
- Ensure that any new commercial operations shall be ancillary to existing activities within the park and shall be of a nature and form that is of low visual impact.
- Investigate and if appropriate, pursue the development of a kiosk/coffee shop as part of the combined visitor information centre and entrance area in partnership with private enterprise.
- Seek appropriate partnerships to develop and manage walking, cycling and bus tours of the park linked with other regional attractions and facilities. Bicycle hire may be an appropriate activity.
- Explore opportunities to promote Old Government House as a venue for functions, tours, etc.

4.7.2 ETSA Corporation

The ETSA Corporation has at present two major high-tension powerlines traversing the park as well as other minor servicing lines to the various developments within the park. Powerlines through the park have had a marked effect on the natural environment and therefore, any proposals for additional powerline construction in the park should be subject to stringent environment impact assessments. Existing powerlines involve responsibilities both by ETSA and DEH to ensure the safe transmission of electricity while at the same time minimising impacts on the park environment.

The management of vegetation along transmission corridors requires careful consideration. Tall trees and other vegetation beneath power lines represent a fire hazard that, due to the high risk of ignition by powerlines, threatens both the park and the local community. On the other hand, the complete removal of vegetation in the vicinity results in unacceptable environmental damage.

It is DEH policy to create sub-climax and heath communities along power transmission corridors through the complete removal of tall timber, principally eucalypt species. This approach, while initially creating a substantial impact on vegetation beneath powerlines, ultimately requires a low level of maintenance work and minimal future disturbance.

4.7.3 Australian Rail Track Corporation

The railway line bisects the park but the curtilage of the line is not under the care and control of DEH. Park management recognises that the presence of the railway in the park presents safety and legal issues and discourages activity in this area by avoiding the development of trails and recreational facilities. Liaison should be maintained with the Corporation over issues of common interest (eg public access, pest plant management).

4.8 Management Arrangements

4.8.1 Community and Volunteer Involvement

A feature of Belair National Park is the significant number of volunteers involved through Friends Groups and other initiatives in managing and maintaining the park. Their effective involvement requires appropriate guidance, training and management support. Co-ordination is the key to ensuring these important resources are used to best effect.

The Management Plan recognises the immense contribution of these friends groups to the management and on ground works undertaken within the park. These groups include the Sturt Consultative Committee, the Friends of Belair National Park, and the Friends of Old Government House. The National Parks Heritage Committee has also contributed significantly to projects in the park.

Objective

Continue to involve a diverse range of community, education and scientific groups in appropriate management of Belair National Park.

Actions

- Develop a Volunteer Management Plan in order to coordinate effectively volunteer labour resources.
- Continue to support and encourage the involvement of existing community groups in the ongoing management of the park.
- Investigate and if possible implement, opportunities to integrate the training of staff and volunteers.
- Develop effective partnerships with community service groups and rehabilitation organisations to better coordinate works programs.
- Establish closer links with tertiary education institutions in order to share research, knowledge and experiences for the benefit of the management of the park.
- Develop and implement a simple but effective mechanism to disseminate accurate and current information regarding park management initiatives to community groups.

4.8.2 Management Plan Implementation and Review

Knowledge of park management practices is continually evolving and improving. Department for Environment and Heritage is committed to ensuring that staff involved in managing Belair National Park are aware of emerging trends in best management practice of natural environments, historical buildings and precincts and recreation and visitor facilities. The Sturt Consultative Committee will provide the principle focus for the on-going involvement of the community in the implementation of this management plan.

Park Managers will also work in partnership with other agencies such as the CFS, Catchment Water Management Board and Animal and Plant Control Board to implement effective management practices. In so doing, park managers will need to establish performance measures by which to gauge the effectiveness and success of the various programs proposed in this plan. To do so will require compilation of baseline information, ongoing monitoring and reporting mechanisms.

In particular, research should be undertaken to refine and regularly update the Vegetation Management Plan and use this as a basis for periodic review of the appropriateness of the zonal boundaries prescribed in this plan.

Actions

- Develop a performance monitoring program to report annually on progress in achieving the goals and completing the actions of this Management Plan.
- Undertake a complete review of the Management Plan in 7 years.
- Investigate and if appropriate, pursue opportunities to outsource tasks currently allocated to park staff that may be more efficiently undertaken by appropriate external contractors with the aim of ensuring that the specialist skills of park staff are dedicated to tasks related to vegetation management and biodiversity conservation.
- Introduce recycling bins that enable separation of materials at key visitor points and ensure their use is promoted through signs, brochures and on-arrival information.
- Ensure that park staff are provided opportunities to further their skills in the area of ecologically sustainable management practices and other relevant park management fields.

SUMMARY OF MANAGEMENT ACTIONS

Implementation of the following strategies proposed in this plan of management are necessarily subject to the resources available to the DEH. The process of setting recurrent allocations (and obtaining grant funding) requires staff to identify and cost out management priorities and submit those bids for assessment. Resource allocations are ultimately determined against agency-wide and statewide sets of priorities.

As a consequence, the proposals included in this plan represent the preferred direction by which management of the reserve should be progressed within the confines of available resources. Inclusion in this document does not imply a commitment by government to undertaking actions beyond the constraints of budgetary processes. Timelines for completion should be viewed in that context, and commence from the date of gazettal of the adopted plan.

ACTION	PRIORITY	DURATION
Zoning		
Conservation 1 Zone		
• As a priority, ensure that staff resources are channelled towards the protection and enhancement of native vegetation communities and fauna habitats within the zone.	High	Ongoing
• Protect the environmental values of the zone through the exclusion of the following activities: – horse riding; – orienteering (except on designated tracks and trails); – trail cycling; – dogs; and – motor vehicular or motor cycle traffic except for management or emergency purposes.	High	Ongoing
• Focus available resources on the protection and rehabilitation of the zone through the effective coordination and education of environmental volunteer groups.	High	Ongoing
• Raise the community's awareness of the environmental significance of the zone through the preparation of promotional material and installation of signage. Ensure all visitors to the park, including cyclists, horse riders and bush walkers, are aware of the zone's boundaries and management restrictions.	High	Ongoing
• Ensure that existing walking trails within the zone do not bisect communities of significant vegetation. Where this may occur, the trail should be realigned or should incorporate design techniques such as boardwalks or railings to avoid pedestrian impact on vegetation.	High	Ongoing

ACTION	PRIORITY	DURATION
Conservation 2 Zone		
• Ensure that native vegetation communities and fauna habitats within the Conservation 2 Zone are protected and enhanced.	High	Ongoing
• Encourage low impact, informal recreation activities such as bush walking within the zone and prohibit formal recreation activities such as team sports. Dogs may be taken into the Conservation 2 Zone as long as they are restrained on leads.	High	Ongoing
• Allow for controlled trail cycling and horse riding in accordance with the strategies outlined in section 4.6.	High	Ongoing
• Allow orienteering as approved and under conditions specified by park management.	High	Ongoing
• Initiate discussions with Australian Rail Track Corporation to investigate access issues throughout the park.	High	Ongoing
• Develop management strategies to minimise the impact of human activity and the spread of invasive weeds on the border of the Conservation 2 Zone and the Recreation Zone.	High	Ongoing
Heritage/Recreation Zone		
• Maintain the current provision of recreation facilities within the zone while also creating additional opportunities for people to recreate. Existing recreation facilities should be enhanced with due recognition of the zone's setting within semi-natural bushland and the need to protect environmental and cultural values.	High	Ongoing
• Permit the following recreation activities within the Recreation Zone at appropriate locations: – barbecues/picnics – in designated picnic areas; – orienteering – along trails specified by park management; – oval based sports and events - football, cricket and special events eg parks festivals; – cycling – on sealed roads and designated tracks and trails; – horse riding – on designated horse trails; – netball – using existing facilities; – tennis – within existing facilities; – walking – on designated walking trails; – festivals and special events; and – dogs restrained on leads.	High	Ongoing

ACTION	PRIORITY	DURATION
• When new recreation and sport activities consistent with the above list are proposed and when licences or permits for existing activities are renewed, DEH shall assess each proposal without prejudice and on its merits in accordance with the following criteria: – the potential impact on the natural values of the park including damage to vegetation, noise, pollution etc; – the potential impact on the heritage and cultural values of the park; – the potential impact on other user groups – both unstructured and structured; – the need to redirect park resources to manage the activity or to provide and maintain new or existing facilities; and – ensuring that the proposed activity is cost neutral to park management.	High	Ongoing
• Ensure that other activities that may be appropriate within the park but have not been listed in the above strategy are assessed on their merits using the criteria outlined above.	High	Ongoing
• Continue to consult with the community and relevant committees regarding recreation management within the park.	High	Ongoing
Golf Course/Caravan Park Zone		
• Recognise the continued operation of the Golf Course and Caravan Park.	High	Ongoing
• Retain the golf course within its current lease area as an 18 hole public facility and ensure that its management and operations are consistent with the park's objectives and current best practice.	High	Ongoing
• Encourage a sensitive upgrade of the Caravan Park using principles of ecologically sustainable development within the current leased area.	High	Ongoing
Plant Nursery Zone		
• Allow for the continued operation of the Plant Nursery within its existing leased area during the life of this Management Plan.	High	Ongoing
• Ensure that the nursery continues to provide a service to the public and is managed as a key element of the park rather than as a stand-alone commercial operation.	High	Ongoing
• Ensure that new buildings or permanent structures are consistent with the Visitor Services and Facilities Plan.	High	Ongoing

ACTION	PRIORITY	DURATION
Natural Resources		
Regional Context		
• Establish formal and informal links between park management and other authorities with responsibilities for natural resource management within the Mount Lofty Ranges.	High	Ongoing
• Investigate and if appropriate, pursue opportunities to establish vegetated links between the park and other adjacent areas of native vegetation.	Medium	Ongoing
• Ensure that the management objectives of Belair are adequately represented within current and future regional planning initiatives such as the Greater Mount Lofty Ranges Parklands 'Yurrebilla'.	High	Ongoing
Hydrology		
• In collaboration with the Patawalonga Catchment Management Board continue the environmental restoration of Minno Creek. In particular, ensure that existing adjacent recreation activities are compatible with the environmental values of the creek.	High	Ongoing
• Minimise the use of water throughout the park through efficient storage, irrigation and re-use where appropriate.	Medium	Ongoing
Native Vegetation		
• As a high priority, use the Vegetation Management Plan to effectively protect and enhance identified vegetation precincts of high conservation value.	Very high	Ongoing
• Undertake research to refine and update the Vegetation Management Plan on an ongoing basis.	Medium	Ongoing
• Undertake additional research into *Phytophthora* to determine its presence within the park and to develop appropriate management strategies to control its spread.	Very high	Ongoing
Native Fauna		
• Continue to undertake research to identify "habitat communities" and develop management strategies to protect these from threat.	High	Ongoing
• Further develop the Vegetation Management Plan to incorporate significant fauna habitats and recommend management actions.	Very high	Short
• Support research into native species and develop and implement management programs where necessary.	Medium	Ongoing

Introduced Plants		
• Ensure the effective control of pest plants (and serious environmental weeds) within the park, while ensuring that exotic trees with heritage value or other significance are protected.	Very high	Ongoing
• Liaise with Australian Rail Track Corporation to develop a program to control pest plants on railway property within or adjacent to the park.	Very high	Ongoing
• Ensure that areas of the park not under direct day to day management by DEH have arrangements in place (eg as lease conditions) for the effective control of pest plants.	Very high	Ongoing
Introduced Animals		
• Ensure the effective control of pest animals within the park.	Very high	Ongoing
Cultural Heritage		
• Consult Aboriginal 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 Aboriginal cultural heritage.	High	Ongoing
• Develop a constructive working relationship with the relevant Aboriginal Heritage Committee as nominated by the State Heritage Committee.	High	Ongoing
• Before proceeding with any development works within the reserve, obtain an assessment and clearance from the appropriate authority, under the provisions of the *Aboriginal Heritage Act 1988*.	High	Ongoing
• Identify, record, protect, restore and monitor known or relocated sites and items of archaeological, anthropological, cultural and historical significance located in the park, in cooperation with the Department for Aboriginal Affairs and Reconciliation, the Heritage branch of DEH and other relevant authorities and organisations. Aboriginal and historic cultural heritage sites require conservation plans to facilitate appropriate management.	High	Ongoing
• In association with the Heritage branch of DEH, prepare design guidelines to ensure that future development of and around heritage sites is sympathetic to the heritage values of the place.	Medium	Short
• Research and inventory, historic sites and stories that relate to the history of the park and where appropriate, promote these sites to visitors through interpretive material and by encouraging the development of tours to heritage places throughout the park.	Medium	Ongoing
• Develop interpretive material including brochures, site signage and displays where appropriate.	Medium	Short

• Encourage and support archaeological, anthropological and historic studies within the park. All sites located during these surveys should be recorded to the standards set by the Heritage branch of DEH and/or DAARE and submitted for inclusion on the DAARE Central Archive and/or State Heritage Register.	Medium	Ongoing
• With the endorsement of the Heritage branch of DEH, undertake a heritage and cultural landscape study of the park.	High	Short
• Ensure that the Visitor Facilities and Services Plan achieves the endorsement of the Heritage branch of DEH and DAARE.	Medium	Short
• Promote and support the ongoing conservation and public appreciation of Old Government House. Special recognition should be given to the fact that it contains the earliest indoor bathing pool in South Australia and displays early construction techniques and materials.	Medium	Ongoing
Fire Management		
• Comply with provisions of the *Country Fires Act 1989*.	High	Ongoing
• Evolve the fire management strategy for the park and continue active working relationships with the Country Fire Service and Bushfire Prevention committees.	High	Ongoing
• Explore the use of fire for ecological purposes in conjunction with due scientific process.	Medium	Ongoing
• Develop an incorporated "Fire Management Prevention and Wildlife Analysis Plan" with reference to the Vegetation Management Plan, and in conjunction with the Country Fire Service and other stakeholders.	High	Short
Infrastructure and Built Assets		
• Investigate and if appropriate, pursue opportunities for entering into a partnership with private enterprise to establish a combined visitor information centre and entrance point to the park.	Very high	Short
• Prepare a 'Visitor Facilities and Services Plan' with design guidelines for future recreation facilities and public amenities to ensure that a consistent high quality theme is evident across the park.	Very high	Short
• Develop a master plan within the Visitor Facilities and Services Plan for the redevelopment and upgrade of the park entrance.	Very high	Short
• Continue the preparation of, and maintain a detailed review and inventory of, all the park's assets, noting condition, location and maintenance issues. Also, undertake a survey of park visitors to ascertain their satisfaction with facilities and suggestions for improvement.	High	Ongoing
• Initiate a program to upgrade, maintain, consolidate and install new facilities based on the results of the review, inventory and the facilities plan.	High	Ongoing

Recreation and Tourism		
• Develop a scientific monitoring program to determine the impact on trails and vegetation of walkers, horse riders, orienteering and cyclists.	Very high	Ongoing
• In association with recreation user groups, develop a trail users 'Code of Conduct', which enables walkers, horse riders and cyclists to all safely enjoy their park experience in a way which ensures that the conservation values of the park are enhanced.	Very high	Short
Vehicle Access		
• In association with Local Government, investigate and if appropriate, pursue alternative parking opportunities outside of the park.	High	Short
Walking Trails		
• Conduct a comprehensive review and inventory of the walking trail system within the park.	High	Short
• Based on the results of the trail review, initiate a program to upgrade and improve the walking trail network	High	Ongoing
• Provide and promote walking trails that are accessible to people with disabilities.	Medium	Ongoing
Cycling		
• In consultation with recognised bicycle user groups, develop a network of trails suitable for recreational cycling closely following the preferred route illustrated in Figure 6.	Very high	Short
• Provide a loop within the trail cycling network for cyclists to complete, with either Waverley Lodge, Belair Lodge or the Main Entrance as the entry and exit point.	High	Short
• Promote cycling on sealed roads throughout the park.	Medium	Ongoing
Horse Riding		
• Provide for the continuation of horse riding as one of the park's recreation uses, through the provision of an agreed trail network in accordance with the Vegetation Management Plan. This should be achieved through reference to the preferred horse trail illustrated in Figure 6.	Very High	Short
Orienteering		
• Allow for the continuation of orienteering as a legitimate recreation activity within the park in accordance with a number of management principles.	Medium	Ongoing
Children's Play Facilities		
• As part of the Visitor Facilities and Services Plan, investigate and if appropriate, pursue the installation of a second adventure style playground for children within a semi-natural environment in the Recreation Zone with the aim of increasing environmental awareness through play.	Medium	Short

Ovals / Tennis Courts		
• Maintain ovals and tennis courts and associated facilities to a standard suitable for social use.	High	Ongoing
• Ensure that clubs wishing to use facilities of competition standard contribute to the increase costs of maintenance required to achieve and maintain those standards.	High	Ongoing
• Remove those tennis courts within the zone of high conservation significance and consider their relocation to appropriate sites within the recreation zone.	Medium	Short
Interpretive Information		
• Establish links with other parks in the Mount Lofty Ranges to develop a regional approach to the provision of educational activities.	Medium	Ongoing
• Work with the Department for Education in the development of an "Education Pack" for distribution to primary and secondary schools promoting the environmental and heritage values of Belair.	Medium	Short
• Involve tertiary students in environmental and historical research projects of benefit to the management of the park.	Medium	Ongoing
• Develop a marketing strategy for the park with clear guidelines for promotional brochures of park features, interpretive signage within the park and tour operations.	Medium	Short
• Review existing park signage and develop a consistent approach to the design and provision of signage including directional, educational and interpretive signs.	High	Short
Commercial Activities and Other Landuses		
• Restrict existing leases to boundaries current as at 2001.	Very high	Ongoing
• As a lease condition, ensure that the introduced grasses used on the golf course do not spread into the adjoining Conservation Zones.	High	Ongoing
• Encourage a sensitive upgrade of the Caravan Park ensuring that its future operation and built form is of a high standard and is consistent with the natural values of the park and principles of ecological sustainable development.	High	Short
• Investigate and if appropriate, pursue opportunities to develop "heritage house" style short-term accommodation within existing houses in the park.	Medium	Short
• Ensure that any new commercial operations shall be ancillary to existing activities within the park and shall be of a nature and form that is of low visual impact.	Very high	Ongoing
• Investigate and if appropriate, pursue the development of a kiosk/coffee shop as part of the combined visitor information centre and entrance area in partnership with private enterprise.	Very high	Short

• Seek appropriate partnerships to develop and manage walking, cycling and bus tours of the park linked with other regional attractions and facilities. Bicycle hire may be an appropriate activity.	Medium	Ongoing
• Explore opportunities to promote Old Government House as a venue for functions, tours, etc.	Medium	Ongoing
Management Arrangements		
Community and Volunteer Involvement		
• Develop a Volunteer Management Plan in order to coordinate effectively volunteer labour resources.	Very high	Short
• Continue to support and encourage the involvement of existing community groups in the ongoing management of the park.	High	Ongoing
• Investigate and if possible implement, opportunities to integrate the training of staff and volunteers.	High	Ongoing
• Develop effective partnerships with community service groups and rehabilitation organisations to better coordinate works programs.	Medium	Ongoing
• Establish closer links with tertiary education institutions in order to share research, knowledge and experiences for the benefit of the management of the park.	High	Ongoing
• Develop and implement a simple but effective mechanism to disseminate accurate and current information regarding park management initiatives to community groups.	Very high	Ongoing
Management Plan Implementation and Review		
• Develop a performance monitoring program to report annually on progress in achieving the goals and completing the actions of this Management Plan.	Very high	Ongoing
• Undertake a complete review of the Management Plan in 7 years.	Very high	Short
• Investigate and if appropriate, pursue opportunities to outsource tasks currently allocated to park staff that may be more efficiently undertaken by appropriate external contractors with the aim of ensuring that the specialist skills of park staff are dedicated to tasks related to vegetation management and biodiversity conservation.	High	Ongoing
• Introduce recycling bins that enable separation of materials at key visitor points and ensure their use is promoted through signs, brochures and on-arrival information.	High	Short
• Ensure that park staff are provided opportunities to further their skills in the area of ecologically sustainable management practices and other relevant park management fields.	Very high	Ongoing

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APPENDIX A : 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 (2003).

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.

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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.

O **Occasional Visitor Only** (*Birds only*) Not considered of conservational status.

APPENDIX B : BELAIR NATIONAL PARK – FLORA

Native Plant Species

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Acacia acinacea	Wreath Wattle			
Acacia melanoxylon	Blackwood			
Acacia myrtifolia var. myrtifolia	Myrtle Wattle			
Acacia paradoxa	Kangaroo Thorn			
Acacia pycnantha	Golden Wattle			
Acacia retinodes var. retinodes (hill form)	Wirilda			
Acacia spinescens	Spiny Wattle			
Acacia verticillata	Prickly Moses			
Acaena echinata	Sheep's Burr			
Acaena novae-zelandiae	Biddy-biddy			
Acianthus pusillus	Mosquito Orchid			
Acrotriche fasciculiflora	Mount Lofty Ground-berry			U
Acrotriche serrulata	Cushion Ground-berry			
Actinobole uliginosum	Flannel Cudweed			U
Adiantum aethiopicum	Common Maiden-hair			
Agrostis aemula	Blown-grass			
Agrostis avenacea var. avenacea	Common Blown-grass			
Ajuga australis form B	Lesser Bugle			R
Allocasuarina muelleriana ssp. muelleriana	Common Oak-bush			
Allocasuarina striata	Stalked Oak-bush			
Allocasuarina verticillata	Drooping Sheoak			
Alternanthera denticulata	Lesser Joyweed			U
Amphibromus archeri	Pointed Swamp Wallaby-grass		R	R
Amphibromus macrorhinus	Long-nosed Swamp Wallaby-grass		R	K
Amphibromus sp.	Swamp Wallaby Grass			
Amphipogon caricinus var. caricinus	Long Grey-beard Grass			U
Amphipogon strictus var. setifer	Spreading Grey-beard Grass			
Amyema miquelii	Box Mistletoe			
Amyema pendulum ssp. pendulum	Drooping Mistletoe			U
Amyema preissii	Wire-leaf Mistletoe			
Anogramma leptophylla	Annual Fern		R	U
Apalochlamys spectabilis	Showy Firebush			V
Aphanes australiana	Australian Piert			R
Aphelia gracilis	Slender Aphelia			R
Aphelia pumilio	Dwarf Aphelia			
Apium prostratum ssp. prostratum var. prostratum	Native Celery			

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Arthropodium fimbriatum	Nodding Vanilla-lily			
Arthropodium strictum	Common Vanilla-lily			
Asperula conferta	Common Woodruff			
Asplenium flabellifolium	Necklace Fern			
Astroloma conostephioides	Flame Heath			
Astroloma humifusum	Cranberry Heath			
Banksia marginata	Silver Banksia			
Baumea juncea	Bare Twig-rush			
Beyeria lechenaultii	Pale Turpentine Bush			
Billardiera cymosa	Sweet Apple-berry			
Bossiaea prostrata	Creeping Bossiaea			
Brachycome diversifolia var. diversifolia	Tall Daisy		E	E
Brachycome perpusilla	Tiny Daisy			
Brunonia australis	Blue Pincushion			
Bulbine bulbosa	Bulbine-lily			
Burchardia umbellata	Milkmaids			
Burnettia nigricans	Fire Orchid			
Bursaria spinosa	Sweet Bursaria			
Caesia calliantha	Blue Grass-lily			
Caladenia argocalla	White Beauty Spider-orchid	E	E	E
Caladenia behrii	Pink-lip Spider-orchid	E	E	E
Caladenia carnea var. carnea	Pink Fingers			
Caladenia dilatata complex	Green-comb Spider-orchid			
Caladenia latifolia	Pink Caladenia			U
Caladenia leptochila	Narrow-lip Spider-orchid			
Caladenia patersonii complex	White Spider-orchid			
Caladenia reticulata	Veined Spider-orchid			U
Caladenia rigida	Stiff White Spider-orchid	E	E	E
Caladenia tentaculata	King Spider-orchid			
Caleana major	Large Duck-orchid		V	V
Calocephalus citreus	Lemon Beauty-heads			R
Calochilus robertsonii	Purplish Beard-orchid			
Calostemma purpureum	Pink Garland-lily			
Calytrix tetragona	Common Fringe-myrtle			
Carex appressa	Tall Sedge			
Carex bichenoviana	Notched Sedge			U
Carex breviculmis	Short-stem Sedge			
Carex fascicularis	Tassel Sedge			U
Carex gunniana	Mountain Sedge			R
Carex inversa var. major	Knob Sedge		R	K

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Carex tereticaulis	Rush Sedge			
Cassytha glabella forma dispar	Slender Dodder-laurel			
Cassytha pubescens	Downy Dodder-laurel			
Centipeda cunninghamii	Common Sneezeweed			
Centrolepis aristata	Pointed Centrolepis			
Centrolepis strigosa	Hairy Centrolepis			
Chamaescilla corymbosa var. corymbosa	Blue Squill			
Cheilanthes austrotenuifolia	Annual Rock-fern			
Cheiranthera alternifolia	Hand-flower			
Chenopodium pumilio	Clammy Goosefoot			
Chrysocephalum apiculatum	Common Everlasting			
Chrysocephalum baxteri	White Everlasting			
Chrysocephalum semipapposum	Clustered Everlasting			R
Clematis microphylla	Old Man's Beard			
Convolvulus erubescens	Australian Bindweed			
Corybas dilatatus	Common Helmet-orchid			
Corybas incurvus	Slaty Helmet-orchid			U
Cotula australis	Common Cotula			
Craspedia glauca	Billy-buttons			
Crassula decumbens var. decumbens	Spreading Crassula			
Crassula helmsii	Swamp Crassula			R
Crassula sieberiana ssp. tetramera	Australian Stonecrop			
Cullen australasicum	Native Scurf Pea			
Cullen australasicum	Tall Scurf-pea			
Cyanicula deformis	Bluebeard Orchid			
Cymbonotus preissianus	Austral Bear's-ear			U
Cynoglossum australe	Australian Hound's-tongue			R
Cynoglossum suaveolens	Sweet Hound's-tongue			U
Cyperus tenellus	Tiny Flat-sedge			
Cyperus vaginatus	Stiff Flat-sedge			
Cyrtostylis reniformis	Small Gnat-orchid			
Danthonia auriculata	Lobed Wallaby-grass			
Danthonia caespitosa	Common Wallaby-grass			
Danthonia clelandii	Cleland's Wallaby-grass			
Danthonia laevis	Smooth Wallaby-grass		R	R
Danthonia pilosa var. paleacea	Velvet Wallaby-grass			
Danthonia racemosa var. racemosa	Slender Wallaby-grass			
Danthonia semiannularis	Wetland Wallaby-grass			R
Danthonia setacea var. setacea	Small-flower Wallaby-grass			
Daucus glochidiatus	Native Carrot			

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Daviesia leptophylla	Narrow-leaf Bitter-pea			
Daviesia ulicifolia ssp. incarnata				
Deyeuxia densa	Heath Bent-grass		R	R
Deyeuxia quadriseta	Reed Bent-grass			
Dianella longifolia var. Grandis	Yellow-Anther Flax Lilly			
Dianella longifolia var. grandis	Pale Flax-lily		R	V
Dianella revoluta var. revoluta	Black-anther Flax-lily			
Dichelachne crinita	Long-hair Plume-grass			
Dichelachne micrantha	Short-hair Plume-grass			Q
Dichondra repens	Kidney Weed			
Dillwynia hispida	Red Parrot-pea			
Dipodium roseum	Pink Hyacinth Orchid			
Diuris aff. corymbosa	Wallflower Donkey-orchid			
Diuris behrii	Behr's Cowslip Orchid		R	V
Diuris lanceolata	Cowslip Orchid		E	
Diuris palustris	Little Donkey-orchid			V
Diuris pardina	Spotted Donkey-orchid			
Diuris x palachila	Broad-lip Donkey-orchid			
Dodonaea viscosa	Sticky Hop-bush			
Dodonaea viscosa ssp. spatulata	Sticky Hop-bush			
Drosera auriculata	Tall Sundew			
Drosera glanduligera	Scarlet Sundew			
Drosera macrantha ssp. planchonii	Climbing Sundew			
Drosera peltata	Pale Sundew			
Drosera whittakeri ssp. whittakeri				
Echinopogon ovatus var. ovatus	Rough-beard Grass		R	T
Eleocharis acuta	Common Spike-rush			
Eleocharis gracilis	Slender Spike-rush			U
Elymus scabrus var. scabrus	Native Wheat-grass			
Epacris impressa	Common Heath			
Epilobium billardierianum	Robust Willow-herb			
Epilobium billardierianum ssp. cinereum	Variable Willow-herb			U
Epilobium pallidiflorum	Showy Willow-herb			U
Eragrostis benthamii	Bentham's Love-grass			
Eriochilus cucullatus	Parson's Bands			
Eryngium rostratum	Blue Devil		V	V
Eucalyptus camaldulensis var. camaldulensis	River Red Gum			
Eucalyptus cosmophylla	Cup Gum			
Eucalyptus fasciculosa	Pink Gum			
Eucalyptus leucoxylon ssp. leucoxylon	South Australian Blue Gum			

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Eucalyptus microcarpa	Grey Box			U
Eucalyptus obliqua	Messmate Stringybark			
Eucalyptus viminalis ssp. cygnetensis	Rough-bark Manna Gum			
Eucalyptus viminalis ssp. viminalis	Manna Gum		R	R
Euchiton gymnocephalus	Creeping Cudweed			
Euchiton involucratus	Star Cudweed			
Eutaxia microphylla var. microphylla	Common Eutaxia			
Exocarpos cupressiformis	Native Cherry			
Gahnia trifida	Cutting Grass			U
Galium gaudichaudii	Rough Bedstraw			
Genoplesium nigricans	Black Midge-orchid			R
Genoplesium rufum	Red Midge-orchid			
Geranium potentilloides var. potentilloides	Downy Geranium			K
Geranium retrorsum	Grassland Geranium			
Geranium solanderi var. solanderi	Austral Geranium			
Glischrocaryon behrii	Golden Pennants			
Glossodia major	Purple Cockatoo			
Glyceria australis	Australian Sweet-grass			R
Glycine latrobeana	Clover Glycine	V	V	V
Gonocarpus elatus	Hill Raspwort			
Gonocarpus mezianus	Broad-leaf Raspwort			
Gonocarpus tetragynus	Small-leaf Raspwort			
Goodenia blackiana	Native Primrose			
Goodenia geniculata	Bent Goodenia			
Goodenia ovata	Hop Goodenia			
Gratiola peruviana	Austral Brooklime			
Grevillea lavandulacea var. lavandulacea	Spider-flower			
Grevillea lavandulacea var. sericea	Spider-flower			U
Hakea carinata	Erect Hakea			
Hakea rostrata	Beaked Hakea			
Hakea rugosa	Dwarf Hakea			
Haloragis heterophylla	Variable Raspwort			U
Hardenbergia violacea	Native Lilac			
Helichrysum rutidolepis	Pale Everlasting		E	E
Helichrysum scorpioides	Button Everlasting			
Hibbertia exutiacies	Prickly Guinea-flower			
Hibbertia incana				
Hibbertia riparia	Guinea-flower			
Hibbertia sericea var. sericea	Silky Guinea-flower			
Hibbertia stricta var. stricta	Stalked Guinea-flower			

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Hyalosperma demissum	Dwarf Sunray			
Hydrocotyle callicarpa	Tiny Pennywort			
Hydrocotyle laxiflora	Stinking Pennywort			
Hypericum gramineum	Small St John's Wort			
Hypericum japonicum	Matted St John's Wort		R	K
Hypoxis glabella var. glabella	Tiny Star			
Hypoxis vaginata var. vaginata	Yellow Star			
Indigofera australis var. australis	Austral Indigo			U
Isoetes drummondii ssp. drummondii	Plain Quillwort		R	R
Isolepis cernua	Nodding Club-rush			
Isolepis fluitans	Floating Club-rush			U
Isolepis inundata	Swamp Club-rush			
Isolepis marginata	Little Club-rush			
Isolepis platycarpa	Flat-fruit Club-rush			
Isopogon ceratophyllus	Horny Cone-bush			
Ixodia achillaeoides ssp. alata	Hills Daisy			
Ixodia achillaeoides ssp. alata	Hills Daisy			
Juncus bufonius	Toad Rush			
Juncus caespiticius	Grassy Rush			
Juncus holoschoenus	Joint-leaf Rush			
Juncus pallidus	Pale Rush			
Juncus pauciflorus	Loose-flower Rush			
Juncus prismatocarpus	Branching Rush		E	E
Juncus sarophorus				
Juncus subsecundus	Finger Rush			
Kennedia prostrata	Scarlet Runner			
Lagenifera huegelii	Coarse Bottle-daisy			
Lagenifera stipitata var. stipitata	Spreading Bottle-daisy			R
Lavatera plebeia	Australian Hollyhock			U
Lepidosperma carphoides	Black Rapier-sedge			
Lepidosperma curtisiae	Little Sword-sedge			
Lepidosperma laterale s.str.	Tall Sword-sedge			U
Lepidosperma semiteres	Wire Rapier-sedge			
Lepidosperma viscidum	Sticky Sword-sedge			
Leporella fimbriata	Fringed Hare-orchid			
Leptoceras menziesii	Hare Orchid			
Leptorhynchos squamatus	Scaly Buttons			
Leptospermum continentale	Prickly Tea-tree			
Leptospermum lanigerum	Silky Tea-tree			U
Leptospermum myrsinoides	Heath Tea-tree			

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Leucopogon virgatus	Common Beard-heath			
Levenhookia dubia	Hairy Stylewort			
Levenhookia pusilla	Tiny Stylewort			
Lindsaea linearis	Screw Fern			U
Linum marginale	Native Flax			
Lissanthe strigosa	Peach Heath			
Lobelia alata	Angled Lobelia			
Lobelia gibbosa	Tall Lobelia			
Lomandra densiflora	Soft Tussock Mat-rush			
Lomandra fibrata	Mount Lofty Mat-rush			
Lomandra micrantha ssp. micrantha	Small-flower Mat-rush			
Lomandra multiflora ssp. dura	Hard Mat-rush			
Lomandra nana	Pale Mat Rush			
Lomandra sororia	Sword Mat-rush			U
Lotus australis	Austral Trefoil			U
Lycopus australis	Australian Gipsywort			R
Lysiana exocarpi ssp. exocarpi	Harlequin Mistletoe			
Lythrum hyssopifolia	Lesser Loosestrife			
Marsilea hirsuta	Short-fruit Nardoo			R
Melaleuca decussata	Totem-poles			
Microlaena stipoides var. stipoides	Weeping Rice-grass			
Microseris lanceolata	Native Yam			
Microtis parviflora	Slender Onion-orchid			U
Microtis unifolia	Common Onion-orchid			
Microtis unifolia complex	Onion-orchid			
Millotia tenuifolia var. tenuifolia	Soft Millotia			
Myoporum viscosum	Sticky Boobialla			U
Myosotis australis	Austral Forget-me-not			R
ndigofera australis var. australis	Austral Indigo			U
Neurachne alopecuroidea	Fox-tail Mulga-grass			
Olearia grandiflora	Mount Lofty Daisy-bush			U
Olearia passerinoides ssp. glutescens	Sticky Daisy-bush		R	V
Olearia ramulosa	Twiggy Daisy-bush			
Olearia tubuliflora	Rayless Daisy-bush			U
Opercularia ovata	Broad-leaf Stinkweed			U
Opercularia varia	Variable Stinkweed			
Ophioglossum lusitanicum	Austral Adder's-tongue			U
Orthoceras strictum	Horned Orchid			R
Oxalis perennans	Native Sorrel			
Ozothamnus retusus	Notched Bush-everlasting			R

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Parietaria debilis	Smooth-nettle			
Pelargonium littorale	Native Pelargonium			
Persicaria decipiens	Slender Knotweed			
Persoonia juniperina	Prickly Geebung			U
Phyllangium distylis	Tiny Mitrewort		R	K
Phyllangium divergens	Wiry Mitrewort			
Phylloglossum drummondii	Pigmy Clubmoss		R	R
Picris sp.	Picris			
Pimelea curviflora	Curved Riceflower		R	R
Pimelea glauca	Smooth Riceflower			
Pimelea humilis	Low Riceflower			
Pimelea linifolia ssp. linifolia	Slender Riceflower			
Plantago varia	Variable Plantain			
Platylobium obtusangulum	Holly Flat-pea			
Pleurosorus rutifolius	Blanket Fern			U
Poa clelandii	Matted Tussock-grass			
Poa crassicaudex	Thick-stem Tussock-grass			
Poa labillardieri var. labillardieri	Common Tussock-grass			
Poa poiformis	Coast Tussock-grass			
Poranthera microphylla	Small Poranthera			
Portulaca oleracea	Common Purslane			
Prasophyllum elatum	Tall Leek-orchid			
Prasophyllum fitzgeraldii	Fitzgerald's Leek-orchid			R
Prasophyllum occidentale	Plains Leek-orchid			
Prasophyllum odoratum	Scented Leek-orchid			
Prasophyllum pallidum	Pale Leek-orchid	V	V	V
Prasophyllum pruinosum	Plum Leek-orchid		V	V
Pseudognaphalium luteoalbum	Jersey Cudweed			
Pteridium esculentum	Bracken Fern			
Pterostylis aff. rufa	Rufous Greenhood			
Pterostylis alata	Tall Shell-orchid			R
Pterostylis cucullata	Leafy Greenhood	V	V	V
Pterostylis curta	Blunt Greenhood		R	R
Pterostylis longifolia	Tall Greenhood			
Pterostylis nana	Dwarf Greenhood			
Pterostylis nutans	Nodding Greenhood			
Pterostylis pedunculata	Maroon-hood			
Pterostylis plumosa	Bearded Greenhood			
Pterostylis robusta	Large Shell-orchid			
Pterostylis rufa group	Rusty-hood			

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Pterostylis sanguinea	Blood Greenhood			
Ptilotus erubescens	Hairy-tails		R	R
Pultenaea acerosa	Bristly Bush-pea			U
Pultenaea daphnoides	Large-leaf Bush Pea			
Pultenaea largiflorens	Twiggy Bush-pea			
Pultenaea pedunculata	Matted Bush-pea			
Pyrorchis nigricans	Black Fire-orchid			
Quinetia urvillei	Quinetia			R
Ranunculus lappaceus	Native Buttercup			
Ranunculus pachycarpus	Thick-fruit Buttercup			R
Ranunculus sessiliflorus var. sessiliflorus	Annual Buttercup			
Rubus parvifolius	Native Raspberry			U
Rumex brownii	Slender Dock			
Rutidosis multiflora	Small Wrinklewort			
Samolus repens	Creeping Brookweed			U
Scaevola albida	Pale Fanflower			
Schoenus apogon	Common Bog-rush			
Schoenus breviculmis	Matted Bog-rush			
Sebaea ovata	Yellow Sebaea			
Senecio glomeratus	Swamp Groundsel			
Senecio hypoleucus	Pale Groundsel			U
Senecio picridioides	Purple-leaf Groundsel			
Senecio quadridentatus	Cotton Groundsel			
Sigesbeckia orientalis ssp. orientalis	Oriental Sigesbeckia			R
soetes drummondii ssp. drummondii	Plain Quillwort		R	R
Solanum laciniatum	Cut-leaf Kangaroo-apple			R
Solenogyne dominii	Smooth Solenogyne			U
Stackhousia aspericocca ssp. "Cylindrical inflorescence"(W.R.Barker 1418)	Bushy Candles			
Stackhousia aspericocca ssp. "One-sided inflorescence"(W.R.Barker 697)	One-sided Candles			
Stipa curticoma	Short-crest Spear-grass			U
Stipa elegantissima	Feather Spear-grass			U
Stipa eremophila	Rusty Spear-grass			U
Stipa flavescens	Coast Spear-grass			
Stipa scabra ssp. falcata	Slender Spear-grass			
Stipa semibarbata	Fibrous Spear-grass			
Stipa setacea	Corkscrew Spear-grass			U
Stipa variabilis	Variable Spear-Grass			
Stuartina muelleri	Spoon Cudweed			
Stylidium calcaratum	Spurred Trigger-plant			

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Stylidium despectum	Small Trigger-plant			
Stylidium graminifolium	Grass Trigger-plant			
Stylidium inundatum	Hundreds And Thousands			
Swainsona oroboides complex	Variable Swainson-pea			
Tetratheca pilosa ssp. pilosa	Hairy Pink-bells			
Thelymitra antennifera	Lemon Sun-orchid			
Thelymitra benthamiana	Leopard Sun-orchid			R
Thelymitra carnea	Small Pink Sun-orchid		R	R
Thelymitra flexuosa	Twisted Sun-orchid		R	R
Thelymitra grandiflora	Great Sun-orchid			U
Thelymitra juncifolia	Spotted Sun-orchid			
Thelymitra luteocilium	Yellow-tuft Sun Orchid			
Thelymitra nuda	Scented Sun-orchid			
Thelymitra pauciflora	Slender Sun-orchid			
Thelymitra rubra	Salmon Sun-orchid			
Thelymitra x macmillanii	Crimson Sun-orchid			
Themeda triandra	Kangaroo Grass			
Thomasia petalocalyx	Paper-flower			
Thysanotus patersonii	Twining Fringe-lily			
Tricoryne elatior	Yellow Rush-lily			
Triglochin centrocarpum	Dwarf Arrowgrass			
Triglochin procerum	Water-ribbons			U
Triptilodiscus pygmaeus	Small Yellow-heads			U
Typha domingensis	Narrow-leaf Bulrush			
Utricularia tenella	Pink Bladderwort			R
Velleia arguta	Toothed Velleia			R
Velleia paradoxa	Spur Velleia			U
Veronica hillebrandii	Rigid Speedwell			K
Viola hederacea	Ivy-leaf Violet			R
Viola sieberiana	Tiny Violet			
Vittadinia cuneata var. cuneata forma cuneata	Fuzzy New Holland Daisy			
Vittadinia dissecta var. hirta	Dissected New Holland Daisy			T
Vittadinia gracilis	Woolly New Holland Daisy			
Wahlenbergia gracilenta	Annual Bluebell			
Wahlenbergia gracilis	Sprawling Bluebell			K
Wahlenbergia stricta ssp. stricta	Tall Bluebell			
Wurmbea dioica ssp. dioica	Early Nancy			
X calassodia tutelata	Orchid			
Xanthorrhoea semiplana	Yacca			
Xanthorrhoea semiplana ssp. semiplana	Yacca			
Xanthosia pusilla	Hairy Xanthosia			
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Introduced Plant Species

Species	Common Name	Introduced
Acacia baileyana	Cootamundra Wattle	*
Acacia decurrens	Early Black Wattle	*
Acacia longifolia var. longifolia	Sallow Wattle	*
Acer pseudoplatanus	Sycamore Maple	*
Acer saccarinum	Silver Maple	*
Acetosella vulgaris	Sorrel	*
Acmena smithii	Lilly-Pilly	*
Aesculus hippocastanum	Common Horse-chestnut	*
Aesculus x carnea	Red Horse Chestnut	*
Agapanthus africanus	African Lilly	*
Agonsis flexuosa	Willow Myrtle	*
Agrostis capillaris var. capillaris	Brown-top Bent	*
Aira caryophyllea	Silvery Hair-grass	*
Aira cupaniana	Small Hair-grass	*
Allium triquetrum	Three-cornered Garlic	*
Amaranthus cruentus	Redshank	*
Amaranthus paniculatus	Fox Tail	*
Amaranthus retroflexus	Red-root Amaranth	*
Amaranthus viridis	Green Amaranth	*
Amaryllis belladonna	Belladonna Lily	*
Anagallis arvensis	Pimpernel	*
Anagallis minima	Chaffweed	*
Angophora floribunda	Sweet Gum Myrtle	*
Anthoxanthum odoratum	Sweet Vernal Grass	*
Aphanes microcarpa	Small Piert	*
Araucaria bidwillii	Bunya Pine	*
Araucaria cunninghamii	Hoop Pine	*
Araucaria heterophylla	Norfolk Island Pine	*
Arbutus unedo	Strawberry Tree	*
Arctotheca calendula	Cape Weed	*
Artemesia abroantum	Southern Wood	*
Asclepias fruticosa	Narrow-leaf Cotton-bush	*
Asclepias rotundifolia	Broad-leaf Cotton-bush	*
Asperula scoparia	Prickly Woodruff	*
Asphodelus fistulosus	Onion Weed	*
Aster subulatus	Aster-weed	*
Atriplex muelleri	Muellers Saltbush	*
Avena barbata	Bearded Oat	*
Avena fatua	Wild Oat	*
Avena sativa	Cultivated Oat	*

Species	Common Name	Introduced
Babiana stricta	Baboon-flower	*
Batrachium trichophyllum	Water Buttercup	*
Berula erecta	Water Parsnip	*
Betula pendula	Silver Birch	*
Brachychiton acerifolius	Flame Tree	*
Brachypodium distachyon	False Brome	*
Brahychiton populneus	Kurrajong	*
Brassica tournefortii	Wild Turnip	*
Briza maxima	Large Quaking-grass	*
Briza minor	Lesser Quaking-grass	*
Bromus catharticus	Prairie Grass	*
Bromus diandrus	Great Brome	*
Bromus hordeaceus ssp. hordeaceus	Soft Brome	*
Bromus madritensis	Compact Brome	*
Buddleja madagascariensis	Summer Lilac	*
Buglossoides arvensis	Sheepweed	*
Callistomen brachyandrus	Prickly Bottlebrush	*
Camellia japonica	Camellia	*
Capsella bursapastoris	Shepherd's Purse	*
Cardamine hirsuta	Hairy Bitter-cress	*
Carduus tenuiflorus	Slender Thistle	*
Carex chlorantha	Sedge	*
Carex hebes	Sedge	*
Carex pumila	Strand Sedge	*
Carpinus betula	Hornbeam	*
Carya cordiformis	Bitternut Hickory	*
Carya illinoiensis	Pecan	*
Caspella bursapastoria	Shepherds Purse	*
Castanaea sativa	Sweet Chestnut	*
Casuarina equisetifolia	Horse Tail Tree	*
Casuarina glauca	Swamp Oak	*
Catalpa speciosa	Western Catalpa	*
Cedrus atlantica	Mount Atlas Cedar	*
Cedrus deodara	Indian Cedar	*
Centaurea calcitrapa	Star Thistle	*
Centaurea melitensis	Malta Thistle	*
Centaurium erythraea	Common Centaury	*
Centranthus ruber ssp. ruber	Red Valerian	*
Cerastium glomeratum	Common Mouse-ear Chickweed	*
Ceratonia siliqua	Carob Tree	*
Cercis siliquastrum	Judas Tree	*

Species	Common Name	Introduced
Cestrum aurabtiacum	Orange Jessamine	*
Cestrum perpurea	Purple Jessemine	*
Chamaecyparis lawsoniana	Lawson Cypress	*
Chamaecytisus palmensis	Tree Lucerne	*
Chamaemelum nobile	Common Chamomile	*
Chasmanthe floribunda var. floribunda	African Corn-flag	*
Chenopodium album	Fat Hen	*
Chenopodium murale	Nettle-leaf Goosefoot	*
Chrysanthemoides monilifera	Boneseed	*
Cicendia quadrangularis	Square Cicendia	*
Cichorium intybus	Chicory	*
Cinnamonum camphora	Camphor Laurel	*
Cirsium vulgare	Spear Thistle	*
Coleonema puchrum	Confetti Bush	*
Convolvulus arvensis	Field Bindweed	*
Conyza bonariensis	Flax-leaf Fleabane	*
Conyza canadensis var. canadensis	Canadian Fleabane	*
Coprosma repens	New Zealand Mirror-bush	*
Coronopus didymus	Lesser Swine's-cress	*
Cortaderia selloana	Common Pampas Grass	*
Cotoneaster sp.	Cotoneaster	*
Crataegus monogyna	Hawthorn	*
Crataegus monogyna	Hawthorn 3 Varieties	*
Crepis capillaris	Smooth Hawksbeard	*
Critesion hystrix	Mediterranean Barley-grass	*
Critesion murinum ssp. leporinum	Wall Barley-grass	*
Cupressus duclouxiana	Bhutan Cypress	*
Cupressus glabra	Arizona Cypress	*
Cupressus lusitanica	Mexican Cypress	*
Cupressus macrocarpa	Monterey Cypress	*
Cydonia oblonga	Quince	*
Cynara cardunculus	Artichoke Thistle	*
Cynodon dactylon	Couch	*
Cynosurus echinatus	Rough Dog's-tail Grass	*
Cytisus scoparius	English Broom	*
Dactylis glomerata	Cocksfoot	*
Datura sp.	Thorn-apple	*
Datura stramonium	Common Thorn-apple	*
Desmazeria rigida	Rigid Fescue	*
Digitaria sanguinalis	Crab Grass	*
Diplotaxis muralis var. muralis	Wall Rocket	*

Species	Common Name	Introduced
Dittrichia graveolens	Stinkweed	*
Diuris drummondii	Tall Donkey Orchid	*
Dovyalis caffra	Kaffir Apple	*
Dryandra formosa	Showy Dryandra	*
Ecballium elaterium	Squirting Cucumber	*
Echinochloa crus-galli	Common Barnyard Grass	*
Echium plantagineum	Salvation Jane	*
Ehrharta longiflora	Annual Veldt Grass	*
Eleocarpus obovatus	Blueberry	*
Epilobium ciliatum	Glandular Willow-herb	*
Erica lusitanica	Spanish Heath	*
Eriobotrya janonica	Loquat	*
Erodium botrys	Long Heron's-bill	*
Erodium cicutarium	Cut-leaf Heron's-bill	*
Erodium moschatum	Musky Herons-bill	*
Eucalyptus botryoides	Gangalay	*
Eucalyptus calophylla	Marri	*
Eucalyptus cinerea	Argyle Apple	*
Eucalyptus cladocalyx	Suger Gum	*
Eucalyptus cornuta	Yate	*
Eucalyptus gomphocephala	Tuart	*
Eucalyptus macrocarpa	Rose Of The West	*
Eucalyptus paniculata	Grey Iron Bark	*
Eucalyptus sideroxylon	Red Ironbark	*
Eucalyptus torquata	Coral Gum	*
Euonymus alatus	Spindle Tree	*
Euphorbia peplus	Petty Spurge	*
Euphorbia terracina	False Caper	*
Ficus carica	Edible Fig	*
Ficus macrophylla	Morton Bay Fig	*
Ficus platypoda	Small Leaved Morton Bay Fig	*
Fodranea ricasolian	Port St Johns Creeper	*
Foeniculum vulgare	Fennel	*
Fraxinus excelsior	European Ash	*
Fraxinus ornus	Manna Ash	*
Fraxinus rotundifolia ssp. rotundifolia	Desert Ash	*
Freesia hybrid	Freesia	*
Fumaria capreolata ssp. capreolata	White-flower Fumitory	*
Fumaria muralis	Wall Fumitory	*
Fumaria parviflora	Small-flower Fumitory	*
Galium aparine	Cleavers	*

Species	Common Name	Introduced
Galium divaricatum	Slender Bedstraw	*
Galium murale	Small Bedstraw	*
Galium tricornutum	Three-horned Bedstraw	*
Gastridium phleoides	Nit-grass	*
Genista monspessulana	Montpellier Broom	*
Geranium dissectum	Cut-leaf Geranium	*
Geranium molle var. molle	Soft Geranium	*
Gomphocarpus fruticosus	Narrow Leaved Cotton Bush	*
Gomphocarpus physocarpus	Broad Leaved Cotton Bush	*
Grevillea robusta	Silky Oak	*
Gynandriris setifolia	Thread Iris	*
Hainardia cylindrica	Common Barb-grass	*
Hakea drupacea	Sweet Hakea	*
Hakea laurina	Pincushion Hakea	*
Hedera helix ssp. helix	Ivy	*
Hedypnois rhagadioloides	Cretan Weed	*
Heliotropium europaeum	Common Heliotrope	*
Helminthotheca echioides	Ox-tongue	*
Holcus lanatus	Yorkshire Fog	*
Homeria flaccida	One-leaf Cape Tulip	*
Hypericum perforatum	St John's Wort	*
Hypochaeris glabra	Smooth Cat's Ear	*
Hypochaeris radicata	Rough Cat's Ear	*
Iris germanica	Flag Iris	*
Ixia flexuosa		*
Ixia polystachya	Variable Ixia	*
Jasminum officinale	Jasmine	*
Juglans nigra	Black Walnut	*
Juglans regina	Walnut Paradoxa Hybrids	*
Juglas paradoxa hybrids	Walnut Paradoxa Hybrids	*
Juncus articulatus	Jointed Rush	*
Juncus capitatus	Dwarf Rush	*
Kennedia rubicunda	Dusky Coral Pea	*
Kickxia elatine ssp. crinita	Twining Toadflax	*
Kickxia elatine ssp. elatine	Woolly Toadflax	*
Koelreuteria paniculata	Golden Rain Tree	*
Lactuca serriola	Prickly Lettuce	*
Lagunaria patersonii	Pyramid Tree	*
Lantana camara var. aculeata	Common Lantana	*
Lantana camara var. camara	Common Lantana	*
Laurus nobilis	Sweet Bay	*

Species	Common Name	Introduced
Leontodon taraxacoides ssp. taraxacoides	Lesser Hawkbit	*
Lepidosperma lineare	Little Sword Sedge	*
Leptospermum laevigatum	Coast Tea-tree	*
Libocedrus decurrens	Floren Incense Cedar	*
Ligustrum lucidum	Glossy Privet	*
Ligustrum vulgare	European Privet	*
Linum trigynum	French Flax	*
Liriodendron tulipifera	Tulip Tree	*
Lolium loliaceum	Stiff Ryegrass	*
Lolium perenne	Perennial Ryegrass	*
Lolium rigidum	Wimmera Ryegrass	*
Lolium temulentum var. temulentum	Beared Ryegrass	*
Lonicera japonica	Japanese Honeysuckle	*
Lycium ferocissimum	African Boxthorn	*
Lycopus arvensis	Gipsywort	*
Magnolia grandiflora	Southern Magnolia	*
Malva nicaeensis	Mallow Of Nice	*
Malva parviflora	Small-flower Marshmallow	*
Marrubium vulgare	Horehound	*
Medicago arabica	Spotted Medic	*
Medicago minima var. minima	Little Medic	*
Medicago polymorpha var. polymorpha	Burr-medic	*
Medicago truncatula	Barrel Medic	*
Melaleuca hypericifolia		*
Melia azedarach var. australasica	White Cedar	*
Melilotus indica	King Island Melilot	*
Melissa officinalis	Common Balm	*
Mentha pulegium	Pennyroyal	*
Mentha spicata form	Spearmint	*
Mentha spicata form A	Spearmint	*
Mentha spicata form B	Spearmint	*
Mentha x piperita	Peppermint	*
Mentha x piperita var. x citrata	Lemon Mint	*
Mentha x piperita var. x piperita	Peppermint	*
Misopates orontium	Lesser Snapdragon	*
Moenchia erecta	Erect Chickweed	*
Molineriella minuta	Small Hair-grass	*
Myosotis sylvatica	Wood Forget-me-not	*
Myrsiphyllum asparagoides	Bridal Creeper	*
Nerium oleander	Oleander	*
Oenothera stricta ssp. stricta	Common Evening Primrose	*

Species	Common Name	Introduced
Olea europaea ssp. africana	African Olive	*
Olea europaea ssp. europaea	Olive	*
Onopordum acanthium ssp. acanthium	Scotch Thistle	*
Ornithogalum thyrsoides	Chincherinchee	*
Ostrya virginiana	American Hop Hornbeam	*
Oxalis corniculata ssp. corniculata	Creeping Wood-sorrel	*
Oxalis hirta	Hairy Wood-sorrel	*
Oxalis pes-caprae	Soursob	*
Oxalis purpurea	One-o'clock	*
Papaver dubium	Long-headed Poppy	*
Papaver hybridum	Rough Poppy	*
Papaver somniferum	Opium Poppy	*
Papaver somniferum ssp. setigerum	Small-flower Opium Poppy	*
Parapholis incurva	Curly Ryegrass	*
Paraserianthes lophantha	Crested Wattle	*
Parentucellia latifolia	Red Bartsia	*
Parentucellia viscosa	Yellow Bartsia	*
Pennisetum clandestinum	Kikuyu	*
Pentaschistis thunbergii	Pussy Tail	*
Petrorhagia nanteuilii		*
Phalaris aquatica	Phalaris	*
Phalaris canariensis	Canary-grass	*
Phalaris minor	Lesser Canary-grass	*
Philadelphus coronarius	Mock Orange	*
Philladelphus coronarius	Mock Orange	*
Phoenix dactylifera	Date Palm	*
Phormium tenax	New Zealand Flax	*
Picea smithiana	West Himalayan Spruce	*
Picris hieracioides	Hawkweed Picris	*
Pinis pinea	Italian Ston Epine	*
Pinus canariensis	Canary Island Pine	*
Pinus halepensis	Aleppo Pine	*
Pinus ponderosa	Ponderosa Pine	*
Pinus radiata	Radiata Pine	*
Pittosporum eugenioides	Tarata	*
Pittosporum tenuifolium	Tawhiwhi	*
Pittosporum undulatum	Sweet Pittosporum	*
Plantago lanceolata	Ribwort	*
Plantago lanceolata var. lanceolata	Ribwort	*
Plantago major	Greater Plantain	*
Platanus x hybrida	London Plane	*

Species	Common Name	Introduced
Poa annua	Winter Grass	*
Poa bulbosa	Bulbous Meadow-grass	*
Polycarpon tetraphyllum	Four-leaf Allseed	*
Polygonum aviculare	Wireweed	*
Populus alba	White Poplar	*
Populus alba var pyramidalis	Pyrimidal White Poplar	*
Populus nigra var italica	Lombardy Poplar	*
Prasophyllum fuscum	Slaty Leek Orchid	*
Prunis serrulata	Japanese Cherry	*
Prunus cerasifera	Cherry-plum	*
Prunus ilicifolia	Short Leaved Cherry	*
Prunus pissardi	Pissards Plum	*
Psuedotsuga menziesii	Oregon Douglas Fir	*
Pterostylis smaragdyna	Emerald-lip Greenhood	*
Pyrus communis	Pear	*
Quercus ilex	Holm Oak	*
Quercus macrocarpa	Burr Oak	*
Quercus macrolepis	Valonia Oak	*
Quercus palustris	Pin Oak	*
Quercus robur	English Oak	*
Quercus suber	Cork Oak	*
Ranunculus muricatus	Pricklefruit Buttercup	*
Raphanus raphanistrum	Wild Radish	*
Rapistrum rugosum ssp. rugosum	Turnip Weed	*
Rhamnus alaternus	Blowfly Bush	*
Rhododendron indicum	Rhododendron	*
Rhus lancea	Smooth Sumac	*
Robinia pseudoacacia	Black Locust	*
Romulea minutiflora	Small-flower Onion-grass	*
Romulea rosea var. australis	Common Onion-grass	*
Rorippa nasturtium-aquaticum	Watercress	*
Rosa banksiae	Backs Rosa	*
Rosa canina	Dog Rose	*
Rosa rubiginosa	Sweet Briar	*
Rostraria cristata	Annual Cat's-tail	*
Rubus discolor	Blackberry	*
Rubus fruiticulosus		*
Rubus laciniatus	Cut-leaf Blackberry	*
Rubus ulmifolius var. ulmifolius	Blackberry	*
Rumex conglomeratus	Clustered Dock	*
Rumex crispus	Curled Dock	*

Species	Common Name	Introduced
Rumex obtusifolius	Broad-leaf Dock	*
Rumex pulcher ssp. pulcher	Fiddle Dock	*
Sagina apetala	Annual Pearlwort	*
Salix alba var calva	Cricket-Bat Willow	*
Salix alba var vitellina	Golden Willow	*
Salix babylonica	Weeping Willow	*
Salix x rubens	White Crack Willow	*
Salvia verbenaca form B	Wild Sage	*
Sanguisorba minor ssp. muricata	Sheep's Burnet	*
Scabiosa atropurpurea	Pincushion	*
Scandix pecten-veneris ssp. pecten-veneris	Shepherd's Needle	*
Schinus areira	Pepper-tree	*
Senecio pterophorus var. pterophorus	African Daisy	*
Senecio vulgaris	Common Groundsel	*
Sequoia sempervirens	Giant Redwood	*
Sequoiadendron goganteum	California Big Tree	*
Setaria verticillata	Whorled Pigeon-grass	*
Sherardia arvensis	Field Madder	*
Silene gallica var. gallica	French Catchfly	*
Silene vulgaris	Bladder Campion	*
Silybum marianum	Variegated Thistle	*
Sisymbrium officinale	Hedge Mustard	*
Sisymbrium orientale	Indian Hedge Mustard	*
Solanum aviculare	Kangaroo Apple	*
Solanum nigrum	Black Nightshade	*
Solanum seaforthianum	Brazilian Nightshade	*
Soliva pterosperma	Jo-jo	*
Sollya heterophylla	Blue-bell Creeper	*
Sonchus asper	Rough Sow-thistle	*
Sonchus asper ssp. glaucescens	Rough Sow-thistle	*
Sonchus oleraceus	Common Sow-thistle	*
Sophora japonica	Japanese Pagoda Tree	*
Sorbus aucuparia	Rowan	*
Sparaxis bulbifera	Sparaxis	*
Sparaxis tricolor	Tricolor Harlequin Flower	*
Spartium junceum	Spanish Broom	*
Spergularia rubra	Red Sand-spurrey	*
Stachys arvensis	Stagger Weed	*
Stellaria media	Chickweed	*
Stellaria palustris var. palustris	Swamp Starwort	*
Stenocarpus sinuatus	Wheel Of Fire Tree	*

Species	Common Name	Introduced
Synnotia villosa		*
Taraxacum officinale	Dandelion	*
Taxus baccata	Golden English Yew	*
Thuja orientalis	Oriental Arbor-Vitae	*
Thuja pilcata	Red Cedar	*
Tilia cordata	Small Meaved Lime	*
Tolpis barbata	Yellow Hawkweed	*
Torilis nodosa	Knotted Hedge-parsley	*
Trachycarpus fortunei	Windmill Palm	*
Tragopogon porrifolius	Salsify	*
Trifolium angustifolium	Narrow-leaf Clover	*
Trifolium arvense var. arvense	Hare's-foot Clover	*
Trifolium campestre	Hop Clover	*
Trifolium cherleri	Cupped Clover	*
Trifolium dubium	Suckling Clover	*
Trifolium fragiferum var. fragiferum	Strawberry Clover	*
Trifolium glomeratum	Cluster Clover	*
Trifolium ornithopodioides	Bird's-foot Trefoil	*
Trifolium repens	White Clover	*
Trifolium scabrum	Rough Clover	*
Trifolium striatum	Knotted Clover	*
Trifolium subterraneum	Subterranean Clover	*
Trifolium tomentosum	Woolly Clover	*
Ulex europaeus	Gorse	*
Ulmus glabra	Weeping Elm	*
Ulmus procera	Common Elm	*
Ulmus procera	English Elm	*
Ulmus x hollandica	Elm	*
Urospermum picroides	False Hawkbit	*
Urtica urens	Small Nettle	*
Valerianella eriocarpa	Italian Corn-salad	*
Verbascum virgatum	Twiggy Mullein	*
Verbena bonariensis	Purple-top Verbena	*
Verbena officinalis	Common Verbena	*
Verbena supina	Trailing Verbena	*
Veronica arvensis	Wall Speedwell	*
Viburnum tinus	Laurestinus	*
Vicia hirsuta	Hairy Vetch	*
Vicia monantha	Spurred Vetch	*
Vicia sativa ssp. nigra	Narrow-leaf Vetch	*
Vicia sativa ssp. sativa	Common Vetch	*

Species	Common Name	Introduced
Vicia tetrasperma	Slender Vetch	*
Vinca major	Blue Periwinkle	*
Viola odorata	Common Violet	*
Virgilia oroboides	Cape Virgilia	*
Vulpia bromoides	Squirrel-tail Fescue	*
Vulpia ciliata	Fringed Fescue	*
Vulpia myuros	Fescue	*
Vulpia myuros forma myuros	Rat's-tail Fescue	*
Washingtonia robusta	Cotton Palm	*
Wisteria sinensis	Wisteria	*
Xanthium spinosum	Bathurst Burr	*
Zantedeschia aethiopica	White Arum Lily	*
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APPENDIX C : BELAIR NATIONAL PARK – FAUNA

Native Birds Species

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Australasian Grebe, (Little Grebe)	*Tachybaptus novaehollandiae*			
Australian Hobby	*Falco longipennis*			U
Australian Magpie	*Gymnorhina tibicen*			
Australian Owlet-nightjar	*Aegotheles cristatus*			U
Australian Pelican	*Pelecanus conspicillatus*			
Australian Ringneck, (Ring-Necked Parrot)	*Barnardius zonarius*			
Australian White Ibis	*Threskiornis molucca*			
Australian Wood Duck, (Maned Duck)	*Chenonetta jubata*			
Banded Lapwing	*Vanellus tricolor*			
Barn Owl	*Tyto alba*			
Bassian Thrush	*Zoothera lunulata*		R	V
Beautiful Firetail	*Stagonopleura bella*		R	E
Black Falcon	*Falco subniger*			U
Black Swan	*Cygnus atratus*			
Black-capped Sittella	*Daphoenositta chrysoptera*			
Black-chinned Honeyeater	*Melithreptus gularis*		V	V
Black-eared Cuckoo	*Chrysococcyx osculans*			O
Black-eared Miner	*Manorina flavigula melanotis*	E	E	
Black-faced Cuckoo-Shrike	*Coracina novaehollandiae*			
Black-shouldered Kite	*Elanus axillaris*			
Black-tailed Native-hen	*Gallinula ventralis*			
Brown Falcon	*Falco berigora*			
Brown Goshawk	*Accipiter fasciatus*			
Brown Thornbill	*Acanthiza pusilla*			
Brown Treecreeper	*Climacteris picumnus*			V
Brown-headed Honeyeater	*Melithreptus brevirostris*			
Brush Bronzewing	*Phaps elegans*			U
Buff-rumped Thornbill	*Acanthiza reguloides*			C
Clamorous Reedwarbler	*Acrocephalus stentoreus*			C
Collared Sparrowhawk	*Accipiter cirrhocephalus*			U
Common Bronzewing	*Phaps chalcoptera*			
Crescent Honeyeater	*Phylidonyris pyrrhoptera*			
Crested Pigeon	*Ocyphaps lophotes*			
Crested Shrike-tit	*Falcunculus frontatus*		V	V
Crimson Rosella	*Platycercus elegans*			
Darter	*Anhinga melanogaster*			U
Diamond Firetail	*Stagonopleura guttata*		V	V
Dusky Moorhen	*Gallinula tenebrosa*			

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Dusky Woodswallow	*Artamus cyanopterus*			
Eastern Rosella	*Platycercus eximius*			
Eastern Spinebill	*Acanthorhynchus tenuirostris*			
Emu	*Dromaius novaehollandiae*			
Eurasian Coot	*Fulica atra*			
Fairy Martin	*Petrochelidon ariel*			
Fan-tailed Cuckoo	*Cacomantis flabelliformis*			
Galah	*Cacatua roseicapilla*			
Gang-gang Cockatoo	*Callocephalon fimbriatum*			O
Golden Whistler	*Pachycephala pectoralis*			
Great Cormorant	*Phalacrocorax carbo*			
Great Egret, (White Egret)	*Ardea alba*			
Grey Currawong	*Strepera versicolor*			
Grey Fantail	*Rhipidura albiscapa*			
Grey Shrike-Thrush	*Colluricincla harmonica*			
Grey Teal, (Australasian Teal)	*Anas gracilis*			
Hardhead (White-Eyed Duck)	*Aythya australis*			U
Hoary-headed Grebe	*Poliocephalus poliocephalus*			
Hooded Robin	*Melanodryas cucullata*			
Horsfield's Bronze-cuckoo	*Chrysococcyx basalis*			
Jacky Winter	*Microeca fascinans*			
Laughing Kookaburra	*Dacelo novaeguineae*			
Little Black Cormorant	*Phalacrocorax sulcirostris*			
Little Corella	*Cacatua sanguinea*			
Little Eagle	*Hieraaetus morphnoides*			U
Little Grassbird	*Megalurus gramineus*			
Little Pied Cormorant	*Phalacrocorax melanoleucos*			
Little Raven	*Corvus mellori*			
Little Treecreeper	*Climacteris minor*			
Little Wattlebird	*Anthochaera chrysoptera*			
Magpie-Lark	*Grallina cyanoleuca*			
Masked Lapwing, (Spur-Winged Plover)	*Vanellus miles*			
Masked Woodswallow	*Artamus personatus*			
Mistletoebird	*Dicaeum hirundinaceum*			
Musk Duck	*Biziura lobata*		R	R
Musk Lorikeet	*Glossopsitta concinna*			C
Nankeen Kestrel	*Falco cenchroides*			
New Holland Honeyeater	*Phylidonyris novaehollandiae*			
Noisy Miner	*Manorina melanocephala*			
Olive-backed Oriole	*Oriolus sagittatus*		R	R

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Pacific Black Duck	*Anas superciliosa*			
Pacific Black Duck/Mallard Hybrid	*Anas superciliosa x anas platyrhynchos*			
Painted Button-Quail	*Turnix varia*		V	V
Pallid Cuckoo	*Cuculus pallidus*			
Peaceful Dove	*Geopelia placida*			V
Pink Robin	*Petroica rodinogaster*			O
Purple Swamphen	*Porphyrio porphyrio*			
Purple-crowned Lorikeet	*Glossopsitta porphyrocephala*			
Rainbow Bee-eater	*Merops ornatus*			
Rainbow Lorikeet	*Trichoglossus haematodus*			
Red Wattlebird	*Anthochaera carunculata*			
Red-browed Finch	*Neochima temporalis*			
Red-capped Robin	*Petroica goodenovii*			U
Red-rumped Parrot	*Psephotus haematonotus*			
Regent Honeyeater	*Xanthomyza phrygia*	E	E	E
Restless Flycatcher (Scissor-Grinder)	*Myiagra inquieta*			V
Richard's Pipit	*Anthus novaeseelandiae*			
Rose Robin	*Petroica rosea*			O
Rufous Whistler	*Pachycephala rufiventris*			
Sacred Kingfisher	*Todiramphus sancta*			
Scaly-breasted Lorikeet	*Trichoglossus chlorolepidotus*			
Scarlet Robin	*Petroica multicolor*			
Shining Bronze-cuckoo	*Chrysococcyx lucidus*		R	R
Silver Gull	*Larus novaehollandiae*			
Silvereye	*Zosterops lateralis*			
Southern Boobook	*Ninox novaeseelandiae*			
Spotted Pardalote	*Pardalotus punctatus*			U
Spotted Quail-thrush	*Cinclosoma punctatum anachoreta*	CE	E	E
Striated Pardalote	*Pardalotus striatus*			
Striated Thornbill	*Acanthiza lineata*			
Stubble Quail	*Coturnix pectoralis*			
Sulphur-crested Cockatoo	*Cacatua galerita*			U
Superb Fairy-wren	*Malurus cyaneus*			
Swift Parrot	*Lathamus discolor*	E	V	V
Tawny Frogmouth	*Podargus strigoides*			
Tawny-crowned Honeyeater	*Gliciphila melanops*			U
Tree Martin	*Petrochelidon nigricans*			
Varied Sittella	*Daphoenositta chrysoptera*			
Wedge-tailed Eagle	*Aquila audax*			

Species	Common Name	Conservation Status		
		EPBC Act	NP&W Act	Regional SL
Weebill	*Smicrornis brevirostris*			
Welcome Swallow	*Hirundo neoxena*			
Whistling Kite	*Haliastur sphenurus*			U
White-browed Babbler	*Pomatostomus superciliosus*			U
White-browed Scrubwren	*Sericornis frontalis*			U
White-browed Woodswallow	*Artamus superciliosus*			
White-faced Heron	*Egretta novaehollandiae*			
White-naped Honeyeater	*Melithreptus lunatus*			
White-necked Heron	*Ardea pacifica*			U
White-plumed Honeyeater	*Lichenostomus penicillatus*			
White-throated Needletail, (Spine-Tailed Swift)	*Hirundapus caudacutus*			
White-throated Treecreeper	*Cormobates leucophaeus*			U
White-winged Chough	*Corcorax melanorhamphos*			
White-winged Triller	*Lalage tricolor*			
Willie Wagtail	*Rhipidura leucophrys*			
Yellow Thornbill	*Acanthiza nana*			U
Yellow-faced Honeyeater	*Lichenostomus chrysops*			
Yellow-rumped Thornbill	*Acanthiza chrysorrhoa*			
Yellow-tailed Black-Cockatoo	*Calyptorhynchus funereus*		V	V
Yellow-tailed Pardalote	*Pardalotus punctatus xanthopygus*			U
	137	**4**	**14**	**42**

Introduced Birds

Common Name	Species	Introduced
Common Starling	*Sturnus vulgaris*	*
Eurasian(common) Blackbird	*Turdus merula*	*
European Goldfinch	*Carduelis carduelis*	*
European Greenfinch	*Carduelis chloris*	*
House Sparrow	*Passer domesticus*	*
Mallard	*Anas platyrhynchos*	*
Rock Dove	*Columba livia*	*
Spotted Turtle-dove	*Streptopelia chinensis*	*
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Native Mammal Species

Common Name	Species	Conservation Status	
		EPBC Act	NP&W Act
Bush Rat	*Rattus fuscipes*		
Chocolate Wattled Bat	*Chalinolobus morio*		
Common Brushtail Possum	*Trichosurus vulpecula*		
Common Ringtail Possum	*Pseudocheirus peregrinus*		
Dingo	*Canis lupus dingo*		
Gould's Wattled Bat	*Chalinolobus gouldii*		
Koala*	*Phascolarctos cinereus*		R
Large Forest Bat	*Vespadelus darlingtoni*		
Lesser Longeared Bat	*Nyctophilus geoffroyi*		
Little Forest Bat	*Vespadelus vulturnus*		
Red Kangaroo*	*Macropus rufus*		
Short-beaked Echidna	*Tachyglossus aculeatus*		
Southern Brown Bandicoot	*Isoodon obesulus*	E	V
Southern Forest Bat	*Vespadelus regulus*		
Southern Freetail Bat	*Mormopterus planiceps*		
Water Rat	*Hydromys chrysogaster*		
Western Grey Kangaroo	*Macropus fuliginosus*		
White-striped Freetail-bat	*Tadarida australis*		
Yellow-footed Antechinus	*Antechinus flavipes*		
	19	**1**	**2**

* Note: Belair National Park is not considered part of the former distribution range of the Koala or Red Kangaroo.

Introduced Mammals

Common Name	Species	Introduced
Black Rat	*Rattus rattus*	*
Brown Hare	*Lepus capensis*	*
Brown Rat	*Rattus norvegicus*	*
Cat	*Felis catus*	*
Fox	*Vulpes vulpes*	*
Goat	*Capra hircus*	*
House Mouse	*Mus musculus*	*
Rabbit	*Oryctolagus cuniculus*	*
Dog (Domestic or Feral)	*Canis lupus familiaris*	*
		9

Native Reptiles

Common Name	Species	Conservation Status	
		EPBC Act	NP&W Act
Bougainville's Skink	*Lerista bougainvillii*		
Common Long-necked Tortoise	*Chelodina longicollis*		
Cunningham's Skink	*Egernia cunninghami*		V
Eastern Bearded Dragon	*Pogona barbata*		
Eastern Bluetongue	*Tiliqua scincoides*		
Eastern Brown Snake	*Pseudonaja textilis*		
Eastern Spotted Ctenotus	*Ctenotus orientalis*		
Eastern Tiger Snake	*Notechis scutatus*		
Garden Skink	*Lampropholis guichenoti*		
Lined Worm-lizard	*Aprasia striolata*		
Little Whip Snake	*Suta flagellum*		
Marbled Gecko	*Christinus marmoratus*		
Red-bellied Black Snake	*Pseudechis porphyriacus*		
Sand Goanna	*Varanus gouldii*		
Sleepy Lizard	*Tiliqua rugosa*		
Southern Blind Snake	*Ramphotyphlops australis*		
Tawny Dragon	*Ctenophorus decresii*		
Three-toed Earless Skink	*Hemiergis decresiensis*		
White's Skink	*Egernia whitii*		
	19		**1**

Native Amphibians

Common Name	Species	Conservation Status	
		EPBC Act	NP&W Act
Brown Toadlet	*Pseudophryne bibroni*		
Brown Tree Frog	*Litoria ewingi*		
Bull Frog	*Limnodynastes dumerili*		
Common Froglet	*Crinia signifera*		
Southern Bell Frog	*Litoria raniformis*	V	V
Spotted Grass Frog	*Limnodynastes tasmaniensis*		
	6	**1**	**1**

Native & Introduced Fish

Common Name	Species	Conservation Status		
		EPBC Act	NP&W Act	Introduced
Minnow	*Galaxis olidus*			
Redfin Perch	*Perca fluviatilis*			*
Brown Trout	*Salmo trutta*			*
Golden Carp	*Carssius auratus*			*

APPENDIX D : BELAIR NATIONAL PARK – LAND TENURE HISTORY

The Belair National Park was constituted in gazette 20/6/1991, page 1920 following the abolition of the Belair Recreation Park.

The National Park is comprised of sections 599, 675, 701, 1037 and allotment 1 of Deposited Plan 28220 all within the Hundred of Adelaide.

The majority of the above land was known as the "Government Farm" the boundaries of which were delineated on Survey Diagram Book pages 9 and 44 Hundred Adelaide (surveyed in 1843 and 1856 respectively). An early history of the land comprising the National Park was written by GH Pitt in 1939.

In 1891 the National Park Act was passed and the Government farm was granted in Land Grant 592/124 for "National Park" to the Commissioner of National Parks on 1/11/1892.

The grant excluded the land reserved as Forest Reserve in gazette 8/7/1886 (sections 599 and 600), the Government Quarry (section 567), the Railway Reservoir and pipe track (section 496) and the Adelaide – Nairne Railway.

Various parcels of land were added to the area of the National Park over a period of time, viz:-

<u>Section 567 added in gazette 24/2/1949, page 484.</u>

The land was formerly the Government Quarry reserved in gazette 23/11/1893, page 1293 and resumed in gazette 21/10/1948, page 1295.

<u>Section 580 added in gazette 8/10/1953.</u>

The land was formerly closed road A in Road Plan 3908 (portion of the National Park being the land numbered as 1 and 2 in the said Road Plan were opened as road and excluded from the park).

<u>Section 979 added in gazette 20/4/1961, page 915.</u>

The land was formerly held in Certificate of Title 1913/85 and comprised of former part section 971 and closed roads. The title was transferred from J Melville and others to the Crown on 27/7/1960.

Section 979 was resumed in gazette 6/10/1966, page 1536 and rededicated exclusive of the portion numbered as section 631.

<u>Section 600 added in gazette 11/5/1961, page 1089.</u>

The land was Former Reserve dedicated in gazette 8/7/1886, page 44 and resumed in gazette 11/5/1961.

<u>Section 606 added in gazette 5/7/1962, page 4.</u>

The land was formerly portion of section 971 held in Certificate of Title 2004/137. The title was transferred from D Chambers to the Crown on 27/9/1961.

<u>Section 514 added in gazette 20/6/1963, page 1550.</u>

The land was formerly portion of section 955 held in Certificate of Title 1056/7. The title was transferred to Crown from the Minister for Repatriation as mortgagee on 13/12/1937.

<u>Section 496 added in gazette 188/3/1965, page 620.</u>

The land was formerly the Railway Reservoir.

The National Parks Act, 77/1966 (Third Schedule) defined the boundaries of the National Park to include the land as granted in 1892 together with above additions. In gazette 9/11/1967, page 2043 the park was named "Belair National Park".

On 15/9/1967 the National Park as granted in 1892 and held in Certificate of Title 2783/95 was vested in the Crown and the title cancelled.

<u>Section 633 was added to the National Park in gazette 25/7/1968.</u>

The land was formerly portion of section 971 held in Certificate of Title 3344/84 which was transferred from the District Council of Stirling to the Crown 10/8/1967. The land was previously owned by JG Melville and others.

The National Park as defined in Act 77/1966 together with section 633 was renumbered as section 675.

The National Parks Act, 56/1972 constituted section 675 as Belair Recreation Park. Lands were then added to the Recreation Park, viz :-

Section 1037 added by gazette 12/9/1985, page 796.

The land was formerly held in Certificate of Title 3370/115. The title was transferred from BG Fryer to the Minister for Environment and Planning on 2/5/1984. The land was subsequently transferred to the Crown and the title cancelled on 10/10/1984.

Section 701 added by gazette 28/11/1985, page 1608.

The land was formerly portion of the Government Farm (Crown Land) isolated by a road deviation in 1868 and closed road A in Road Plan 8350.

In gazette 20/6/1991, page 1920 the Belair Recreation Park was abolished and reassigned the name Belair National Park. There have been two additions to the park since,

Allotment 1 Deposited Plan 28220 added by gazette 4/11/1993, page 2174.

The land was formerly part of section 971 held in CT 1913/85 that was transferred to the Crown on 26/7/1960. The land was numbered as section 979 and added to the National Park in gazette 20/4/1961, page 915.

The land comprising allotment 1 together with other land (numbered section 631) was resumed from the park in gazette 6/10/1966, page 1536.

Section 631 was dedicated as Park Lands under the control of the District Council of Stirling and granted to the Council in Land Grant 3565/53 on 18/6/1968.

By gazette 14/2/1991, page 498, allotment 1 was resumed as Park Lands and the grant cancelled as regards that portion.

Section 599 added by gazette 25/11/1999, page 2434.

The land was formerly part of the Government Farm prior to reservation as a Forest Reserve in gazette 8/7/1886, page 44. The land continued as Forest reserve until its resumption in gazette 25/11/1999.

APPENDIX E : BELAIR NATIONAL PARK – LEASES AND LICENCES (JUNE 2003)

Holder	***Purpose of Lease/Licence***	***Location/Extent***	***Term***
Murtfam Pty Ltd	Lease - Golf Course	35ha s/w corner of park	55 years to 2036
Murtfam Pty Ltd	Lease - Caravan Park	2 ha western boundary	35 years to 2016
Mr J Chauncy	Commercial Licence	Uses exotic species for flower arrangements	Annually to 30/3/04
Mr J Lolosidis	Mobile Ice Cream Vendor	Throughout Belair National Park	Annually to 30/3/04
National Parks & Wildlife Service Social Club	Lease – Blue Cottage Residence	0.3ha – s/e corner	5 years to 30/6/04
National Parks & Wildlife Service Social Club	Lease – Melville House Residence	0.3 – s/e corner	5 years to 30/6/04
National Parks & Wildlife Service Social Club	Lease – Commissioners Shack Residence	0.1ha – in workshop area	5 years to 30/6/04
National Parks & Wildlife Service Social Club	Lease – Rangers Residence	0.3ha opposite workshop	5 years to 30/6/04
State Flora	Lease – Native Plant Nusery - Sales outlet	5ha – adjacent Old Government House	At discretion of the Minister DEH
DEH	Lease - Belair Lodge	0.3ha n/w corner	Annually
DEH	Lease – Eastern Lodge Residence	0.3ha western boundary	Annually
DEH	Lease – Long Gully Lodge Residence	0.3ha Long Gully	Annually
DEH	Lease – OGH Lodge Residence	0.3ha adjacent Old Government House	Annually
DEH	Lease – Upper Sturt Lodge Residence	0.3ha south boundary	Annually
DEH	Lease – Waverley Lodge Residence	0.3ha n/e corner	Annually
DEH	Lease – Western Lodge Residence	0.3ha western boundary	Annually

APPENDIX F : LEGISLATION, CONVENTIONS AND AGREEMENTS

South Australia
Aboriginal Heritage Act 1988
Animal and Plant Control Act (Agricultural Protection and Other Purposes) 1986
Biological Control Act 1986
Catchment Water Management Act 1995
Coast Protection Act 1972
Country Fires Act 1989
Equal Opportunity Act 1984
Environment Protection Act 1993
Development Act 1993
Harbors and Navigation Act 1993
Heritage Act 1993
Historic Shipwrecks Act 1981
Mining Act 1971
National Trust of South Australia Act 1955
Native Title (South Australia) Act 1994
Native Vegetation Act 1991
Occupational Health, Safety and Welfare Act 1986
Petroleum Act 1940
Prevention of Cruelty to Animals Act 1985
Roads (Opening and Closing) Act 1991
Recreational Greenways Act 2000
Soil Conservation and Land Care Act 1989
Water Resources Act 1997
Wilderness Protection Act 1992

Commonwealth
Aboriginal and Torres Straight Islander Heritage Protection Act 1984
Disability Discrimination Act 1992
Environment Protection and Biodiversity Conservation Act 1999
Native Title Act 1993
Natural Heritage Trust Act 1996

International
Japan / China Australia Migratory Bird Agreements (JAMBA, CAMBA)
Ramsar Convention
World Heritage Convention

Development Act 1993

The *Development Act 1993* has been established to provide for proper, orderly and efficient planning and development in the State by providing the 'framework' to:

- Formulate statutory policy to assess development proposals;
- Regulate the use and management of land and buildings as well as the design and construction of buildings; and
- Make provision for the maintenance and conservation of land and buildings where appropriate.

The Act establishes a number of decision-making bodies with the power to assess development proposals such as Local Government, the Development Assessment Commission and the Environment, Resources and Development Court. It also provides for the creation and maintenance of a Statewide Planning Strategy, and for the creation of Development Plans to guide and regulate development.

It is important to note that any new building work, or change in land-use, proposed within Belair National Park, must be assessed by the relevant decision making body. In the case of Belair, the relevant authority will be the Development Assessment Commission – a State Government agency. Given the park's heritage status, all proposed activities that have been defined as development by the *Development Act* must be forwarded to the Minister responsible for the *Heritage Act*.

The Planning Strategy

The Development Act directs the Premier to prepare and maintain a Planning Strategy for future development throughout the State. The Planning Strategy is an expression of policy that sets out the State Government's vision for development in the State and for the various sub-regions within it. The Planning Strategy is the core of the 'integrated planning system' and addresses a wide range of social, economic and environmental issues deemed important by the Government. The Planning Strategy also provides a guide to State Government programs and outlines actions to be undertaken to achieve the visions set out in the Strategy.

Although the Planning Strategy has no legal status and can not be used during the assessment of individual development proposals, Councils are required to maintain consistency with the visions contained within the Planning Strategy when reviewing their individual Development Plans.

Development Plans

While the Planning Strategy sets out the 'blueprint' for future development in South Australia, detailed policies for each Council area are needed in order to implement the Strategy's objectives. These policies are set out in documents called Development Plans that are, in most cases, administered by local councils.

Development Plans have two purposes, firstly, they provide a 'vision' and a local policy framework for new development, and secondly, they provide the detail for assessment of individual development applications. Each Development Plan establishes a network of zones over the Council area that describe the desired future character of the zone, identify the types of development preferred, and outline the policies and criteria against which development applications will be assessed.

Hills face Zone

Belair National Park is entirely within the Hills Face Zone as delineated in both the City of Mitcham and Adelaide Hills Council Development Plans. Stretching from Willunga to Gawler, the Hills Face Zone encompasses much of the western slopes of the Mount Lofty Ranges and includes important national parks, reserves and open spaces. The Hills Face Zone was developed to guide future development and prevent the loss of remnant vegetation, open space and visual amenity.

The main objectives under the Hills Face Zone development principles are as follows:

Objective 1 A zone in which the natural character is reserved and enhanced or in which a natural character is re-established in order to:

a) Provide a natural backdrop to the Adelaide plains and a contrast to the urban area;

b) Preserve and develop native vegetation and fauna habitats close to metropolitan Adelaide;

c) Provide for passive recreation in an area of natural character close to the metropolitan area

d) Provide a part of the buffer area between metropolitan districts and prevent the urban areas extending into the western slopes of the Mount lofty Ranges; and

e) Ensure that the community is not required to bear the cost of provided services to land in the zone.

Objective 2 A zone accommodating low-intensity agricultural activities and public/private open space and one where structures are located and designed in such a way to:

a) Preserve and enhance the natural character or assist in the re-establishment of a natural character in the zone;

b) Limit the visual intrusion of development in the zone, particularly when viewed from roads within the zones or from the Adelaide plains;

c) Not create, either in themselves, or in association with other developments, a potential demand for the provision of service at a cost to the community; and

d) Prevent the loss of life and property resulting from bushfires.

All building works or changes in land use within the park must be consistent with the policies of the Hills Face Zone and demonstrate how the above objective can be achieved.

Water Resources Act 1997

Belair National Park includes part of the catchment area administered by the Patawalonga Catchment Water Management Board, who are responsible for improving water quality through improved catchment management practices, assist park management by ensuring that all activities along the catchment are compatible with the preservation of natural flows and the conservation of biodiversity. This ensures that all aspects of the natural resources of the catchment will be effectively managed for the benefit of the public and the natural environment (BC Tonkin 1997).

The watercourses within the park should be managed cooperatively in recognition of any catchment water management plans in place under the Act. There are clearly environmental and financial benefits in integrating with watercourse management on a regional basis.

Heritage Act 1993

The *Heritage Act 1993* has been drafted to work in association with the *Development Act 1993* to provide protection measures for places of State heritage value. The Acts include criteria for identifying places of local and State heritage value. The *Development Act* also provides for the establishment of State Heritage Areas of which Belair National Park is one of a number within South Australia.

Aboriginal Heritage Act 1988

The intention of the State *Aboriginal Heritage Act* is to protect both identified and unidentified sites, objects, or remains of Aboriginal significance. The Act makes it an offence to disturb sites of significance and directs developers to report any discovery to the Minister responsible for the *Aboriginal Heritage Act*.

Additional protection for significant sites is available under the (Commonwealth) *Aboriginal and Torres Straight Islander Heritage Protection Act 1984* which, in the event of inconsistency, prevails over State legislation.

With currently 4 sites listed on the Central Archive for Belair National Park, management should be aware of the possibility of uncovering sites during construction or maintenance work such as the restoration of watercourses.

Native Title Act 1993 (Cwlth)

Native title was first recognised in Australia by the High Court in the case of *Mabo v Queensland*. The Court decided that the common law recognises a form of native title existing in accordance with the laws and customs of indigenous people where:

- those people have maintained their traditional connection with the land; and
- their title has not been 'extinguished' by a legislative or other act of government.

The *Native Title Act 1993* was the Commonwealth Government's response to the substantial legal issues raised in the Mabo case. It was drafted on the basis of a number of fundamental principles that can be summarised as follows:

- the need to establish an appropriate process for the recognition of native title within the Australian legal system;
- the need to ensure the future protection of native title - the High Court held that native title was susceptible to extinguishment by inconsistent grants; and
- the need for a legislative scheme that would provide certainty to governments, and others, in relation to land management activities in the past and in the future.

The *Native Title Act*, therefore, provides a framework for the assessment of native title.

Aboriginal and Torres Straight Islander Heritage Act 1984 (Cwlth)

The *Aboriginal and Torres Straight Islander Heritage Protection Act 1984* deals with areas, objects and human remains which form part of the heritage of Aboriginal or Torres Straight Islander communities throughout Australia. The purpose of the Act is to preserve and protect from injury or desecration areas and objects in Australia and Australian waters that are of particular significance to Aboriginals in accordance with Aboriginal tradition.

While it is considered that State and Territory governments have primary responsibility for the protection of Aboriginal heritage, the Commonwealth Act provides a means for protection at Commonwealth level. In the event of an inconsistency, it is the Commonwealth law which prevails.