

# Innamincka Regional Reserve

Management Plan 2018

Recognising the cultural and natural values of Innamincka Regional Reserve, and working together towards sustainable land use





# Minister's Foreword



Innamincka Regional Reserve is a beautiful, complex and unique part of South Australia's Outback. It is a place of profound cultural significance for the Yandruwandha and Yawarrawarrka people who have lived with, and cared for, this land over countless generations.

Imbedded in the Innamincka community and the Cooper Creek landscape is the tragic story of the Burke and Wills expedition and the Yandruwandha people. This story illustrates the attitudes of nineteenth century explorers towards Aboriginal people, the land and the Australian climate. It also shows how people can persist and coexist in this unforgiving landscape through respect for the land, its people and its finite resources.

As a regional reserve, a diverse range of uses are allowed and actively managed. The regional reserve provides for conservation, grazing, tourism and the extraction of oil and gas resources. This management plan draws on the wisdom of those who have lived and flourished in this landscape and shows how a range of uses can continue to survive and thrive side by side.

Today, traditional custodians and government manage the regional reserve collaboratively. I would like to commend the Yandruwandha Yawarrawarrka Parks Advisory Committee for their leadership in the management of the regional reserve. The development of this plan ensures that the regional reserve will continue to be managed sustainably and collaboratively – drawing on the lessons of generations past.

I now adopt the Innamincka Regional Reserve Management Plan under section 38 of the *National Parks and Wildlife Act 1972*.

A handwritten signature in black ink, appearing to read 'David Speirs', with a horizontal line underneath.

**The Hon. David Speirs, MP**  
**Minister for Environment and Water**

## Cultural Sensitivity Warning

Aboriginal people are warned that this publication may contain culturally sensitive material.





# Developing this plan

This management plan was developed by the Department for Environment and Water with advice from the Yandruwandha Yawarrawarrka Parks Advisory Committee.

It draws on information and ideas received in response to a stakeholder workshop and discussion paper that was released to the public in 2015, and has been finalised utilising feedback received on the draft management plan released for public comment in early 2017. Specialists in a range of fields including tourism, biodiversity conservation, hydrology, geomorphology, freshwater systems, and birdlife have also contributed.

This plan is not intended to provide strategies to address all issues confronting the regional reserve or specify all strategies that will be undertaken. Rather, it seeks to provide an overview of management arrangements and outline key priorities for long term management.

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# Directions for management

The culture of the Yandruwandha people and the Yawarrawarrka people is etched in their landscape, creeks, lakes, sites, plants and animals.

In 2009, the Yandruwandha and Yawarrawarrka traditional custodians and the Minister for Environment and Conservation entered into an agreement for the cooperative management of Innamincka Regional Reserve and Malkumba-Coongie Lakes National Park. This agreement led to the establishment of the Yandruwandha Yawarrawarrka Parks Advisory Committee - a group comprising representatives of the Yandruwandha people, the Yawarrawarrka people and the South Australian Government.

In recognition of their deep and continuous relationship with their Country, the rights of the Yandruwandha people and the Yawarrawarrka people in respect to the Innamincka Regional Reserve were formally recognised in 2015 under the *Native Title Act 1993*.

As native title holders, the Yandruwandha and Yawarrawarrka people will continue to exercise their responsibilities for Country through their leadership and participation in the Yandruwandha Yawarrawarrka Parks Advisory Committee. In the near future, it is expected that the Advisory Committee will assume the expanded responsibilities of a Co-management Board. An important part of this collaborative management is recognising the need to incorporate traditional knowledge into management decisions along with contemporary science.

Innamincka Regional Reserve (Figure 1) is proclaimed under the *National Parks and Wildlife Act 1972*. Regional reserves are managed for the protection of natural values, whilst allowing for the utilisation of natural resources. This plan, along with the objectives of the *National Parks and Wildlife Act 1972*, will provide direction for management of the regional reserve at a high level. However, the use of natural resources is primarily guided by other management frameworks and legislation including the *Mining Act 1971*, the *Petroleum and Geothermal Energy Act 2000*, the *Natural Resources Management Act 2004* and the *Development Act 1993*.

This plan meets the requirements for the development of a management plan under Section 38 of the *National Parks and Wildlife Act 1972*. It will remain subject to the native title rights and interests that continue to exist in relation to the land, and will be implemented in accordance with the relevant provisions of the *Native Title Act 1993*.











## Significance and purpose of the regional reserve

Innamincka Regional Reserve covers a vast area in the far north east of South Australia, adjacent to the State's border with Queensland (Figure 1). The regional reserve entirely surrounds the Malkumba-Coongie Lakes National Park and the historic Innamincka township, and includes a large portion of the internationally recognised Coongie Lakes Ramsar wetland.

Yandruwandha and Yawarrawarrka people have always had a deep and spiritual relationship with this Country. The protection of the regional reserve, and the participation of Yandruwandha and Yawarrawarrka people in its care, are of fundamental importance to the maintenance of this relationship.

***'Yandruwandha and Yawarrawarrka concept of health is holistic, encompassing the spiritual, cultural, mental and physical health within a life-death-life cycle. Yandruwandha and Yawarrawarrka connection to our traditional land and waters are important as our land is central to our way of life and overall well-being. Harmony with our environment translates to cultural well-being. Just as Yandruwandha and Yawarrawarrka people are able to recognise Country and are the care takers of Country, within this reciprocal relationship Country is also able to recognise and care for the Yandruwandha and Yawarrawarrka people. This holistic concept does not merely refer to just the "whole body". For Yandruwandha and Yawarrawarrka people this concept is steeped in all of the harmonised interrelations which constitute living in balance. These inter-relating factors can be categorised largely as spiritual, environmental, ideological, political, social, economic, mental and physical. No one system is more important than the other. All interact and influence each other, therefore all are important to Yandruwandha and Yawarrawarrka people, our health, and the health of our country. Crucially, it must be understood that when the harmony of these interrelations is disrupted, the balance shifts and consequently Yandruwandha and Yawarrawarrka ill health will persist.'***

Craig Allen, Yandruwandha Yawarrawarrka Parks Advisory Committee 2016.

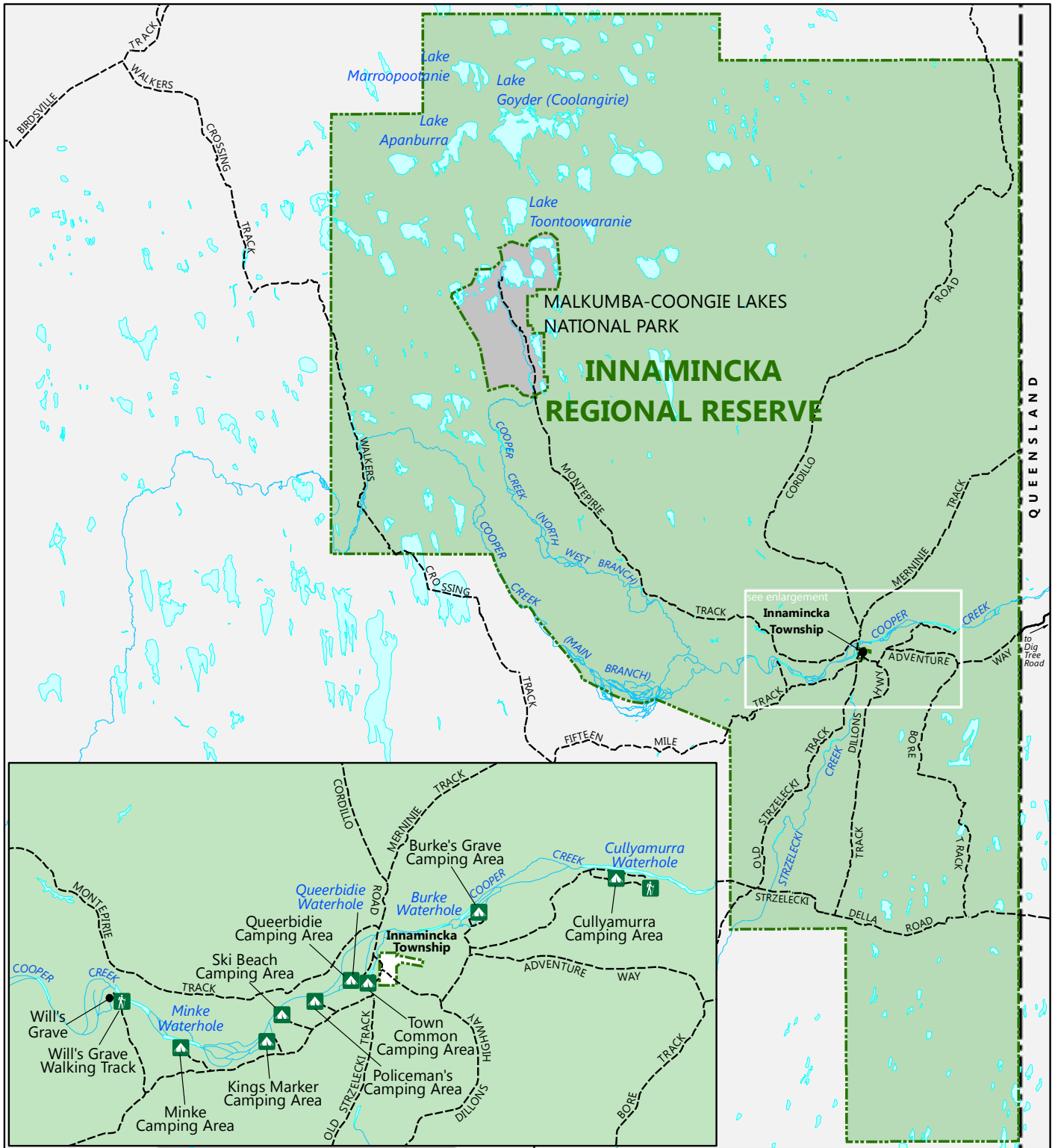
Innamincka Regional Reserve is culturally complex and rich in history. The regional reserve protects a landscape which is profoundly significant to Yandruwandha and Yawarrawarrka people, including numerous sacred sites. It also protects a number of historic State Heritage Listed features associated with pioneer life, early pastoral enterprises and the expedition of Burke and Wills.

In recognition of the significance of Innamincka and the Cooper Creek to South Australia's development and identity, the Cooper Creek corridor between Will's Grave and the Queensland border has been designated as a State Heritage Place under South Australia's *Heritage Places Act 1993*.

The Burke, Wills, King and Yandruwandha National Heritage Place spans sites in South Australia and Queensland. This area was included in Australia's National Heritage List in 2016. The story of the Yandruwandha people and their interactions with Burke, Wills and King illustrates the attitudes that were common during the nineteenth century towards Aboriginal people, their culture and the Australian environment. The regional reserve plays a vitally important role in the long-term conservation of biodiversity and is one of South Australia's largest protected areas. The reserve contains a large portion of the Cooper Creek and its associated systems of lakes and wetlands. The Cooper Creek is globally recognised as one of the last low-gradient, intermittent, unregulated dry-land river systems in the world. The regional reserve, together with the Coongie Lakes Ramsar wetland site, help to ensure that this unique arid wetland system continues to function, nourishing wetlands that are rich in biodiversity. It also helps to protect stunning landscapes, habitats for migratory waders and shorebirds, and a number of threatened flora and fauna species.

The natural features of this landscape, its cultural significance, and the fascinating history of exploration and early pastoralism all provide a significant drawcard for visitors, presenting valuable opportunities to build nature based and cultural tourism ventures.

Innamincka Regional Reserve was created to facilitate the conservation of this significant landscape while also enabling the use of natural resources including petroleum products, gas, water, and grazing land. The regional reserve is a significant component of the Cooper Basin – Australia's most economically important on-shore petroleum and natural gas field. Pastoralism has occurred in the region since 1868, and is regulated through a Crown Lease under the *National Parks and Wildlife Act 1972*. The Department for Environment and Water works in partnership with pastoralists to carry out inspections, conduct monitoring, and implement joint conservation activities.



**Figure 1**  
Innamincka Regional Reserve

- LEGEND**
- Camping area
  - Walking track
  - Innamincka Regional Reserve
  - Other Parks
  - Waterbody and Watercourse
  - Public Access Track (generally 4WD)
  - Public Access Road (sealed)



0 km                      20                      40





# What are we protecting?

Innamincka Regional Reserve protects:

## Yandruwandha and Yawarrawarrka culture

- A landscape that is of profound spiritual and cultural significance to Yandruwandha and Yawarrawarrka people.
- Opportunities for Yandruwandha and Yawarrawarrka people to preserve their culture, maintain connection to Country, and develop business ventures.

## Land systems

Innamincka Regional Reserve protects a diversity of land systems (Figure 2), including large areas of:

- The Cooper Creek System - One of the world's last unregulated arid freshwater systems, a key component of the Lake Eyre Basin, and an essential source of water for many of the economically important activities which occur within the Cooper Basin.
- The Marqualpie land system (jumbled dunefield interspersed with small claypans and lakes in swales).
- The Merninie Land System (gibber slopes with occasional mesas).
- The Tingana land system (red longitudinal sand dunes with interdune swales of sand and cracking clay).

## Plants and animals

- Habitat for 18 migratory bird species which are listed under bilateral migratory bird agreements, some of which are listed under the *Environment Protection and Biodiversity Conservation Act 1999* (refer Appendix 1).
- The Cooper Creek catfish, *Neosiluroides cooperensis*, and Cooper Creek turtle, *Emydura macquarii emmotti*, which are endemic to the region.

- Four threatened fauna species (refer Appendix 1) that are listed under the *Environment Protection and Biodiversity Conservation Act 1999* - night parrot (*Pezoporus occidentalis*), kowari (*Dasyuroides byrnei*), dusky hopping mouse (*Notomys fuscus*) and plains mouse (*Pseudomys australis*). An additional 39 threatened fauna species found in the area are listed under the *National Parks and Wildlife Act 1972* (Appendix 1).
- One of the most diverse frog communities in South Australia.
- Twenty threatened flora species that are listed under the *National Parks and Wildlife Act 1972* (Appendix 2).

## Environmentally important natural assets

- The Cooper Creek and its permanent and semi-permanent waterholes which provide critical wildlife habitat during dry periods, enabling numerous species to persist in the region.
- A large portion of the Coongie Lakes Ramsar wetland.
- A unique outback tourist destination that contributes to the regional economies of South Australia and Queensland.
- Areas of high quality wilderness identified in the National Wilderness Inventory (Lesslie et al. 1993).

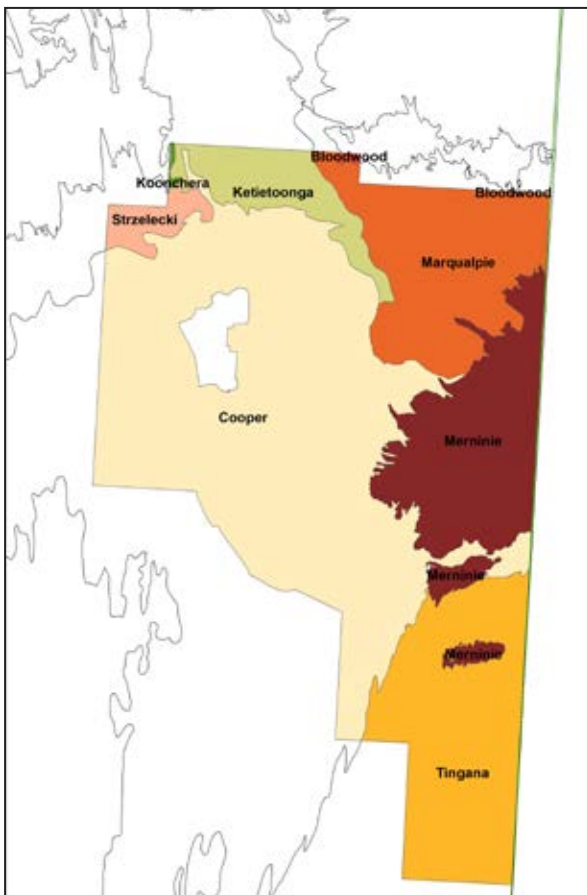
## Historic features

- The historically significant Innamincka pastoral lease, managed as a key part of Sir Sidney Kidman's cattle grazing properties since the 1900s.
- A number of State and Nationally listed Heritage Places, including the Australian Inland Mission Building and sites that are central to the story of the Burke and Wills expedition.





Figure 2: Land systems within Innamincka Regional Reserve



## What are the challenges and opportunities?

Key challenges and opportunities in the protection and management of Innamincka Regional Reserve are:

- Engaging and collaborating with the Yandruwandha and Yawarrawarrka people to increase the understanding of, and respect for, the culture of the Yandruwandha and Yawarrawarrka people.
- Undertaking land management and responding to a changing climate across a large, remote area that is subject to floods, drought and extreme weather events.
- Maintaining the natural flow regimes of the Cooper Creek.
- Improving the level of collaboration between stakeholders and land managers with goals that may be divergent.
- Ensuring that resource use, land management and water management activities in the Cooper Creek catchment are informed by both traditional knowledge and the best available science.
- Managing threatened species and ecological communities in a multiple use reserve which allows for conservation, grazing, and oil and gas production.
- Managing pest plant and animal species over a large area with limited vehicle access.
- Minimising the ecological footprint of large scale developments.
- Accommodating more visitors whilst still offering a remote and secluded outback experience.



# The Cooper Creek system

There are four predominant landforms in the regional reserve. Of these, the Cooper Creek System is the primary focus of this plan. The flow of water through this system sustains many of the regional reserve's key conservation values and economically important enterprises. This system also represented a life sustaining source for the Yandruwandha and Yawarrawarrka people and is embodied in their dreaming stories.

The Yandruwandha and Yawarrawarrka, like other human populations had a system of beliefs which explained their world and regulated their lives, providing a base upon which they could maintain an orderly society. Their mythology explained the universe, from the constellations that sparkled in the clear night sky to the hopping mouse which left its tiny tracks on the smooth red sand of a towering dune. Their country was covered with a web of pathways created by the *Mura muras* – Creation beings – in their wanderings, and revealed the physical features of the land, such as rivers, gullies, hills or lakes, into which some of these beings has been transformed. Through their knowledge of these Cooper Creek dreaming stories, and the ceremonies which were performed at the sacred places, they ensured the continuation of their world, and reinforced their own identification with the land which gave them both their physical life and the more significant spiritual existence.

From 'Seed of the Coolibah: a history of the Yandruwandha and Yawarrawarrka People' by Helen M Tolcher (2003, P.26)

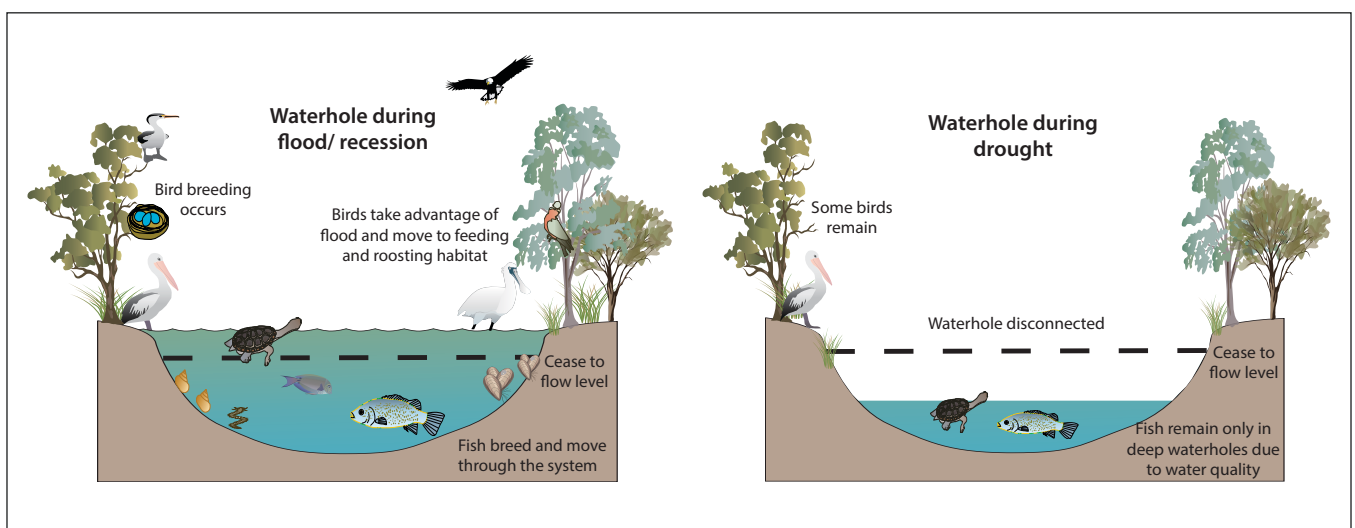
The flow regime of the Cooper Creek is highly variable, characterised by prolonged dry periods and infrequent, short flood events. The flooding and recession of water within this dynamic system of lakes, wetlands and waterholes is a key part of the reserve's ecology.

During dry periods, salinity increases as the lake systems dry out. The deeper and more permanent waterholes become disconnected from one another, resulting in a concentration of species that have adapted to survive during these periods of water stress. During floods, the larger, shallow lakes of the floodplains come to life, providing temporary habitat for an abundance of species including migratory birds. The floodplain wetlands and lakes are flushed out in flood events, allowing them to retain a relatively stable level of salinity. Fish also respond to the floods, migrating to and from different habitats to breed.

Riparian vegetation along the edge of creeks, wetlands and waterholes is a particularly important component of the Cooper Creek system. It helps to maintain a healthy system by providing habitat, trapping sediment, filtering water and upholding bank stability. The health of riparian vegetation is closely tied to inundation levels, and is highly vulnerable to any shift away from natural flow patterns.

Riparian vegetation, wetlands and waterholes are particularly important features of the reserve, strongly influenced by water flow. The changes that occur in waterholes are illustrated in Figure 3.

Figure 3: Conceptual model of a waterhole during flooding or flood recession (left), and during drought (right)











A hydrological assessment and analysis of the Cooper Creek Catchment (Costelloe 2013) has identified four distinct reaches. Each of these are described below and illustrated in a diagram of flow and inundation patterns within Innamincka Regional Reserve (Figure 4).

### Cooper Main Channel

The Cooper Main Channel enters the reserve from Queensland and extends in a westerly direction, ending at its junction with the Northwest Branch. The Cooper Main Channel is characterised by constricted flow. As a result, it contains waterholes that are larger and deeper than elsewhere, making them an important refuge area for water dependent species (Figure 3).

- 1 Riparian vegetation encourages flow to continue along the Cooper Creek, whilst local geology restricts water passage in Strzelecki Creek. Consequently, flow from Cooper Creek infrequently enters Strzelecki Creek at low volumes.

### Northwest Branch

- 2 The Northwest Branch connects the Cooper Main Channel to Scrubby Camp and Kudriemitchie waterholes, before reaching Malkumba-Coongie Lakes National Park. Annual flows from the Cooper Main Channel maintain these large and open freshwater lake ecosystems.
- 3 Tirrawarra Swamp is a network of channels, showing no clear path for water to flow. Instead, water flows through multiple channels, before regrouping into a single channel in the north east corner of the swamp.
- 4 Coongie Lake is the end point for small to medium sized floods, and receives water flow every year. Flow along the Northwest Branch of Cooper Creek terminates here, although in boom times water can continue to flow north.

- 5 If available, flow continues north to fill numerous lakes including Lake Toontoowaranie, Lake Goyder, Lake Apanburra & Lake Marroopootanie. These lakes provide diverse wetland habitat.
- 6 A tall sandhill complex prevents lakes further north being filled from the Cooper Creek flow. They receive run off from the stony tablelands to the north following intense rain, or fill through independent rain events.
- 7 Exceptional floods deliver flow to the northern overflow lakes via Apanburra channel and Hamilton Creek.

### Main Branch

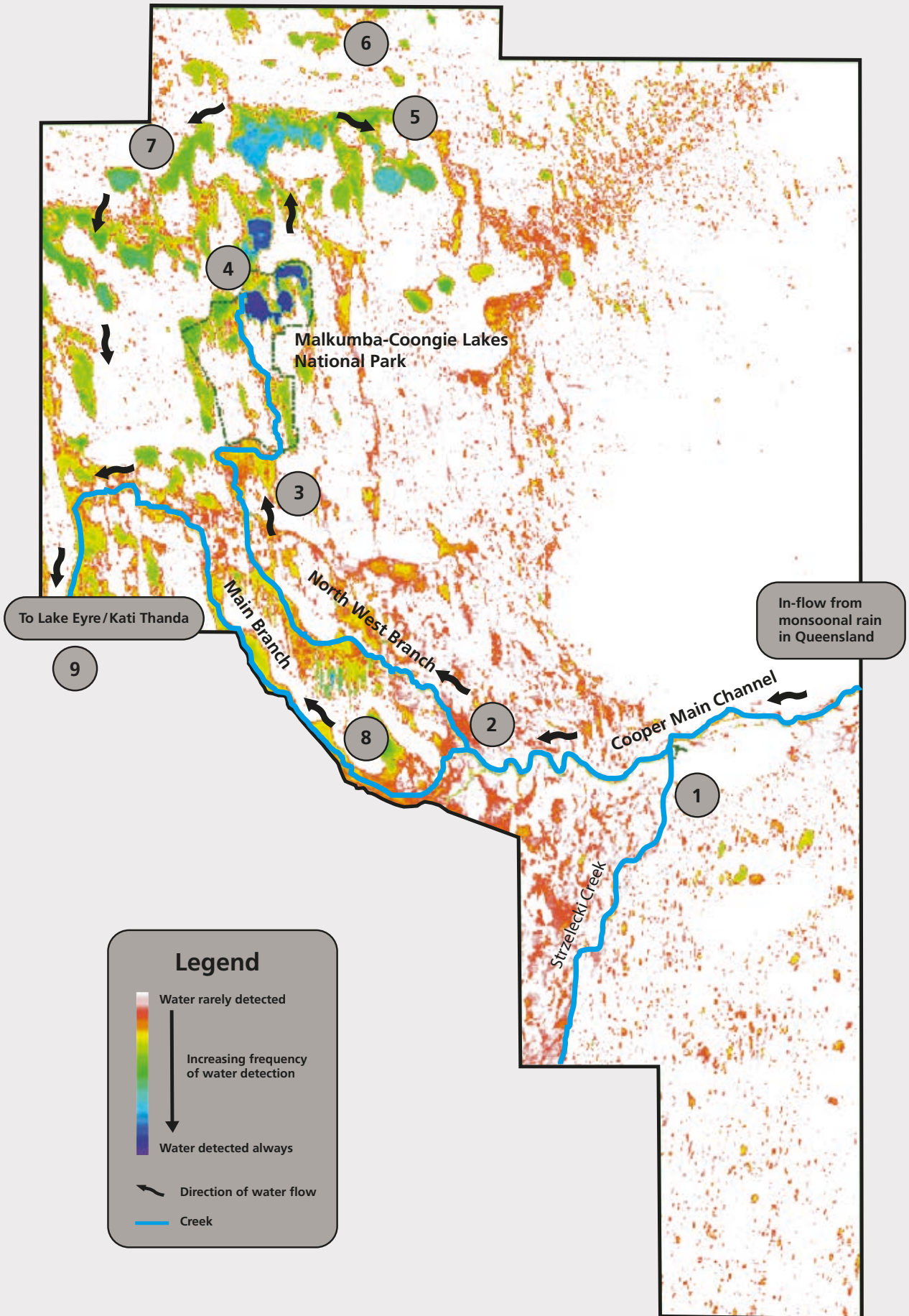
The Main Branch extends from the Northwest Branch in a westerly direction, culminating at Lake Eyre/Kati Thanda. The Main Branch requires larger flows than the Northwest Branch. It provides less frequent replenishment to several waterholes and the Embarka Swamp area. The flow path of the main branch is not well defined. As such, even the smallest of changes to flow patterns of inundation within this area could have significant flow-on implications for the recharge of critical waterholes and wetlands.

- 8 Embarka Swamp slows flow and in most years acts as a blockage to flow continuing along the Main Branch. In most years, flow along the Main Branch will terminate here.

### Lower Cooper

- 9 The Lower Cooper connects to the Main Branch, and flows north outside of the reserve to Lake Eyre/Kati Thanda. The Lower Cooper receives flow once every 3-4 years, and as such contains no true refugial waterholes.

Figure 4: Flow and inundation patterns in Innamincka Regional Reserve







## Management themes and priorities

This section of the plan addresses the most important issues facing the regional reserve, focussing on five key themes.

### Theme 1: Respecting and valuing Yandruwandha and Yawarrawarrka culture

This Country has always, and will continue to shape the identity of Yandruwandha and Yawarrawarrka people. It has been a source of life, spirituality, resources and food for thousands of years. With these connections to the land comes a responsibility for its care.

***'If someone sees you 'in the middle nowhere' talking to yourself, they might think you are a few bob short of a quid, but we Yandruwandha people are encouraged to do so when visiting our country to announce our arrival to the ngapitja (old spirits) to ensure a happy, safe and harmonious time on country.'***

Aaron Paterson, as cited in Clark & Cahir 2013, p. xiii.

The Yandruwandha and Yawarrawarrka people continue to manage their Country today. Knowledge of how to care for Country has been passed down through stories and ceremonies for generations.

At birth, each individual was given a totem, or *nari* in the Yandruwandha language. This is a place, object, animal or plant to which they were linked like family, resulting in a responsibility of care. In this way, the elements, materials, landscape and living things became an important aspect of everyday life. Their spiritual life, day

to day survival, and care for Country are interconnected.

By performing ceremonies, re-enacting stories, and using resources wisely, Yandruwandha and Yawarrawarrka people looked after the land – thereby ensuring their own health and wellbeing over countless generations.

The Innamincka landscape and the sites within it are of profound cultural significance. Yandruwandha and Yawarrawarrka cultural sites are scattered throughout the regional reserve. All sites are protected through the provisions of the *Aboriginal Heritage Act 1988*, whether registered, recorded, or unrecorded. Unrecorded sites, however, are vulnerable to disturbance or damage as a result of inadequately planned development or changes in land use.

Many significant sites are still being found today during Aboriginal heritage surveys. The process and requirements for Aboriginal heritage surveys are set out in Schedule 4 of the Yandruwandha Yawarrawarrka Native Title Claim Settlement Indigenous Land Use Agreement.

Yandruwandha and Yawarrawarrka people seek to share their cultures with visitors through interpretive signage and guided tours. Interpretive signs have been developed at several sites throughout the regional reserve and in the adjacent Malkumba-Coongie



Lakes National Park. Cultural use protocols are in place to ensure that all information is communicated to people in an appropriate way. Signage will continue to be developed through a review and approvals process as part of the ongoing dialogue between Government and the Yandruwandha and Yawarrawarrka people.

Fishing and the use of other aquatic resources are integral to the identity of Yandruwandha and Yawarrawarrka people. A variety of techniques were used to catch kapi (small catfish), ngampurru (yellowbelly), tharuwitji (black bream), nharramindji (tortoise), thuka thayini (water rat), and thuka (mussels).

***'I get the fish I have gutted ready, then place them in the coals to one side to bake them. Catfish, yellowbelly, and bony bream, and some mussels pulled out of the mud in the water at the edge of Innamincka waterhole. I listen to the hundreds of galahs, cockatiels and cockatoos screeching, some with ear-piercing annoyance, bustling in the tree branches and hollows, looking for their own camp spot for the night. They are there to remind me that I don't need to set my alarm clock out here in the desert paradise we Yandruwandha people call Kinipapap and the rest of the world call 'Cooper Creek'.***

Aaron Paterson, as cited in Clark, & Cahir 2013, p. xiii.

Yandruwandha and Yawarrawarrka people have specific native title rights in the regional reserve. Traditional Use Zones are also dedicated in an area of the park which has particular cultural significance. A 'Yandruwandha and Yawarrawarrka Traditional Fishing Management Plan' is incorporated in the Management Plan for the Lake Eyre Basin Fisheries (Primary Industries and Regions South Australia (PIRSA) 2013).

This plan provides scope for Yandruwandha and Yawarrawarrka people to continue traditional fishing practices and establishes a fishing zone where specific provisions apply. Providing for traditional fishing, camping, hunting, the collection of Cooper Creek turtles, the collection of materials for traditional use, and the conduct of burials in the regional reserve enables the Yandruwandha and Yawarrawarrka people to maintain their culture.



## Ceremonies performed along the Cooper Creek

Records of ceremonies performed along the Cooper Creek reflect the intricate cultural practices of the Yandruwandha and Yawarrawarrka people and the important role of water in their cultures.

*'One day, while still a great drought prevailed, hundreds of visitors arrived from the north and the northwest. They often used this same ceremonial place to call the rain down from heaven...*

*...The men distanced themselves approximately 500-600 metres from the camp to find an empty site, and dug a depression four metres long, three metres wide and approximately one metre deep. Others dragged heavy wooden logs to build a cone-shaped hut covered by small branches and grass with a low narrow entrance...*

*...The elders called two young, strong people outside and bound the veins of their upper arms. One of the oldest... took a sharp stone and opened the veins. The blood spurted onto the densely gathered group. Those who were bleeding threw handfuls of down feathers from already prepared nets over the others. The two youths who had been operated on then took the two stones, carried them miles away and hid them in the highest branches of a tree ...Then it was back to the camp to dance...*

*On that night of the full moon, the dancing lasted until early morning. For the whole night the ground resounded from the heavy stamping of the dancers, and the air reverberated from the monotonous noise of the rhythm which the women beat on their carrying dishes...*

*...The blood sprayed around signified the rain, the feather down signified the light clouds, and the stones signified the heavy pregnant rain clouds. The destruction of the hut symbolized the breaking down and flow from the clouds, and the fall of the hut represented the fall of the rain.'*

From 'Seed of the Coolibah: a history of the Yandruwandha and Yawarrawarrka People' by Helen M Tolcher (2003, P.32)

## Objective and strategies

Ensure that the culture of the Yandruwandha and Yawarrawarrka people is valued, respected and informs management.

- Develop a cultural heritage plan that helps manage impacts of resource use and tourism, identifies priorities for site protection, aids cultural heritage communication, and guides culturally appropriate access.
- Investigate, and as appropriate, co-name the regional reserve to reflect the aspirations and culture of the Yandruwandha and Yawarrawarrka people.
- Develop a traditional use protocol which outlines the rights of Yandruwandha and Yawarrawarrka people in regards to fishing, hunting, camping, collecting materials, lighting fires, vehicle access, and conducting burials within the regional reserve.
- Seek to authorise the use of firearms for hunting by Yandruwandha and Yawarrawarrka people within the hunting zone (refer Figure 5) and incorporate guidelines for safe and sustainable hunting when developing a traditional use protocol.
- Undertake a review of all visitor information and interpretive material to ensure that it is culturally correct, adopts Yandruwandha or Yawarrawarrka language where appropriate, and is approved by Yandruwandha and Yawarrawarrka people.
- In accordance with the *Aboriginal Heritage Act 1988*, consolidate information about known cultural sites and encourage the culturally appropriate sharing of information and knowledge.
- As guided by the objectives of this plan, progress opportunities for Yandruwandha and Yawarrawarrka people to contribute to regional reserve management through paid employment, volunteer positions, the development of appropriate enterprises, contracting of services, and training and skill development.









## Theme 2: Working together on the regional reserve

Prior to European settlement, the Yandruwandha and Yawarrawarrka people thrived on the Cooper Creek through a culture that guaranteed the wise and shared use of resources.

The magnanimity of the Yandruwandha and Yawarrawarrka people and their intricate knowledge of these lands is best shown through their involvement in the Burke and Wills story. Theirs is a significant, yet largely untold part of Australia's history, providing an important insight into the colonial attitudes towards the Australian environment and its traditional custodians.

In 1860, a 19-man expedition led by Robert O'Hara Burke crossed these lands. Seven men died in the attempt to cross the continent, including Burke and third in command William John Wills. Upon encountering the Yandruwandha and Yawarrawarrka people, Burke's men were initially guarded;

... We saw no more of them until late that night, when they came with some cooked fish and called out 'white fellow'. Mr Burke then went out with his revolver, and found a whole tribe coming down, all painted, and with fish in small nets carried by men. Mr Burke went to meet them, and they wished to surround him: but he knocked as many of the fish nets out of their hands as he could and shouted out to me to fire. I did so and they ran off. We collected five small nets of cooked fish. The reason he would not accept the fish from them was that he was afraid of being too friendly, lest they should always be at our camp.

Exploring Expedition from Victoria to the Gulf of Carpentaria, under the Command of Mr Robert O'Hara Burke. 1862 (Tolcher 2003, p. 50-51)

Yandruwandha and Yawarrawarrka culture depended on the sharing of resources for survival, and the traditional custodians struggled to understand the mistrust which compelled Burke to reject their offers of food (Tolcher 2003, p. 51). Despite the hostility they encountered, the Yandruwandha and Yawarrawarrka people came to the aid of the struggling explorers, sharing food, shelter, and knowledge of the land. Those willing to accept help survived thanks to the generous spirit of the Yandruwandha and Yawarrawarrka people.

Their unparalleled knowledge of these lands was also a critical part of the establishment of Innamincka Township. Over a period of 70 years from the 1880s, many Yandruwandha and Yawarrawarrka people worked alongside European constables as Aboriginal trackers, forming an essential part of the successful policing of the district.

Despite the tragic consequences of European settlement for traditional custodians, Yandruwandha and Yawarrawarrka people continue to work together, form meaningful collaborative relationships, and share stories and knowledge of Country to ensure a better experience for visitors

***'What's important for us as Aboriginal people, is that we are a voice, we are a voice in our community; we can speak up but we need to be able to work with different departments and other people around us, people within the township, mining companies and other stakeholders. We need to be able to come to the table and work together as one mob. It's everyone's business when looking after Country to preserve and to protect for future generation(s). And this is my vision.'***

Katheryn Litherland, Connected to Country Jan 2015





Yandruwandha Yawarrawarrka Parks Advisory Committee, 2016.

A number of other groups including Friends of the Innamincka Reserves, industry, research organisations, and individuals have studied this landscape over many years. All have contributed to developing an extensive body of knowledge about the regional reserve. Many have also campaigned for its protection, establishing it as an important community asset for South Australia. The Friends of the Innamincka Reserves have been particularly active within the regional reserve.

A range of resource utilisation activities are permitted within the regional reserve. Of particular importance to the South Australian economy are pastoralism and oil and gas production. The South Australian Government works with these industries to ensure that their activities continue to provide jobs, contribute to the economy, are sustainable and appropriately regulated. Maintaining multiple land uses in this sensitive and interconnected environment requires the wise use of resources and the continued cooperation of all individuals and organisations involved.

## Objective and strategies

Work cooperatively to conserve and achieve wise use of the regional reserve.

- Provide information to the public outlining the processes, partnerships and strategies that are in place to ensure that resource utilisation activities within the regional reserve are sustainably managed.
- Conduct regular regional reserve management forums to build relationships, share knowledge, and promote continued collaboration between traditional custodians, stakeholders and the local community.
- Encourage a cooperative approach to research and conservation work that fosters partnerships, develops a shared understanding of the regional reserve and supports the conservation of regional reserve values.
- Encourage stakeholders to assist in surveying, monitoring, detecting and managing pests throughout the regional reserve.





### **Theme 3 – Sustaining ecosystems of the Cooper Creek and surrounding landscape**

The natural ecosystem processes of dispersal, regeneration, prey and predation which characterise this arid landscape are all interconnected. Their continued function is essential for the health of Innamincka Regional Reserve.

The Cooper Creek provided nourishment for the lives and culture of the Yandruwandha and Yawarrawarrka people for countless generations. Sustaining the health of this ecosystem is essential to ensure that Yandruwandha and Yawarrawarrka culture, tourism, pastoralism and resource use continue to flourish side by side.

The Cooper Creek system is an integral part of the Lake Eyre Basin and is set within the larger Great Artesian Basin – one of the world’s most extensive underground water aquifers.

These freshwater systems are essential to the survival of the plants, animals, and ecosystems of South Australia’s far north. Water is also an essential requirement for tourism, grazing enterprises, oil and gas exploration and production, mining operations, and other resource development activities. The effects of groundwater extraction through the South Australian section of the Cooper Creek are not well understood. Additionally, projected climate change scenarios predict that the far north of South Australia will experience a decline in average annual rainfall and an increase in average annual maximum and minimum temperatures. The reduced availability of water in the future may place further pressure on this finite resource unless properly managed.



Water extraction and other related activities have potential to impact on the natural flow of the Cooper Creek. The assessment and approval of water affecting activities is guided by the *Natural Resource Management Act 2004* (NRM Act), natural resource management plans, and the Far North Prescribed Wells Water Allocation Plan. The development of guidelines for water extraction from surface water systems for stock, domestic and other uses is currently underway.

The use of scarce water resources within this environment requires a collaborative approach, informed by the best available science. The sustainable management of the water and natural resources in the regional reserve will be guided by:

- The Lake Eyre Basin Intergovernmental Agreement 2000
- Great Artesian Basin Strategic Management Plan (Great Artesian Basin Consultative Council 2000).
- South Australian Arid Lands Biodiversity Strategy (Department for Environment and Heritage (DEH) 2009)
- Ramsar Handbook 18: Managing wetlands (Ramsar Convention Secretariat 2010)
- South Australian Arid Lands Natural Resources Management Board Regional Natural Resources Management Plan (SAAL NRM 2017)
- Far North and Outback SA Climate Change Adaptation Plan (SAAL NRM 2017)
- Other plans which are currently being developed and are guided by Yandruwandha and Yawarrawarrka traditional ecological knowledge.

Infrastructure development, earthworks, or other activities that change drainage patterns have the capacity to interrupt the intricate natural flow and inundation patterns of the Cooper Creek system. Given the relatively flat floodplains, even small changes can have a large impact on the dynamics of wetlands. Alterations to water flow are avoided by assessing the potential impact of developments in response to the full spectrum of water flow events.

In addition to lakes, channels, waterholes and wetlands of the Cooper Creek system, the regional reserve contains huge areas of dunefield and gibber plain as well as swales and prominent flat topped hills, or mesas. The Marqualpie land system in the far north east of the regional reserve supports numerous species and communities that are uncommon in South Australia and some of which can only be found within this particular land system. Key areas where these species are known to occur are identified in Neagle and Armstrong (2010).

There are three threatened ecological communities in the regional reserve that are of particular conservation importance: Coolabah and River Red Gum woodlands on regularly inundated floodplains; Old Man Saltbush on Floodplains; and Broughton Willow and Coolabah woodland along drainage lines and floodplains (DEH 2009). These arid zone watercourse vegetation communities support many waterbird species, but can be severely affected by grazing pressure, alteration of water flows, or invasion by pest plants. The retention of structurally and species diverse riparian vegetation and the protection of important ecological communities is a priority.

The regional reserve helps to protect at least 43 rare, vulnerable or endangered animal species (Appendix 1) and at least 20 rare, endangered, or vulnerable plant species (Appendix 2). These rare or threatened species require special consideration to ensure that they are not adversely impacted by management activities, tourism or resource use. Management activities will also align with the recovery plan for the plains mouse (Moseby 2012), and other recovery plans that may be developed in future.

Innamincka Regional Reserve is of international significance for the conservation of migratory bird habitat. The rivers, lakes, wetlands, waterholes, and riparian vegetation of the intricate Cooper Creek system provide critical habitat and food resources for water-dependant birds that migrate between Australia and parts of Asia in the northern hemisphere (refer Appendix 1). Most of these birds breed in the north – commonly in eastern Siberia, China, and Russia – and migrate south to the warmer feeding habitats of Australia for winter. Birds of most species travel around 20,000 km each year, visiting a number of important stopovers in many countries.

To help protect critical habitats for migratory birds, the Australian Government has entered into three bilateral migratory bird agreements: the Japan-Australia Migratory Bird Agreement, the China-Australia Migratory Bird Agreement, and the Republic of Korea-Australia Migratory Bird Agreement. Australia is also a signatory to the Convention on the Conservation of Migratory Species of Wild Animals, or the Bonn Convention. These agreements provide for the protection and conservation of 18 migratory birds species of national significance which utilise the regional reserve.

Many of these species are listed as Matters of National Environmental Significance under the *Environment Protection and Biodiversity Conservation Act 1999* which sets out additional controls for their protection.

Wild dogs, including dingoes (*Canis lupus dingo*), are found within the regional reserve. Wild dogs are a part of the ecosystem and have cultural significance, however they may also impact on livestock. The SA Arid Lands Wild Dog Management Plan (2015) has been developed to guide the management of wild dogs in accordance with Commonwealth and State Government legislation and policies.

A significant threat to the regional reserve comes from pest plants and animals, both terrestrial and aquatic. Pest animal species include the feral pig, cat, dog, rabbit, camel, horse, and donkey. Pest plant species include buffel grass, mexican poppy, sweet acacia and noogoora burr. Pest species have the capacity to deteriorate environmental condition through resource competition, predation, overgrazing, erosion, and decreasing water quality.

Cane toads have potential to become established in the regional reserve. Monitoring of the spread of cane toads occurs in Queensland. Land managers, lessees and other stakeholders work cooperatively to detect the introduction of pests, and to implement pest management plans. These plans seek to minimise the spread and impact of priority pests such as cane toads.

In some locations, camping, in combination with vehicle access, the movement of stock, and the collection of firewood has contributed to the gradual loss of riparian vegetation. Maintaining riparian vegetation around the Town Common in particular is critical

for water flow along the Cooper and Strzelecki Creeks. It will be necessary to maintain the quality of riparian vegetation around camp sites by revegetating or resting degraded areas after flood events.

Flood events are an important part of the ecology of the Cooper Creek and surrounding landscape, however they have the potential to threaten life and property, increase the spread of invasive weeds, and impact on visitor and commercial use of the regional reserve. Emergency response procedures are in place to guide management in preparing for and minimising the impacts of flood events.

Wildfires are infrequent in the Innamincka Regional Reserve, however they are part of the ecology of the region. For thousands of years traditional custodians used controlled fire to effectively manage the land, enabling natural regeneration processes to continue. A fire management plan is required for the regional reserve which merges traditional land management practices with current practices. This will ensure that fire is managed to protect oil and gas assets, park facilities, and help conserve biodiversity in accordance with the Code of Practice for Fire Management on Public land in South Australia 2012-2016 (Government of South Australia 2012).

### **The Coongie Lakes Ramsar Wetland**

A large portion of the Coongie Lakes Ramsar wetlands is situated within Innamincka Regional Reserve. Ramsar wetlands are areas of national or international value that have been designated under the Ramsar Convention – an international, intergovernmental treaty recognising the importance of wetlands as diverse, productive ecosystems, providing essential services and freshwater. The Convention provides a framework to safeguard wetlands, advocating for wise use of their resources.

Coongie Lakes meets seven of the nine listing criteria. It encompasses numerous wetland types, and supports species of conservation significance, large numbers of waterbirds, critical life stages for flora and fauna, and refuge habitat.

In Australia, Ramsar wetlands are managed in accordance with the Australian Ramsar Management Principles which are set out in Schedule 6 of the *Environment Protection and Biodiversity Conservation Regulations 2000*. These principles establish national standards for site management, planning, impact assessment, community involvement, and monitoring of Ramsar sites. These principles are similar to the objectives for the management of regional reserves, as set out in the *National Parks and Wildlife Act 1972*. An 'Ecological Character Description (ECD)' and 'Plan for wise use' are also prepared to guide management.

The Coongie Lakes Ramsar Site ECD was published in 2011, however a plan for wise use has not yet been prepared. In recognition of the important status of the Ramsar wetland, the portion of the Coongie Lakes Ramsar wetland within the Innamincka Regional Reserve is managed to maintain its ecological character. Consideration is also given to management goals beyond the regional reserve boundary.

Any actions that will, or are likely to, have a significant impact on the ecological character of a Ramsar wetland are regulated under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Actions that could trigger environmental assessment and approval under the EPBC Act include infrastructure development, mineral and petroleum exploration and production, agricultural activities and the extraction or diversion of water.

## **Objective and strategies**

Preserve ecosystem processes which support the health of the Cooper Creek and the surrounding landscape.

- Continue to undertake hydrological monitoring, assessment and analysis of the Cooper Creek catchment.
- Ensure that proposed developments and proposed water affecting activities are culturally appropriate, thoroughly evaluated prior to approval and informed by the best available information. As appropriate, these activities should be authorised with conditions to ensure that:
  - o Significant alteration to the natural flow of the Cooper Creek system is avoided or minimised.
  - o Extraction from waterholes during periods of no flow is avoided where practical.
  - o Removal or degradation of riparian vegetation or threatened ecological communities is avoided and minimised.
- Develop and implement a fire management plan for the regional reserve.
- Ensure that the regional reserve continues to be a focus for integrated pest plant and animal management activities.
- Continue to encourage volunteers and others to undertake monitoring and surveys that improve understanding of the regional reserve's natural values. As a priority, work with stakeholders and partners to establish a program to monitor the ecological character of the Coongie Lakes Ramsar wetland and develop strategies as appropriate in response to priority threats.





### **Search for the Night Parrot**

The night parrot (*Pezoporus occidentalis*) is one of the most elusive and mysterious birds in the world, dubbed the 'holy grail' of ornithology. The first recorded specimen was found by John McDouall Stuart in 1845, within the area now known as the Innamincka Regional Reserve.

Despite numerous targeted surveys, there have been very few records of the enigmatic parrot since, and for around 100 years it was presumed extinct. The nocturnal and mostly ground-dwelling parrot is endemic to Australia. Adapted to life in the harsh outback, their water needs appear to be minimal, and they hide in clumps of spinifex by day, emerging after sunset to forage for food. Three other records in Innamincka Regional Reserve and its surrounds have been reported in the last 30 years.

Sightings in recent years, including one in 2017, have confirmed that the night parrot's range extends across several States in central and Western Australia. The Night Parrot Recovery Team is working to learn more about the species and secure its future.

The night parrot is listed as endangered under the *Environment Protection and Biodiversity Conservation Act 1999*, and is one of the 20 priority bird species in the Australian Government's 'Threatened Species Strategy' (2015).

Innamincka Regional Reserve contains habitat suitable for night parrots, and as such has an important role to play in the conservation of this fascinating species. Fire management is a key element, as the bird's preferred spinifex habitat is particularly susceptible to unmanaged wildfire. Allowing for areas of unburnt grassland to develop over time should be addressed in the future development of a fire management plan.





## Theme 4: Enabling the ecologically sustainable use of natural resources

The Cooper Basin contains the most important on-shore petroleum and natural gas deposits in Australia. Approximately half of the Cooper Basin oil and gas reserves are situated within the regional reserve. There are numerous companies with commercial interests in the regional reserve.

Parts of the regional reserve contain extensive infrastructure for the exploration, extraction and transport of oil and gas. Access tracks in particular have the capacity to increase the spread of pest plants and animals and to alter water flow patterns. Many of the tracks that have been developed to support oil and gas exploration and production have not been developed with visitor use in mind. As a result they generally do not enhance the experience of visitors and can create an unnecessary risk as they are not appropriate for public use. Where possible, the establishment of new tracks associated with oil and gas exploration and production is minimised and tracks that are no longer necessary must be closed and rehabilitated.

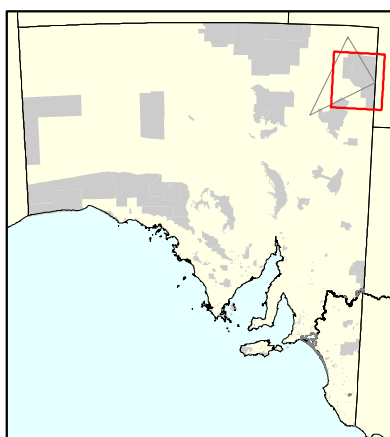
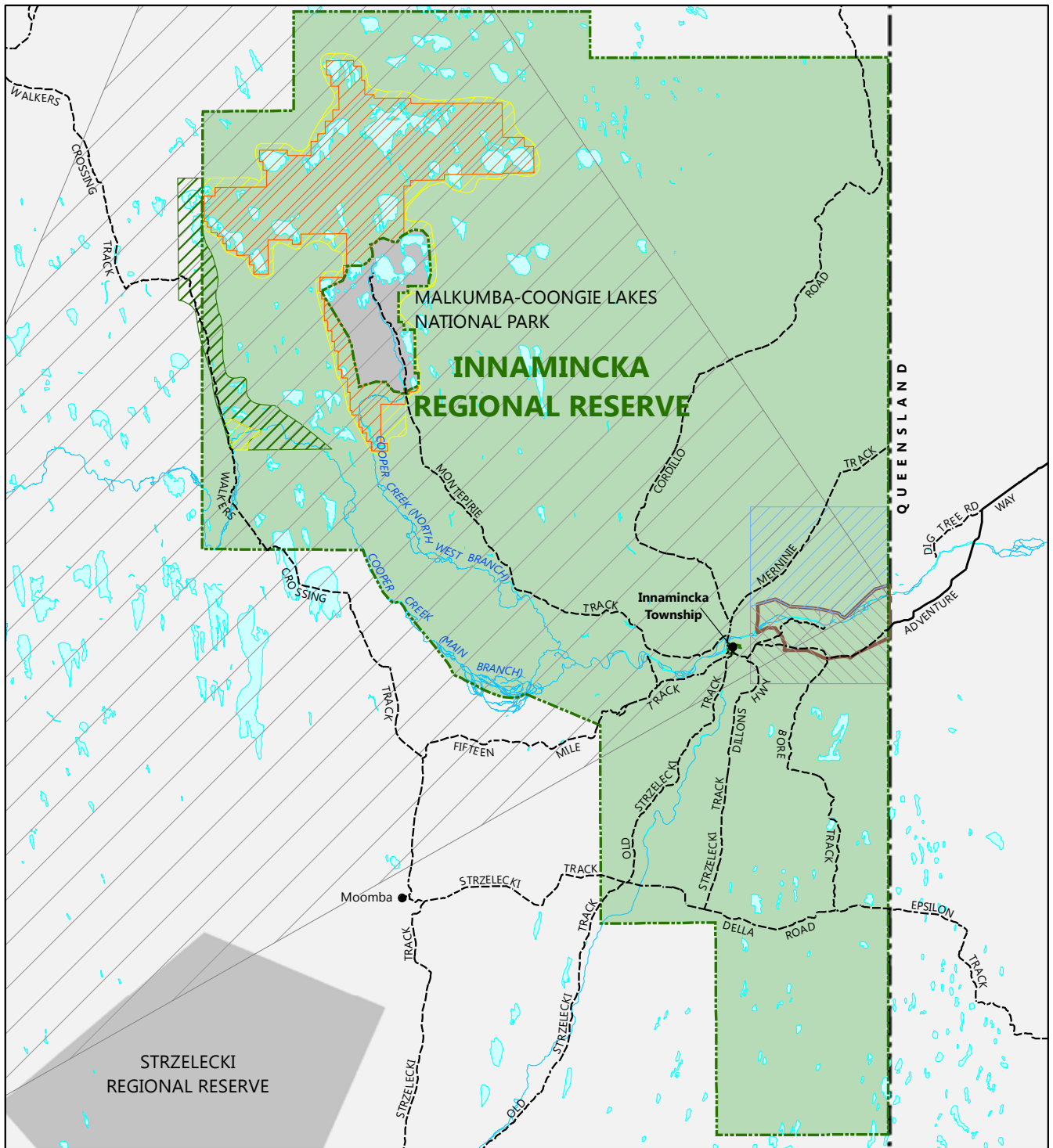
Three zones of particularly high environmental value within Innamincka Regional Reserve have been created to ensure that oil and gas exploration and production does not impact on areas within the regional reserve that are of particular sensitivity. Each of these zones is shown in Figure 5 and summarised in Table 2.

The No Mining Zone was created under the *National Parks and Wildlife Act 1972*. This zone surrounds Malkumba-Coongie Lakes National Park and prohibits all mineral and petroleum activities. Two additional zones have been established under the *Petroleum and Geothermal Energy Act 2000*. One is the Walk-in Zone which surrounds both Malkumba-Coongie Lakes National Park and the No Mining Zone. Petroleum activities that may occur under licence within the Walk-in Zone are confined to subsurface drilling and walk-in access. The other zone is located to the west of the National Park over a major flood-out area with significant natural and cultural values. Specific conditions apply to all licensed petroleum activities within this zone that are over and above those that normally apply elsewhere.

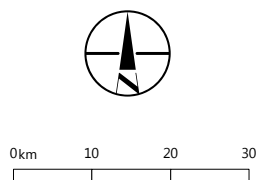
Table 2: Mining access zones within Innamincka Regional Reserve

	No Mining Zone	Walk-in Zone	Controlled Access Zone
Purpose	To exclude mining and petroleum activities from areas with particularly high environmental value.	To minimise the impact of mining and petroleum activities on areas of high environmental value	To minimise the impact of petroleum activities on a culturally and environmentally significant creek line and floodplain areas.
Restrictions	All oil and gas exploration and production activities under the <i>Petroleum and Geothermal Energy Act 2000</i> and all mining activities under the <i>Mining Act 1971</i> are not permitted in this zone.	All oil and gas exploration and production activities under the <i>Petroleum and Geothermal Energy Act 2000</i> and all mining activities under the <i>Mining Act 1971</i> will not be authorised in this zone (other than foot-based exploration and survey work, and subsurface drilling from outside this zone).	Specific restrictions apply as specified under the <i>Petroleum and Geothermal Energy Act 2000</i> .





**Figure 5**  
Management Zones



- LEGEND**
- Innamincka Regional Reserve
  - Other Parks
  - Hunting Zone
  - Traditional Use Zones
  - No Mining Zone
  - Controlled Access Zone
  - Walk-In Zone
  - Cullyamurra Enclosure
  - Waterbody and Watercourse
  - Public Access Track (generally 4WD)
  - Public Access Road (sealed)





The Department for Energy and Mines works with oil and gas exploration and production companies to implement regulatory frameworks. These frameworks ensure that activities are safe, sustainable and appropriately regulated. It is not the purpose of this plan to establish additional controls, rather it is intended to complement established regulatory frameworks by identifying key threats and important values that require protection.

Pastoral enterprises have been conducted in this region since 1864. Grazing is regulated through a lease under the *National Parks and Wildlife Act 1972*. Pastoral lease inspections are conducted annually, and grazing is monitored to ensure that stocking rates are sustainable and compatible with conservation goals. Waterholes are an important source of water for stock, however these areas also have significant cultural value and support environmentally important riparian vegetation. The management of grazing pressure around these sites is a priority, particularly after flood events. The Cullyamurra enclosure area was created in partnership with long-term lessee S. Kidman & Co. to minimise the impact of stock on Cullyamurra waterhole. At several sites, water is also pumped to alternative water points beyond the natural waterways. These strategies have reduced the impact of stock on sensitive areas.

A rubbish tip is situated within the regional reserve. In future, it may be necessary to have the tip relocated to within the town boundary, or to have a section of the regional reserve privately leased for waste management. The development of a waste management plan is required to minimise the current environmental impacts of the tip and to guide appropriate management.

### **Regulation of oil and gas exploration and production activities in South Australia**

Processes for the assessment, approval and regulation of oil and gas exploration and production activities are directed by the *Petroleum and Geothermal Energy Act 2000*. There are three key stages: licensing, environmental assessment, and activity notification. As a mandatory licence condition, licensees must show adequate technical and financial resources to ensure compliance with their environmental obligations, including the rehabilitation of land following regulated activities.

Following the issuing of a license, an Environmental Impact Report (EIR) and Statement of Environmental Objectives (SEO) are prepared in all cases unless an existing approved SEO is in place. Pipeline License applications require a draft EIR and SEO to be provided alongside application. The SEO identifies key environmental objectives that must be met, and includes relevant criteria that can be measured to assess compliance against those objectives. As part of the EIR, the proponent is required to produce documentation describing the proposal, the potential environmental impacts, and how these impacts would be managed. The EIR and SEO are prepared in consultation with relevant stakeholders, and once approved are publicly available.

Prior to any oil and gas exploration and production activities undertaken within Innamincka Regional Reserve, the Yandruwandha and Yawarrawarrka traditional custodians work with companies to inspect sites, providing cultural clearances and advice.

Companies are also required to comply with other legislation, including the *Native Title Act 1993*, the *Aboriginal Heritage Act 1988*, the *Environment Protection and Biodiversity Conservation Act 1999*, and the *National Parks and Wildlife (National Parks) Regulations 2016* and the *Native Vegetation Act 1991*.





## Objective and strategies

Enable sustainable resource use for permitted activities.

- Through the frameworks that have been established by the South Australian Government for the appropriate regulation of oil and gas exploration and production and grazing, ensure that:
  - o The establishment of infrastructure (including tracks, camps and borrow pits) is minimised and/or consolidated wherever practicable.
  - o Disturbed sites and tracks are closed and rehabilitated, and infrastructure is removed from the regional reserve at the end of its life.
  - o Any significant alteration to the natural landscape and associated visitor experiences along the Cooper Creek is prevented.
  - o Water extraction from the Cooper Creek, (permanent water holes, semi-permanent water holes and the Cooper Main Channel in particular) is minimised (refer Figure 4).
  - o All necessary precautions are taken to prevent the introduction and spread of pest plants.
  - o Waste management strategies are in place and implemented.
  - o Any alteration to water flow patterns is avoided, particularly in the vicinity of the Main Branch (refer Figure 4). This includes applying best practice principles when grading vehicle tracks to minimise disturbance to natural drainage patterns.
- Continue to work with the pastoral lessee to conduct lease inspections. Minimise the impact of stock on sensitive sites through the provision of alternative water points, fencing, and the controlled management of grazing after flood events.
- Continue to liaise with the pastoral lessee, mining companies, and petroleum companies to ensure that tracks are adequately maintained and public access is managed.
- Liaise and collaborate with local residents and the Outback Communities Authority to develop a waste management plan for the Innamincka Township.



## Theme 5: Connecting visitors to the regional reserve's history, the Cooper Creek landscape, and Yandruwandha and Yawarrawarrka culture

Innamincka Regional Reserve contains astonishing arid landscapes and is set in one of the most remote parts of Australia. The regional reserve is layered in pioneer history and the rich culture of the Yandruwandha and Yawarrawarrka people.

Visitors can enjoy an authentic outback experience, centred on camping, fishing, canoeing, bird watching and visiting Burke and Wills historic sites. Generally, their visit is part of a four-wheel drive journey through outback South Australia or Queensland. The Innamincka Township and the Cooper Creek are focal points for visitors to the region. Information about track conditions, visitor destinations, minimal impact practices and regulations is provided through local businesses in the Innamincka township. Accommodation, fuel and other supplies are also available in the Innamincka township.

The restored Australian Inland Mission (AIM) building in Innamincka is central to the area's history. It now functions as an office and interpretive centre. The AIM building, together with short walks and interpretive information at Cullyamurra Waterhole, Will's Grave and Burke's Grave provide visitors with a deeper appreciation of the regional reserve and its Yandruwandha and Yawarrawarrka culture.

The regional reserve will continue to provide for existing visitor uses. Campsites and facilities should retain a remote and undeveloped character, ensure long term sustainability, and improve visitor experience. Significant changes to campsites are not required however to ensure that the vegetation at camping sites is protected, some cyclical resting and rehabilitation of sites may be necessary should they become degraded over time. Risks such as soil compaction, loss of vegetation, loss of leaf litter and introduction of pollutants and nutrients into the water around key waterholes and camping areas require ongoing monitoring. The increased prevalence of extreme weather events that may arise as a result of climate change may also require the adaptation of visitor management strategies.

The expectations of visitors in the future are expected to change. Generally, visitors to this area are self-sufficient and skilled at four-wheel drive touring in remote locations. However, the improvement of the roads that lead to Innamincka is expected to attract more people to the regional reserve, a greater proportion of which are expected to travel in two-wheel drive cars or as part of a larger tour. The regional reserve will need to adapt over time to this trend by offering experiences that are accessible to larger groups and visitors travelling in two wheel drive vehicles. This could be achieved by providing experiences that are accessible from the Innamincka township such as short walks, four-wheel drive tours, boat-based tours or additional interpretation of Yandruwandha and Yawarrawarrka culture at facilities within the township.

### Ensuring that visitor use is sustainable

Four-wheel drive tracks, walking trails, signs and camping sites that complement the regional reserve's natural character are provided for visitors along the Cooper Creek. Facilities are kept to an absolute minimum and it is not cost-effective or feasible to provide major visitor facilities in this remote and flood prone landscape.

Visitors are encouraged to minimise their impact and take responsibility for their own navigation and safety by obtaining information about the regional reserve prior to their visit. Regulations apply to ensure that the impact of visitors on the regional reserve is minimised. Track conditions may change quickly and are generally only suitable for four-wheel drive vehicles. The Desert Parks Bulletin provides up to date information about tracks.

Visitors can enjoy fishing, canoeing and the use of motorised boats. However, jet skis are not allowed and motorised boats must not exceed ten knots. Temporary restrictions may apply to the use of motorised boats during periods of low flow or around sensitive sites such as bird breeding areas.

A network of vehicle tracks provides access to all major visitor sites (Figure 1). Off-track driving is not permitted and there are numerous tracks within the regional reserve that are not open to the public. In the future it may be necessary to close or relocate some tracks in order to protect the regional reserve and maintain access. Tracks may be temporarily closed after rain or flood.

To minimise impacts, camping is confined to eight camping areas adjacent to the Cooper Creek (Figure 1). The Town Common adjacent to Innamincka township also provides for camping and is privately managed via a lease. Visitors are permitted to have fires in designated camping areas, but the collection of firewood from within the regional reserve is not permitted. Generators are permitted at camp sites, provided that they are restricted to daylight hours only, with a maximum noise output of 65 dB.

To protect environmentally or culturally sensitive sites it may be necessary to restrict visitor access. From time to time it may also be necessary to alter regulations for visitors to ensure that impacts are managed.



## Objective and strategies

Provide opportunities for people to enjoy the regional reserve, develop greater respect for Yandruwandha and Yawarrawarrka culture and gain a deeper appreciation of the Innamincka Regional Reserve's story.

- Progressively review and improve visitor information and interpretation to ensure that visitors enjoy a safe visit, develop a greater respect for Yandruwandha and Yawarrawarrka culture, and gain a deeper appreciation of the regional reserve's story.
- Work in collaboration with the Innamincka Progress Association, the local community, Yandruwandha and Yawarrawarrka traditional custodians and tourism businesses to support the establishment of new, culturally appropriate nature-based tourism enterprises in the regional reserve.
- Encourage the sharing of culture through interpretative signage, information and tours through collaboration with, and led by, the Yandruwandha and Yawarrawarrka people.
- In conjunction with the Yandruwandha and Yawarrawarrka people, facilitate opportunities to develop the AIM building and other suitable sites into focal points for the interpretation and sharing of culture. This may include the updating of signage and development of a bush foods garden.
- Encourage visitors to adopt minimal impact behaviours during their visit.
- Maintain and improve visitor facilities, ensuring that they meet the needs of visitors, are cost-effective and are in keeping with the remote and natural character of the regional reserve.
- Monitor the condition of camping areas on the Cooper Creek. As required, fence and exclude camping from degraded areas after floods to encourage rehabilitation of riparian vegetation.





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## Appendix 1 - Threatened Fauna

Scientific Name	Common Name	Conservation Status Australia	Conservation Status South Australia
<i>Pezoporus occidentalis</i>	Night parrot	Endangered	Endangered
<i>Dasyuroides byrnei</i>	Kowari	Vulnerable	Vulnerable
<i>Notomys fuscus</i>	Dusky hopping-mouse	Vulnerable	Vulnerable
<i>Pseudomys australis</i>	Plains mouse	Vulnerable	Vulnerable
<i>Lophoictinia isura</i>	Square-tailed Kite		Endangered
<i>Tyto novaehollandiae</i>	Australian masked owl		Endangered
<i>Ardeotis australis</i>	Australian bustard		Vulnerable
<i>Cladorhynchus leucocephalus</i>	Banded stilt		Vulnerable
<i>Grus rubicunda</i>	Brolga		Vulnerable
<i>Neophema chrysostoma</i>	Blue-winged parrot		Vulnerable
<i>Stictonetta naevosa</i>	Freckled duck		Vulnerable
<i>Emydura macquarii emottii</i>	Macquarie tortoise		Vulnerable
<i>Uperoleia capitulata</i>	Small-headed toadlet		Rare
<i>Actitis hypoleucos</i>	Common sandpiper		Rare
<i>Anas rhynchotis</i>	Australasian shoveler		Rare
<i>Anhinga novaehollandiae</i>	Australasian darter		Rare
<i>Aprosmictus erythropterus</i>	Red-winged parrot		Rare
<i>Ardea intermedia</i>	Intermediate egret		Rare
<i>Biziura lobata</i>	Musk duck		Rare
<i>Cacatua leadbeateri</i>	Major Mitchell's cockatoo		Rare
<i>Calidris melanotos</i>	Pectoral sandpiper		Rare
<i>Climacteris affinis</i>	White-browed treecreeper		Rare





Scientific Name	Common Name	Conservation Status Australia	Conservation Status South Australia
<i>Egretta garzetta</i>	Little egret		Rare
<i>Elanus scriptus</i>	Letter-winged kite		Rare
<i>Falco hypoleucos</i>	Grey falcon		Rare
<i>Falco peregrinus</i>	Peregrine falcon		Rare
 <i>Gallinago hardwickii</i>	Latham's snipe		Rare
<i>Grantiella picta</i>	Painted honeyeater		Rare
<i>Hamirostra melanosternon</i>	Black-breasted buzzard		Rare
 <i>Limosa limosa</i>	Black-tailed godwit		Rare
<i>Melithreptus gularis laetior</i>	Golden-backed honeyeater		Rare
<i>Myiagra inquieta</i>	Restless flycatcher		Rare
<i>Ninox connivens</i>	Barking owl		Rare
<i>Oxyura australis</i>	Blue-billed duck		Rare
<i>Phaps histrionica</i>	Flock bronzewing		Rare
<i>Plegadis falcinellus</i>	Glossy ibis		Rare
 <i>Pluvialis fulva</i>	Pacific golden plover		Rare
<i>Podiceps cristatus</i>	Great crested grebe		Rare
<i>Porzana tabuensis</i>	Spotless crake		Rare
<i>Saccolaimus flaviventris</i>	Yellow-bellied sheath-tailed bat		Rare
<i>Trichosurus vulpecula</i>	Common brushtail possum		Rare
<i>Aspidites ramsayi</i>	Woma		Rare
<i>Proablepharus kinghorni</i>	Blacksoil skink		Rare

 migratory birds of international significance protected under bilateral migratory bird agreements



## Appendix 2 - Threatened Flora

Scientific Name	Common Name	Conservation Status South Australia
<i>Osteocarpum pentapterum</i>	Five-wing bonefruit	Endangered
<i>Cyperus concinnus</i>	Trim Flat Sedge	Rare
<i>Acacia tenuissima</i>	Slender wattle	Rare
<i>Neurachne lanigera</i>	Woolly mulga-grass	Rare
<i>Brachyscome eriogona</i>		Rare
<i>Cyperus nervulosus</i>		Rare
<i>Eryngium vesiculosum</i>	Prostrate blue devil	Rare
<i>Zygophyllum humillimum</i>	Small-fruit twinleaf	Rare
<i>Glesia biniflora</i>	Western tar-vine	Rare
<i>Callitriche sonderi</i>	Matted water starwort	Rare
<i>Calandrinia stagnensis</i>		Rare
<i>Eremophila polyclada</i>	Twiggy emubush	Rare
<i>Phlegmatospermum eremaeum</i>	Spreading cress	Rare
<i>Elacholoma prostrata</i>	Small monkeyflower	Rare
<i>Frankenia cupularis</i>		Rare
<i>Pimelea penicillaris</i>	Sandhill riceflower	Rare
<i>Bergia occultipetala</i>		Vulnerable
<i>Stylidium desertorum</i>		Vulnerable
<i>Cyperus dactyloides</i>		Vulnerable
<i>Swainsona oligophylla</i>		Rare





### For further information please contact

Department for Environment and Water phone information line (08) 8204 1910, or see SA White Pages for your local Department for Environment and Water office.

### Recognition of Aboriginal Culture

Aboriginal Australians have rights to maintain, control, protect and develop their intellectual property over cultural heritage, traditional knowledge and traditional cultural expressions.

### Photography

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