

## ANNA'S RESERVOIR CONSERVATION RESERVE

# DRAFT PLAN OF MANAGEMENT / CONSERVATION MANAGEMENT PLAN

## November 2002



#### PARKS AND WILDLIFE COMMISSION OF THE NORTHERN TERRITORY



Parks and Wildlife Commission of the Northern Territory P.O. Box 2130 Alice Springs NT 0871

Anna's Reservoir Conservation Reserve Draft Plan of Management/Conservation Management Plan

November 2002

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#### **Foreword**

".. a little higher up, in a ledge of rocks, is a splendid reservoir of water ... "

These words of John McDouall Stuart when he discovered and named Anna's Reservoir in April 1860 on one of his attempts to traverse Australia from South to North, describe the central feature of Anna's Reservoir Conservation Reserve and give the sense of importance such a source of water has in a semi arid remote environment.

The Reserve area was significant to the Anmatjere Aboriginal people, to Stuart and fellow explorers, to linesmen of the Overland Telegraph Line and travellers heading north with stock. It was the homestead site of the most ambitious pastoral enterprise in central Australia, the Barrow Creek Pastoral Company, until Aboriginal attacks forced withdrawal from the area.

The Reserve today allows visitors to appreciate its remote and natural setting whilst gaining appreciation of the Aboriginal and historical significance of the site. It is, and will remain, a low visitation reserve which provides visitors a high quality outback experience.

The Plan sets guidelines for the future management of the Reserve in order to conserve the cultural and natural resources of the Reserve while providing opportunities for visitors to appreciate the history and landscapes of the area.

Major management directions for the Reserve are summarised below.

- Continued conservation of the Reserves cultural resources.
- Establishment and signposting of a new public access road from the Napperby road.
- Establishment of a day use / camping area if required.
- Continued maintenance of the Reserve boundary fence.
- Monitoring and control of introduced plants and animals.
- Development of interpretation signage at the Reserve.
- Rehabilitation and prevention of soil erosion.
- Continued implementation of a fire action plan.

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## STATEMENT OF HERITAGE VALUE ANNA'S RESERVOIR CONSERVATION RESERVE

Anna's Reservoir Conservation Reserve has historical significance to the Territory.

The rockhole, Anna's Reservoir, was of critical importance to the explorer John McDouall Stuart, who discovered, described and named it in April 1860. He visited it on the forward and return journeys of each of his three attempts to reach the north coast. On Stuart's return from his last, and successful trip, in September 1862, the availability of water and grass at Anna's Reservoir at a time when Stuart was critically ill and the surrounding area dry, enabled the successful completion of the journey.

The Reservoir once again played an important part in the epic overland journey from 1879-80 by Alfred Giles, overlanding 8000 sheep and 4000 cattle to establish Springvale near Katherine. Giles took advantage of Stuart's description of the water at Anna's Reservoir and forced the sheep over a dry stage of 108 miles from Colyer's Creek (north of Alice Springs) to the Reservoir. This was the only reliable water source in that dry year between Colyer Creek and Tea Tree Well.

The homestead ruins within the Reserve are also highly significant due to their association with the Barrow Creek Pastoral Company venture, the most ambitious enterprise of its kind in Central Australia. Billy Benstead, manager of the venture chose in early 1884 Anna's Reservoir as the site of the station homestead. This homestead was the venue for one of the few documented cases where Aboriginal resistance actually forced a withdrawal of white settlement. As such the ruins are important as evidence of that settlement process.

Anna's Reservoir is also important as a wildlife watering hole.

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#### 1. INTRODUCTION TO THE PLAN

#### 1.1 Location and Values

Anna's Reservoir Conservation Reserve is located on Wickstead Creek in the foothills of the Reynolds Range, approximately 160 kilometres north of Alice Springs (Figure 1). It is one of the most isolated and least visited Reserves in the Parks and Wildlife Commission's estate despite being only 29 kilometres from the Stuart Highway. Currently, access to the Reserve is from the Stuart Highway at a turnoff 135 km north of Alice Springs then generally in a westerly direction by a station track for 27 kilometres and then north for a further 2 kilometres along a rough track to the Reserve. The Reserve (N T Portion 1281) covers an area of 84.98 hectares and is surrounded by Aileron Station (N T Portion 703, Perpetual Pastoral Lease 1097) from which the Reserve was originally excised.

The area was proclaimed a Reserve on 30 September 1971 under Section 103 of the *Crown Lands Act* as Reserve No 1346. The Reserve was gazetted as a Reservation from Occupation (R O 1107) on 6 June 1985 under section 178 (1) of the *Mining Act* and declared a Heritage Place under section 26 (1a) of the *Heritage Conservation Act* on 30 January 1995 primarily for its historic values. For the Statement of Heritage Value for the Reserve see page iv.

The Reserve's prime focus and **European historical significance** derives from John McDouall Stuart's association with Anna's Reservoir on his journeys to cross to the north coast of Australia. The Reserve also contains the ruins of two buildings which were the homestead and the blacksmith's hut for the Barrow Creek Pastoral Company set up in 1884 and subsequently abandoned that same year.

Anna's Reservoir is significant as the scene of a violent confrontation between the Aboriginal inhabitants and early European settlers.

The Reserve's **Aboriginal cultural significance** relates to a recorded Sacred Site consisting of the gorge and rockhole area and an art site near the rockhole where several well worn petroglyphs can be seen. Aboriginal cultural values and use of the site are not fully known.

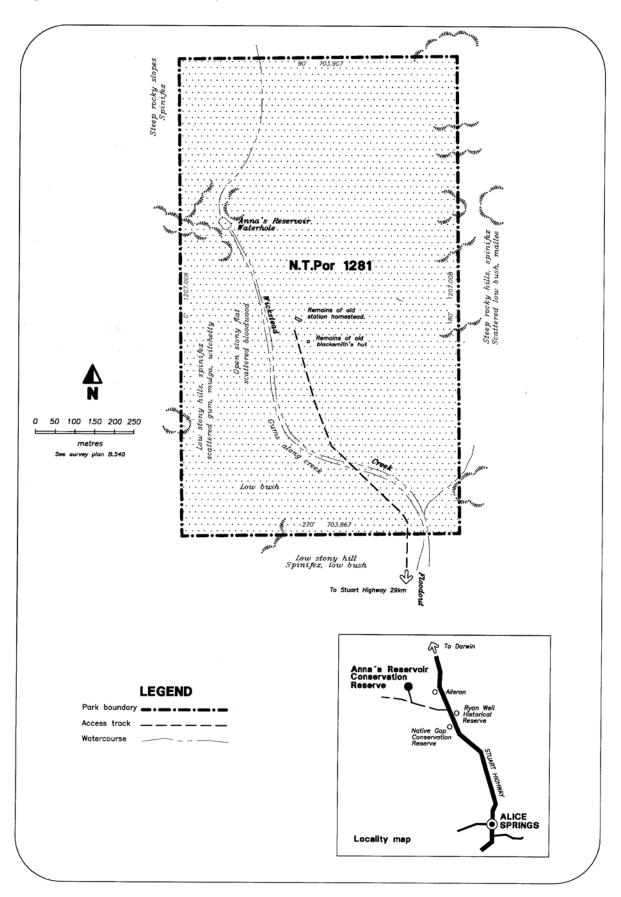
The **natural values** of the Reserve are primarily related to the rockhole (Anna's Reservoir) and its importance for wildlife in the area.

Although the Reserve is within the Burt Plain Bioregion it is not representative of the characteristics of this Bioregion due to its location within the Reynolds Range.

The **tourism and recreational values** of the Reserve relate to the considerable historical significance. The reserve has potential as an opportunity for education and interpretation of the historic values to travellers who care to visit this lonely Reserve.

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Figure 1. The Reserve and Locality



#### 1.2 The Concept of the Reserve and its Purposes

The main purpose of the Reserve is to protect and conserve the historical and cultural resources. The Reserve will also protect the natural resources associated with the rockhole whilst allowing visitors the opportunity to appreciate and enjoy the Reserve.

Management of the Reserve will aim at the retention of its predominantly natural character and the protection and conservation of its natural and cultural values. Consequently, all developments at the Reserve will be designed to facilitate visitor enjoyment without impairing these cultural and natural values.

#### The principal purposes of the Reserve are to;

- conserve the areas cultural heritage resources including the historic sites and associated artefacts and the Aboriginal art site and associated artefacts,
- protect the area's natural resources in particular the rockhole and its surrounding plant and animal communities,
- provide recreational opportunities consistent with the remoteness and role of the Reserve enabling visitors the opportunity to appreciate and understand the Reserve's cultural and natural values.

#### 1.3 The Intent of this Plan

The aim of this Plan is to ensure the protection and conservation of the values stated above whilst providing opportunities for people to enjoy the Reserve.

The Plan states the intent of the Parks and Wildlife Commission of the Northern Territory with respect to the management and conservation of Anna's Reservoir Conservation Reserve. The Plan provides management objectives, addresses current management issues and proposes appropriate measures to guide future management and development on the Reserve.

The Reserve has been listed on the N T Heritage Register. Under the *Heritage Conservation Act* Conservation Management Plans are optional requirements which stipulate approved conservation works for a declared Heritage Place.

This Plan has been prepared in pursuance of sections 18 and 19 of the *Territory Parks and Wildlife Conservation Act* and sections 30 and 31 of the *Heritage Conservation Act* and will fulfil the function of a Plan of Management and a Conservation Management Plan.

The PWCNT is obliged under section 21 of the *Territory Parks and Wildlife Conservation Act* and section 33 of the *Heritage Conservation Act* to manage the Reserve in accordance with this Plan once it has come into operation.

The Plan will be in force for a minimum of five years and a maximum of ten years, unless revoked by a new plan, or amended in accordance with section 20 of the *Territory Parks Wildlife Conservation Act* and section 32 of the *Heritage Conservation Act*.

#### 2. ZONING SCHEME

The Zoning Scheme (Figure 2) is an important tool in pursuing the intent of this Plan. The scheme provides the basis for regulating the activities of visitors and allowing for appropriate management of the Reserve's natural and historical resources.

Visitor access to any of the zones may be restricted if it is seen to be having a deleterious effect on the values of the Reserve. Any developments will be carried out with a minimum of interference to the natural environment and according to the requirements of the Environmental Assessment Act, the Northern Territory Sacred Sites Act, the Territory Parks and Wildlife Conservation Act, the Heritage Conservation Act and other relevant legislation.

#### 2.1 Outline of the Zoning Scheme

Four zones have been identified to regulate the use, development and management of the Reserve:

- Visitor Facilities Zone
- Special Protection Zone Historical
- Special Protection Zone Aboriginal
- Natural Zone

The purpose of each zone is outlined below having been determined on the basis of the values occurring in the specified areas.

#### 2.2 Visitor Facilities Zone

The purpose of this zone is to provide for a variety of day-use/camping recreational opportunities in a natural setting. Minimal disturbance to the natural resources will occur during the siting and development of facilities.

Facilities provided in the zone will be minimal and include a walking track, platform tables, BBQ's, car parking and unobtrusive information and interpretive signs. Access in this zone will be by vehicle to the car park then by a walking track to the historic ruins and waterhole.

#### 2.3 Special Protection Zone - Historical

This zone facilitates the conservation of the historical values of Anna's Reservoir. Conservation is necessary for the remains of the homestead and blacksmith's hut and associated artefacts from visitor impacts and introduced animals.

Management of the ruins will be in accordance with guidelines set in the ICOMOS Burra Charter which allows for such ruins to be conserved to prevent undue deterioration. Facilities will be limited to carefully located information and interpretive signs advising visitors of the significance of the ruins and the need for appropriate behaviour. Visitor access through this zone will be by foot on a marked walking track.

#### 2.4 Special Protection Zone - Aboriginal

This zone provides special protection to the recorded Sacred Site, Nkgwurla, (the gorge and rockhole area) and the one known Aboriginal art site within the Reserve. Management will aim to prevent damage to the petroglyphs at this site by informing visitors in pre visit information and on site signage of the importance of such sites to Aboriginal people and of the penalties imposed for anyone interfering with or damaging a Sacred Site. Facilities will

not be developed within this area and visitor access will be by foot only. Management of the recorded Sacred Site will be in accordance with the *Sacred Sites Act*.

#### 2.5 Natural Zone

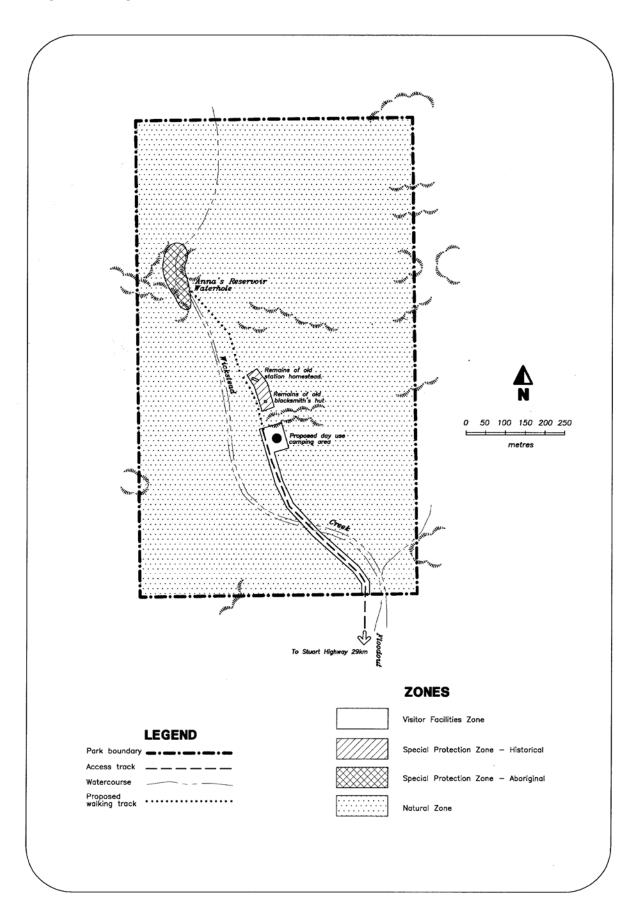
The principal purpose of the Natural Zone is to protect the area's natural resources including the flora and fauna within the different vegetation community types represented in the Park.

Only low-impact activities such as bushwalking will be permitted. To retain the natural character of this zone, developments will not be permitted.

**TABLE 1 - Summary of Zoning Scheme** 

+	Visitor Facilites Zone	Special Protection Zone - Historical	Special Protection Zone - Aboriginal	Natural Zone
Purpose	To provide an area where visitor facilities can be sited with minimal impact to the environment.	To protect the key historical values, i.e. the station homestead and blacksmiths hut ruins.	This zone provides special protection to the Recorded Sacred Site (the gorge and rockhole) and the Aboriginal art site.	This zone provides protection to the area's natural resources including the flora and fauna within the Reserve.
Management Stategy.	To concentrate development and visitor use in a manageable area and to keep impacts within acceptable limits.	To provide facilities and information which will encourage visitor appreciation and appropriate behaviour.	To monitor and protect the Sacred Site and art site.	To retain in as natural a state as possible allowing dispersed and low-key activities.
Access	4 Wheel-drive vehicle access along an unsealed track to the day use/camping area. Elsewhere by foot.	Access by walking on designated walking track only.	Access, where appropriate, by walking on designated walking track only.	Access by foot only
Facilities	Unsealed access track, parking lay-bys, day use/camping area, BBQs, platform tables, interpretation and Information signs. Scope for expansion and pit toilet if needed.	Walking track, interpretation and information signs.	Interpretation and information signs only where consistant with objectives of traditional Aboriginal custodians.	Boundary fencing only
SesU	Vehicle based activities, camping picnicking, walking.	Walking, history and nature appreciation. Photography	Walking, Aboribinal culture, nature appreciation and photography.	Bushwalking, nature appreciation and photography.

Figure 2. Zoning Scheme



#### 3. MANAGEMENT OF THE RESERVES CULTURAL RESOURCES

#### **Objectives**

- To conserve the European historical sites (the homestead and blacksmith's hut) and associated artefacts in the Reserve.
- To provide visitors with the opportunity to appreciate the Reserve's European historical features.
- To encourage further research into the history of the Reserve area.
- To protect and preserve the recorded Sacred Site and the Aboriginal art site through information and interpretation signs and in pre-visit information.
- To provide visitors with the opportunities to appreciate the part Anna's Reservoir played in the early colonisation by Europeans in Central Australia.
- To provide visitors with the opportunities to appreciate the Aboriginal history of the area.
- To encourage further research into the Aboriginal culture and use of the Anna's Reservoir area.

#### 3.1 European Cultural Resources

The first European person to discover, name and describe Anna's Reservoir was explorer John McDouall Stuart in April 1860. Stuart named the rockhole after the youngest daughter of one of his sponsors, Mr James Chambers. He visited it on forward and return journeys on each of his three attempts to reach the northern coast of Australia. Early travellers and the Overland Telegraph Construction team also drew water from the Reservoir.

Anna's Reservoir once again played an important part in the epic overland journey from 1879/80 by Alfred Giles, overlanding 8000 sheep and 4000 cattle to establish Springvale near Katherine. Giles took advantage of Stuart's description of the waterhole and forced the stock from Colyer Creek north to Anna's Reservoir a distance of about 175 kilometres. In that dry year this was the only reliable water source between Colyer Creek and Tea Tree Well.

The homestead ruins within the Reserve are highly significant due to their association with the Barrow Creek Pastoral Company venture, the most ambitious enterprise of its kind in Central Australia. Billy Benstead, manager of the venture, early in 1884 chose Anna's Reservoir as the site of the station homestead for their vast station (51,800 square kilometres) and commenced building a three roomed stone house and blacksmith's hut. In August 1884 with only Harry Figg (head stockman) and Thomas Coombes (cook) present at the homestead, the Annatjere people attacked, spearing Coombes and setting fire to the homestead. A new homestead for the Barrow Creek Pastoral Company was built at Stirling and the Anna's Reservoir homestead abandoned following the 1884 attack.

#### **Management Guidelines**

- The historical sites and associated artefacts will be managed in such a way as to protect and conserve the heritage value of the Reserve.
- Management staff will assess the state of the historic sites and associated artefacts during routine visits to the Reserve.
- Any works undertaken at the site to conserve the ruins will be carried out in accordance with the ICOMOS (International Council on Monuments and Sites) principals and recommended procedures established in the Burra Charter and will follow recommendations in conservation studies done by Forrest (1989) and Service Enterprises (1980).
- Any vegetation posing a fire or structural hazard to the historical fabric will be cleared using chemical and physical techniques which will cause minimal interference to that fabric.
- The Reserve's Interpretive Plan will engender a sense of respect for the site's history and deter inappropriate behaviour.
- The Annual Fire Action Plan will ensure that the Reserve's historical fabric is not threatened by prescription burning or wildfires.

#### 3.2 Aboriginal Cultural Resources

The Anmatjere people claim a long term association with the Anna's Reservoir area. The confrontation at Anna's Reservoir homestead in August 1884 is one of the few cases where Aboriginal resistance forced the withdrawal of a white settlement.

There is one recorded Sacred Site within the Reserve, Nkgwurla 5552-21, (the gorge and rockhole) and an art site consisting of several well worn petroglyphs within this area.

#### **Management Guidelines**

• Traditional Aboriginal custodians and their representative organisations will be consulted over a range of management issues such as:

research into the Aboriginal cultural values and significance of the Reserve; the establishment of a data base of Aboriginal cultural resources; and Aboriginal cultural information suitable for inclusion in the Reserve's Interpretive

program.

- All new developments in the Reserve require and will obtain a certificate of clearance from the Aboriginal Areas Protection Authority.
- All Aboriginal artefacts in the Reserve and the rock art site are protected as "Prescribed Archaeological Places and Objects" under the *Heritage Conservation Act*.
- No information on the location of the petroglyphs will be provided to visitors.
- Information will be provided to visitors, in the Reserve's Interpretive program

- regarding the correct behaviour in areas of Aboriginal significance and to make aware of their responsibilities.
- Aboriginal artefacts found on the Reserve will be left *in situ* wherever practicable, unless traditional custodians wish to determine alternative arrangements. Artefacts in danger of being damaged or souvenired may be documented and collected for storage or display, in accordance with the wishes of the traditional custodians, and subject to approval by the Minister responsible for heritage under the *Heritage Conservation Act*.

#### 4. MANAGEMENT OF THE RESERVES' NATURAL RESOURCES

#### **Objectives**

- To protect the Reserve's natural features including native plants and animals, soils, geological and water resources.
- To protect the natural landscape and scenic values of the Reserve.
- To minimise the effects of erosion on the Reserve and, where appropriate, rehabilitate degraded areas.
- To minimise the impact of introduced plants and animals on the Reserve.
- To implement an appropriate fire management plan for the Reserve.
- To minimise the impacts of visitors to the Reserve.

#### 4.1 Geology, Landforms and Soils

The Anna's Reservoir Conservation Reserve lies within the Harts Land System (Figure 3). Schist and gneissic granite of Precambrian age are the dominant rock types within the Reserve. The schist strikes generally east - west and has been intruded by dykes of quartz and course grained granite (pegmatite). Minor outcrops of metamorphosed limestone occur in the south and quartzite outcrops occur in the north of the Reserve.

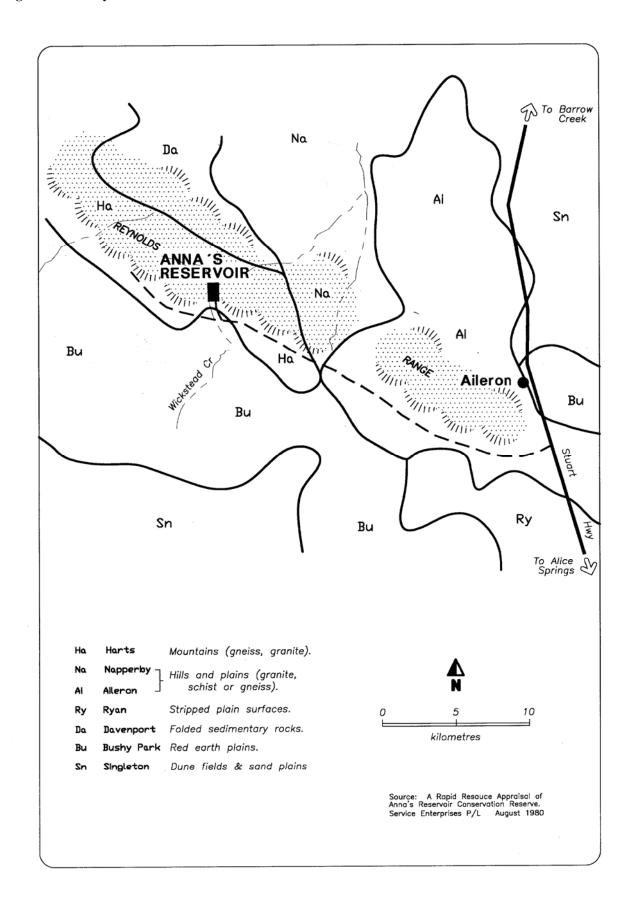
Steep sided strike ridges of the Reynolds Range dominate the Reserve's northern section. These are drained by steep channels leading into Wickstead Creek, a major southward trending stream which has carved a V- shaped valley at right angles to the strike. The direction of this stream within the ranges appears to be controlled by quartzite outcrops to the west.

Arid erosional processes have stripped the ridge of soil except for small pockets of gritty material trapped in depressions among the rocks. Fans of alluvium have been built up on flat stream confluences in the Wickstead Creek valley.

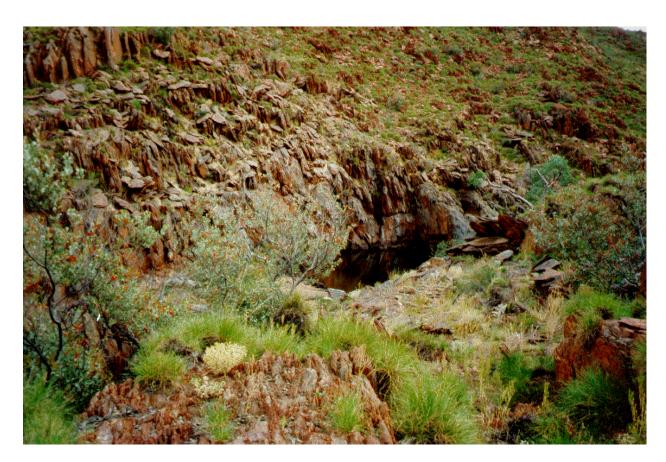
Gentler gradients in the area south of these ridges have resulted in a greater deposition of water-borne material; pockets of stony soil have been formed at suitable locations along the narrow, rocky stream channels. Ancient alluvial flats formed by deposition from Wickstead Creek cover larger areas in the reserves south eastern portion. A sparse cover of poor, coarse textured soil has built up inside on the low rolling schist ridges. The more resistant gneissic granite has been left standing as boulder outcrops and as smooth sheets capping the higher ridges. Quartz pavements and calcareous soils resulting from the breakdown of quartz dykes and metamorphosed limestone occupy small areas.

The entire Reserve is reserved from occupation under section 178(1) of the Mining Act.

Figure 3. Land Systems



- Efforts will be made to prevent soil erosion through the following measures:
  - restriction of access to areas sensitive to erosion.
  - stock and feral animal control.
- Efforts will be made to rehabilitate eroded areas within the Reserve. Vehicular and walking tracks which are not required will be closed and rehabilitated. Any soil used must be certified weed free.
- Any future developments should be undertaken with a minimum of soil disturbance. Erosion control measures will be employed as required under the advice of the Department of Lands, Planning and Environment's Land Conservation Unit during the construction phase and rehabilitation measures undertaken if required following a projects completion.
- Visitor activities which cause excessive soil disturbance such as off road driving are not permitted. Visitor access to areas in the process of rehabilitation will be regulated or restricted where necessary.



Anna's Reservoir viewed from Reynolds Range.

#### 4.2 Native Flora

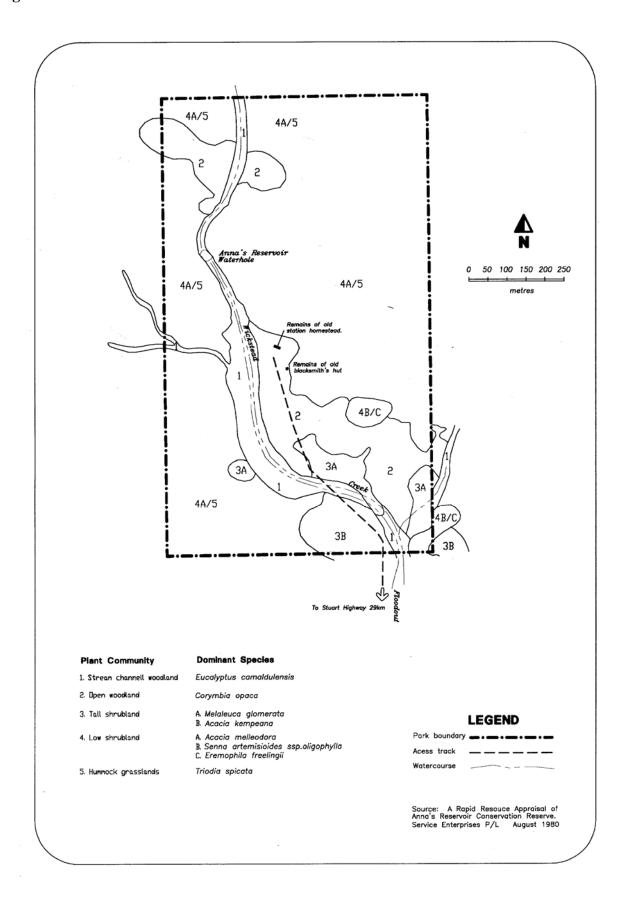
Periodic surveys have been undertaken by Ranger staff from the Alice Springs Telegraph Station to determine the number of plant species within the Reserve and the extent of these species. Service Enterprises Pty Ltd also conducted an extensive flora survey in 1980. No rare or threatened species have been recorded.

According to Service Enterprises, the vegetation of the reserve is made up of 5 plant communities (Figure 4) dominated by tussock grassland, which has a sparse upper-storey, over the rocky hills and rolling slopes. The alluvial foothill fans, which also make up a significant part of the reserve, are dominated by bloodwood forming an open woodland. Stream-channel woodland, tall and low shrub land communities are also present and occur over the remaining area.

Despite the degradation of the vegetation of the Reserve in the past by cattle (trampling and grazing), several diverse plant communities contain a relatively rich number of species. The Corkwood (*Hakea chordophylla*), not commonly seen in the southern central areas of the Northern Territory, is well represented in the open woodland. The protection and management of native vegetation in the Reserve is a prime objective.

- Disturbance to any of the vegetation communities of the Reserve will be minimised. Clearing of vegetation will be kept to the minimum necessary for public safety, to protect the historical fabric, fire protection and to provide recreation and management facilities.
- Disturbed or denuded sites will be revegetated, by colonisation from surrounding natural areas wherever possible. Active management such as scarifying, seeding or planting disturbed areas may be employed where required. Priority areas for action will be high use locations, high erosion risk areas, old roads and tracks and development sites.
- The recovery of disturbed or denuded areas, by means of both natural or active management measures, will be monitored by Ranger staff on their regular patrols to the Reserve.
- Controlled burns may be conducted in accordance with the Annual Fire Action Plan designed to reduce fuel and maintain diversity of the vegetation communities.
- Visitors will be advised in pre-visit information and on site signage that the
  collection of firewood within the Reserve is not permitted. Firewood is to be
  collected outside the Reserve.
- The plant species list will be updated as and when new species are found on the Reserve.
- The diverse and relatively rich number of plant species that occur within the Reserve will be promoted to visitors through interpretation.

Figure 4. Plant Communities



#### 4.3 Native Fauna

Periodic research has been undertaken into the native animal populations found in the Reserve. A rapid resource appraisal was conducted in 1980 in which native fauna was surveyed. Ranger staff from the Alice Springs Telegraph Station has conducted periodic fauna surveys and further periodic surveys will be undertaken. No rare or endangered species have been recorded (see Appendix 1).

#### **Management Guidelines**

- Fauna research and surveys on the Reserve will be undertaken as required.
- . Disturbance to habitats on the Reserve will be minimised as far as possible particularly in siting new developments and in fire management practices.
- . Information regarding the characteristics, distribution and habitats of native animals found on the Reserve may be included in the Reserve's interpretation.

#### 4.4 Introduced Flora & Fauna

Only three introduced plant species have been recorded on the Reserve, Khaki weed (*Alternathera pungens*), Spiked Malvastrum (*Malvastrum americanum*) and Buffel grass (*Chenchrus ciliaris*). Introduced animals include horses, cattle, rabbits and cats and mice. Stock used the waterhole extensively prior to fencing in 1991/92, and the surrounding area was degraded due to the grazing and trampling by stock. Since fencing, cattle and horses have been eliminated from within the Reserve. The fenceline will be maintained to ensure the continued exclusion of feral horses and cattle.

#### **Management Guidelines**

- . The susceptibility of the Reserve to the invasion and spread of introduced plants will be minimised by:
- maintaining the majority of the area in a stable natural condition;
- reducing the incidence and extent of disturbed areas;
- rehabilitating or revegetating where necessary using local endemic species and
- effective monitoring programs by rangers.
- Periodic monitoring during Ranger patrols will be undertaken to determine the distribution and status of introduced species. Control measures will be implemented on the Reserve as and when required.
- The Reserve's boundary fencing will be maintained and monitored with the aim to prevent the intrusion of horses and cattle within the Reserve.
- . Introduced animals found in the Reserve will be removed or eliminated where possible. In this regard, close cooperation with adjacent landholders will continue.
- Pets of any kind will not be permitted within the Reserve as in accordance with schedule 1 of the Parks and Wildlife Commission's Pets in Parks Policy.

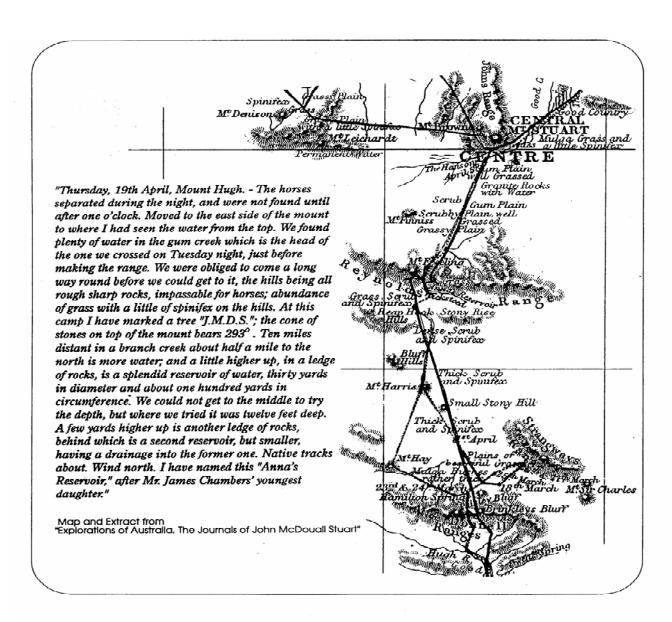
#### 4.5 Use and Control of Fire

It is neither practical nor desirable to completely exclude fire from the Reserve. The plants and animals of the Reserve have evolved with fire and are partially dependent on periodic burning.

#### **Management Guidelines**

The use and control of fire will be an integral part of the Reserve's management. Measures will be employed to protect the Reserve from destructive wildfire and ensure that the majority of the area is not burnt in a single fire event.

An Annual Fire Action Plan will continue to be developed for the Reserve in accordance with the Fire Management Strategy.



#### 5. MANAGEMENT OF VISITORS

#### **Objectives**

- To offer visitors recreational opportunities consistent with the Reserves cultural and natural values.
- To provide facilities in keeping with the remote character of the Reserve including day use facilities, basic bush camping sites and unobtrusive information and interpretation signs.
- To manage the impacts of visitors on the Reserves resources and values to within acceptable limits.

#### 5.1 Regional Context

Anna's Reservoir Conservation Reserve is a destination for modern day explorers who want to follow the route of John McDouall Stuart's expedition or visit the ruins and appreciate the efforts of our early pioneers. With the development and promotion of the Stuart Highway as the 'Explorer Highway' the Reserve is likely to receive a modest increase in visitors in the future. The Reserve offers visitors an aesthetic and remote setting in which to appreciate its cultural and natural values.

#### **Management Guidelines**

• Pre visit information will advise visitors of the remote character, access and facilities provided at the Reserve.

#### 5.2 Visitor Access

Visitor access to the Reserve, at present, is via a station track from the Stuart Highway across the Aileron Pastoral Lease. The track is not a public road, nor is it maintained on a regular basis. 4WD is recommended due to the unstable road surfaces. As a courtesy, visitors should contact the owners of Aileron Station before using this track to visit the Reserve. It has been proposed by the owners of Aileron Station that a new permanent public access route should branch off the Napperby Road approximately 25 kilometres from the Stuart Highway northwards across Aileron Station to Anna's Reservoir.

The existing vehicle track within the Reserve needs to be rationalised and terminated at the proposed day use/camping area to prevent vehicles driving past the historic ruins and into the creek to the rockhole which is a recorded Sacred Site.

- Consultation with the owners of Aileron Station in conjunction with appropriate roads and soils experts will be undertaken to formalize the access route from the Napperby road.
- Pre visit information and directional signage will recommend the vehicle type suitable for the road conditions to the Reserve.
- Consultation with Aboriginal Areas Protection Authority will be undertaken with a view to allowing visitation to the rockhole and gorge area within the Reserve without first obtaining a permit.
- Visitor access to the waterhole from the day use/camping area in the Reserve

- will be by foot only. Vehicle access to the rockhole and historic sites will be for management purposes only. (see Zoning Scheme-Figure 2)
- Tracks within the Reserve not required for management purposes will be closed and rehabilitated.
- A day use/camping area providing low-key facilities for vehicle based groups may be developed. An area shown on Figure 2 within the Visitor Facilities Zone would be a suitable site for this purpose.
- A 'Class C' walking track will lead visitors from the day use/camping area to the ruins then on towards the rockhole. The carpark and camping area will be sited in accordance with the development plan (Figure 5).
- The access track and walking tracks will be developed to cause minimal soil disturbance and minimise impacts on the native flora.
- The PWCNT will liaise with appropriate experts on the siting of the day use/camping area and access tracks within the Reserve.

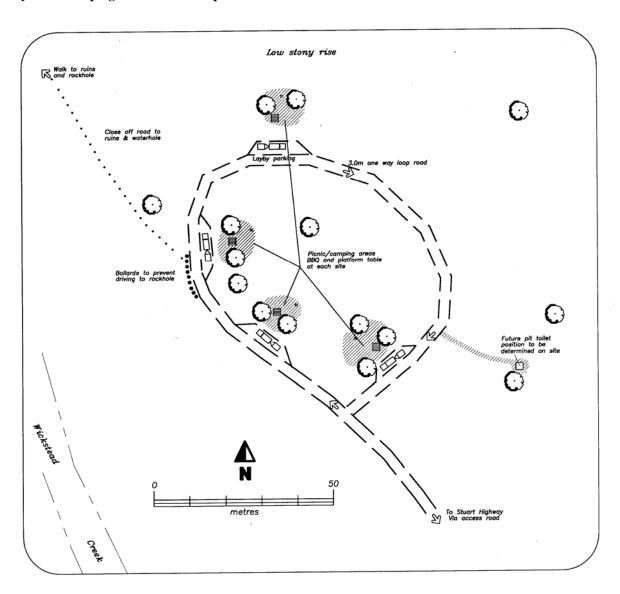
#### 5.3 Visitors Facilities

Currently the only visitor facilities provided at the Reserve are two interpretive signs recording historic events at Anna's Reservoir. Camping occurs but is uncontrolled. Due to very low visitor numbers indiscriminate camping has not been a major problem to this date. Basic day use/ camping facilities and information need to be provided to manage a likely increase of visitor numbers with the promotion of the Stuart Highway (Explorer Highway) as a tourism drive and promotional material about the Reserve displayed at the Aileron Road House. Visitor facilities provided should enhance the recreational opportunities of the area and promote sensitive behaviour that encourages the appreciation and conservation of the Reserves cultural and natural resources.

- The provision of visitor facilities and recreational opportunities will be in accordance with the Zoning Scheme (Section 2)
- Basic camping facilities for vehicle based groups may be provided. Each group site will be provided with a wood burning BBQ and a platform table (Figure 5).
- Prior to the development of camping facilities, all necessary environmental, heritage and AAPA clearances will be obtained.

- Any facilities developed will be sited and designed to complement the Reserves natural setting.
- Camping within the reserve will be restricted to the designated camping area within the Visitor Facilities Zone.
- Rubbish bins will not be provided and visitors must take all rubbish from the Reserve. Information regarding these requirements will be provided.
- The design of the day use/camping area will include provision for future camping sites and a pit toilet, however these facilities will not be constructed until visitor numbers increase to a point where they are justified. In the meantime, information regarding appropriate toilet habits in the bush will be provided.

Figure 5.
Day Use / Camping Area Site Development Plan



#### 5.4 Information and Interpretation

There is presently limited information at the Reserve and no signposting from the Stuart Highway. Anna's Reservoir Conservation Reserve does not appear in any PWCNT's brochures and pre-visit information has never been produced.

The Parks and Wildlife Commission of the Northern Territory will coordinate the development and maintenance of an information and interpretation program for the Anna's Reservoir Conservation Reserve which will foster positive attitudes towards the different cultural and natural values of the Reserve and encourage the protection of those values.

Information and interpretation at the site will be developed in consultation with key stakeholders and implemented in a fashion that is in keeping with the Reserve's remote and undeveloped character. The interpretation will link with the Explorer Highway material currently being developed. The focus will be on adequate orientation information to ensure the safety of visitors and the protection of the principal cultural values. Detailed interpretation will deal primarily with the European history of the site. The information and interpretation program for the Reserve will be reviewed and evaluated in association with the Plan of Management review.

- Key stakeholders including Aboriginal traditional custodians for the site, the National Trust, Northern Territory Government Departments and the neighbouring pastoralists will be consulted where relevant in the development of information and interpretation for the Reserve.
- Consultation with traditional custodians will determine the Aboriginal cultural values for the site and to what extent interpretation will be used as a management tool in the protection and interpretation of Aboriginal cultural resources and places of significance.
- Pre visit information promotion of the Reserve will adopt a minimalist approach. A Park Fact Sheet will be prepared by the PWCNT and made available through Alice Springs and Tennant Creek Tourism Offices on request only. It may be promoted in a suitable low-key fashion through the Explorer Highway literature in a way which sets realistic visitor expectations for the Reserve as a remote 4WD destination with very basic facilities. Some promotional and pre-visit information will be associated with the Explorer Highway display at the Aileron Roadhouse.
- Signage will adhere to PWCNT standards and be kept to a minimum. Detailed interpretation for the site may be incorporated into a visitors book. All materials will be simple, durable and vandal resistant. Directional signs off the Stuart Highway will be low-key. Immediately off the highway a sign will identify the Reserve as a 4WD destination. Directional signage along the access track and throughout the Reserve will need to be upgraded for visitor safety reasons.

- Park orientation information will be located adjacent to the proposed camping/day use area. The orientation information will also introduce the Reserve's information and interpretative theme. The focus for interpretive signs will be the historic sites. The location of interpretive signs within the Special Protection Zone - Historical will not detract from the historic fabric of the site.
- The theme for the Reserve's information and interpretation will focus on the cultural values, and of these, primarily the European history associated with Stuart and the prominent historical sites. Anna's Reservoir played an important part in the history and colonisation of Central Australia
- The key messages for the Reserve's information and interpretation will include but not be restricted to:
- John McDouall Stuart had association with the site on each of his three journeys through the area. The reservoir was the site of the European settlement in the area and spring board for the early pastoral industry.
- This site was significant as the scene of violent confrontation between the Aboriginal inhabitants and early European settlers.
- The reservoir site is a recorded Sacred Site and as such has strong significance to the Anmatjere Aboriginal people. Visitors are encouraged to respect and protect Aboriginal cultural values
- Visitors will be encouraged to adopt appropriate safety behaviour codes in relation to camping and the protection of natural, cultural and aesthetic values.
- The Northern Territory Government through the Parks and Wildlife Commission of the NT are responsible for the management and development of the site. This is done in conjunction with Traditional Aboriginal Custodians.

#### 5.5 Visitor Monitoring

Visitor numbers to the Reserve are currently recorded in a visitor book at the entry gate to the Reserve in which some visitors note their names and make a comment.

- Visitor numbers will be monitored on an ongoing basis to ensure that management of the Reserve is in keeping with changing visitor needs and impacts.
- A visitor book will continue to be provided at the entry to the Reserve to record visitor numbers, attitudes and comments.
- Effort will be made to temporarily place a traffic counter at the entrance to the Reserve. Data collected along with comments from the visitor book will then be assessed.

• The impacts of visitors will be especially monitored in the Special Protection Zones in order to protect the historic sites, the recorded Sacred Site, the Aboriginal art site and any associated artefacts.

#### 5.6 Visitor Safety

Visitor safety must be addressed in the management of the Reserve. Visitors need to be aware of the Reserve's isolated location and the fact that they may be alone at the Reserve with the nearest emergency help at the Aileron Roadhouse where a telephone, medical and mechanical help is available.

- Pre-visit information and on site signage will advise visitors on the location of emergency help and emergency procedures.
- Visitors will be advised that drinking water is not provided at the Reserve and of the need to supply their own.

#### 6. RESERVE ADMINISTRATION

#### **Objectives**

- To ensure that management procedures and practices achieve the objectives of this Plan by adhering to the management guidelines.
- To administer the *Territory Parks and Wildlife Conservation Act*, its By-Laws, the *Heritage Conservation Act*, and other relevant legislation.
- To ensure developments or works on the Reserve meet environmental and heritage requirements and requirements under the *Heritage Conservation Act*.
- To co-operate with neighbouring landholders regarding management of the Reserve.
- To provide sufficient resources for the efficient management and administration of the Reserve.
- To encourage appropriate research into the Reserve's natural and cultural resources.

#### 6.1 Staffing and Management

The Reserve is currently patrolled by Parks and Wildlife Commission Ranger staff from the Central District based at the Alice Springs Telegraph Station Historical Reserve.

Following the increasing popularity of four wheel driving, visitation numbers to the reserve are expected to increase. Patrols and management services may also need to be increased.

Boundary fencing, a Reserve identification sign, visitors book, two interpretation signs and vehicle access track are the only management facilities currently provided on the Reserve.

#### **Management Guidelines**

- Consideration will be given to increasing Ranger patrols if and when required to accommodate any increase in visitation.
- Regular maintenance of boundary fencing is undertaken by management staff to prevent the access of feral animals into the Reserve.

#### 6.2 Liaison with Neighbouring Landholders

Anna's Reservoir Conservation Reserve is contained within the north-east corner of Aileron Station N T Portion 703, PPL 1097 (figure 6). It is essential that the owners of Aileron Station be consulted regarding the ongoing management activities at the Reserve.

#### **Management Guidelines**

 The Parks and Wildlife Commission will consult with the lease holders of Aileron Station to seek agreement on access and signposting to the Reserve from the Napperby road.

#### 6.3 Research and Monitoring

A Rapid Resource Appraisal was conducted by consultants in August 1980 to determine the values of the Reserve and periodic surveys have been undertaken by Ranger staff on an opportunistic basis since.

#### **Management Guidelines**

- Assessing the Reserve's historical fabric will be regularly undertaken in conjunction with Ranger patrols to determine the impacts of visitors, vegetation regrowth and natural deterioration.
- Research and monitoring may be undertaken by Parks and Wildlife Commission staff or suitably qualified persons or agencies.
- All research and monitoring activity proposed by persons or agencies external to the Parks and Wildlife Commission requires the approval of the Director of Parks and Wildlife in accordance with section 111 of the *Territory Parks and Wildlife Conservation Act* and consistent with the Parks & Wildlife Commission's Scientific Licences Policy.

#### 6.4 Legal Requirements

The Parks and Wildlife Commission is obliged, under section 21 of the *Territory Parks and Wildlife Conservation Act* and section 33 of the *Heritage Conservation Act* to manage the Reserve in accordance with this Plan once it has been gazetted and is operational.

The management of the Reserve will follow the guidelines outlined in this Plan. The Plan may be amended at any time in accordance with the *Territory Parks and Wildlife Conservation Act* and the *Heritage Conservation Act*.

- The Reserve's ongoing management will be periodically reviewed to ensure that it complies with the guidelines of this Plan.
- The guidelines of this Plan will be periodically reviewed to ensure the most appropriate management is provided and the relevant issues addressed.

## 7. MANAGEMENT PROGRAMS

Listed below are Management Guidelines stated in earlier sections of the Plan which are to be implemented systematically as Management Programs. Actions in these Programs are referred back to the Management Guidelines by page numbers.

Priorities are assigned as follows: <b>High</b>	- imperative to achieve the Plan's stated objective;
Medium	<ul> <li>very important to achieve the Plan's stated objectives but subject to the availability of resources;</li> </ul>
Low	desirable but will be undertaken only if necessary resources are available or other conditions stated in the Management Guidelines are fulfilled; and
Ongoing -	must be implemented on an ongoing basis in order to achieve the objectives of the Plan.

Guideline	Page	Priority			
3. Management of Cultural Resources					
3.1 European Cultural Resources	3.1 European Cultural Resources				
Management of the historical sites & associated artefacts	8	high			
3.2 Aboriginal Cultural Resources					
Consultation with traditional Aboriginal Custodians	8	high			
Certificate of clearance from AAPA for developments	8	ongoing			
Interpretation of Aboriginal values	8	high			
Protection of Sacred site, rock art & Aboriginal artefacts	8	high			
4. Management of the Reserve's Natural Resources					
4.1 Geology Landforms and Soils					
Prevention of soil erosion	12	medium			
Rehabilitation of eroded areas	12	medium			
Siting of future developments	12	medium			
4.2 Native Flora					
Protection, re-establishment and monitoring	13	high			
Interpretation of native plant species	13	medium			

## 4.3 Native Fauna

	Ongoing research and monitoring Interpretation of the Reserve's native fauna	15 15	high medium
	4.4 Introduced Flora and Fauna		
	Monitoring and control of introduced species Maintenance of boundary fence	15 15	high ongoing
	4.5 Use and Control of Fire		
	Development of a Fire Action Plan	16	high
5.	Management of Visitors		
	5.2 Visitor Access		
	Establishment of public access road and signposting Consultation with AAPA re access to Sacred Site Formalise walking track to historic area and rockhole	17 18 18	high high low
	5.3 Visitor Facilities		
	Establishment of Day Use/Camping area	18	medium
	5.4 Information and Interpretation		
	Consultation with all key stakeholders re interpretation Low-key promotion of the Reserve Directional signage to and signage at the Reserve Development of interpretation and signage at the Reserve	20 20 20 21	high high high high
	5.5 Visitor Monitoring		
	Ongoing monitoring of visitor numbers	21	high
	5.6 Visitor Safety		
	Production of pre-visit advisory information	22	high
6.	Reserve Administration		
	6.1 Staffing and Management		
	Continue Ranger patrols	23	medium

## 6.2 Liaison with Neighbouring Landholders

Consultation with Aileron Station re Reserve access	24	high
6.3 Research and monitoring		
Ongoing assessment of the Reserve's historic fabric	24	ongoing
6.4 Legal Requirements		
Review of guidelines in plan and management	24	ongoing

#### 8. SOURCES AND REFERENCES

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## **APPENDIX 1 - FLORA LIST**

		CONS.
FAMILYSPECIES	COMMON NAME	STATUS

			Rare
	Introduced *		7D1
ACANTHACEAE	Rostellularia adscendens Dipterocanthus australasicus	Bearded Anthem	Threatened
AMARANTHACEAE	Alternanthera nana A. pungens	Hairy Joyweed Khaki Weed	*
	Ptilotus sessifolius var. elderi P. incanus	Crimson Foxtail	
	P. obovatus var.obovatus P. schwartzii	Silver Tails	
APOCYNACEAE	Carissa lanceolata	Connlearborry	
ASCLEPIADACEAE	Marsdenia australis Sarcostemma viminale	Connkerberry Bush Banana	
	ssp. Australe	Caustic Vine	
ASTERACEAE	•		
AUTERACEAE	Calocephalus platycephalus	Yellow Billy Buttons Billy Buttons	
	C. knappii	•	
	Calotis hispidula Centipeda minima	Bogan Flea Sneezeweed	
	-	Hill Sunweed	
	Anemocarpa saxatile		
	Leucochrysum stipitatum Olearia stuartii	Spinifex Everlasting	
	Senecio magnificus	Perennial Yellow Top	
	Streptoglossa odora	Aromatic Daisy	
	Wedelia asperrima	Sunflower Daisy	
	Pterocaulon sphacelatum	Apple Bush	
BIGNONIACEAE	Pandorea doratoxylon	Spearbush	
BORAGINACEAE	Heliotropium tenuifolium	Mamukata	
	Trichodesma zeylanicum	Camel Bush	
BRASSICCEAE	Lepidium muelleriferdinandi	Mueller's Peppergrass	
CAESALPINIACEAE	Petalostylis cassioides Senna artemisioides	Butterfly Bush	
	ssp. artemisioides	Silver Cassia	
	ssp. sturtii	Dense Cassia	
	ssp. helmsii	Blunt-leaf Cassia	
	ssp. oligophylla	Oval-leaf Cassia	
	Senna glutinosa ssp. pruinosa S. notabilis	Cockroach Bush	
CAMPANULACEAE	Isotoma petraea	Rock Isotome	
CAMI ANGLACEAE	Wahlenbergia sp.	Australian Bluebells	
CAPPARACEAE	Capparis mitchellii	Native Orange	
CALLARACEAE	C. spinosa var. nummularia	Wild Passionfruit	
CHENOPODIACEAE	Atriplex humifusa		
	Chenopodium melanocarpum	Black Crumbweed	
	C. cristatum	Crested Goosefoot	
	Einada nutans	Climbing Saltbush	
	Rhagodia spinescens	Spiny Saltbush	
	Enchylaena tomentosa	Ruby Saltbush	
	Sclerolaena birchii	Galvanised Burr	
	S. convexula	Tall Copper Burr	
CONVOLVULACEAE CYPERACEAE	Evolvulus alsinoides Cyperus dactylotes	Blue Periwinkle	
	Cyperus dactylotes		

C. gilesii A sedge

FAMILY	CONS. SPECIES	COMMON NAME	<u>STATU</u> S	
			Rare Introduced Threatened	R * T
EUPHORBIACEAE	Euphorbia australis	Hairy Caustic Weed	111100000000	-
	E. drummondi	Caustic Weed		
	E. tannensis	Caustic Bush		
	Phyllanthus lacunellus	Lagoon Spurge		
FABACEAE	Crotalaria medicaginea	Clover-leaf Rattlepod		
	Indigofera basedowii	Showy Indigo		
	I. psammophila	An indigo bush		
	I. georgei	Georges Indigo		
	Rhynchosia minima	Native Pea		
	Swainsona flavicarinata	Yellow Keeled Swainso	ona	
COOPENHACEAE	Tephrosia brachyodon	Red Pea-bush		
GOODENIACEAE	Goodenia larapinta	Stick Hand Flower		
	G. vilmorinae	Purple Hand Flower		
GYROSTEMONACEAE	Scaevola ovalifolia	Bushy Fan-flower		
LAMIACEAE	Codonocarpus cotinifolius Prostanthera striatiflora	Desert Poplar Striped Mint Bush		
LORANTHACEAE	Amyema bifurcata	Twin-fork Mistletoe		
LOKANTHACLAL	A. maidenii ssp. maidenii	Pale Leaf Mistletoe		
	1	Blood Mistletoe		
	Lysiana spathulata ssp. spathulata			
MALVACEAE	Abutilon cryptopetalum	Hill Lantern Bush		
	A. fraseri	Dwarf Lantern Bush		
	Gossypium australe	Native Cotton		
	G. sturtianum	Sturt's Desert Rose		
	Hibiscus solanifolius	Tomato-leaved Hibiscu		
	Malvastrum americanum	Spiked Malvastrum	*	
	Sida fibulifera	Silver Sida		
	S. filiformis	Fire Sida		
	S. phaeotricha	Hill Sida		
MADSHEACEAE	S. platycalyx	Lifesaver Burr		
MARSILEACEAE MIMOSACEAE	Marsilea drummondii Acacia aneura	Common Nardoo		
MIMOSACEAE	A. bivenosa	Mulga		
	A. coriacea	Dogwood		
	A. cuthbertsonii	Silver Witchetty		
	A. estrophiolata	Ironwood		
	A. kempeana	Witchetty Bush		
	A. ligulata	Umbrella Bush		
	A. melleodora	Waxy Wattle		
	A. pruinocarpa	Black Wattle		
	A. spondylophylla	Curry Wattle		
	A. tenuissima	Broom Wattle		
	A. tetragonophylla	Dead Finish		
	A. victoriae	Bramble Wattle		
MORACEAE	Ficus platypoda var. minor	Wild Fig		
MYOPORACEAE	Eremophila freelingii	Rock Fuschia Bush		
	E. latrobei	Native Fuschia	. alada	
MYRTACEAE	E. longifolia	Long-leaved Desert Fus River Red Gum	scma	
WITKIACEAE	Eucalyptus camaldulensis	Blue Mallee		
	E. gamophylla Corymbia aparrerinja	Ghost Gum		
	C. opaca	Bloodwood		
	Melaleuca glomerata	Inland Tea Tree		
	0.0			

FAMILY	SPECIES	COMMON NAME	CONS. STATUS	
			Rare	R
			Introduced Threatened	* T
NYCTAGINACEAE	Boerhavia sp.	Tar Vine	Tilleatelleu	1
OLEACEAE	Jasminum didymum ssp. lineare	Native Jasmine		
OLLI ICLI IL	J. calcareum	Poison Creeper		
PITTOSPORACEAE	Pittosporum phylliraeoides	Native Apricot		
POACEAE	Aristida nitidula	Flat-awned Threeawn		
	A. strigosa	Rough Threeawn		
	Cenchrus ciliaris	Buffel Grass	*	
	Cymbopogon ambiguus	Lemon-scented Grass		
	C. obtectus	Silky Heads		
	Digitaria brownii	Cotton panic grass		
	Enneapogon oblongus	Rock Nineawn		
	E. polyphyllus	Leafy Nineawn		
	Enteropogon acicularis	Curly Windmill Grass		
	Eragrostis elongata	Clustered Lovegrass		
	E. eriopoda	Wooly Butt Grass		
	E. falcata	Sickle Lovegrass		
	Eriachne mucronata	Mountain Wanderrie		
	Eulalia aurea	Silky Browntop		
	Oxychloris scariosa	Cleome viscosa		
	Sporobolus austrasicus	Australian Dropseed		
	Themeda triandra	Kangaroo grass Hubbards spinifex		
	Triodia apiasta	Spike-flowered spinifes	<del>,</del>	
PORTULACACEAE	Triodia spicata Portulaca filifolia	Slender pigweed		
PROTEACEAE	Grevillea striata	Beefwood		
TROTLACEAL	Grevillea wickhamii	Holly-leaf Grevillea		
	Hakea chordophylla	Corkwood		
	H. suberea	Long-leaf Corkwood		
RHAMNACEAE	Ventilago viminalis	Supplejack		
SANTALACEAE	Santalum lanceolatum	Plumbush		
SAPINDACEAE	Atalaya hemiglauca	Whitewood		
	Dodonea lanceolata	Yellow Hop bush		
SCROPHULARIACEAE	Stemodia viscosa	Sticky Blue Rod		
SINOPTERIDACEAE	Cheilanthes sieberi ssp. pseudove	llea Rock Fern		
	C. lasiophylla	Wooly Cloak Fern		
SOLANACEAE	Solanum quadriloculatum	Wild Tomato		
STACKHOUSIACEAE	Macrgegoria racemigera	Desert Snow		
STERCULIACEAE	Melhania oblongifolia	Velvet Hibiscus		
ZYGOPHYLLACEAE	Tribulus sp.	Caltrop		

## **APPENDIX 2 - FAUNA LIST**

FAM	ILY	SPECIES	COMMON NAME	CONS. STATUS
				Rare R
*				
Т				Threatened
_	IMALS			
	HYGLOSSIDAE	Tachyglossus aculeatus	Short-beaked Echidna	
DASY	YURIDAE	Pseudantechinus macdonnellensis	Fat-tailed Pseudantechinus Ooldea Dunnart	3
MAC	ROPODIDAE	Sminthopsis ooldea Macropus robustus	Euro	
MAC	KOFODIDAE	M. rufus	Red Kangaroo	
MOL	OSSIDAE	Mormopterus planiceps	Little Mastiff Bat	
	PERTILIONIDAE	Nyctophilus geoffroyi	Lesser long-eared Bat	
		Nycticeius balstoni	Western Broad-nosed Bat	
MUR	IDAE	Notomys alexis	Spinifex Hopping-mouse	
		Mus musculus	House Mouse	*
_	RIDAE	Oryctolagus cuniculus	European Rabbit	*
CANI		Canis lupus dingo	Dingo	at.
FELII		Felis catus	Feral Cat	*
EQUI BOVI		Equus caballus Bos taurus	Horse Cattle	*
BOVI	IDAE	Bos taurus	Cattle	·
BIRD	<b>OS</b>			
CASU	JARIIDAE	Dromaius novaehollandiae	Emu	
PODI	CIPEDIDAE	Tachybaptus novaehollandiae	Australasian Grebe	
PHAL	LACROCORACIDAE	Phalacrocorax melanoleucos	Little Pied Cormorant	
	EIDAE	Egretta novaehollandiae	White-faced Heron	
ACCI	PITRIDAE	Hamirostra melanosternon	Black-breasted Buzzard	
		Aquila audax	Wedge-tailed Eagle	
EALC	COMPAE	Circus assimilis	Spotted Harrier	
FALC	CONIDAE	Falco peregrinus F. cenchroides	Peregrine Falcon Australian Kestrel	
		F. berigora	Brown Falcon	
TURN	NICIDAE	Turnix velox	Little Button-quail	
	HINIDAE	Burhinus grallarius	Bush Stone-curlew	
	RADRIIDAE	Elseyornis melanops	Black-fronted Dotterel	
COLU	JMBIDAE	Geopelia cuneata	Diamond Dove	
		Phaps chalcoptera	Common Bronzewing	
		Ocyphaps lophotes	Crested Pigeon	
G + G		Geophaps plumifera	Spinifex Pigeon	
CACA	ATUIDAE	Cacatua roseicapilla	Galah	
		C. leadbeateri Nymphicus hollandicus	Pink Cockatoo Cockatiel	
TTI2G	ΓACIDAE	Melopsittacus undulatus	Budgerigar	
1 511 1	IACIDAL	Barnardius zonarius	Australian Ringneck	
		Psephotus varius	Mulga Parrot	
CUCU	JLIDAE	Cuculus pallidus	Pallid Cuckoo	
		C. basalis	Horsfield's Bronze-Cucko	0
STRIC	GIDAE	Ninox novaeseelandiae	Boobook Owl	
	ARGIDAE	Podargus strigoides	Tawny Frogmouth	
	OTHELIDAE	Aegotheles cristatus	Australian Owlet-nightjar	
	CYONIDAE	Todiramphus pyrrhopygia	Red-backed Kingfisher	
MER	OPIDAE	Merops ornatus	Rainbow Bee-eater	

FAMILY	SPECIES	COMMON NAME	CONS. STATUS	
			Rare Introduced Threatened	R * T
MALURIDAE	Malrus splendens M. lamberti Amytornis purnelli	Splendid Fairy-wren Variegated Fairy-wren Dusky Grasswren		
PARDALOTIDAE	Acanthiza uropygialis A. chrysorrhoa Gerygone fusca Pardolotus rubricatus Smicrornis brevirostris	Chestnut-rumped Thornbill Yellow-rumped Thornbill Western Gerygone Red-browed Pardalote Weebill		
MELIPHAGIDAE	Acanthagenys rufogularis Manorina flavigula Lichenostomus virescens L. keartlandi L. plumulus L. penicillatus Melithrepus gularis Lichmera indistincta Conopophila whitei Certhionyx niger C. variegatus Epthianura tricolor	Spiny-cheeked Honeyeater Yellow-throated Miner Singing Honeyeater Grey-headed Honeyeater Grey-fronted Honeyeater White-plumed Honeyeater Black-chinned Honeyeater Brown Honeyeater Grey Honeyeater Black Honeyeater Pied Honeyeater Crimson Chat		
PETROICIDAE	Petroica goodenovii Melanodryas cucullata	Red-capped Robin Hooded Robin		
POMATOSTOMIDAE	Pomatostomus temporalis P. superciliosus	Grey-crowned Babbler White-browed Babbler		
NEOSITTIDAE	Daphoenositta chrysoptera	Varied Sittella		
PACHYCEPHALIDAE	Pachycephala rufiventris Colluricincla harmonica Oreoica gutturalis	Rufous Whistler Grey Shrike-thrush Crested Bellbird		
DICRURIDAE	Riphidura leucophrys Grallina cyanoleuca	Willy Wagtail Magpie-lark		
CAMPEPHAGIDAE	Coracina novaehollandiae Lalage sueurii	Black-faced Cuckoo-shrike White-winged Triller		
ARTAMIDAE	Artamus cinereus A. personatus A. minor A. superciliosus Cracticus torquatus C. nigrogularis Gymnorhina tibicen	Black-faced Woodswallow Masked Woodswallow Little Woodswallow White-browed Woodswallo Grey Butcherbird Pied Butcherbird Australian Magpie	vw	
CORVIDAE	Corvus bennetti C. orru	Little Crow Torresian Crow		
PTILONORHYNCHIDAE		Spotted Bowerbird		
MOTACILLIDAE	Anthus novaeseelandiae	Richard's Pipit		
DACCEDITAL	Limblama niatum	Uninted Eirotoil		

Emblema pictum Taeniopygia guttata

Hirundo ariel

Dicaeum hirundinaceum

PASSERIDAE

DICAEIDAE

HIRUNDINIDAE

Painted Firetail

Zebra Finch

Mistletoebird

Fairy Martin

FAMILY	SPECIES	COMMON NAME	CONS. STATUS	
			Rare Introduced Threatened	R * T
REPTILES				
GEKKONIDAE	Diplodactylus ciliaris	Spiny-tailed Gecko		
	D. elderi	Jewelled Gecko		
	D. conspicillatus	Fat-tailed Diplodactylus		
	Gehyra variegata	Tree Dtella		
	Heteronotia binoei	Bynoe's Gecko		
	H. spelea	Desert Cave Gecko		
	Rhynchoedura ornata	Beaked Gecko		
PYGOPODIDAE	Delma borea	Legless Lizard		
	D. tincta	Legless Lizard		
	Lialis burtonis	Burton's Snake-Lizard		
AGAMIDAE	Ctenophorus caudicinctus	Ridge-tailed Dragon		
	C. nuchalis	Central Netted Dragon		
	Lophognathus longirostris	Long-nose Dragon		
VARANIDAE	Varanus acanthurus	Ring-tailed Monitor		
	V. giganteus	Perentie		
SCINCIDAE	Carlia triacantha	Skink		
	Crytoblepharus plagiocephalus			
	Ctenotus alacer	Skink		
	Ctenotus leonhardii	Skink		
	C. pantherinus	Skink		
	C. saxatilis	Skink		
	Egernia margaretae	Skink		
	Lerista labialis	Skink		
	Morethia ruficauda	Skink		
	Tiliqua multifasciata	Central Blue-tongued Lizar	rd	
ELAPIDAE	Simoselaps incinctus	Burrowing Snake		
	Pseudonaja nuchalis	Western Brown Snake		
FROGS				
HYLIDAE	Cyclorana maini	Burrowing Frog		
	Litoria rubella	Brown Tree-frog		
LEPTODACTYLIDAE	Limnodynastes spenceri	Common Burrowing Frog		

## Acknowledgments

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Andrew Bridges (Chair) Regional Parks Manager, (Parks South), PWCNT

Chris Day Chief District Ranger, Central/East, (Parks South), PWCNT

PWCNT Marcus Sandford Senior Interpretation Officer, (Parks South), PWCNT

Phil Asmussen Technical Liaison Officer, (Parks South), PWCNT
Dave Heard Ranger in Charge ASTS, (Parks South), PWCNT