

# Morialta and Black Hill Conservation Parks Management Plan

Mount Lofty Ranges

South Australia



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South Australia

January 2001

Department for Environment and Heritage



Government of South Australia

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## FOREWORD

Morialta and Black Hill Conservation Parks together comprise of 1217 hectares conserving spectacular ridge and gully scenery that provide an important part of the natural back drop to the City of Adelaide. The parks offer a valuable recreation resource for many local residents and visitors, just minutes from the suburban fringe.

Both parks have long been cherished by Adelaide residents, providing opportunities for bushwalking and an experience of natural beauty right on the doorstep of the urban environment. Few people who live in Adelaide have not visited the waterfalls in Morialta Conservation Park, and many have been proud to show interstate and international visitors the spectacular scenery and natural wealth of these parks.

The plan defines a series of objectives and actions for the future management and use of these significant reserves and facilitates the development and implementation of high quality conservation programs and visitor facility improvements.

Many people have contributed to the development of this plan of management. Their interest and helpful suggestions are gratefully acknowledged.

I now formally adopt the plan of management for Morialta and Black Hill Conservation Parks under the provisions of section 38 of the *National Parks and Wildlife Act 1972*. I encourage you to read the plan and visit and enjoy these special parks.



Hon Iain Evans MP  
Minister for Environment and Heritage



## SYNOPSIS

This plan of management for the Morialta and Black Hill Conservation Parks describes the importance of some 1217 ha of native vegetation, which form part of the scenic backdrop of Adelaide. It describes the major natural, scenic, recreational and tourism values of the parks enjoyed by approximately 300,000 visitors per year.

The plan highlights the relatively high number of species of conservation significance that occur within the parks and describes the threats posed by pest plant invasions, and human impacts on those species and generally upon the parks' natural environments.

Both parks have undergone many changes over the years. Initially, management focused on providing the community with a natural recreational resource. More recently, however, the importance of managing natural areas for biodiversity conservation has brought about a shift in the provision of recreational facilities. Visitor infrastructure development is now confined to protecting biodiversity, the preservation and enhancement of wildlife habitats, providing for public safety and the enjoyment and appreciation of natural values.

The management of Morialta and Black Hill Conservation Parks has been considered within the context of broader regional land use and community activity. These considerations include the proposed Greater Mount Lofty Ranges Parklands Initiative, which attempts to integrate regional planning for biodiversity conservation, recreation and tourism development and regional pest plant and animal control measures.

In order to fulfil this regional role, management of the parks will focus on:

- continued conservation of the parks' significant natural resources and recognises the need for better information on which to base conservation management decisions. Biological surveys will be undertaken and threatening processes defined that will form the basis of conservation planning and implementation.
- recognition of significant public use of the parks applying best practice principles of appropriate facilities to maximise visitor use and appreciation making provision for:
  - the re-development of the Morialta Gorge Precinct
  - a review of the walking trail system and the development of a high quality trail system that offers a range of walking experiences.
  - the introduction of interpretive signage services.
- the substantial contribution by the Friends Group and other volunteer organisations. The plan seeks to integrate their activities more closely with those of park managers.
- acknowledgment that opportunities exist, and should be developed, to increase Aboriginal involvement in park management.
- ensuring all visitor activities and developments are low impact in nature to ensure the parks' natural values are maintained or enhanced.
- the planning and implementation of fire management programs.

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## **ABBREVIATIONS AND GLOSSARY OF TERMS**

The following abbreviations are used throughout this document:

DEH:	Department for Environment and Heritage
NPWSA:	National Parks and Wildlife South Australia
MBHBI:	Morialta/Black Hill Background Information
DOSAA:	Division of State Aboriginal Affairs

## **ACKNOWLEDGEMENTS**

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Thanks are also due to:

Mr David Conlon, formerly of NPWSA Parks Branch, for editorial support

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Mrs Allison Saers for word processing

Mr Ron Saers for his local knowledge input to the plan.

The contributions of those members of the community who attended a planning workshop at Black Hill in April 1997, and those who submitted comments on the draft plans, are also gratefully acknowledged.

## INTRODUCTION

Morialta and Black Hill Conservation Parks (the parks) are located in the Lofty/Barossa District which falls within National Parks and Wildlife South Australia (NP&W SA), Adelaide Region of the Department for Environment and Heritage.

The parks are of particular value, as they conserve extensive remnant habitats of Mount Lofty Ranges, with relatively high levels of biodiversity. They protect numerous plants and animals of conservation significance. The parks provide visitors with an important resource. Up to 300,000 people visit the parks each year to enjoy outstanding natural landscapes and superb bushwalking opportunities.

This management plan has been prepared in accordance with section 38 of the *National Parks and Wildlife Act, 1972*. The Act requires that a plan of management is prepared for each NPWSA reserve, setting out those actions necessary to fulfil the objectives of the Act. These are broadly to effectively conserve the natural and cultural values of the parks while providing for public use and enjoyment.

The plan was released in draft form for public review from November 1999 to February 2000 and six detailed submissions received. The Reserve Planning and Management Advisory Committee commented on these submissions, appropriate changes were made and the amended plan was recommended to the Minister for adoption by the SA National Parks and Wildlife Council.

Once adopted, the provisions of a plan must be carried out in relation to that reserve, and no activities undertaken unless they are in accordance with the plan. However, the Act makes provision for amending adopted plans through a similar process.

The background information included in this plan is intended to provide the reader with an overview of the natural and cultural values of the reserves and to assist in understanding the management issues and proposals. For those who have a particular interest in more detailed resource information, a separate companion document, *Morialta and Black Hill Conservation Parks Background Information* (DEH, 2000) (MBHBI), is available from the NPWSA Lofty/Barossa District Office, Department for Environment and Heritage.

Information may also be obtained from:

District Ranger  
Lofty/Barossa District  
National Parks and Wildlife South Australia  
Department for Environment and Heritage  
PO Box 62  
Athelstone SA 5076



## MANAGEMENT FRAMEWORK

### Management Context

#### Government Policy and legislation

When managing reserves, NPWSA 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 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.

In addition to the *National Parks and Wildlife Act*, NPWSA is obliged to comply with the provisions of :

*Aboriginal Heritage Act 1988*

*Animal and Plant Control Act (Agricultural Protection and Other Purposes) 1986*

*Development Act 1993*

*Heritage Act 1993*

*Native Title (South Australia) Act 1994*

*Native Vegetation Act 1992*

The following Commonwealth Acts must also be heeded;

*Environmental Protection and Biodiversity Conservation Act 1999*

*Native Title Act 1993*

### The Parks Agenda

The Parks Agenda is a State Government initiative for the sustainable management of *National Parks and Wildlife Act* reserves, working in partnership with the community for nature conservation and properly planned and managed visitor use. Where relevant, the Agenda aims to help Aboriginal people maintain cultural links to their land and derive benefit from those links.

The Agenda has four key elements:

- to create a representative and professionally managed parks and wildlife system;
- to encourage an understanding, supportive and active community committed to its parks;
- to deliver quality services which actively promote the conservation ethic; and
- to promote sustainable business opportunities.

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### Native Title

The proclamation of a reserve under the *National Parks and Wildlife Act* has no impact on the determination of native title claims. NPWSA is obliged, however, to consult with registered native title claimants to ensure that developments proposed for the park are acceptable 'future acts' according to the Commonwealth *Native Title Act*.

### Regional Setting

The management of any area such as the Morialta and Black Hill Conservation Parks must be seen in the context of a broader regional pattern of land use and community activity. The future management of the Morialta and Black Hill Conservation Parks must take into account:

- the importance of the park to the regional economy, particularly its contribution as the key visitor destination for most tourists to the area;
- the wish of residents of the region to have a say in how the park is managed. It is crucial to maintain liaison with all relevant groups;
- the requirement for pest plant and animal control, soil conservation, fire management and many other regionally based land management practices to be integrated with the efforts of neighbouring land owners; and
- the impact of adjoining land use and practice, and the application of the *Development Act* to control land use.

### Location and General Description

Morialta Conservation Park (533 ha) and Black Hill Conservation Park (684 ha) are adjacent reserves, approximately 10 km north-east of the Adelaide GPO in South Australia. Together they comprise 1217 ha of the Mount Lofty Ranges and form an important part of the scenic backdrop to the City of Adelaide (Figure 1).

Black Hill is bound in the north by the valley of the River Torrens and Gorge Road. To the south it is separated from Morialta Conservation Park by Fifth Creek and Montacute Road. The suburbs of Rostrevor and Athelstone adjoin the western boundaries of the parks, while agricultural and quarrying activity occurs along the eastern boundaries. The southern boundary of Morialta is partly defined by a ridge that carries the Norton Summit Road.

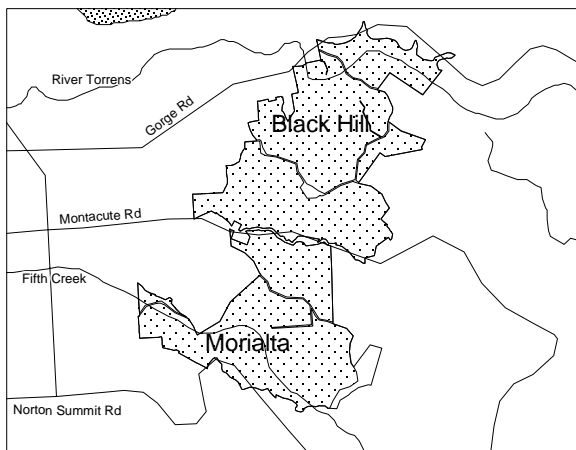
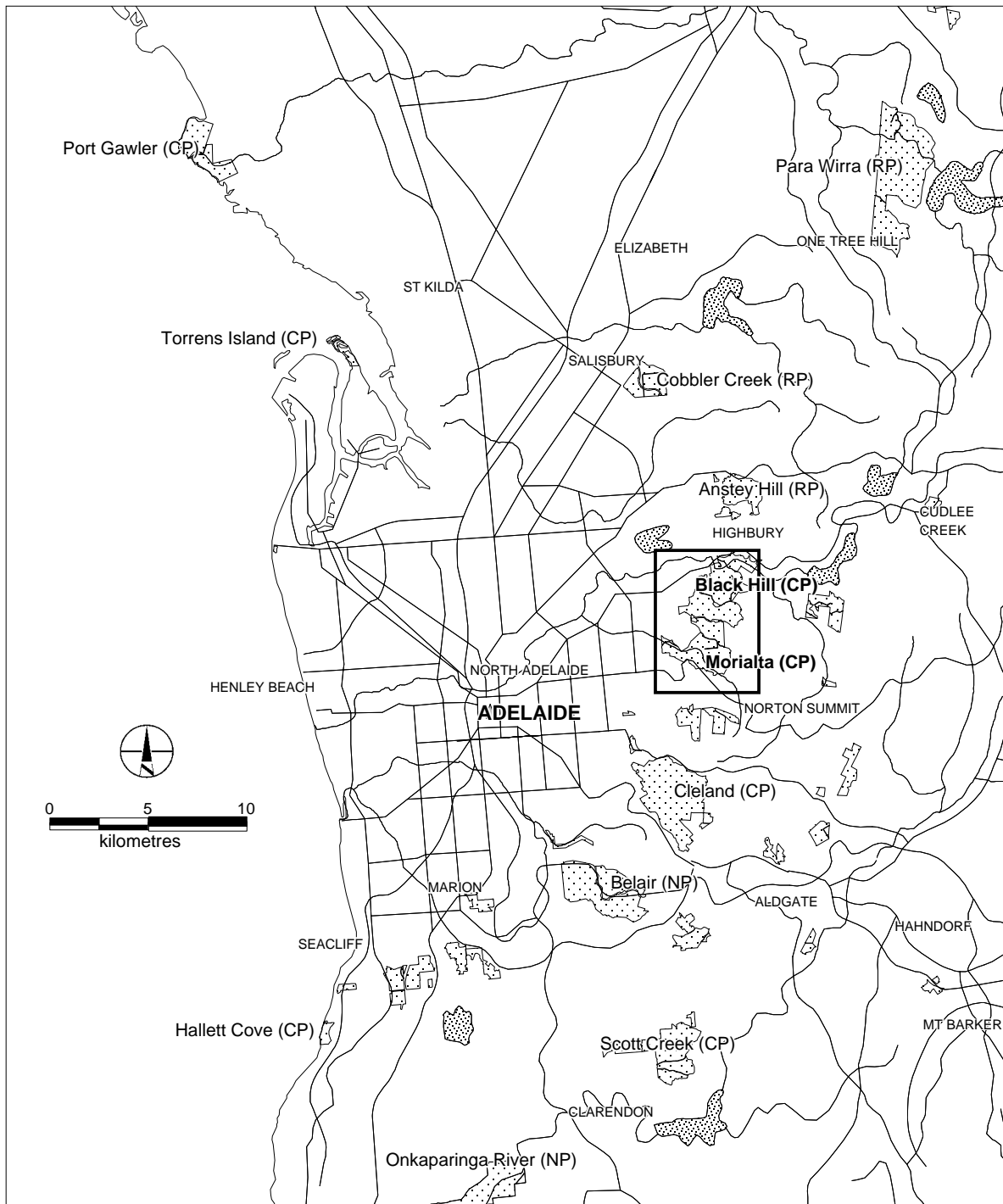
The parks form a large, central block of native vegetation in a discontinuous suite of parks, Government reserves and privately owned land within the Mount Lofty Ranges.

Morialta and Black Hill Conservation Parks conserve spectacular ridge and gully scenery and provide important recreational resources for local residents and visitors. Morialta Gorge, including Fourth Creek and its three waterfalls, has been a public reserve since 1915 and continues to delight visitors with spectacular rugged vistas. The parks offer superb bushwalking opportunities, minutes from the suburban fringe.

Black Hill Conservation Park was proclaimed under the *National Parks and Wildlife Act* in 1975 (although a 4 ha Government reserve had been proclaimed as early as 1860). The park includes the extended Athelstone Native Wildflower Garden and, like Morialta, offers superb bushwalking opportunities.

Both parks are well used by regional suburban, hills and city residents, interstate and overseas visitors. While accurate recent figures are not available, it is estimated that 300,000 people visit the parks annually. In addition to scenic views and bushwalking opportunities, visitors also enjoy the Wildflower Garden, the Morialta picnic ground, rock climbing and abseiling opportunities (Morialta Gorge) and nature study (Figure 2). The parks represent an important educational resource, well used by local schools.

# Morialta and Black Hill Conservation Parks Management Plan (2001)



**Figure 1**

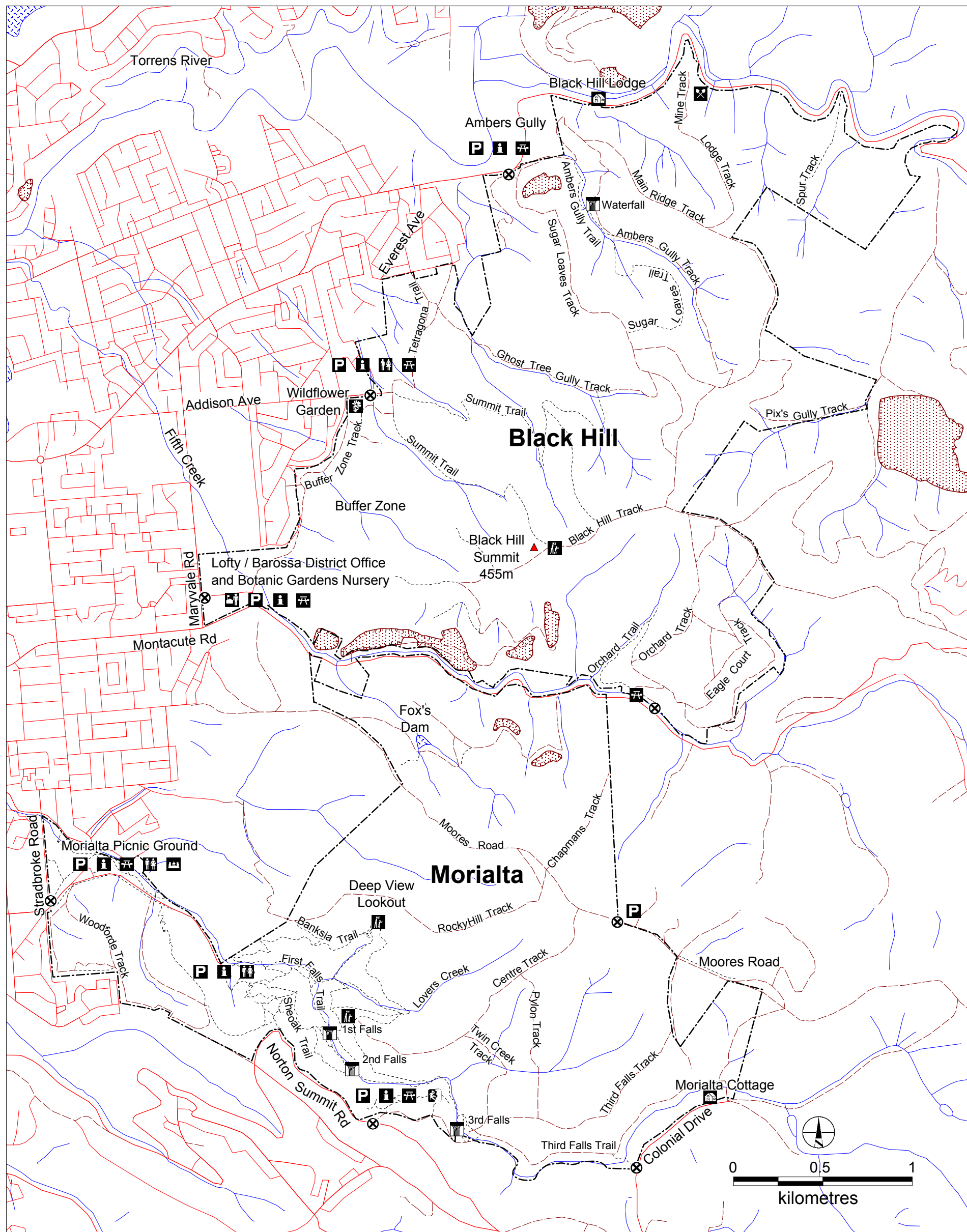
## Morialta and Black Hill Conservation Parks Location

Map designed and created by  
Reserve Planning using PAMS  
Date: January 2001



**National Parks and Wildlife SA**  
Government of South Australia





LEGEND

- |  |                    |  |                   |  |                  |
|--|--------------------|--|-------------------|--|------------------|
|  | Information        |  | Summit            |  | Park Boundary    |
|  | Picnic Facilities  |  | Entry             |  | Walking Trails   |
|  | Lookout            |  | Cottage/Lodge     |  | Management Track |
|  | Rock Climbing Area |  | Wildflower Garden |  | Road             |
|  | Parking            |  | Waterfall         |  | Main Road        |
|  | Toilets            |  | Mine Shaft        |  | Watercourse      |
|  | Headquarters       |  |                   |  | Water Body       |
|  | Barbeques          |  |                   |  | Quarry           |

This map is designed and created by Reserve Planning using PAMS  
Date: January 2001

Figure 2

Morialta and Black Hill Conservation Parks  
Features



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## Morialta and Black Hill Conservation Parks Management Plan (2001)

Because both parks are so close to urban and intensive rural pursuits, they have in the past, been subject to grazing, logging, mining and other human disturbance. The loss of species diversity from the parks is marked (refer to MBHBI). Widespread pest plant invasion is a serious legacy of past land use. With surrounding urban development, the management of wildfire hazard and risk presents park staff with a significant operational responsibility.

Morialta and Black Hill Conservation Parks are supported by the active volunteer group, Friends of Black Hill & Morialta Incorporated, which is involved in a wide range of vegetation rehabilitation projects within the parks. Local schools are also involved in this work through the National Landcare Initiative. Service clubs, including the Morialta Rotary Club, have participated in work directed at improving the standard of visitor facilities. The Morialta Residents Association continues to have an active interest in the general management of Morialta Conservation Park.

Both parks have important landscape, biological, recreational, educational and historic values. These values are under pressure from pest plants and animals, the requirement to address the wildfire threat and from visitor induced impacts. Management must balance effective, long-term protection of important natural assets with the provision of services for high levels of visitor use.

### **Climate**

The parks are subject to cool wet winters with warm to hot dry summers. The average summer maximum temperature, during January and February, is approximately 28°C. The summer average minimum, during the same months, is 14.9°C. The July average maximum daytime temperature is 16.8°C, while the average winter minimum, in July, is 7.5°C. The annual average rainfall for the parks ranges between 640 mm near Athelstone and 944 mm near Norton Summit. The rainfall occurs mainly in the May to September winter period, with all other months showing a higher average monthly evaporation rate than rainfall.

Wind direction differs somewhat from Adelaide, with the regular occurrence of gully winds from the top of the ranges to the plain during summer months. These late afternoon and evening winds are often quite strong and variable. These winds provide evening relief after hot days thereby encouraging visitors to stay in the parks late into the evening. On the other hand, in the event of wildfire, the strength and variability of these winds can increase the complexity of suppression activities.

### **Purpose of Reserve**

Morialta Conservation Park was first proclaimed a national pleasure resort in 1915 and then dedicated a conservation park in 1974. The park provides recreation opportunities to the eastern suburbs of Adelaide and preserves representative samples of hills face vegetation associations.

Black Hill Conservation Park was one of the first parks set aside in South Australia for the conservation of native flora and fauna and in particular the black hill summit. The park was proclaimed in 1974 to conserve representative associations of hills face vegetation and wildlife habitat.

## History of Reserve Management

Since park dedication the NPWSA, Friends Group and Community Service Clubs have substantially contributed to the protection of the conservation values of both reserves and to the provision of park facilities to enhance visitor use and enjoyment. Information outlined below briefly summarises the more significant past park management achievements:

- provision of the most comprehensive walking trail network across the Mt Lofty Ranges offering the visitor a unique and wide range of walking opportunities;
- construction of boardwalks and viewing platforms at key features of interest to minimise soil and vegetation compaction, and to improve visitor comfort and safety;
- after two major Fourth Creek flood events, substantial redevelopment of the valley of Morialta Gorge that involved the construction of bridges, paths, stone walls and extensive landscaping and revegetation;
- development of the now popular Morialta Picnic Ground;
- development of the Black Hill Administration Centre and Nursery and associated landscaped grounds;
- construction of the Black Hill “Buffer Zone” water feature, arid garden and picnic facilities which included substantial quarry rehabilitation;
- establishment of the Morialta rock climbing area that affords vegetation protection and offer climbers secure holdfasts;
- provision of a comprehensive network of fire access tracks that, on numerous occasions, has enabled effective wildfire suppression and provided protection to built and natural assets on and off park;
- implementation of an extensive restoration program within Black Hill during the late 1970s and early 1980s which transformed highly modified landscapes into quality woodland, particularly in the areas of Ambers and Ghost Tree Gully;
- implementation of the ongoing ambitious “Woodforde Hill” pest plant olive removal and revegetation program; habitat has markedly improved in this area; and
- highly successful establishment of the Black Hill and Morialta Friends Incorporated. who have volunteered thousands of hours on numerous beneficial projects within these reserves since their inaugural meeting in 1987; significant work includes:
  - Woodforde Hill Restoration Program
  - Ambers Gully revegetation program and local schools’ landcare site
  - Fifth Creek revegetation program - Montacute Road, Black Hill
  - Morialta Gorge to First Falls, revegetation and pest plant control
  - Historic Wildflower Garden, upgrade and maintenance.

## Management Philosophy & Strategic Directions

Within the management framework previously outlined, DEH will manage the Morialta and Black Hill Conservation Parks and discharge its responsibilities under the *National Parks and Wildlife Act 1972*.

To aid the development of a nature-based tourist industry and to protect natural and cultural resources, strategic capital works infrastructure commitments should be made as the parks are assessed as playing an important role in the economic development of the State.

The effective management of the natural, recreation and cultural resources of Morialta and Black Hill has increasingly been recognised as both complex and difficult to sustain over a

## Morialta and Black Hill Conservation Parks Management Plan (2001)

longer time frame. The environmental and social forces threatening park values do not respond to simple and short-term management actions.

Issues such as wildfire threat reduction, effective pest plant control and the provision of quality visitor interpretation and information services have often been subject to wide fluctuations in management direction, emphasis and funding. Often, this has been a response to a short-term pressure for the resolution of a community concern.

In the absence of quality arguments and data, the agency has, in the past, agreed to programs which have later proved detrimental to park values (eg fire access track construction and their placement in areas of soil instability and visual amenity). In addition, due to a lack of available quality resource information, the agency has not always understood the ecological processes at work, and has continued to pursue inadequately planned land management goals.

This plan will provide management directions for the collection of adequate data, quality analysis and planned medium and long term conservation and rehabilitation goals. These goals will balance legitimate community demands for improved environmental management, recreational access and wildfire threat reduction. The following strategic directions are proposed.

### Management Resources

- use this plan as the basis for budgeting for operating and investing activity in the parks;
- generate additional revenue by introducing a vehicle entry fee for Morialta; revenue raised contributing towards implementing park management plan actions; and
- immediately adopt the current NPWSA computer-based park management system to store and manipulate information about the park.

### Natural Resources

- acknowledge that the need to address the legacy of past land-uses and community activities should be shared by all levels of government, the community and the private sector; furthermore, park managers must understand that long term commitment is required to deal with this legacy;
- initiate a biological survey of the park as a precursor to any major pest control programs. Based on this, management systems that recognise the interconnected ecology of native and pest animal and plant populations should be developed;
- based upon the sustainable use of the resources of the park, undertake park management with an emphasis on maintaining and restoring the biological diversity and implementing strategies, as required, to protect species of conservation significance;
- stage pest animal and plant control programs over achievable time spans; and
- seek to develop an integrated long term Conservation Management Plan, which includes:
  - outcomes that are consistent and integrated with Regional Biodiversity and Water Catchment Plan objectives;
  - utilise sound scientific methods and principles into the planning, monitoring and implementation and revision of natural resource management programs; and
  - achievable and quantifiable performance indicators against which plan outcomes can be measured.

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### Fire Management

- review existing fire management practices and develop a Fire Management Plan that clearly outlines fire management strategies that will:
  - reduce the risk of fire to life and property including cultural and natural assets on and off park; and
  - protect the present complement and extent of biological communities and species, and where identified, enhance populations of rare and threatened species.
- undertake research and monitoring programs which assist fire management planning; and
- ensure integration with District community fire plans.

### Cultural Resources

- work with members of the Aboriginal community to facilitate dialogue between the local Aboriginal community and the NPWSA thereby enabling a mutually productive and sustainable relationship to be established;
- seek to encourage Aboriginal involvement in park management in line with developing government policy; and
- set and achieve realistic targets for European heritage conservation and interpretation.

### Recreation and Tourism

- aim to set high standards in visitor facility and landscape design, utilising innovative and high quality techniques; and
- undertake a review of existing park developments, facilities and services that includes investigation of:
  - the sensitive upgrading of recreation facilities within the Morialta Falls Precinct. This should address: landscaping of the creek utilising the original vegetation types; pest plant control and revegetation on the lower slopes; new visitor facilities and opportunities; carpark redevelopment and the improvement of paths and signage.
  - development and implementation of a plan for an integrated walking trail network for both parks;
  - the possibility of implementing a modest but good quality park interpretive service for use by educational institutions, community groups and members of the public;
  - involvement of the tourism industry (representative groups) in appropriate planning and decision making; and
  - encouragement of the private sector in providing appropriate visitor services.

### Community Input

- continuing to support existing volunteer involvement in park management programs, including involving volunteer groups in program review;
- maintaining a relevance to community activity in a broader regional land-use context. To remain relevant in this regard, the management of a park must take into account;
- the wish by stakeholders, particularly neighbouring residents and landowners to have a say in how the parks are managed;
- the requirement for pest plant and animal control programs, wildfire management and other regional land management practices to be integrated with the efforts of neighbouring landowners and community groups; and
- the extent to which the parks should contribute to the economy of the region by providing and integrating its tourist destinations, facilities and services with those of the region.



## **Park Values and Management Issues**

### Conservation

Morialta and Black Hill Conservation Parks are of particular value, as they comprise a relatively large area that conserves important remnant Mount Lofty Range habitats with high levels of biodiversity. The parks protect a number of plants and animals of conservation significance, including rare and vulnerable species.

#### *Broad Issues*

- This valuable natural biodiversity is under threat from neighbouring urban and rural land use and the impact of visitors. Dedication of the parks alone has not guaranteed their conservation. Species of plants and probably animals (eg. bandicoots from Black Hill) have continued to be lost from the parks since they were proclaimed (Carruthers 1990 and de Haan 1993). Of particular concern is the level of established pest plants and animals within the parks and the potential for their continuing impact on the integrity of the remnant ecosystems.
- Community interest in the management of parks is increasing and becoming more intense. The increase in the distribution of pest plants within the parks over the last 30 years and the recurrence of wildfire has focussed the attention of the broader community on the standards of management of parks. As a result the community is increasingly calling for better pest plant and animal control and improved preparedness for wildfire.
- Without adequate regard to the ecological processes at work within the parks, it would be difficult for NPWSA to balance visitor and community demands with the need to provide for the conservation of important natural ecosystems. Nor can it responsibly guarantee that other native species will not be lost from Morialta or Black Hill Conservation Parks. The adoption of better methods of baseline environmental data collection and interpretation and then the use of this information as the basis for long term management programs is critical for effective management.

### Recreation and Tourism

As part of the greater Mount Lofty Ranges Parks, Morialta and Black Hill comprise an important recreation resource for local residents, the broader Adelaide community and visitors to the State. They offer a sense of remoteness and wilderness close to Adelaide and provide spectacular natural scenery and panoramic vistas of the city and suburbs available from elevated vantage points. There is a diverse range of walking opportunities, from easy promenades to challenging hikes and Morialta provides unique access to dramatic landscapes for physically impaired visitors. Morialta also provides the most comprehensive set of natural climbing and abseiling sites in the Adelaide area.

#### *Broad Issues*

- The positive appreciation and use of the parks by neighbourhood groups, Adelaide residents and tourists is essential to the success of their management and to their ongoing relevance to the South Australian community and economy. Understanding visitor use, needs and demands is necessary to ensure appropriate, relevant, quality facilities and services are developed for park users. There is therefore a need to review the provision and standards of recreation and tourism opportunities within Morialta and Black Hill in context with the overall strategic management and promotion of the Mount Lofty Ranges Parks.
- Many of the facilities provided for visitor use in these parks, and more particularly Morialta Conservation Park, were installed over an extended period of time, going back to when Morialta was a National Pleasure Resort about 75 years ago. While there have been,

## Morialta and Black Hill Conservation Parks Management Plan (2001)

from time to time, projects to upgrade these facilities, the maintenance of an extensive system of walking trails that meet contemporary standards of public safety remains a major issue. There is a need to identify which walking trails retain relevance to current demands for this type of recreation, and the formal de-commissioning of trails no longer required.

- In 1977, proposals were approved by Cabinet to develop Black Hill into a major nature conservation, recreation, education and research area. The Black Hill Trust was formed to institute development implementation. By 1981, the development was largely completed, including the relocation of the native plant nursery, construction of an administration, information and research centre, the establishment of recreation areas, walking trails, landscaped arid garden, water feature and an upgrade of the Wildflower Garden. In 1982 the State Government dissolved the Black Hill Trust and the park returned to the management of NPWSA.
- NPWSA's capacity to sustain the level of personalised education services and to maintain the highly landscaped zones such as the Wildflower Garden, water feature and Arid Garden, became increasingly difficult. Given the state wide responsibility of the organisation, NPWSA could not justify the intensive resources required to retain these value-added services.
- The emphasis of current management is to conserve intrinsic natural values, while providing appropriate opportunities for visitor enjoyment and appreciation.
- All major, high visitor use parks within South Australia now charge an entry fee for vehicles. Such a fee is under consideration for Morialta, taking into account the constraints posed by the Morialta Falls Road and Stradbroke Road accesses. Any income thus generated would be used to implement management plan initiatives. At this stage there is no proposal to introduce a vehicle entry fee to Black Hill.
- The parks are being used increasingly by commercial tour operators or specialty users such as rock climbers who require specialised management systems and developments. It is appropriate to charge a fee for the provision of facilities, economic opportunities or specialist services provided to such user groups. Consequently, practical mechanisms need to be established to collect entry fees, commercial user fees and specialist group user fees within Morialta and Black Hill Conservation Parks.

### Volunteers and community involvement

The parks have well-established friends and volunteer groups. The parks also regularly use government funded work schemes, schools, service clubs, other institutions and volunteer groups. Collectively these inputs now represent a significant component of the total management effort within the parks.

### *Broad Issues*

- The involvement of volunteers and input from the community to achieve properly targeted outcomes requires review. The need to develop work programs that are properly coordinated with the overall strategic direction of management is an important management issue.

## **Natural Resources**

### **Geology and Landform**

#### *Background*

Sediments laid down within the Adelaide Geosyncline above the Pre-Cambrian crystalline basement (Barossa Complex) were uplifted along fault lines and folded about 470 million years ago. This laid the foundation of today's Mt Lofty Ranges. The sediments during this mountain building period were converted, in the vicinity of Morialta/Black Hill, to quartzite, shale and phyllites with generally only mild evidence of folding.

About two million years ago, mountain building occurred again, and in association with fault lines, caused renewed uplift of the Mount Lofty Ranges. The fault blocks east of the Eden-Burnside Fault rose and started the process of stream erosion that shapes the modern landscape.

The stratigraphic sequence visible within the parks are part of the Burra Group. They include the Woolshed Flat Shale in the north of Black Hill. The Undalya Quartzite, present in both Black Hill and Morialta, is a medium grained feldspathic quartzite interbedded with minor siltstones. This strata has proved to be resistant to erosion and is responsible for the rugged relief and cliff faces in Morialta and also the Sugarloaves and range summit within Black Hill Conservation Park.

Overlying the Undalya Quartzite are the phyllitic siltstones of the Saddleworth Formation, including the black carbonaceous shales (in Morialta) and the Beaumont Dolomite (in the north-east of Black Hill).

Hilltops in the eastern section of Morialta have rounded the softer Saddleworth Formation while Fourth Creek has cut down through the Saddleworth Formation exposing harder quartzite members of the Undalya Formation. These are clearly seen at both the second and third waterfall where undercutting of the quartzite by the creek (into the softer underlying strata) has resulted in collapse of the quartzite and production of the falls. The cliffs in the upper sections of the Morialta Gorge, which are used by rock climbers, are also the more resistant quartzite. At the first falls a fault zone has resulted in Fourth Creek cutting the lower Gorge into the exposed quartzite.

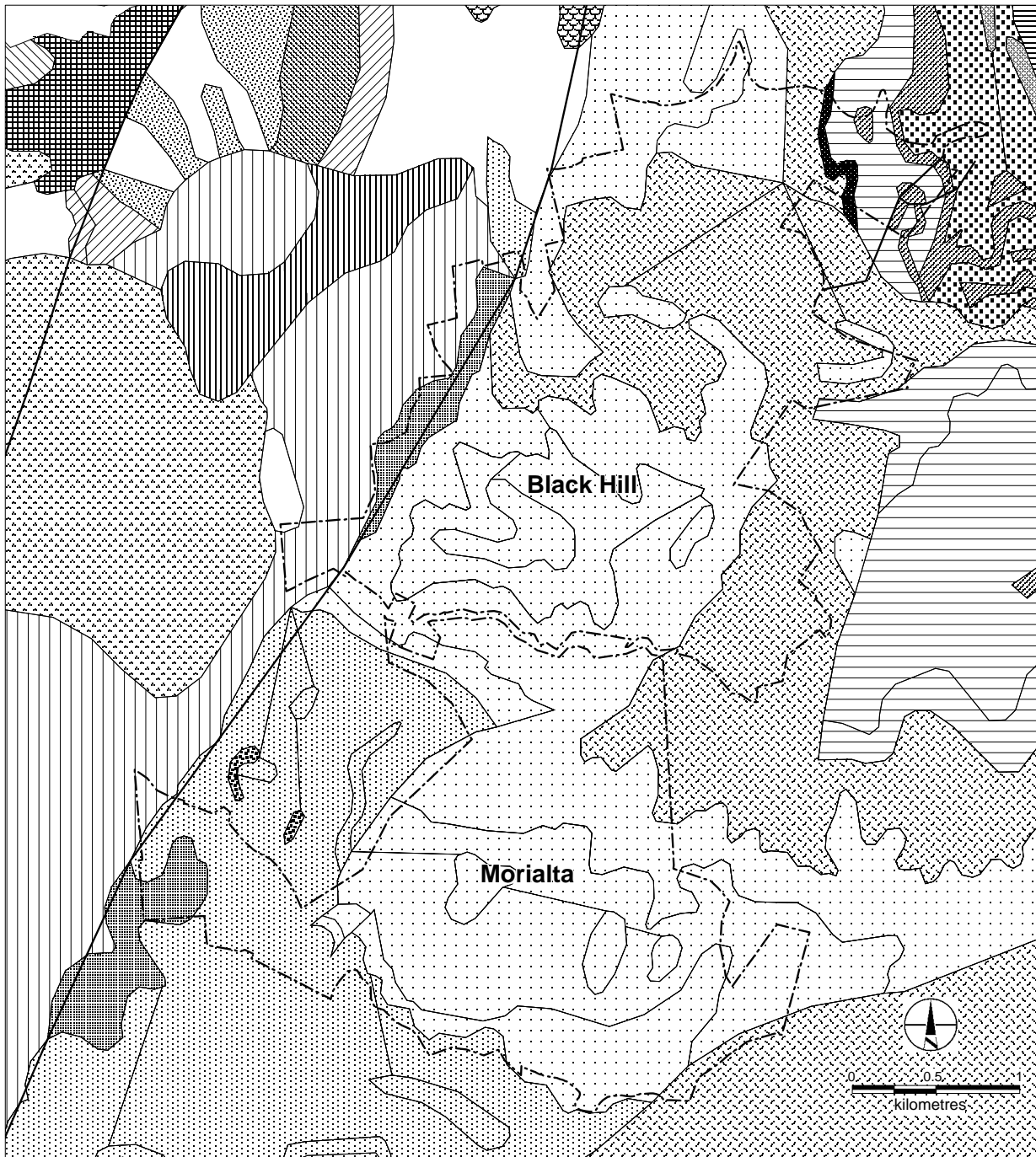
Alluvial fans have developed where Fourth and Fifth Creek leave the ranges and other alluvial deposits are associated with the River Torrens.

### **Soils**

#### *Background*

Soils within the parks strongly reflect underlying geology and valley erosion processes. Within Morialta, shallow sandy 'A' horizon soils occur on the rounded tops of the hills and the upper slopes, particularly in the east of the park. The lower slopes and gully floors in the western area, tend to have a deeper soil with a medium textured loamy A horizon. Soils associated with the creek areas may have higher organic content.

In Black Hill areas of quartzite usually have sandy 'A' horizons with podsol profiles. These can be quite shallow and are vulnerable to erosion, particularly on steeper slopes subject to disturbance, eg track and fuel break construction and maintenance. Northern areas of Black Hill located on shales, tend to develop deeper soils, red brown earths, with clayey, red and blocky 'B' horizons. Terra Rossa and Rendzina soils occur in the north of Black Hill near the Torrens Gorge over small areas of dolomite. Alluvial soils are associated with the outwash plain from Fifth Creek. (DEP 1983, Bolton et al 1981 and Crossen 1978).



LEGEND

- |  |  |  |               |
|--|--|--|---------------|
|  | Woolshed Flat Shale                                    |  | Park Boundary |
|  | Topmost quartzite unit                                 |  | Fault Line    |
|  | Stonyfell Quartzite                                    |  |               |
|  | Skillogalee Dolomite                                   |  |               |
|  | Saddleworth Formation                                  |  |               |
|  | Montacute Dolomite                                     |  |               |
|  | Mitcham Quartzite                                      |  |               |
|  | Middle quartzite member                                |  |               |
|  | Lower dolomite member                                  |  |               |
|  | Glen Osmond Slate                                      |  |               |
|  | Belair Subgroup  |  |               |
|  | Beaumont Dolomite                                      |  |               |
|  | Basal quartzite unit                                   |  |               |
|  | North Maslin Sand                                      |  |               |
|  | Clinton Formation                                      |  |               |
|  | Hindmarsh Clay, Carisbrooke Sand, Ochre Cove Formation |  |               |
|  | Undifferentiated Tertiary rocks                        |  |               |
|  | Undifferentiated calcrete                              |  |               |
|  | Pooraka Formation                                      |  |               |
|  | Keswick Clay   |  |               |
|  | Undifferentiated Quaternary rocks                      |  |               |

Figure 3

Morialta Conservation Park  
Geology

This map is designed and created by  
Reserve Planning using PAMS  
Date: January 2001



National Parks and Wildlife SA  
Government of South Australia



## Native Vegetation

### *Background*

Morialta and Black Hill Conservation Parks conserve important and comparatively large areas of the native vegetation of the Mount Lofty Ranges, including vegetation associations that are characterised by a high level of biodiversity. The parks also contain a number of plants of conservation significance, including rare and vulnerable species.

The vegetation of Morialta and Black Hill represents a diverse range of associations with structure and understorey influenced by former land management practices and fire regimes as well as the underlying geology.

The diversity of vegetation within the parks is high, notwithstanding high levels of introduced species. Morialta has recorded some 339 native and 187 introduced plant species. Black Hill Conservation Park has recorded 302 native and 53 introduced plant species. Details of vegetation is contained in the Background Information Document.

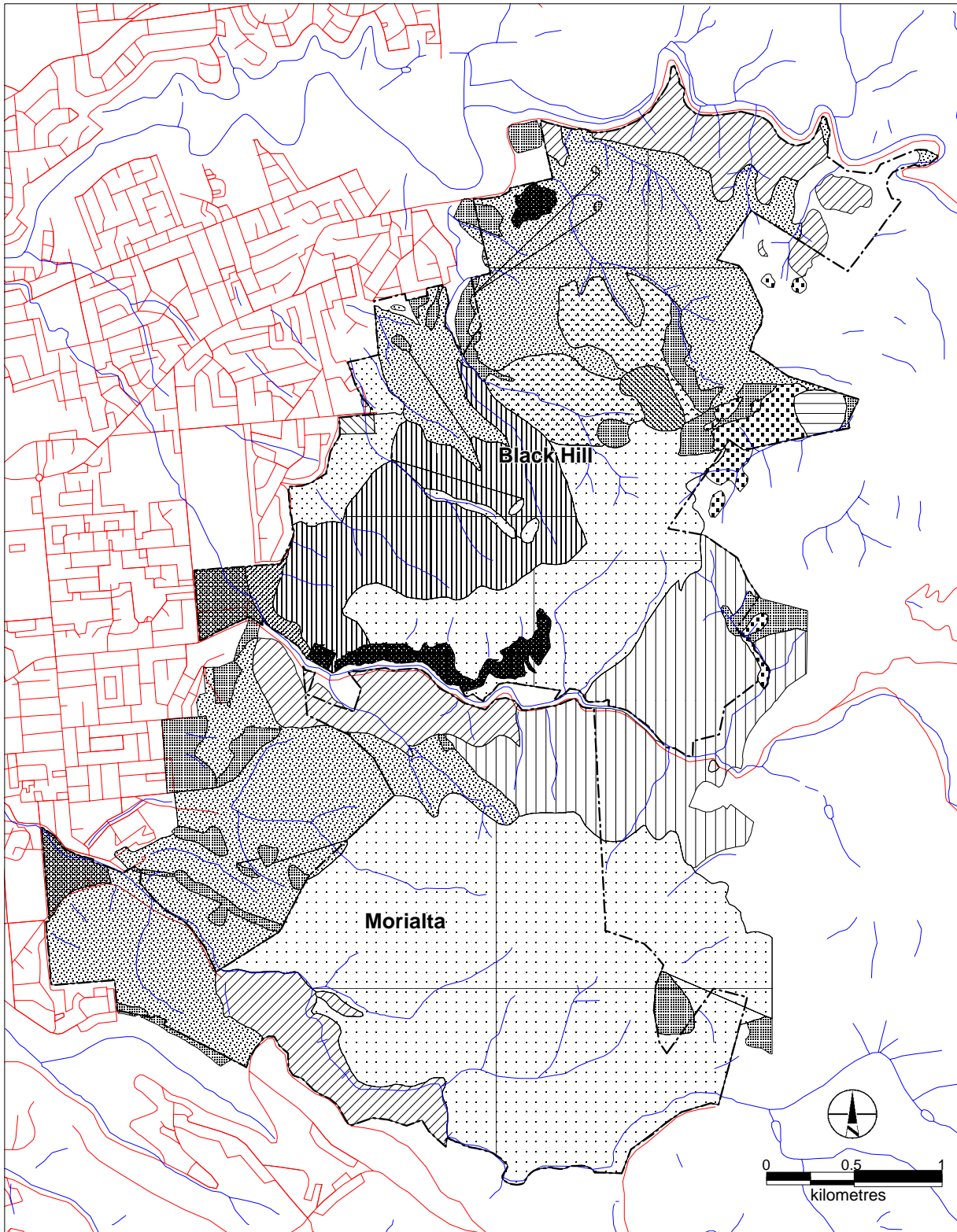
The vegetation of these parks represents both savannah type woodlands with herbaceous understoreys and sclerophyllous open forest, dominated by the canopy species stringybark (*Eucalyptus baxteri* and *obliqua*), pink gum (*Eucalyptus fasciculosa*), blue gum (*Eucalyptus leucoxylon*), red gum (*Eucalyptus camaldulensis*) and manna gum (*Eucalyptus viminalis* ssp *cygnetensis*).

- The higher slopes of both parks where soils are derived from quartzite support a low woodland of pink gum (*Eucalyptus fasciculosa*) and stringybarks (*Eucalyptus baxteri* and *E obliqua*) over a closed shrubland of heath plants. On the western slopes of Black Hill, where there is a history of intense fires, this association is replaced by a tall closed shrubland dominated by *Allocasuarina muelleriana*, also on quartzite derived soils. At the lower edges of these slopes, a low woodland of *Eucalyptus odorata* +/- *E leucoxylon* displaces the shrubland.
- shrubland dominated by *Allocasuarina muelleriana*, also on quartzite derived soils. At the lower edges of these slopes, a low woodland of *Eucalyptus odorata* +/- *E leucoxylon* displaces the shrubland.
- On the western slopes of Morialta, extending outside the current park boundary and at the northern end of Black Hill the vegetation is dominated by *Eucalyptus porosa* +/- *E leucoxylon* +/- *E camaldulensis*. This association occurs mainly on shale derived soils and has a grassy understorey that includes many native species. However, in contrast to the pink gum/stringybark vegetation where the understorey is largely intact, it has been invaded by exotic grasses, herbs and olives.

Deeper gullies in Black Hill and the eastern slopes of both parks support woodland and open forest dominated by *Eucalyptus camaldulensis* +/- *E leucoxylon* +/- *E viminalis* ssp *cygnetensis*. *Acacia pycnantha* and *A retinodes* (hill form) are often abundant in the understorey of these associations and at the head of Ghost Tree Gully the understorey includes a patch of *Banksia marginata* and *Hakea carinata* which has been described as a feeding site for the Yellow-tailed Black-Cockatoo (*Calyptorhynchus funereus*).

Very steep and rocky slopes above Montacute and Gorge roads and in Fourth Creek gorge support a very low woodland dominated by *Allocasuarina verticillata* and *Xanthorrhoea quadrangulata* over various shrubs and grasses. The understorey contains considerable diversity of native species but also the invasive weeds, olive and boneseed.

Morialta and Black Hill Conservation Parks Management Plan (2001)



LEGEND

- Acacia retinodes over Pteridium esculentum
- ▨ Allocasuarina muelleriana +/- Eucalyptus fasciculosa over Xanthorrhoea
- ▧ Allocasuarina verticillata, Xanthorrhoea quadrangulata over +/- Acacia
- ▩ Black Hill wildflower garden
- ▦ Eucalyptus camaldulensis over +/- Acacia pycnantha +/- Acacia retinodes
- ▧ Eucalyptus camaldulensis, Eucalyptus viminalis ssp. cygnetensis over Banksia
- ▨ Eucalyptus fasciculosa, Eucalyptus baxteri, Eucalyptus obliqua
- ▧ Eucalyptus leucoxydon +/- Eucalyptus camaldulensis +/- Eucalyptus viminalis
- ▧ Eucalyptus leucoxydon +/- Eucalyptus porosa over Acacia paradoxa
- ▧ Eucalyptus odorata +/- Eucalyptus leucoxydon +/- Allocasuarina verticillata
- ▧ Eucalyptus porosa +/- Eucalyptus leucoxydon +/- Eucalyptus camaldulensis
- ▧ Native and introduced grass and herbs including +/- Themeda triandra
- ▧ Pteridium esculentum
- ▧ Quarry - Open Cut
- ▧ Recreation Area
- Cleared/Urban Areas

Figure 4

Morialta and Black Hill Conservation Parks  
Vegetation

This map is designed and created by  
Reserve Planning using PAMS  
Date: January 2001



National Parks and Wildlife SA  
Government of South Australia



## Morialta and Black Hill Conservation Parks Management Plan (2001)

Closed grasslands occupy the high ridges in the east of Black Hill and some of the lower slopes west of Morialta. These areas contain a wide and variable range of native and non-native species; in Black Hill they give way to a fernland of bracken (*Pteridium esculentum*) and a shrubland of *Acacia retinodes* over bracken.

A woodland to open forest of candlebark gum (*Eucalyptus rubida*) occurs in the south east portion of Morialta and extends outside the park. Areas of long leaved box (*Eucalyptus goniocalyx*) occur in the north-east of Black Hill and the slender leaved mallee (*Eucalyptus foecunda*) is recorded for the north-west. Morialta has areas within the valley of Fourth Creek of mixed woodland resulting from earlier landscape plantings. These include a wide variety of exotic trees and native trees, non endemic to the Black Hill/Morialta area, eg. sugar gum (*Eucalyptus cladocalyx*).

### Native Fauna

#### *Background*

Morialta and Black Hill Conservation Parks continue to sustain a diversity of native fauna. The fauna present within the parks include an extensive range of birds, a restricted number of small mammals and a small but important number of amphibians.

While the impacts of human settlement and disturbance have significantly reduced the fauna of the parks, what remains, particularly in the less disturbed habitat areas of Morialta, forms an important resource. These populations of native fauna are capable of recolonising currently degraded habitats, should those habitats be rehabilitated in the future. Areas such as much of the western and southern sections of Black Hill, the link lands of Morialta and even the lower reaches of the Morialta Gorge have the long term potential to again provide diverse habitats for native fauna.

Detail of the parks' fauna is contained in the MBH Background Information Document.

#### Mammals

The existing diversity of landform and vegetation provides habitat for a number of mammals. The parks support populations of western grey kangaroo (*Macropus fuliginosus*), short beaked echidna (*Tachyglossus aculeatus*), koala (*Phascolarctos cinereus*), yellow footed antechinus (*Antechinus flavipes*), bush rat (*Rattus fuscipes*), common ringtail possum (*Pseudocheirus peregrinus*), common brushtailed possum (*Trichosurus vulpecula*) and within Morialta, southern brown bandicoot (*Isodon obesulus*), house mouse (*Mus musculus*), brown rat (*Rattus norvegicus*) and a number of small bats (belonging to the Microchiroptera group) are recorded.

#### Reptiles and Amphibians

The moist, rocky and confined banks and pools of Fourth Creek provide habitat for many species of reptiles and amphibians, which are a special feature of Morialta. The higher slopes of the Gorge provide good reptile habitat. Five species of frogs, fifteen species of reptile, including geckos, dragons, skinks, snakes and lizards are found in Morialta Conservation Park.

Black Hill also supports a wide variety of reptiles. The park has twenty one species of reptile including three geckos, in particular the rare Adelaide Hills spiny tailed gecko, (*Diplodactylus intermedius*) two dragons lizards, three legless lizards, ten skinks and three snakes.

## Morialta and Black Hill Conservation Parks Management Plan (2001)

### Birds

The avifauna of the parks is typical of the Mount Lofty Ranges. Some 74 species are recorded for Morialta, including species usually associated with the higher rainfall areas of the southern Fleurieu Peninsula.

Some migratory birds have been recorded in the parks, as have a number of bird species that typically move widely within the Mount Lofty Ranges. These latter species (eg honeyeaters) follow the changing supply of food sources such as honey and nectar.

The more natural and least disturbed areas of Morialta (east) and the south and south east areas of Black Hill represent the most important bird habitat, where the closed vegetation structure provides secure habitat for a large number of species.

Morialta and Black Hill Conservation Parks form a secure and relatively large habitat for a range of sedentary birds. The parks are a large and important part of a regional habitat for birds that move throughout the Mount Lofty Ranges. The parks offer specialised habitat for a small number of species that require dense and closed vegetation to survive.

### Introduced Plants

#### *Background*

There are 187 alien plants species recorded for Morialta and 53 for Black Hill (Taplin 95) the high numbers reflect the past history and use to which the parks were put during the pioneering phase of South Australia's settlement and development. Grazing, mining, horticulture, logging, burning, road and track construction and public recreation have all disturbed native vegetation and created windows of opportunity for the conscious or accidental establishment of alien plants.

The olive was introduced to South Australia in 1836, blackberry in 1843 and boneseed in 1858 (Carruthers 1990). By 1909, J.M. Black acknowledged they were naturalised plants in South Australia. In an account of Morialta published in 1936 the establishment of olive and blackberry was noted and boneseed was listed as a common weed (Cotton 1936 quoted in Carruthers 1990).

Of the weeds present within the parks today the most important to control are:

<b>Common Name</b>	<b>Scientific name</b>
African boxthorn	<i>Lycium ferrocissimum</i>
African daisy	<i>Senecio pterophorus</i>
Blackberry	<i>Rubus ulmifolius var ulmifolius</i>
Boneseed	<i>Chrysanthemoides monilifera</i>
Bridal creeper	<i>Myrsiphyllum asparagoides</i>
Cape tulip	<i>Homeria breyniana</i>
English broom	<i>Cytisus scoparius</i>
False caper	<i>Euphorbia terracina</i>
Fennel	<i>Foeniculum vulgare</i>
Gorse	<i>Ulex europaeus</i>
Horehound	<i>Marrubium vulgare</i>
Montpelier broom	<i>Genista monspessulanat</i>
Olive	<i>Olea europaea</i>
Phalaris	<i>Phalaris aquatica</i>
Rice millet	<i>Piptatherum miliaceum</i>
St Johns wort	<i>Hypericum perforatum</i>
Wonga vine	<i>Pandorea pandorana</i>



## Morialta and Black Hill Conservation Parks Management Plan (2001)

The distribution of the most serious weed species (either proclaimed species or those capable of invading native vegetation) shows an affinity for watercourses, highly disturbed/cleared areas or areas in close proximity to housing, roads and tracks. The lower and some upper slopes in the western half of Morialta Gorge, the main Fourth creek watercourse (starting outside the park in the Norton Summit horticultural areas), the western and northern areas of Black Hill and the land adjacent to the Fifth Creek watercourse, are the locations of most serious infestation. Large areas of the savannah woodlands are also now largely stabilised with exotic grasslands and minor weed species.

While many areas in the east of Morialta, and the central and south-east areas of Black Hill have little weed infestation, evidence now exists (Carruthers 1990, NPWSA district mapping) that blackberry, broom, boneseed and bridal creeper may well be poised to attack these areas should a window of opportunity present. (eg following a major fire or through poorly designed control programs).

### Introduced Animals

#### *Background*

The parks provide habitat for a range of introduced animals including fox (*Vulpes vulpes*), cat (*Felis catus*), and rabbit (*Oryctolagus cuniculus*). Rabbits continue to limit the regeneration of seedlings because of their browsing activities while both fox and cat populations prey upon birds, small mammals and reptiles. Fox control programs occur in association with the southern brown bandicoot, (*Isodon obesulus*) reintroduction program within Morialta. Rabbit control programs are implemented at restoration sites where intensive planting is undertaken. Opportunistic cat control is carried out, however no formal program exists at present.

### Cultural Resources

#### *Background*

#### Indigenous

Morialta and Black Hill Conservation Parks were part of the traditional lands of the Kaurna people. The intensive settlement of the Adelaide plains during the last century had a devastating effect on the Kaurna people and their culture. From an initial population of approximately 650, occupying a territory of 7200 square km (Tindale 1974), the Kaurna were so reduced through disease and dispersal, that within 50 years of settlement they no longer lived a traditional life close to Adelaide.

Records of Aboriginal occupation of the land now forming the environs of Adelaide are poor. As Woods (1879) pointed out “In the early days, the Europeans were too busily engaged in locating themselves on the new possessions, and in the task of rendering a wild country fit for the inhabitation of civilised men to trouble themselves greatly about the native races”.

Before colonial settlers could understand and record the culture most of the Kaurna Elders had died. As a result, very little is known today about Aboriginal use of the area in and around the Morialta/Black Hill area. It is known, however, that the word Morialta is a corruption of the Kaurna word “moriatta” which is understood to mean “ever flowing”.

One aspect of Aboriginal use of this area was apparently seasonal migration. Tindale (1976) suggests that the Kaurna’s “most consistent movements were towards the seashore in summer and inland at the beginning of winter to find better shelter and better sources of firewood”, although the Kaurna lived as “separate small groups” there could have been variation on this pattern.

## Morialta and Black Hill Conservation Parks Management Plan (2001)

The upper slopes clothed in sclerophyll forests were used for hunting possums, bandicoots and other small animals and particularly for supplies of the larvae of the large cossid moth *Xylentes affinis* found boring in the stems of the golden wattles (Tindale 1976). They also hunted kangaroo, bird's eggs, fish and lizards (Ellis 1974).

Probably the most significant impact of Aboriginal occupation of Black Hill and Morialta was their use of fire to encourage regrowth, as a hunting aid to flush game and to facilitate easier movement through the scrub. Descriptions at the time (1847) by settlers like Angas, noted the blackened trunks in the forest and the huge summer fires visible from the plains. Unfortunately, we can only guess at the frequency, intensity and timing of Aboriginal fire management in the Adelaide Hills, as this vital ecological information was never properly recorded.

### Non-Indigenous

Morialta and Black Hill districts were first settled by Europeans in the 1840-50s. With the discovery of first copper (1844) and then gold (1846) near Black Hill, a rapid expansion of mainly Cornish miners occurred. The mining, based around Montacute and Castambul was active between 1844 and 1888. Angora goats were introduced to Castambul by Price Maurice in 1870-3.

Land was purchased in or near Morialta from 1839 by William Glegg Gover and then by Stradbroke. In 1850 John Baker purchased land on Fourth Creek, near the eastern boundary of the park. Baker, a pastoralist, became a member of Parliament and then a Premier in 1857. He also built Morialta House. Sections of the park were purchased by Price Maurice (1877), Sir Richard Chaffey Baker (1907-11) and from 1901 John Smith Reid owned sections 822, 823, 850, 852, 853, 854 and 855.

The scenic values of Morialta had long been recognised and in 1911 John Smith Reid first offered to donate part of his land for a public reserve. The offer was conditional on the sale of some land, and the provision of a tramway extension by government to Morialta. Considerable discussion followed and finally Reid donated 218 ha in 1913. In 1915 Morialta was proclaimed a National Pleasure Resort.

Morialta, and particularly the walk to the first falls, remained a popular destination for Adelaide residents. Considerable construction works were carried out during the 1920s and 1930s. Path construction, stone walls and retainers, stone shelters, signs, landscaping, exotic woodland plantings and the provision of kiosk and shelters occurred at different times. Severe floods and bushfires destroyed much of the construction work undertaken during this period. History repeated itself with the major Fourth Creek flood in the early 1980s, when massive reconstruction of access ways was again required.

During the minor mining boom at Montacute between 1844-88, members of the Field Naturalists' Society climbed to the summit of Black Hill. They were so impressed that they proposed land be set aside as a reserve. As a result a 4 hectare reserve was proclaimed in 1860. Meanwhile the alluvial flats associated with the River Torrens and Fifth Creek were slowly being developed as market gardens. While this development occurred, Black Hill became the source of wood for the market garden water pumps and for building material. Bullock teams were used in the logging of Black Hill (Wills 1981). Wattle bark was also collected for the supply of tannin to the leather goods industry.

In 1966/7, the Wallman property to the east of the then existing reserve was purchased and proclaimed a National Park under the *National Parks Act* 1966. In 1968 land was acquired that added to the Morialta picnic ground. In 1972 all sections of Morialta including the Wallman purchase were re-proclaimed as the Morialta Conservation Park.

## Morialta and Black Hill Conservation Parks Management Plan (2001)

The early history of land ownership and park acquisition for Morialta is quite complex and is therefore not addressed in this plan.

From about 1900, quarrying occurred within Black Hill for road making material and also for barites, a mineral used as a pigment in paint production (Wills 1981). The northern areas of Black Hill were farmed and orchards were subsequently established in Ambers Gully.

In the late 1940s Mr F. C. Payne who owned property on Addison Avenue Athelstone, at the foot of Black Hill, established a garden of 250 native plants from all over Australia. This grew and became known nationally as the Athelstone Wildflower Garden. In 1963 it was bought by the City of Campbelltown and in 1973 was sold to the then Department of Environment and Conservation.

The State Government had been trying to purchase land in the Black Hill area since the 1960s, when the 1962 Metropolitan Adelaide Development Plan had proposed the creation of a regional park in the vicinity to cater for the open space requirements of the expanding north-east suburbs. Between 1970 and 1975 the State Government progressively acquired the parcels of land that were proclaimed Black Hill Conservation Park in 1975.

The Wildflower Garden became the nucleus for a proposal to create the Black Hill Native Flora Park but, following a root fungus disease scare within the nursery, decisions to re-establish the nursery on a new site near Fifth Creek were made.

In 1977, the Black Hill Trust was formed to institute the development of the Black Hill Native Flora Park and its associated Conservation Park. In 1979, the new plant nursery opened and in 1980, the new Administration Centre and the theatre were opened. Extensive landscaping, walking trail construction and interpretive services transformed the Black Hill area.

With the major development and construction work completed, the State Government dissolved the Black Hill Trust and Black Hill Conservation Park returned to the then National Parks and Wildlife Service.

Black Hill is now managed by the Lofty/Barossa District of NPWSA, based at Black Hill Administration Centre. The Black Hill nursery is managed by the Botanic Gardens.

The Wildflower Garden remains open to the public and is staffed by volunteers belonging to the Friends of Black Hill and Morialta Incorporated.

### **Recreation and Tourism**

#### *Background*

Each year, Morialta and Black Hill Conservation Parks attract large numbers of visitors, who involve themselves in a wide variety of activities. The parks form part of a larger Mount Lofty group of reserves stretching from Para Wirra Recreation Park in the north to Onkaparinga National Park in the South. This suite of parks provides the majority of the natural open space requirements for the people of Adelaide. The Mount Lofty parks also represent an important resource for tourism, with destinations like Morialta Falls, Mount Lofty Summit and Cleland Wildlife Park providing day trip destinations for interstate and overseas visitors. It is estimated that Morialta/Black Hill receives some 300,000 visitors per annum.

Morialta and Black Hill offer outstanding views and recreational opportunities, only minutes from the eastern suburbs. Morialta Gorge, in particular, provides a rapid experiential transition from urban life to a quiet, tranquil, uplifting and scenic experience.

## Morialta and Black Hill Conservation Parks Management Plan (2001)

Two identifiable groups of people visit Morialta/Black Hill. The first includes residents of Morialta, Rostrevor and Athelstone who use the parks frequently. They usually walk to the parks and a significant percentage (5-10%) of this group visit on a weekly or daily basis. These neighbourhood groups are predominantly involved in walking, exercising and enjoying the views. A percentage exercise their dogs along the Morialta Falls Road and in the picnic area.

The second group is composed of family or groups of friends, drawn from residents of greater metropolitan Adelaide or city-based tourists. They usually visit the Morialta Falls, often use the Morialta picnic ground, and a smaller percentage utilise the extensive walking trail network of the parks. When asked to identify activities and those aspects of their visit from which they derived satisfaction, the majority listed bushwalking, visiting the Falls, scenic views and exercise (Absher 1993). Of those people using the picnic ground, almost half indicate that they visit the Falls.

Other smaller groups of visitors include rock climbers (who utilise the cliffs within the Morialta Gorge and usually access the park from Norton Summit Road), guided commercial walking groups, school or education groups, and other special interest groups. People continue to visit the Wildflower Garden on Addison Avenue.

In recent years, an increasing number of visitors are utilising the more remote walking trails within the parks for mountain bike riding. This activity often conflicts with the enjoyment and safety of walkers and can lead to accelerated track erosion. While mountain bike riding is prohibited within the park, it is difficult to monitor and a comprehensive solution may lie in making other nearby locations available to the sport.

The majority of people start their visit from the Morialta Falls carpark or the Morialta picnic ground. Weekends (Sunday in particular) and public holidays are the times of highest visitation. At these times the Falls carpark often fills to capacity and vehicles then park down Falls Road. Spring and autumn remain the periods of highest visitation with high summer and mid winter showing a decline in visitor numbers.

In a 1993 questionnaire survey (Absher 1993), visitors indicated (through an Importance-Performance analysis) those aspects of their visit in which they believed park management was under-performing. The results showed that park managers should attend to walking path and trail maintenance, signage and to a lesser extent, deal with mountain bikes and dogs.

## MANAGEMENT PRESCRIPTION

### Zoning

Zoning, to ensure that public use and other activities remain compatible with the protection of park values, is a primary tool for park management.

The Morialta and Black Hill Conservation Parks require a zoning plan that will ensure the ongoing provision of high quality visitor amenities and passive recreation experiences while safeguarding the conservation values for which the parks were also dedicated.

### *Objective*

To zone Morialta and Black Hill Conservation Parks to ensure appropriate public use, landscape protection and the conservation of wildlife habitats and cultural features.

### *Actions*

Adopt the zoning plan shown in Figure 5. The following zone definitions apply:

#### Recreation Zone

This zone includes the Morialta picnic ground, Morialta Falls Road and lower slopes of the Morialta Gorge Precinct, Morialta cottage area, the Addison Avenue Wildflower Garden and Black Hill Infrastructure block. It is intended primarily to provide facilities and services for visitors, with some infrastructure for park management.

Considerable, but sensitive modification of the natural environment is acceptable within this zone. The conservation and flood mitigation values of Fourth Creek remain important considerations in any management proposals.

Dogs will be permitted only within the Morialta picnic area and along Morialta Falls Road to the Morialta Falls Carpark, and then only if restrained upon a lead and directly under the control of a responsible person. Dogs are not permitted elsewhere within either park.

#### Conservation Zone

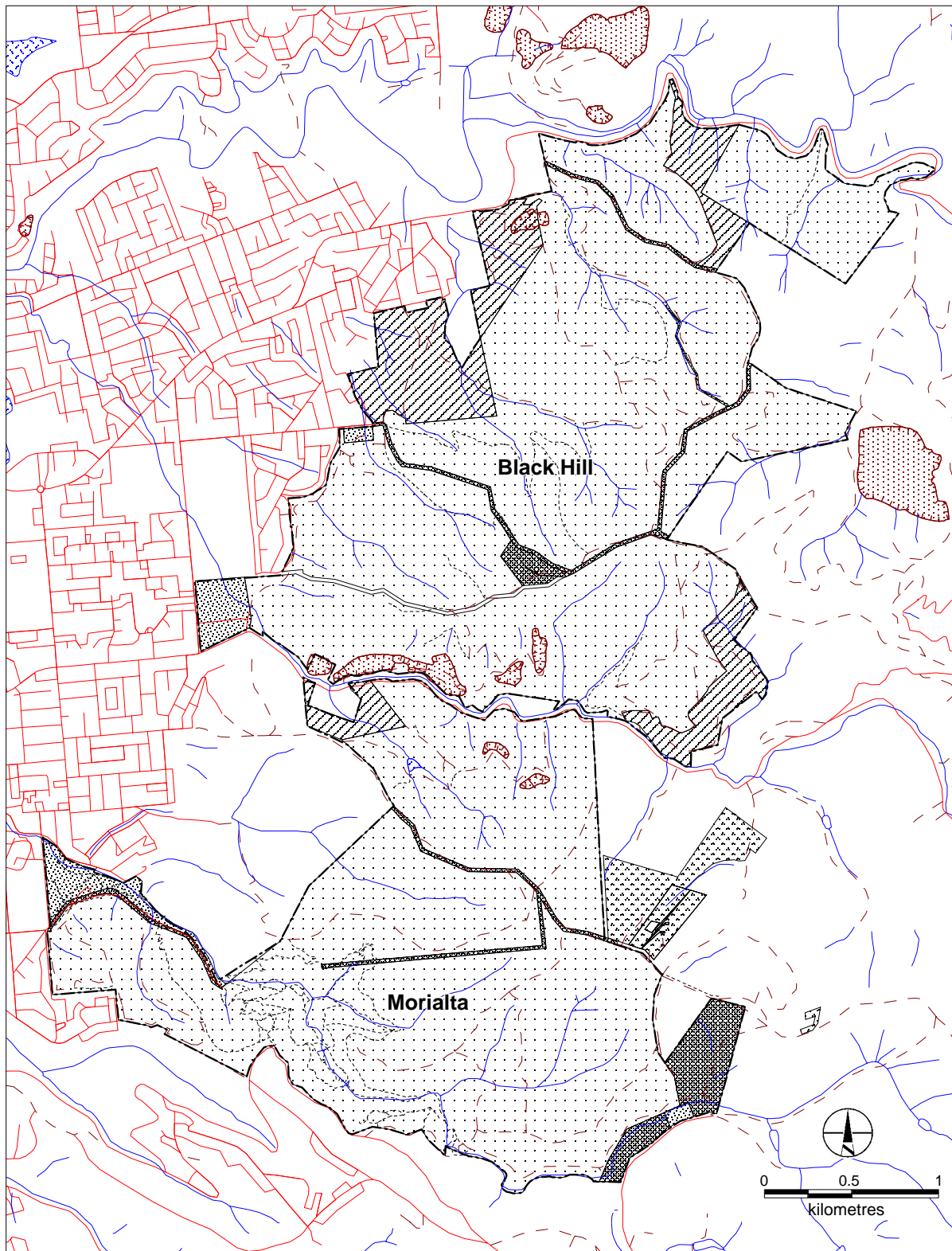
This zone dominates both parks and preserves areas of high conservation and biodiversity value, including locations that contain species of conservation significance. European land use history in these zones is minimal and little disturbance or modification has occurred. Passive public use of approved sites, tracks and trails will continue to be permitted within the conservation zone, where that use is compatible with the protection of park conservation values.

Management in conservation zones principally addresses the need to prevent the occurrence of weed species, soil pathogens, and the processes of erosion. Bushwalking, nature study and rock climbing in approved sites are suitable activities within these zones, as impact is considered to be minimal. Detailed vegetation and habitat audits will be conducted prior to any developments, consistent with passive use, to ensure species of significance are conserved. Activities involving use of 4WD vehicles, trail bikes, mountain bikes and horse riding remain prohibited within conservation zones.













#### Natural Area Zone

Natural area zones are characterised by a history of land use showing some form of disturbance. These lands have been subject to clearance, principally through grazing, logging or market gardening. This ecosystem modification has resulted in the colonisation of a variety of pest plant species, many of which have proved difficult to control. It should be recognised

# Morialta and Black Hill Conservation Parks Management Plan (2001)



**LEGEND**

- |   |                    |   |                  |
|---|--------------------|---|------------------|
|  | Recreation Zone    |  | Road             |
|  | Natural Area Zone  |  | Main Road        |
|  | Conservation Zone  |  | Management Track |
|  | Heritage Agreement |  | Walking Trail    |
|  | Proposed Addition  |  | Watercourse      |
|  | Water Body         |   |                  |
|  | Quarry             |   |                  |

**Figure 5**

**Morialta and Black Hill Conservation Parks Zoning**

This map is designed and created by Reserve Planning using PAMS  
Date: January 2001



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## Morialta and Black Hill Conservation Parks Management Plan (2001)

however, that these zones still have conservation value. They often include areas of valuable open space providing bushwalking opportunities with fine views over the Adelaide plains. They also provide an important buffer for conservation zones. Restoration programs are presently being implemented within these areas through pest plant control and revegetation.

Suitable activities in natural area zones are currently limited to those permitted in conservation zones. It is possible however, that the conduct of other unspecified activities may be permitted during the term of this plan. Provided the impact of these activities can be effectively managed and requests are clearly not inconsistent with the management philosophy and objectives of this plan, due consideration to such requests will be given. It is not appropriate for any general approval of requests to be guaranteed by this plan.

### **Natural Resources**

The successful management of the natural resources of Morialta and Black Hill Conservation Parks requires an integrated approach to data collection, analysis and monitoring. This approach will form the basis for a Conservation Management Plan which incorporates pest plant and animal control, rehabilitation and revegetation, wildfire management and wildlife reintroduction programs. An integrated approach will ensure that long term conservation objectives are met.

Underpinning this approach is the need to better understand the nature and distribution of species and communities and the ecological processes at work. While final management programs such as pest control, fire access tracks, fuel reduction areas, revegetation sites are very practical projects, it is important that these projects are developed from a sound scientific base with correct techniques employed to achieve comprehensive long term goals. It will be necessary to continually update the data and to refine the techniques during project life.

To achieve this outcome, NPWSA will endeavour to integrate the best scientific knowledge into the process of program design and operation.

### *Objectives*

To prepare a Conservation Management Plan which sets long-term, achievable and measurable goals and includes programs for integrated pest control, land rehabilitation and revegetation, and wildlife protection.

To develop a Fire Management Plan that clearly outlines management actions needed to maximise the protection of built and natural assets on and off reserves.

### *Actions*

#### Conservation Management Plan

Design a Conservation Management Plan project that:

- sets long-term achievable goals for pest plant free areas, habitat rehabilitation and wildlife reintroduction;
- designs, funds and implements three year programs to move towards achieving the set long term goals; reviews performance in line with measurable criteria;
- reviews and analyses the success and failure of existing weed and rehabilitation programs; inventory the distribution of weeds throughout the parks and regularly updates that inventory; as a priority, prepares inventory of all creek lines within the parks for the early signs of the occurrence of serious weed species and implement control;
- identifies high value conservation areas with limited or no serious weed infestations and concentrate monitoring and control in these areas initially;

## Morialta and Black Hill Conservation Parks Management Plan (2001)

- identifies the distribution of areas of high conservation significance and the distribution of species of conservation significance within the parks; identifies the distribution of small mammals (including the bandicoot restoration project), within the parks and their habitat preferences;
- explores mechanisms to extend the range of species of conservation significance through habitat rehabilitation programs, pest animal control programs, safeguarding link corridors, providing tunnels and, if warranted and considered appropriate, use of managed fire to maintain ecological integrity and biodiversity;
- continues to remove seedling growth and fallen or dangerous mature sugar gum trees along Morialta Falls Road; replaces introduced sugar gum trees with local native vegetation; and
- encourages school and universities to become actively involved in parks wildlife management programs.

### Fire Management Plan

Prepare a Fire Management Plan that includes the following:

- Wildfire Threat Analysis Planning to facilitate assessment of fire risk, hazard and threat to built and natural assets on and off park;
- a review of pre-season fire prevention activities with a clear outline of prevention objectives and practices;
- wildfire response and suppression strategies;
- consideration of planned ecological burning which aims to protect biodiversity and species of conservation significance;
- evaluation of existing fire access track network and fuel reduction zones; and
- consultation with SA Country Fire Service, particularly the East Torrens Group, and the Adelaide Hill District Council Fire Prevention Committee to ensure fire management activities complement and are integrated with District fire plans, and comply with provisions of the SA Country Fires Act.

## **Cultural Resources**

### Indigenous

The Department for Environment and Heritage recognises that there are Kurna people who have a special relationship with the Morialta and Black Hill Conservation Parks, based on cultural and heritage tradition. The Department acknowledges that opportunities may exist to increase Kurna involvement in a number of aspects relating to park management. It is expected that there would be advantages for sound management of the parks and that visitors would benefit from the cultural enrichment possible through their greater involvement in park programs.

The Department will, within the context of Government policy, work with local Kurna people to develop mechanisms to enable them to strengthen their cultural links with the parks and explore opportunities associated with the parks.

The Department will consult with appropriate Kurna people with regard to site works and development proposals. In addition to the Department's responsibility to comply with the provisions of the *Aboriginal Heritage Act 1988*, the Department is committed to developing ongoing relationships with Kurna people and seeks to engage the community in a management partnership that will ensure that indigenous concerns are addressed.



## Morialta and Black Hill Conservation Parks Management Plan (2001)

### *Objectives*

To work with nominated Kurna representatives to understand and interpret Kurna culture and protect cultural sites, objects and remains.

To work with Kurna people to conserve any significant indigenous cultural resources and enhance knowledge and understanding of indigenous values within Morialta and Black Hill Conservation Parks.

To provide opportunities for Kurna people to develop and strengthen involvement in the Morialta and Black Hill Conservation Parks.

### *Actions*

- Undertake a comprehensive survey of indigenous cultural resources in the parks, in consultation with the Department of State Aboriginal Affairs and the appropriate cultural custodians of the parks.
- With the assistance of the Kurna community, identify Kurna people with an interest in the Morialta and Black Hill Conservation Parks. Contact, develop and support forums that achieve an ongoing dialogue.
- Seek Kurna support to improve park staff understanding of Kurna people's traditional connections with the park and its surrounding areas.
- Explore arrangements to involve Kurna people in the management of the parks.
- In concert with Kurna people, protect and where appropriate, interpret cultural sites.
- Consult with and, where necessary, undertake site inspections with the Kurna Heritage Committee prior to construction and works within the park to ensure compliance with the *Aboriginal Heritage Act*.
- Seek Kurna review, comment and endorsement for all park literature containing reference to Aboriginal culture or sites.
- Support opportunities for the development of appropriate enterprises involving Kurna people within the Morialta and Black Hill Conservation Parks.
- Seek Aboriginal assistance and provide for their active participation in the delivery of cross-cultural information programs for new park staff.

### *Non-Indigenous*

The area, which now forms the Morialta and Black Hill Conservation Parks, has a history of subdivision providing for small agricultural and horticultural holdings. Small mining ventures were also pursued in the area. The structural remnants of early land use and occupation remain. Some of these relics are of historic importance, and with the passage of time and ongoing exposure to the elements these relics are deteriorating. It is not possible to preserve all the historic fabric contained within the park and priorities must be set.

### *Objective*

To conserve and interpret European heritage sites subject to a priority listing, derived from the State Heritage Register, and further subject to a professional assessment of the heritage value and conservation requirements of various sites.

## Morialta and Black Hill Conservation Parks Management Plan (2001)

### *Actions*

- Continue to monitor and inventory historic sites and stories that relate to the history of Morialta and Black Hill and where appropriate, interpret the information to park visitors.
- Collect and record the available oral history of the parks.
- Ensure the historic structures are maintained and protected.
- Conserve sites, including former mining sites, on the basis both of interpretive potential and priority listing.
- Explore the potential, and if feasible, develop arrangements for utilising volunteer assistance for site conservation.

### **Recreation And Tourism**

#### **Access**

Access to the parks requires some modification and upgrading. The major visitor destination at Morialta Gorge served by the Morialta Falls Road carpark is often congested and does not provide adequate access for buses. Pedestrians are currently obliged to walk on the road and this can be dangerous at peak visitor times. A complete redesign of the car parking and pedestrian access is required for this area.

Both Black Hill and Morialta attract visitors through a number of entry locations. The pattern reflects both neighbourhood use and the activities of special interest groups. The existing secondary access points in both parks have site management problems and require modification and or upgrading.

#### *Objectives*

To provide major and secondary entry points to the parks to meet the needs of all park visitors and facilitate the collection of a park entry fee.

#### *Actions*

- Review the management of the Morialta Falls Road. Consult with the Department of Road Transport with a view to developing management regimes and improved control mechanisms of Morialta Falls Road (from the junction with Stradbroke road to the Falls carpark). Aim to establish joint proclamation of the road to allow provisions of the *National Parks and Wildlife Act* to be administered over the road.
- Discuss with local Council the implications of increased parking on Stradbroke road which may result from the introduction of a park entry fee and explore strategies to counteract any likely increases in long term parking on Stradbroke road.
- In reviewing practical methods for charging a visitor facility use/entry fee at Morialta, consider, but do not be confined to, the following:
  - collect the fee through parking meters in the new carparks
  - collect the fee in a new ticket station on Morialta Falls Road.
- Establish, within Black Hill, an upgraded carpark, information and reception system and trailhead at the Black Hill Infrastructure block to act as the major reception site for visitors to Black Hill.
- Establish secondary formal park entry points with smaller carparks, reception points, information boards at the following locations:
  - Addison Avenue
  - Colonial Drive
  - Everest Ave - Ghost Tree Gully
  - Ambers Gully, Gorge Rd
  - Norton Summit Rd
  - Moores Rd, south-east boundary
  - The creek flat on Fifth Creek for walking trails in Black Hill and Morialta linklands.

### Visitor Facility Developments

The community has sought, and government has agreed to the upgrading of visitor facilities within Morialta Conservation Park. Morialta Falls receives a large number of visitors per year and it is an important day visit destination for Adelaide-based tourists. Morialta presents a quality scenic experience that encourages visitors to experience other parks and reserves within the State. The proposed development will be located within Morialta Gorge Recreation Precinct. The precinct includes the valley through to First Falls, and the picnic area off Stradbroke Road. The project will include a feasibility study from which a design brief will be prepared. A public consultation process will form part of the feasibility study followed by the preparation of development plans and project construction.

It is proposed to continue upgrading and landscaping the walk from Morialta Picnic Ground through Morialta Gorge to the First Falls and to the Giants Cave. This work will proceed in the context of returning Fourth Creek to as natural a state as possible, consolidating weed control and revegetation programs and introducing sensitive, aesthetic high quality landscaping elements.

Feasibility studies will occur for other planned small facility developments that include a small bush campground, as part of a concessionaire arrangement, adjacent to Morialta Cottage and the re-development of parts of the Wildflower Garden.

### *Objectives*

To redevelop the Morialta Gorge Recreation Zone to provide high quality well designed visitor facility infrastructure and landscaping.

To offer a range of services to visitors to enhance their recreational experience.

To continue to provide facilities, rehabilitation, landscaping and replanting within the Morialta Gorge to meet stringent natural and aesthetic standards.

To facilitate minor works within the parks.

To provide a small bush camping area within Morialta Conservation Park as part of an existing visitor accommodation lease off Colonial Drive.

### *Actions*

- Produce a comprehensive plan for the development of the Morialta Gorge Precinct. Ensure that the plan considers provision for:
  - flood mitigation requirements;
  - indoor and/or outdoor eating areas;
  - interpretive display areas, and the collection of entry fees;
  - improved vehicle parking to accommodate more cars and provision for the accommodation and turning of buses, and allow for efficient traffic movement and parking;
  - well designed and constructed recreational facilities;
  - a walking path along Falls Road to link the Falls carpark with the Morialta picnic ground;
  - redesign and upgrade the carpark within the Morialta picnic ground;
  - additional barbecues in the Morialta picnic ground;

## Morialta and Black Hill Conservation Parks Management Plan (2001)

- renew of the path, handrails and steps to the Giants Cave; consider closing the path leading above the Cave and railing the top walking track to stop visitors approaching the Cave from above;
  - continued removal of weeds, and landscaping of the creekline so as to create, as near as practicable, a quality natural environment that provides an interpretive resource with high aesthetic qualities; and
  - construction of such signs, seats, paths, retaining walls and other facilities for the full rehabilitation of the Morialta Gorge Recreation Zone as is required by the final adopted landscape plan.
- Consider the potential of controlled and managed night walks to the base of the First Falls and the potential for discreet garden type lighting to enhance the experience of visitors.
  - Investigate the best site for development of a small bush campground within Morialta through a concessionaire arrangement.

### Walking Trails

The existing walking trail network within Morialta and Black Hill has developed over the years to now offer a comprehensive and extensive range of walking opportunities within the parks. The system provides a useful and important variety of walks that cater for a range of interests and fitness levels. However there are some identified problems or limitations with the existing system, they are:

- a reduction in effective trail maintenance and signage over recent years
- some paths are located in inappropriate terrain with consequent erosion problems
- an over-reliance on fire access trails with a consequent reduction in the quality of the walking trail ambience
- limited linkages between Black Hill and Morialta due to the comparatively recent acquisition and dedication of the linklands
- limited linkages to a larger regional network of walking trails.

It is important to review and plan both to address some of these problems and to improve the overall standard of walking trails within the parks.

### *Objectives*

To review the existing walking trail networks within the parks, ensuring that they cater for a range of user interests and abilities and provide visitors opportunities to appreciate the views and values of the parks.

To maintain the walking trails in good repair.

To ensure that at least part of the network provides routes and sites that assist in the interpretation of the park to visitors and school groups.

To ensure that suitable linkages, including new trails, are developed between trails in the parks and nearby district and regional trails.

### *Actions*

- Inventory all existing tracks and assess their function and quality.
- Produce a walking trail master plan.
- Explore the potential of new routes and or linkages based on current best practice design considerations. New routes must not damage species of conservation significance.
- Be mindful of habitat fragmentation, weed spread and soil pathogen issues.

## Morialta and Black Hill Conservation Parks Management Plan (2001)

- Ensure within stable soil areas that some difficult and challenging walks, with appreciable elevation gain, are retained.
- Where possible, reduce the overall reliance upon fire access tracks.
- Incorporate self-registration entrance fee points where appropriate.
- Consider including the following trail head information points:
  - Morialta picnic ground carpark
  - Morialta focal visitor information location
  - Black Hill focal visitor information location
  - Norton Summit entry point
  - Colonial Drive entry point
  - Moores Road entry point
  - Addison Avenue entry point
  - Ambers Gully entrance
  - Fifth Creek Carpark (proposed)
  - Everest Avenue.
- Consider the retention and formalisation of existing minor spur entry points from suburban streets.

### Rock Climbing and Other Specialist Activity Groups

A positive relationship exists between NPWSA and rock climbers who use Morialta to undertake their activity. An ongoing dialogue with appropriate representative groups has led to the adoption of a departmental policy (which principally addresses safety and public liability issues), the construction of rock holdfast bolts, and improvements in training and safety procedures. Rock climbing is a high-risk activity and the taking of calculated risks is fundamental to the sport. NPWSA has a legal duty of care to discharge in relation to its visitors and the balancing of these opposing positions remains difficult. In addition, because of the increased popularity of the sport, site impacts at the base of the cliffs and along the interconnecting paths continue to degrade and contribute to erosion problems. Rock climbing within the park continues to require additional safety procedures, improved path and track surface hardening and the monitoring of activity and behaviour. These all take considerable amounts of staff time.

Other specialist activity groups, when they are permitted to undertake activities within the parks, also impose special requirements on the resources and time of NPWSA.

#### *Objectives*

To continue to recognise rock climbing as a legitimate use of Morialta Conservation Park and to maintain an ongoing liaison with representative bodies.

To establish and maintain, in consultation with recognised representative groups, infrastructure and information systems, permit systems, fee structures, specialised equipment, monitoring programs and activity supervision for rock climbers and other approved specialist activity groups.

#### *Actions*

- Continue liaison and the refinement of the rock climbing policy.
- Introduce an annual permit and/or a self-registration system for all rock climbers and levy an appropriate fee.

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- Monitor car parking on Norton Summit Road following the widening of that road to accommodate rock climbers' vehicles. If necessary, consider the construction of carparking on park land by one of the following means:
  - obtain a right of way through private land and offer to fence that right of way, to permit public access to a small carpark within the park
  - purchase a small portion of land in the same location to provide a carpark
  - negotiate to purchase the section.
- Erect and maintain a comprehensive notice board at the traditional entry point for rock climbers and ensure adequate and comprehensive information is provided to climbers about their responsibilities and what requirements NPWSA makes of them.
- Undertake conservation, soil stabilisation and track hardening works to limit the impact of rock climbers on the natural environment. Continue to review the operation of holdfast locations.
- Monitor rock climbing activity for indications of further negative environmental impact, public safety and permit compliance.

### Visitor Information and Interpretation

#### *Objective*

To provide park visitors with information and interpretive services and activities that complement and enhance their visit.

#### *Actions*

- Provide interpretive signage that offers quality information on the park's natural and cultural values.
- Investigate and encourage appropriate commercial operators to conduct natural or cultural history guided services and special events.
- Review, replace and improve all park signage as necessary.
- Establish interpretive displays within the proposed Morialta Gorge Precinct Development.
- Produce pamphlets and brochures on the park resources and visitor access.
- Provide for the delivery of natural and cultural history interpretive programs to school and other groups by arrangement.
- Erect signage at appropriate Friends and Community Service project sites to provide the visiting public with information and awareness of group projects and activities.

### **Community and Volunteer Involvement**

Morialta and Black Hill Conservation Parks have an active Friends Group and Consultative Committee, who with Athelstone Kiwanis and Lions Clubs are all engaged on numerous projects within the parks. Local schools have ongoing projects, and groups such as the Morialta Residents Association have a long association with the park. Other community groups such as Morialta and Campbelltown Rotary Clubs and East Torrens CFS Group have been involved in different aspects of park management. In recent times a number of government funded work and training schemes have undertaken projects within the parks.

All of this activity requires liaison and sometimes the provision of materials, equipment and supervision by park staff. The volunteer input also requires integration with park management objectives and work programs. As the size and importance of this volunteer input into management increases, new more structured mechanisms are required to efficiently integrate it into overall park management.

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### *Objective*

To provide an efficient and integrated planning, approval, support and liaison service to volunteers that is consistent with park management objectives.

### *Actions*

- Maintain all existing commitments to all volunteer groups engaged in land rehabilitation work.
- In consultation with Friends Groups and other major volunteer project groups, undertake a review of the overall thrust and direction of volunteer and work scheme activity. Devise a Volunteer and Community Works Master Plan that is consistent with the proposed Conservation Management Plan and which permits effective use of staff time and in the future, the advocacy of desired projects, to volunteer groups and community employment programs.
- Retain the services of the Friends of Morialta/Black Hill in the management of the Wildflower Garden, but support their work with additional resources to construct a picnic gazebo, establish and renew plant identification labels and signs, mulch the walking track surface and generally assist and support the Friends Group to improve the presentation and appearance of the Garden.

### **Commercial Activities**

Commercial operations can play a key role in providing visitor services and in contributing to resources for park management.

Morialta and Black Hill Conservation Parks operate under arrangements whereby the private sector provide visitor facilities and services to the public. The mechanism used by NPWSA to manage private sector involvement in park management is through the grant of a formal lease or commercial operators licence under the National Parks and Wildlife Act.

Licences currently issued to private operators include the provision of refreshment facilities, natural and cultural history guided services, and cottage accommodation.

### *Objectives*

To foster and develop park business enterprises where the private sector can provide services to enhance park visitor experience and support park management.

To ensure that private operators undertake services in accordance with the parks plan of management and comply with terms and conditions of commercial operator licences, leases and agreements.

### *Actions*

- Actively encourage private sector involvement in park management where operators can deliver quality visitor services that will enhance visitor experience.
- Develop a concessionaire management business plan that more closely reflects private sector activities, services and resource contribution.
- Develop and deliver standard induction program for park commercial operators.
- Conduct audits as required to ensure commercial operators are complying with licence terms and conditions.

## **Alien Tenures and Other Landuses**

### *Objective*

NPWSA will seek to resolve the following land tenure issues:

### *Actions*

- Discuss with local government possible undertakings by NPWSA, which may permit the closure and then dedication, as park, of all remaining road reserves contained within the boundaries of both parks.
- Dedication as part of Black Hill Conservation Park the Trig Reserve on the summit of Black Hill.
- Dedication of Crown Land contained within Allotment 2 in DP 28258 in the southeast corner of Morialta, adjacent to Colonial Drive.
- Enter discussions with the lessees of the blue dolomite quarry to the north-east of Black Hill, which is owned by the Crown. Attempt to negotiate a land management program over those parts of the lease that contain vegetation communities of conservation value and are not affected by mining activities.
- Investigate any land adjoining Morialta Conservation Park that may be available for purchase, to ascertain if it would improve the current park boundary for the better management of visitor access, pest plant control and other programs, or enhance biodiversity conservation. Any acquisition would be subject to the availability of funding and State-wide budget allocation priorities.

NPWSA will continue to recognise all existing alien tenures including ETSA, SA Water and Telstra easements and rights of way.



## SUMMARY OF MANAGEMENT ACTIONS

ACTIONS	PRIORITY
<b>ZONING</b>	
<ul style="list-style-type: none"> <li>Adopt the zoning plan shown in figure 5.</li> </ul>	high
<b>NATURAL RESOURCES</b>	
<ul style="list-style-type: none"> <li>develop a Conservation Management Plan</li> </ul>	very high
<ul style="list-style-type: none"> <li>prepare a Fire Management Plan</li> </ul>	very high
<ul style="list-style-type: none"> <li>encourage school and universities to become actively involved in parks natural resource management programs</li> </ul>	high
<b>CULTURAL RESOURCES</b>	
<b>Indigenous</b>	
<ul style="list-style-type: none"> <li>continue to liaise with members of the Kurna community and DOSAA.</li> </ul>	high
<ul style="list-style-type: none"> <li>seek Kurna support to improve park staff understanding of Kurna people's traditional connections with the park and its surrounding areas</li> </ul>	high
<ul style="list-style-type: none"> <li>explore arrangements to involve Kurna people in the management of the parks</li> </ul>	medium
<ul style="list-style-type: none"> <li>support opportunities for the development of appropriate enterprises involving Kurna people within the parks</li> </ul>	high
<ul style="list-style-type: none"> <li>in concert with Kurna people, where necessary undertake site inspections, protect and where appropriate, interpret Aboriginal culture or sites</li> </ul>	very high
<b>Non-Indigenous</b>	
<ul style="list-style-type: none"> <li>continue to monitor and inventory historic sites and stories that relate to the history of parks and make such information available to park visitors</li> </ul>	medium
<ul style="list-style-type: none"> <li>ensure that historic structures, mining and all other sites are maintained and protected</li> </ul>	very high
<ul style="list-style-type: none"> <li>gather the available oral history of the parks</li> </ul>	medium
<b>RECREATION AND TOURISM RESOURCES</b>	
<b>Access</b>	
<ul style="list-style-type: none"> <li>consult with the Department of Road Transport with a view to develop improved control of the Morialta Falls Road to the National Parks and Wildlife</li> </ul>	very high
<ul style="list-style-type: none"> <li>discuss with local Council the implications of increased parking on Stradbroke Road which may result from park entry fee introduction</li> </ul>	very high
<ul style="list-style-type: none"> <li>introduce a visitor entry fee for the Morialta Gorge Precinct</li> </ul>	very high
<ul style="list-style-type: none"> <li>upgrade carpark, information and reception system within the Black Hill District Office complex and establish secondary formal park entry points</li> </ul>	high
<b>Visitor Facility Developments</b>	
<ul style="list-style-type: none"> <li>produce a comprehensive plan for the redevelopment of the Morialta Gorge Precinct that offers well designed quality facilities and landscaping</li> </ul>	very high
<ul style="list-style-type: none"> <li>consider controlled and managed night walks to the base of the First Falls and the potential for discreet garden type lighting to enhance the experience of visitors</li> </ul>	medium

## Morialta and Black Hill Conservation Parks Management Plan (2001)

### **Walking Trails**

- produce and implement a walking trail master plan very high
- investigate the development of a small bush campground within Morialta medium
- incorporate self registration entrance fee points where appropriate medium

### **Rock Climbing and other Specialist Activity Groups**

- continue liaison and refinement of the rock climbing policy medium
- introduce an annual permit and/or self registration system for all rock climbers and levy an appropriate fee high
- monitor carparking on Norton Summit Road following the widening of that road to accommodate rock climbers. If necessary, consider the construction of carparking on park land high
- erect and maintain a comprehensive notice board at the traditional entry point for rock climbers high
- undertake conservation, soil stabilisation and track hardening works and continue to review the operation of holdfast locations high
- monitor rock climbing activity high

### **Visitor Information and Interpretation**

- provide and improve information and interpretive services high
- review, replace and improve all park signage as necessary very high
- provide for the delivery of interpretive programs to school and other groups medium
- investigate and encourage appropriate commercial operators to conduct natural or cultural history guided services and special events medium
- establish interpretive displays within Morialta Gorge development high
- erect signs with information on Friends and Community Groups projects high

### **COMMUNITY AND VOLUNTEER INVOLVEMENT**

- maintain all existing commitments to all volunteer groups engaged in land rehabilitation work high
- devise a Volunteer and Community Works Master Plan very high
- retain the services of the Friends of Morialta/Black Hill in the management of the Wild Flower Garden by supporting their work with additional resources and assistance to improve the presentation and appearance of the Wild Flower Garden high

### **COMMERCIAL ACTIVITIES**

- encourage private sector involvement in park management where operators can deliver quality visitor services that will enhance visitor experience medium
- develop a concessionaire management business plan for the private sector high
- develop and deliver standard issued induction program for park commercial operators very high
- conduct audits as required to ensure commercial operators are complying with licence terms and conditions high

### **ALIEN TENURES AND OTHER LANDUSES**

- seek to close and then dedicate as park, all remaining road reserves contained within the parks' boundaries medium

## Morialta and Black Hill Conservation Parks Management Plan (2001)

- dedicate as part of Black Hill Conservation Park the Trig Reserve low
- dedicate Crown Land contained within Allotment 2 in DP 28258 in the SE corner of Morialta, adjacent to Colonial Drive high
- enter discussions with the lessees of the blue dolomite quarry to the NE of Black Hill to negotiate a land management program over those parts of the lease that contain vegetation communities of conservation value high
- investigate adjoining land to ascertain whether acquisition would assist park management or biodiversity conservation – any land purchases subject to budget. very high

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