Witjira National Park is the traditional land of the Wangkangurru and Lower Southern Arrernte people. We will always value the land, water, plants and animals.

We’re working together to holistically maintain, protect and preserve the park for the betterment of all people, now and into the future.

This is our country, our responsibility, so please help us to look after the place.

Witjira National Park Co-management Board, September 2016
Your views are important

A management plan for Witjira National Park is being developed to set directions for the management of the park and to progress the aspirations of the Wangkangurru and the Lower Southern Arrernte people for their County.

The plan aims to focus on priority issues and set achievable goals for the management of this national park.

This draft plan is released for public comment so that members of the community can express their views about the future management of the national park.

Feedback received on this draft plan will be used to develop a final park management plan. Once developed, the final plan will be submitted to the Minister for Sustainability, Environment and Conservation for adoption in accordance with section 38 of the National Parks and Wildlife Act 1972.

I encourage you to make a submission on the draft plan. Guidance for making a submission can be found on page 21.

John Schutz
Director of National Parks and Wildlife

Cultural Sensitivity Warning
Aboriginal people are warned that this publication may contain culturally sensitive material.
Developing this plan

The Witjira National Park Draft Management Plan has been developed by the Witjira National Park Co-management Board - a partnership between the Wangkangurru and Lower Southern Arrernte people, and the South Australian Government.

It has been prepared following consideration of issues facing the park and after a review of the current management plan which was adopted in 2009.

Members of the Witjira National Park Co-management Board encourage all interested people to have their say about the future management of Witjira National Park.

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Directions for management

Witjira National Park is the Country of the Wangkangurru and Lower Southern Arrernte people who have cared for this area for over 15,000 years. Directions for management of the park have been set by the Wangkangurru and Lower Southern Arrernte people in partnership with the South Australian Government. Arrangements for the cooperative management of the park are set out in a co-management agreement which was adopted in 2007 between the Irrwanyere Aboriginal Corporation (representing the Wangkangurru and Lower Southern Arrernte people) and the South Australian Government.

Witjira National Park was proclaimed under the National Parks and Wildlife Act 1972 in 1985. As a national park it is provided with a high level of protection and is managed primarily for conservation purposes, consistent with the objectives of the Act.

Due to the national park’s joint proclamation under section 43 of the Act, scope is provided for those mineral and petroleum development activities that have been approved under the Mining Act 1971 and the Petroleum and Geothermal Energy Act 2000.

The South Australian Government has established a lease over the majority of the national park with the Irrwanyere Aboriginal Corporation. A lease arrangement ensures that the park is managed to provide members of the Aboriginal Corporation the ability to live on, use and manage the park. A lease has also been granted over the Mount Dare Homestead precinct. This enables this area to be privately managed for tourism and other purposes.

Management directions will be informed by a combination of traditional knowledge, scientific knowledge and contemporary park management principles.

Directions for management will be consistent with those that are incorporated into the South Australian Arid Lands Natural Resources Management Plan, which is currently under development.

This plan will be adopted subject to any native title rights or interests that may continue to exist in relation to the land, and will be implemented in accordance with the relevant provisions of the Native Title Act 1993.
Park significance and purpose

Witjira National Park (768,853 ha) is situated in the far north of South Australia, approximately 100 km north of Oodnadatta (Figure 1). Its northern boundary abuts the Northern Territory and its eastern boundary is shared with the Simpson Desert Regional Reserve.

The national park is of great significance for the Wangkangurru and Lower Southern Arrernte people, whose Altyerre (traditional law and customs) is strongly linked to the land. The significance of the national park to Aboriginal people is reflected through the many creation stories that weave through this Country.

The national park, together with the Simpson Desert Regional Reserve, Simpson Desert Conservation Park and Munga-Thirri National Park in Queensland, forms an extensive network of interconnected protected areas which are particularly effective for the conservation of plants, animals and a variety of habitats. The park also protects many plant and animals that are rare or threatened.

The Dalhousie Mound Springs Complex is recognised as nationally important, being one of Australia’s largest array of arterial springs. The mound springs provide ‘islands’ of permanent wetlands of relatively fresh water in the most arid part of the continent. These areas help to conserve a diverse range of flora and fauna, including a number of endemic and relict species, and provide habitat for several migratory bird species.

Dalhousie Springs are one of the main attractions for visitors to this area, providing the opportunity to swim in the deep, warm waters of the main pool. The park also provides opportunities for people to travel through the park by four-wheel drive and visit sites that provide an insight into the early days of pastoralism in the Australian outback.
What are we looking after?

Witjira National Park protects:

- Culturally important sites and the landscape of Wangkangurru and Lower Southern Arrernte stories and culture.
- Species of significance to the traditional owners, including the Kingfisher (*Todiramphus sp.*), Perentie (*Varanus giganteus*), Goanna (*Varanus sp.*), and Dalhousie catfish (*Neoliturus gloveri*), many of which are attached to story lines.
- Some of the most diverse landforms and habitat in the region including relatively pristine floodplains, floodouts, gibber, and sandy country.
- High plant diversity with 543 native species recorded, reflecting the variety of habitats present.
- 20 flora species listed as vulnerable or rare under the National Parks and Wildlife Act 1972. The Desert Nancy (*Frankenia plicata*) is also listed as endangered under the Environment Protection and Biodiversity Conservation Act 1999.
- 26 fauna species listed as endangered, vulnerable or rare under the National Parks and Wildlife Act. The Plains Mouse (*Pseudomys australis*) and Crest-tailed Mulgara (*Ampurta cristicauda*), and Dalhousie Springs which was placed on the National Heritage List in 2009 for its exceptional natural value and outstanding heritage significance. Dalhousie Springs provides refugia for five endemic fish species, three endemic freshwater snails, and at least seven endemic crustaceans (isopods, amphipods and ostracods).
- Dalhousie Ruins and historic European features and artefacts which provide an insight into the early days of pastoralism in an extreme environment.
What are the challenges and opportunities?

The park faces a number of challenges, but with these challenges are also opportunities:

- Increasing the public’s understanding and appreciation for the culture of the Wangkangurru and Lower Southern Arrernte people and their role in the management of the park.
- Protecting and restoring cultural sites.
- Using the park to maintain the connection to Country of current and future generations of Wangkangurru and Lower Southern Arrernte people.
- Minimising the impact of feral animals and weeds including camels, donkeys, cattle, Date palm, Mimosa bush and Buffel grass over a vast and remote area.
- Utilising fire to rejuvenate the landscape and promote mound spring ecological restoration.
- Understanding climate change and its potential influence on mound springs, native and exotic species, and fire regimes.
- Providing scope for the establishment of new nature-based tourism ventures while maintaining the existing character of the park.
- Enabling public use and enjoyment of the park whilst minimising the impact on cultural and European sites, mound springs and the surrounding environment.
- Improve management of the park and its surrounding landscape by sharing information and knowledge and by facilitating cooperative land management and conservation activities.
- Ensuring that mineral and petroleum activities do not compromise the park’s cultural, environmental and tourism values.
Dalhousie thermal mound springs

Mound springs are the natural outlets for the Great Artesian Basin, where pressure forces water to the surface. The springs provide ‘islands’ of permanent, relatively fresh wetlands in the most arid part of the continent. In some areas, mounds have been building for thousands of years through the precipitation of salts and minerals along with the erosion of sands and clay in the surrounding landscape.

The only thermal springs in South Australia occur at Dalhousie Springs. These warm waters range in temperature from 38 to 43 degrees Celsius. The water at the discharge is warm because it flows from great depths along a hot granite anticline (arch-shaped rock) before reaching the surface (see Figure 2). These springs are estimated to have been discharging for 1-2 million years, longer than any of the other known springs. This means that by the time the water reaches the surface, it could be 2 million years old!

The Dalhousie Mound Springs Complex includes 148 springs, of which around 20 are major flowing springs. The main spring has a daily output of 10 million litres per day, and the complex as a whole outputs 56 million litres per day.

At least 16 species are endemic to the Dalhousie Mound Springs Complex. Most of these are invertebrates but there are also five fish and three snail species. The vegetation of the Dalhousie springs is also distinct, particularly the White Tea-tree (Melaleuca glomerata) closed forest, which is the only closed forest community present at any mound springs within Australia’s arid zone.

Grazing pressure and trampling from feral and domestic herbivores can cause significant damage around the springs through the destruction of vegetation, soil compaction, and soil erosion. Introduced weeds and pests also pose an issue and human interaction can have impacts on water quality, fringing plants and soil stability.

Reduced Great Artesian Basin pressure due to aquifer drawdown for town water supplies, pastoral bores, and mining creates a decrease in the flows at springs. The increased temperatures associated with climate change also threatens the biodiversity of the springs complex as evaporation is expected to increase. This may lead to some springs drying in summer, or becoming more saline, increasing the vulnerability of endemic species to extinction.

Generally swimming is not compatible with maintaining healthy mound springs. The main pool at Dalhousie Springs is an exception due to its size and high rate of water flow-through. Allowing visitors to experience the mound springs in this way adds to the tourism value of the park, and builds their appreciation for the park’s conservation values.
Physical setting

- Salt scald
- Quaternary and Tertiary sediments and rocks
- Bulldog Shale
- Great Artesian Basin aquifer
- Pedirka Basin - contains groundwater
- Basement rock - anticline or opposite facing monocline

Social/cultural

- Aboriginal cultural values

Vegetation

- Spring and wetland vegetation - Cyperus gymnocaules, C. laevigatus, Phragmites australis
- Endemic and relict plant species
- Overstory tree species - Melaleuca glomerata, Eucalyptus coolabah

Fauna

- Endemic fish - 5 species
- Endemic invertebrates
- Endemic Isopods, Amphipods, Ostrocods
- Water birds and larger predators supported

Drivers and processes

- Groundwater movement
- Potential mixing of groundwater with the Great Artesian Basin
- Evaporation and evapotranspiration
- Calcium carbonate accumulation
- Water temperatures warm close to discharge area
- Stromatolites and cyanobacteria

Figure 2: Conceptual model to illustrate how thermal mound springs work.

Image above: Aerial image of the Dalhousie Mound Springs Complex
Theme 1: Increasing connection to Country for Wangkangurru and Lower Southern Arrernte people

Witjira National Park lies within an area of great significance for the Wangkangurru and Lower Southern Arrernte people, whose Altyerre (traditional law and customs) is strong. Their connection to Country was formally recognised in September 2008 with native title being granted over the claimant area which includes Witjira National Park.

Aboriginal descendants of those people who lived in Witjira National Park now live in communities and towns across Central Australia and northern South Australia including Finke (Aputula), Santa Teresa and Alice Springs in the Northern Territory, Birdsville in Queensland, and at Oodnadatta, Marree, Coober Pedy, Port Augusta, and Adelaide in South Australia.

Altyerre and its relationship to the land are the foundations of Aboriginal culture. There are different parts of Altyerre for men and women, and for younger, older and initiated people. The strong connection that Aboriginal people have with Witjira National Park is reflected through the number of dreaming stories that weave through the landscape. Different Aboriginal groups may have different dreaming stories associated with the same location or natural feature but it is through these dreaming stories along with songs, dance, initiation ceremonies and art that Altyerre is passed down by the Elders. The mound springs complex is of particular significance to traditional owners, as many stories are associated with, or pass through the springs.

Access through Witjira National Park is particularly important for traditional owners to strengthen cultural knowledge and pass it down to younger generations. Wangkangurru and Lower Southern Arrernte people are provided with cultural access throughout the park, ensuring permission is granted from the lessee when accessing the Mount Dare lease area. The Board may also temporarily close parts of the park for up to a week for Wangkangurru and Lower Southern Arrernte people to hold private ceremonies, when notification is provided well in advance to minimise the inconvenience to visitors.

The Homelands, in the north-west of the park, is the most culturally significant area within the park and enables traditional owners to live on Witjira National Park. The area is defined with fences and signage and visitors are not permitted to access the area without invitation. This exclusion area does not affect visitors travelling through the park and all of the main sites of the park are accessible.
Traditional owners are permitted to collect plants, animals and minerals for food, craft and ceremonial activities, and use campfires for traditional use. The continuation of these resource-use practices is important to maintain culture and share knowledge. All hunting activities must abide by any operational policy developed by the Board. The development and application of this policy is intended to ensure that hunting is safe and humane. To ensure public safety, traditional hunting practices are not permitted within five kilometres of public roads and campgrounds.

While there are currently 132 sites and places at Witjira National Park that are documented in the Register of Aboriginal Sites and Objects under the Aboriginal Heritage Act 1988, this does not reflect a comprehensive survey of the park and there are likely to be many more culturally important sites.

It is important that non-traditional owners understand, appreciate and respect why the land is important to Wangkangurru and Lower Southern Arrernte people. Witjira National Park provides an excellent opportunity for visitors to learn about Wangkangurru and Lower Southern Arrernte people’s connection to Country, their culture and customs, creation stories and other associations they have with the land. Interpretive walks, signage and information provided in publications will assist in educating visitors.

Traditional owners aspire to develop enterprises relating to nature-based and cultural tourism activities. This opportunity is two-fold as it will assist in increasing visitor understanding of Wangkangurru and Lower Southern Arrernte culture, and also provides employment for traditional owners.

Wangkangurru and Lower Southern Arrernte people have the exclusive right to conduct commercial tours that relate to, or are associated with, traditional and contemporary Aboriginal use of the park, or the explanation and interpretation of Wangkangurru and Lower Southern Arrernte culture within the park. Commercial tours that are operated by persons other than Wangkangurru or Lower Southern Arrernte people may refer to the cultural significance of the park, but otherwise may not explain or interpret the cultural heritage of the park in the absence of a traditional owner employed for that purpose. Such commercial tours must originate outside the park.

The Board may grant permission for access, commercial photography and film making in areas not publically accessible. An approved cultural representative may be required to be in attendance during these activities.

Creation stories take place on Country through animals, plants and landforms.

They guide our laws, customs, and rules for living and form our spiritual connection to Country.

Our creation stories guide us today, and they’ll guide us into the future.

Objectives

Care for and conserve cultural sites and enhance Wangkangurru and Lower Southern Arrernte people’s connection to Country.

Strategies

• Ensure cultural values and practices continue to be recognised, promoted and respected in all decision making on park management activities now and into the future.

• Educate visitors about the importance of Witjira National Park for Wangkangurru and Lower Southern Arrernte people through the upgrade and maintenance of digital interpretive information and signage, and the delivery of relevant and appropriate cultural tourism.

• Enable the development of sustainable nature-based and cultural tourism enterprises that provide employment for traditional owners and their communities, and increase visitor’s understanding of Wangkangurru and Lower Southern Arrernte culture.

• Continue to recognise, respect, protect and maintain cultural sites in partnership with the traditional owners and native title holders.
Theme 2: Protecting and enhancing the Witjira National Park environment

Witjira National Park lies within one of the most arid regions of Australia. Rainfall is extremely low, unreliable and seasonally unpredictable, averaging 150 millimetres annually. Drought is a common occurrence in the region.

The park comprises undulating gibber tablelands supporting Mitchell grass (*Astrebla spp.*) grasslands and Chenopod low open shrublands, which are dissected by shallow creek lines supporting Gidgee (*Acacia cambagei*) and Red Mulga (*Acacia cyperophylla*).

The river floodplains and terminal floodouts in Witjira National Park are associated with the Finke River, which runs along the northern boundary of the park. It is the largest drainage system on the western side of Lake Eyre/Kati Thanda, although it does not often flood. The Finke River, thought to be one of the oldest rivers in the world, travels hundreds of kilometres south through Central Australia to end its journey on the edge of the Simpson Desert. Wangkangurru and Lower Southern Arrernte people have strong associations with the Lower Finke and occupation sites have been located along the Finke River in Witjira National Park.

The wetlands associated with the Finke River are very productive ecosystems when the river floods. The river floodplains and terminal floodouts support various plant and animal species of conservation significance (see Appendices 1 and 2). The Finke River is also thought to have a role in recharging the western margin of the Great Artesian Basin.

The major feature of Witjira National Park is the nationally important Dalhousie Mound Springs complex, being one of Australia’s largest array of arterial springs. The mound springs provide ‘islands’ of relatively fresh permanent wetlands in the most arid part of the continent.
These thermal springs contain rare aquatic and terrestrial plant and animal species including relict and fossil species, and endemic species that have evolved due to biogeographical isolation. The isolated aquatic environments of the mound springs have led to the development of new species of fish and other aquatic species. Five of the six fish species recorded at Dalhousie Springs are endemic to the area and there are at least 16 species in total that are endemic to the Dalhousie Mound Springs Complex. Most of these are invertebrates and most are found in the northern portion of the springs. It is also the only spring complex in Australia's arid zone with a closed forest (Melaleuca) community.

Further east, Purni Bore provides a permanent, albeit artificial, wetland that supports extensive Bulrush (Typha domingensis) and Common Reed (Phragmites australis) stands and numerous birds. The wetland was created in 1963 when the wellhead installed by the French Petroleum Company on a 1,880 metre deep bore corroded. Most artificial water points in the park have been capped to conserve Great Artesian Basin water and restore the environment to its natural state. Although the flow was reduced in 1987 and again in 2011, Purni Bore is maintained as it provides water for native animals that have come to rely on it, including migratory waders listed under the EPBC Act and international conservation treaties such as the China-Australia Migratory Birds Agreement (AMBA), Japan-Australia Migratory Birds Agreement (JAMBA) and Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA). The site also attracts feral animals such as camels and donkeys, allowing control activities to be conducted on the outer eastern section of the park. The wetland also provides a backdrop to a campsite and visitor facilities. 3 O’Clock Creek and Mount Dare Homestead Great Artesian Basin bores are controlled for domestic use.

The main threat to the park’s 543 native plant species are donkeys, cattle, and camels as these feral animals impact mound springs through trampling and grazing native aquatic plants and fouling the water. Numbers of donkeys and camels have been reduced over the years through the success of a large herbivore aerial control program and on-ground shooting programs. An ongoing fencing program aims to prevent cattle wandering into the park from neighbouring properties. These fences need to be routinely checked and relationships fostered with neighbouring pastoralists to remove stray cattle from the park. While feral horse sightings on the park are very rare, there have been significant numbers in the past. In the case that horses repopulate the park, their numbers should be controlled.

Native plants and animals are also impacted by introduced Date palms (Phoenix dactylifera) that were planted at some of the mound springs in 1899 by settlers. As an aggressive invader, the palms pose a threat to the ecology of the mound springs. Date palms can grow in high densities, forming a continuous and dense canopy, which effectively blocks light from reaching plants growing beneath. The roots of the Date palm form a dense mat that is both extensive and invasive, and may extend considerable distances into water bodies. Date palms inhibit the establishment of endemic native species beneath the canopy and compete for space and resources. Date palm removal has been undertaken through various programs since 2005 and needs to continue. The native yet overly abundant Common Reed (Phragmites australis) also threatens the mound springs as it grows quickly and forms a dense mat, choking out other plants. Fire has been found to be particularly successful in reducing Phragmites, creating open water habitat which is crucial for the survival of several endemic species.

Mimosa bush (Acacia farnesiana), Buffel Grass (Cenchrus ciliaris), Athel Pine (Tamarix aphylla), Beard Grass (Polypogon monspeliensis), and Camel Thorn (Neurada procumbens) are the other main exotic flora species that need to be managed across the park.

The park was proclaimed with access for exploration and mining under the Mining Act 1971 and the Petroleum Act 2000. Due to the environmental and cultural significance of Witjira National Park, all proposals for prospecting, exploration and mining will be assessed on a case-by-case basis and may be subject to specific conditions being included in the licence. Any exploration or mining or petroleum activity needs to involve traditional owners early in the planning process so that the natural, cultural and tourism values of the park can be protected. Whilst mining is allowed in the park, the fragile Dalhousie Mound Springs Complex should not be disturbed. The ecological community associated with Great Artesian Basin mound springs is protected under the Environment Protection and Biodiversity Conservation Act 1999 and Dalhousie springs is important ecologically, culturally and from a perspective of current and future tourism opportunities. Extractive industries - including mining, petroleum, and water - are therefore prohibited within the boundaries of the 2009 National Heritage Listing area (Figure 3), which covers the waterbodies of the Dalhousie Mound Springs Complex.
Fire is a natural part of the landscape and has been used as a tool for managing the environment for tens of thousands of years. In recent history, since European settlement, this burning practice has been interrupted which has led to changes in the landscape. A cultural fire management strategy and seasonal calendar has been developed to document traditional burning regimes according to the seasons. Controlled burns guided by the strategy will help to improve the landscape through the rejuvenation of native plants, which in turn assists the health of native animals. Care needs to be taken in areas containing Buffel grass as increased fire intensity could have detrimental impact for native plants. Fire is also used as a management tool for the control of weed species at mound springs.

Climate change is expected to bring increased temperatures and decreased rainfall to the South Australian Arid Lands region (Suppiah et al. 2006). Potential implications of climate change include an increase in weeds and pest animals, a change in density and distribution of native plants, increased risk of extinction of vulnerable species, changes to the fire regime, and increased soil erosion. Park management actions should be adaptive to take climate change into account.

### Fire for fish

The endemic fish found in the mound springs require a diversity of habitat types to thrive, from open water, closed flowing channels to mixed shallow cool water. Native plants like Common Reed (*Phragmites australis*) choke out the open water habitats as a result of the disruption of traditional spring management practices such as selective burning.

The incorporation of traditional fire management practices with strong scientific support is an effective method to increase the habitat diversity available in springs and connectivity between springs. These burns have also proven useful to facilitate the removal of weed species such as Date palms (*Phoenix dactylifera*).

### Objective

Improve the health of Country, particularly around mound springs, watercourses and other important sites.

### Strategies

- Continue monitoring and managing weeds at key site. Monitor the impact of management actions on endemic species to enhance the management effort and reduce any side effects for native plants and animals.
- Continue control programs for camels, donkeys and other targeted feral animals, focussing efforts around key ecological and cultural sites.
- Increase understanding and recognition for broader impacts to the mound springs, particularly the influence of the Great Artesian Basin and Pedirka Basin, to learn of potential impacts of developments within the greater system.
- Ensure all management actions consider any impact on species listed under national and state legislation (see Appendices 1 and 2) and encourage management actions to support these species as per relevant recovery plans.
- Include river floodplains and terminal floodplains as key sites for management actions to ensure the health of plants and animals of conservation significance.
- Inform the decision making process through the early engagement of Wangkangurru and Lower Southern Arrernte people with regards to any proposed mining, petroleum or exploration activities and ensure no activity is carried out within the National Heritage Listing area.
- Implement traditional and ecological fire regimes as guided by the fire management strategy for landscape rejuvenation and weed management at mound springs.
- Implement climate change strategies consistent with any future regional natural resources management climate change adaptation plan.
Figure 3
Witjira National Park
National Heritage Listing 2009

Legend

- Building
- Landing ground
- Vehicular Track
- Watercourse

Witjira NP
National Heritage Place - Witjira-Dalhousie 2009
Theme 3: Providing a unique cultural and nature-based experience for visitors

Witjira National Park is a popular outback destination for travellers, with the park receiving approximately 17,000 visitors a year. Visitors flock to Dalhousie to experience the mound springs, and the Dalhousie campsite is quickly filled during the peak season of May to September. There are also campsites located at 3 O’Clock Creek and Purni Bore. There is a supply of drinking water and a shade shelter at 3 O’Clock Creek. Purni Bore campsite offers shelter, shower and toilet facilities. To protect vegetation, camping is not permitted outside designated camping areas anywhere within the park.

Many visitors stop at Witjira National Park either before or after crossing the Simpson Desert. On average, visitors might spend a couple of nights camping or staying at accommodation at Mount Dare, allowing time to relax and swim at Dalhousie Springs, go for walks and take in the sights of Dalhousie Ruins and the European relics scattered between Federal, Opossum Waterhole, Bloods Creek and 3 O’Clock Creek.

The main drawcard for visitors coming to Witjira National Park is a dip in the main pool of Dalhousie Springs. This is the only spring pool that visitors are allowed to swim in. Safe access is provided via steps and the pool is only a short walk from the campsite and parking area. Fishing, the use of pollutants such as washing liquid, and boats (with the exception of those used for authorised research) are not permitted.

It is also very important that visitors do not jump or dive into the pool. Since access steps replaced a platform and ladder in 2002, less sediment disturbance has been observed. As a result, the fringing plant, Spike-rush (*Eleocharis geniculata*), has returned. The new steps installed in 2015 by the Friends of the Simpson Desert Parks have minimised sedimentation even further. The presence of this plant, listed as rare in South Australia, provides a good indication of the impact of visitors on the pool. Visitor impacts on the main pool, as well as more broadly across the park, should be monitored and mitigation actions developed as required.

There are three walking trails, the Idnjundura Kingfisher springs walk, the Imwanyere nature walk and the Dalhousie Ruins walk. All routes provide easy to moderate walks and interpretive signage that illustrate the area’s geological, hydrological, biological and European history, with a Wangkangurru and Lower Southern Arrernte perspective. Plants are also depicted on the signs and information is provided on their traditional use.

The development of facilities for tourism including accommodation and alternative walking options may be investigated but any development should be complementary to the local environment to maintain the natural and cultural values of Witjira National Park.

Papa Inura – Dingoes

Aboriginal people have strong cultural ties with Papa Inura (dingoes) (*Canis lupus dingo*) and the dingo is a functional part of the Australian ecological system, filling the role of a top-order predator.

While some pastoralists dislike dingoes due to their impact on livestock and their livelihoods, dingoes are useful in limiting the impacts of foxes and cats as dingoes compete with these species for resources and will predate on them too.

Campgrounds attract dingoes because people and food are regularly present. While dingoes are usually very cautious of humans, their instinctive aggressive behaviour can be dangerous. Signage at the Dalhousie campground provides visitors with information on how to stay safe around dingoes.
Objective
Provide for an enjoyable outback experience for visitors whilst maintaining the ecological and cultural values of Witjira National Park.

Strategies
- Monitor the impact of visitors on the main pool at Dalhousie and other key sites and develop mitigation actions as required.
- Ensure vehicular and pedestrian tracks provide for tourism experiences but do not jeopardise cultural or historically significant sites.
- Conduct an assessment of feasibility including identifying potential impacts and fulfilling the requirements of State and Commonwealth approval processes before developing any further infrastructure facilities within the park.
- Educate visitors about the importance of Witjira National Park for Wangkangurru and Lower Southern Arrernte people through the provision of interpretive information, and the delivery of relevant cultural tourism at key sites across the park.
- Foster collaboration with tourism operators to assist in the establishment of nature-based tourism enterprises that encourage responsible tourism through increasing community understanding of the ecology of the park and how visitor impacts can be mitigated.
- Ensure that historic European sites are protected through monitoring and maintenance, and artefacts are documented in an inventory. Actions to preserve sites and artefacts should be undertaken as necessary.

The Dalhousie airstrip has been closed since 2009, but further investment may be warranted to realise the potential for cultural and nature-based tourism, and the opportunity to provide a fly-in-fly-out experience for visitors. The airstrip may be reopened to commercial tour operators.

Dead wood provides valuable habitat for reptiles, small mammals, insects and emerging plants. To protect this habitat, a ban on wood fires has been in place since 2013. Wood collection and campfires are not permitted in Witjira National Park. Generators are permitted throughout the park during daylight hours.

Visitors are encouraged to use vehicles that are suitable for the fragile environment. Camper trailers, caravans, motorhomes and motorbikes are not considered suitable for use in the park as there is a potential for damage to not only the vehicles, but also to the tracks. Despite this, trailers and motorbikes are allowed in the park; however, monitoring will continue. Should significant environmental damage be observed, management controls may come into effect in the future. The speed limit throughout the park is 40 km/hr.

Rubbish is not only unsightly, but it also attracts dingoes, crows and feral cats that disperse the rubbish. Visitors can dispose of rubbish at tips located 3 km east and west of Dalhousie.
# Appendix 1
Flora species of conservation significance

<table>
<thead>
<tr>
<th>FLORA SPECIES</th>
<th>COMMON NAME</th>
<th>CONSERVATION STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frankenia plicata</td>
<td>Desert Nancy</td>
<td>En</td>
</tr>
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<td>Matted Water Starwort</td>
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<td>Pale Beauty-heads</td>
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<td>Downs Flat-sedge</td>
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<tr>
<td>Lepidosperma avium</td>
<td>Central Australian Rapier-sedge</td>
<td>Ra</td>
</tr>
<tr>
<td>Pimelea penicillaris</td>
<td>Sandhill Riceflower</td>
<td>Ra</td>
</tr>
<tr>
<td>Ptilotus aristatus ssp. aristatus</td>
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<td>Ra</td>
</tr>
<tr>
<td>Sclerolaena blackiana</td>
<td>Black’s Bindyi</td>
<td>Ra</td>
</tr>
<tr>
<td>Sclerolaena fontinalis</td>
<td>Mound Spring Bindyi</td>
<td>Ra</td>
</tr>
<tr>
<td>Swainsona oligophylla</td>
<td></td>
<td>Ra</td>
</tr>
<tr>
<td>Zygophyllum crassissimum</td>
<td>Thick Twinleaf</td>
<td>Ra</td>
</tr>
<tr>
<td>Zygophyllum humillimum</td>
<td>Small-fruit Twinleaf</td>
<td>Ra</td>
</tr>
<tr>
<td>Zygophyllum hybridum</td>
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<td>Ra</td>
</tr>
</tbody>
</table>
## Appendix 2

**Fauna species of conservation significance**

<table>
<thead>
<tr>
<th>FAUNA SPECIES</th>
<th>COMMON NAME</th>
<th>CONSERVATION STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Pseudomys australis</em></td>
<td>Plains Mouse</td>
<td>Vu</td>
</tr>
<tr>
<td><em>Dasyurus cristicauda</em></td>
<td>Crest-tailed Mulgara (Ampurta)</td>
<td>Vu</td>
</tr>
<tr>
<td><em>Anseranas semipalmata</em></td>
<td>Magpie Goose</td>
<td>En</td>
</tr>
<tr>
<td><em>Dasycercus cristicauda</em></td>
<td>Crest-tailed Mulgara (Ampurta)</td>
<td>Vu</td>
</tr>
<tr>
<td><em>Ardeotis australis</em></td>
<td>Australian Bustard</td>
<td>Vu</td>
</tr>
<tr>
<td><em>Cladorhynchus leucocephalus</em></td>
<td>Banded Stilt</td>
<td>Vu</td>
</tr>
<tr>
<td><em>Grus rubicunda</em></td>
<td>Brolga</td>
<td>Vu</td>
</tr>
<tr>
<td><em>Stictonetta naevosa</em></td>
<td>Freckled Duck</td>
<td>Vu</td>
</tr>
<tr>
<td><em>Mormopterus eleryi</em></td>
<td>Bristle-faced Free-tailed Bat</td>
<td>Vu</td>
</tr>
<tr>
<td><em>Anas rhynchos</em></td>
<td>Australasian Shoveler</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Anhinga novaehollandiae</em></td>
<td>Australasian Darter</td>
<td>Ra</td>
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<tr>
<td><em>Aprosmictus erythropterus</em></td>
<td>Red-winged Parrot</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Biziura lobate</em></td>
<td>Musk Duck</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Cacatua leadbeateri</em></td>
<td>Major Mitchell’s Cockatoo</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Elanus scriptus</em></td>
<td>Letter-winged Kite</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Emblema pictum</em></td>
<td>Painted Finch</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Falco hypoleucos</em></td>
<td>Grey Falcon</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Falco peregrinus</em></td>
<td>Peregrine Falcon</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Hamirostra melanosternon</em></td>
<td>Black-breasted Buzzard</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Neophema splendida</em></td>
<td>Scarlet-chested Parrot</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Oxyura australis</em></td>
<td>Blue-billed Duck</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Phaps hisronica</em></td>
<td>Flock Bronzewing</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Plegadis falcinellus</em></td>
<td>Glossy Ibis</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Porzana tabuenensis</em></td>
<td>Spotless Crake</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Stipiturus ruficeps</em></td>
<td>Rufous-crowned Emuwren</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Aspidites ramsayi</em></td>
<td>Woma</td>
<td>Ra</td>
</tr>
<tr>
<td><em>Notoscincus ornatus</em></td>
<td>Desert Glossy Skink</td>
<td>Ra</td>
</tr>
</tbody>
</table>

1. *Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)*
2. *National Parks and Wildlife Act 1972 (South Australia)*
3. **Vu** - Vulnerable
4. **En** - Endangered
5. **Ra** - Rare
6. *only visits occasionally

Source: Biological Databases of South Australia (accessed December 2016)
Invitation to contribute

The Witjira National Park Draft Management Plan has been released for public consultation to facilitate community input into the development of a management plan for the park. You are invited to contribute by making a submission.

To ensure that your submission is effective:

• Make your submission concise and clear.
• Reference any specific comments to a page or section within the draft plan.
• Identify aspects of the draft plan that you support, or do not support. Explain your reasons for disagreeing with the content of the draft plan and suggest alternatives.
• Highlight any information that may be inaccurate and provide a reference to assist with further editing.

Each submission will be carefully reviewed. A final Witjira National Park Management Plan will then be prepared and forwarded to the Minister for Sustainability, Environment and Conservation for consideration together with a detailed analysis of submissions received.

The Minister may adopt the plan with or without alteration. Once adopted, the plan will be published in the Government Gazette. The plan and an analysis of the public submissions will be available at www.environment.sa.gov.au/park-management.

Please note that your submission will become part of the public record and will be available to anyone who requests a copy unless you specifically request otherwise.

Submission closes on 9 June 2017

Written submissions:
Protected Areas Unit
Department of Environment, Water and Natural Resources
GPO Box 1047
ADELAIDE SA 5001

E-mail submissions:
DEWNRProtectedAreaManagement@sa.gov.au

Online submissions:
www.yoursay.sa.gov.au/decisions
References

Biosecurity SA, (2012). *South Australia Buffel Grass Strategic Plan: A plan to reduce the weed threat of buffel grass in South Australia*. Department of Primary Industries and Regions SA, Adelaide.


