Adelaide International Bird Sanctuary National Park – Winaityinaityi Pangkara

Management Plan 2020
Minister’s foreword

The annual migration of shorebirds from the northern hemisphere to Adelaide’s northern coastal plains is one of nature’s great events. But the clearance of habitat overseas, together with changes to the climate, pose a serious threat to the survival of many shorebird species.

The shorebirds that come to Adelaide’s coastal plains each year utilise these coastal environments to recuperate, feed, and prepare for their return journey. The Adelaide International Bird Sanctuary National Park – Winaityinaityi Pangkara was created to protect this important habitat and to provide the shorebirds with a safe haven.

This plan ensures that the park continues to be a safe haven for birds. It includes strategies to conserve and rehabilitate coastal shorebird habitat. It also includes strategies to minimise the disturbance of shorebirds while they recuperate, feed and build their energy reserves.

Parks enable us to enjoy a healthy, outdoor lifestyle, learn about the natural world, and connect with nature. This park is an integral part of several nearby communities, and this plan ensures that local people can access this park without compromising the conservation of shorebirds and their habitat.

I am confident that the park will become a highlight of the East Asian-Australasian Flyway – showcasing how local community efforts can make a difference and attract people from all over the world to see and learn about these remarkable birds in a stunning natural landscape.

I am pleased to adopt the Adelaide International Bird Sanctuary National Park – Winaityinaityi Pangkara Management Plan.

David Speirs MP
Minister for Environment and Water

Cultural Sensitivity Warning
Aboriginal people are advised that this publication may contain images or information that could be culturally sensitive.
Developing this plan

Adelaide International Bird Sanctuary National Park – Winaityinaityi Pangkara (14,633 ha) was created in 2016. It is located to the north of Adelaide, adjacent to the townships of St Kilda, Middle Beach, Thomson Beach, Webb Beach, and Parham (Figure 1). It stretches over 50 kilometres of coastline along the eastern side of Gulf St Vincent, encompassing coastal land and intertidal areas.

As required under the National Parks and Wildlife Act 1972, a draft management plan for the park was released for public consultation in 2018. Thirty eight submissions were received. As appropriate, the plan has been refined to reflect this feedback.

This park management plan fulfills the requirement under Section 38 of the National Parks and Wildlife Act 1972 for the development of a management plan for this park. It provides a succinct overview of management arrangements, identifies high level management objectives and outlines key priorities for management. It will be supported by subordinate plans that provide actions at an operational level.

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Directions for management

Adelaide International Bird Sanctuary National Park – Winaityinaityi Pangkara will be managed to minimise disturbance to the natural ecological processes that support life in the park, to protect natural and cultural values, to improve the integrity of important ecological communities, and to enable people to enjoy the park.

The park is proclaimed under the National Parks and Wildlife Act 1972 and is managed in line with the objectives of this Act. The provisions of the Act ensure that the park is highly protected and managed primarily for conservation, whilst enabling environmentally sustainable public use and enjoyment to continue. In addition, all native wildlife in South Australia is protected through the provisions of the National Parks and Wildlife Act 1972 and all migratory bird species in Australia are protected through the provisions of the Environment Protection and Biodiversity Conservation Act 1999.

The park is a significant part the Adelaide International Bird Sanctuary East Asian-Australasian Flyway site. As such it is part of a global network of internationally important sites for the conservation of migratory birds. Australia has committed to global efforts for the conservation of migratory birds as a signatory to the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), and through bilateral migratory bird agreements with Japan (JAMBA), China (CAMBA) and the Republic of Korea (ROKAMBA).

The Kaurna people, local horticulturists, residents of nearby townships and people from the northern suburbs have an opportunity to contribute to the management of the park. The park can also create opportunities for education and nature-based tourism and strengthen the reputation of the region as a destination in its own right, and as one of South Australia’s premier sources of clean, green produce.

The park remains subject to the provisions of the Native Title Act 1993, as well as the native title rights and interests that exist in relation to the land. It is proclaimed jointly under Section 43 of the National Parks and Wildlife Act 1972 which enables appropriate resource exploration and development under the Mining Act 1971 and the Petroleum and Geothermal Energy Act 2000 to be authorised by the South Australian Government. Certain regulations and zones under other legislation including the Marine Parks Act 2007 and the Fisheries Management Act 2007 will also continue to apply over the park.

The East Asian-Australasian Flyway - an international collaboration for migratory shorebird conservation

Each year, thousands of shorebirds and waterbirds migrate from the northern hemisphere to wetland sites in Australia and New Zealand. The migration path of these birds across the East Asia and Australasian region is known as the East Asian-Australasian Flyway. The East Asian-Australasian Flyway extends across 37 countries from Arctic Russia to the southern limits of Australia and New Zealand. It includes a chain of Important Bird and Biodiversity Areas, and traces the annual migratory routes of approximately 500 bird species and an estimated 50 million individual migratory birds.

Adelaide International Bird Sanctuary National Park – Winaityinaityi Pangkara and areas of high value habitat beyond the boundaries of the park have been formally designated as the Adelaide International Bird Sanctuary Flyway Site. It is one of many sites within the East Asian-Australasian Flyway that provide critical habitat for migratory shorebirds. Many rely on this area to feed, roost and build energy reserves in readiness for their next migration.

“The East Asian-Australasian Flyway - an international collaboration for migratory shorebird conservation

As some migratory shorebird populations decrease, there is an urgent need to address threats to the remaining habitats that are critical for their ongoing survival (MacKinnon et al. 2012). Efforts to conserve migratory shorebirds in one country can only be effective with cooperation and complementary actions in all of the countries that shorebirds visit.

Through its protection and management under the National Parks and Wildlife Act 1972, the national park portion of the Adelaide International Bird Sanctuary Flyway Site ensures that this critical area will continue to contribute to this international collaboration.

“Some of these birds only weigh a few grams, yet migrate for thousands of miles. This is a stunning natural phenomenon.”

Emeritus Professor Bill Breed
Park significance and purpose

Adelaide International Bird Sanctuary National Park – Winaityinaityi Pangkara was created to protect migratory shorebirds and their habitat.

The park helps to protect at least 52 shorebird species, including 35 migratory species recognised as matters of national environmental significance under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

Three migratory shorebird species – the curlew sandpiper (*Calidris ferruginea*), eastern curlew (*Numenius madagascariensis*), and great knot (*Calidris tenuirostrus*) are listed as critically endangered under the EPBC Act. The park provides habitat for a significant portion of the world’s red-necked stints (*Calidris ruficollis*) and sharp-tailed sandpipers (*Calidris acuminata*). Many of these migratory bird species are also listed under one or more of the JAMBA, CAMBA and ROKAMBA international migratory bird agreements.

The park provides important feeding, roosting and breeding habitat for 45 bird species listed as threatened in South Australia under the National Parks and Wildlife Act 1972. These include the samphire or slenderbilled thornbill (*Acanthiza iredalei*), elegant parrot (*Neophema elegans*), rock parrot (*Neophema petrophila*), little egret (*Egretta garzetta*), and fairy tern (*Sternula nereis*).

The park also protects:

- Migratory and resident shorebird habitats including:
  - Mangrove forests, which provide habitat for many species of shorebirds, as well as other birds including the eastern curlew and the pacific golden plover. The tidal creeks that intersect the mangroves and salt marshes are utilised by species such as common sandpipers, little stints and masked lapwings.
  - Submergent salt marshes, which are utilised by a wide range of shorebirds, particularly when high tide makes the tidal flats inaccessible.
  - Supratidal sabkhas, which provide a feeding resource for shorebirds when inundated, and high-tide roosting areas when dry.
  - Wetlands and sedgelands further inland, which also provide shorebird feeding resources.
  - Grasslands, saltbush and small areas of mallee woodlands that provide safe nesting areas for resident shorebirds and high-tide roosting areas for many of the larger migratory shorebirds.

- Five flora species listed as rare or vulnerable in South Australia under the National Parks and Wildlife Act 1972: *Atriplex australasica*, Rohrlach’s Bluebush (*Maireana rohrlachii*), Prickly Spear-grass (*Austrostipa pilata*), Swamp Daisy (*Brachyscome paludicola*), and Bead Samphire (*Tecticornia flabelliformis*). Bead samphire is also listed as nationally vulnerable under the Environment Protection and Biodiversity Conservation Act 1999.

- Regionally significant species, including rare, coastal dependent butterflies such as the bitterbush blue butterfly (*Theclinesthes albocincta*).

- An integral component of the Subtropical and Temperate Coastal Saltmarsh ecological community. This community is listed as vulnerable under the Environment Protection and Biodiversity Conservation Act 1999, is recognised globally as a significant carbon sink, and contains Australia’s largest area of critical habitat for bead samphire.

- Naturally occurring and extensive tidal wetlands, rivers, and creeks. The park includes portions of three Wetlands of National Importance: Clinton, Barker Inlet & St Kilda, and Port Gawler & Buckland Lake (Department of the Environment and Energy 2010).

- Seagrass meadows, tidal creeks and saltmarshes that provide nursery areas for a number of ecologically, commercially, and recreationally important marine fish and crustacean species.

- Some of the last remaining coastal grasslands within the Adelaide Plains.

- An interconnected landscape of profound cultural significance to the Kaurna people, including cultural sites and culturally significant species such as the Kudlyo (black swan) and Yaltu (pelican).

- Places for local residents and visitors to connect with nature and enjoy a range of recreational activities.

- An integral part of the Adelaide International Sanctuary Flyway Site – together with Adelaide Dolphin Sanctuary, the Upper Gulf St Vincent Marine Park, Torrens Island Conservation Park, Clinton Conservation Park, Wills Creek Conservation Park, the Gawler River, Greenfields Wetlands, and the privately-owned salt fields.
Challenges and opportunities

Key challenges and opportunities in the protection and management of the park are:

- Maintaining and enhancing the quality and extent of habitats and food resources in the park so that they can continue to support migratory and resident shorebirds, waterbirds, bush birds and sea birds.
- Understanding and responding to the impacts of a changing climate and rising sea levels on the coastline and low-lying habitats.
- Enabling coastal access for public use and enjoyment in a way that shares the beaches with shorebirds and minimises disturbance during critical roosting and foraging periods.
- Establishing and capitalising on international flyway partnerships.
- Facilitating a coordinated approach to managing the park as part of the broader landscape of public, private and protected lands, in partnership with neighbouring land managers and the wider community.
- Enabling Kaurna people to utilise the park to promote reconciliation and healing, and to develop business ventures in the park such as cultural tours.
- Maintaining the quiet and undeveloped coastal character enjoyed by local residents.
- Creating opportunities for visitors to learn about and gain a deeper appreciation of the park, Kaurna culture, and migratory shorebirds.
- Working alongside schools, universities, conservation groups, government departments, and environmental nongovernment organisations to develop a better understanding of the park’s biodiversity values.
- Fostering greater appreciation, care, and custodianship of the park within the community.
THEME 1: Conserving migratory shorebirds and their habitat

Conserving migratory shorebirds will focus on maintaining the quality and extent of their critical habitats throughout the Adelaide International Bird Sanctuary Flyway Site.

To provide strategic direction for conservation of migratory shorebirds, the Australian Government has developed the Wildlife Conservation Plan for Migratory Shorebirds (Commonwealth of Australia 2015). In addition, BirdLife Australia have developed the Migratory Shorebird Conservation Action Plan (Weller & Warren 2017) which sets priorities for shorebird conservation at a national level.

The Metropolitan Adelaide and Northern Coastal Action Plan 2009 (EMS 2009) will also assist in setting management directions for the park. This plan provides a detailed assessment of conservation values, threats and priorities for the conservation of the coastal landscape from Sellicks Beach, south of Adelaide, to the northern boundary of the park. In addition, coastal management plans have been developed for areas that are now included in the park and will continue to help in the setting of biodiversity conservation priorities within the park (Delta Environmental Consulting 2005; Greening Australia 2007; EBS Ecology 2010a; EBS Ecology 2010b; EBS Ecology 2012).

Knowledge gained about each species and their habitat enables the development of strategies for their conservation. Australia has some of the most comprehensive shorebird monitoring data available anywhere in the Flyway. The ‘Shorebirds 2020’ project was established in 2007 to ensure a coordinated approach to shorebird monitoring. This project has harnessed significant volunteer effort and will continue as part of BirdLife Australia’s new Migratory Shorebird Program. BirdLife Australia, Australasian Wader Studies Group, Victorian Wader Studies Group, Friends of Shorebirds South East, universities, and many others have contributed.

Research and monitoring will continue to focus on understanding the shorebird species that have migrated to the park and measuring their weight gain. Optimal weight gain varies across species but on average each species needs to increase their bodyweight by at least 60% before their migration. Monitoring programs are an ideal way for Kaurna people, universities, the Friends of the Adelaide International Bird Sanctuary and other local community groups to participate and learn from each other.

The occurrence of cleared pastures within and outside the park, coupled with abundant fresh water, has facilitated an increase in the populations of fallow deer, western grey kangaroos and rabbits which have potential to impact on important habitats.

The control of fallow deer is a priority. The strategic culling of western grey kangaroos will also be implemented in conjunction with the management of introduced herbivores if the assessment of total grazing pressure determines that control measures are the only practicable option.

High populations of western grey kangaroos and introduced herbivores have potential to impact on important habitats. An annual assessment of total grazing pressure is used to indicate when the control of overabundant species is required. The strategic culling of western grey kangaroos will be implemented in conjunction with the management of introduced herbivores if the assessment of total grazing pressure determines that control measures are warranted.

Pest plants including Artichoke thistle, African boxthorn, Columba daisy and bridal creeper have potential to spread into important habitat. Where practicable, the spread of pest plants will be managed to minimise their impact on the higher value habitat areas. Burning may be undertaken in some parts of the park to achieve ecological outcomes or to assist in the protection of assets. Detailed plans for fire or pest management may be developed if required.

Tidal inundation plays a major role in shaping the mosaic of vegetation communities and associated shorebird habitats within the park. Predicted changes in sea level are expected to alter the extent and frequency of inundation which will also alter these vegetation communities. The park may support the migration of some species by enabling the landward shift of intertidal areas. As sea levels rise, earthworks within the park could be necessary to protect property, to maintain public access or to facilitate the adaptation of key habitat areas.

Migratory shorebirds are particularly susceptible to disturbance during daytime roosting and foraging periods. Prolonged disturbance can compromise their capacity to build the sufficient energy reserves that are needed for migration (Goss-Custard et al. 2006; Weston et al. 2012).
The presence of vehicles, motorbikes and unrestrained dogs have been major sources of disturbance in the past. Other recreational activities such as horse riding, fishing, crabbing, cockling and camping also have potential to cause disturbance. Disturbance will be minimised by regulating access and promoting minimal impact behaviours through liaison with local residents, signs, and ranger patrols.

Improving compliance with regulations for crabbing and cockling will also be necessary through liaison, and working with Primary Industries and Regions SA (PIRSA). Birds and other wildlife are vulnerable to disturbance and predation by foxes and feral cats. These species are declared as pest animals, and are managed through a variety of methods including baiting.

Vehicle access and motorbike riding in South Australia’s parks is constrained to designated roads, tracks, and beaches. Those roads, tracks and beaches that are available for vehicle access and motorbike riding in the park have been rationalised, and are shown in Figure 1. People may walk and exercise their dog within the park however dogs must remain on a lead and under effective control. Horse riding will be confined to designated areas. In order to provide additional protection for migratory and resident shorebirds during key feeding periods, vehicular access to several beaches may be closed on a temporary or seasonal basis. Typically seasonal closures may be applied to specific beaches, or other high habitat value areas for a 6-8 week period each year between February and March.

Objective and strategies

Optimise opportunities within the park for migratory shorebirds to gain adequate energy reserves.

- Develop a Conservation Action Plan that draws on previous conservation action plans and aligns actions undertaken within the park with those applied across the Flyway.
- Maintain and improve the quality and extent of vegetation communities within the park that provide habitat for shorebirds and other species.
- Ensure that future management actions consider, and where feasible minimise, the anticipated effects of a changing climate and changing tidal inundation patterns on shorebird habitats.
- Identify and prevent access to tracks that are not required for public access. Facilitate the revegetation of areas that have been degraded through past off-track vehicle use and develop a strategy to address illegal off-track activity between Port Gawler and Salt Creek.
- Raise awareness of migratory shorebirds and strategies for their protection through social media, on-site interpretive signs, guided tours, school visits, and community events.
- Contribute to international monitoring efforts by establishing a bird research and monitoring program for the Adelaide International Bird Sanctuary Flyway Site. The program will build on existing knowledge, support the continuous improvement of strategies for shorebird conservation within the park, and provide opportunities for on-ground involvement by a broad range of groups.
- Build and share knowledge about shorebird conservation through collaboration between East Asian-Australasian Flyway partners, the Kaurna people, the South Australian Government, BirdLife Australia, Birds SA, universities, local communities, the Friends of Adelaide International Bird Sanctuary and others.
THEME 2:
Advancing Kaurna relationships with Country

The Kaurna Aboriginal name - Winaintyinaityi Pangkara means ‘Country belonging to all birds’ (pronounced Wee-nay-chinay-chi pan-ker-a).

Prior to European settlement, the Adelaide area was an open grassy plain, the result of hundreds of generations of skilful land management by Kaurna people. Kaurna Country encompasses the park and stretches across the greater Adelaide region; from Crystal Brook in the mid-north, to Cape Jervis in the south, and inland to the Mount Lofty Ranges. Kaurna people traditionally moved through their Country according to seasons and ceremonies; accessing the coast, the Torrens river (known as Karrawirra Pari, meaning ‘red gum forest river’), wetlands, hunting grounds and foraging places.

‘In the past our ancestors lived on this Country, knowing the storyline, song and the dance that has been handed down from generation to generation. You will see and know the formation of the land, trees, creeks, it’s all got those connections that is all spiritually important to the Aboriginal people, tradition and customs.’

Jeffrey Newchurch, Kaurna and Narrunga Elder

An Aboriginal cultural heritage survey of the park has been completed and there are a number of Aboriginal heritage sites within the park (EBS Heritage 2016). All Aboriginal sites, artefacts and remains are protected under the Aboriginal Heritage Act 1988, whether registered, recorded or unrecorded. Strategies for the protection of sites may include restrictions to access.

Living in harmony with the land and respecting all creatures is at the heart of Kaurna connection to the lands and waters of the park. Muna palti munaintyerlo, or Munaintya explains the Kaurna world - the Dreaming. Munaintya is a multilayered story that connects creation, the law and spiritual relationships. Palti means both song and dance, which are intertwined to keep these stories alive. Munaintya involves cultural practice and cultural knowledge layered throughout Country, and teaches Kaurna people to live with the land and follow the laws.

Since the arrival of Europeans, Kaurna people have withstood considerable and destructive impacts on their community, their lands and waters and their children. They now look forward to healing, through recognising historical damage and finding ways to work together, for a stronger, more positive future. The park offers opportunities for Kaurna people to be actively involved in reclaiming their culture, reviving their language and teaching their histories and traditions. Kaurna people have the right to undertake traditional practices within the park such as community gatherings, camping, collecting food, using fire and conducting burials.

A ‘place of belonging’ within the park, ranger traineeships, working on Country programs, research and monitoring, conducting cultural tours, and developing new business ventures. Other opportunities exist for building cultural capacity such as mentoring, youth leadership, and cultural exchange with flyway partners. These opportunities will continue to be pursued in partnership with the Kaurna Nation Cultural Heritage Association.

Kaurna people also aim to incorporate Kaurna knowledge into management programs. Everyone who works in or visits places like Widninga (Thompson Beach), Muliaikki (Port Gawler), and Moilong (St Kilda) should respect the park and have an opportunity to learn about Kaurna culture.

Objective and strategies
Maintain, promote and sustain traditional Kaurna cultural sites and practices within the park and support the development of appropriate economic opportunities.

- Facilitate opportunities for Kaurna people to be involved in park management activities and establish business enterprises such as cultural tours within the park.
- Support Kaurna people and community groups to participate in shorebird conservation activities for the long term stewardship of the park.
- Integrate Kaurna language and culture into park information including web content, signs and interpretive information.
- In conjunction with the Kaurna community, investigate opportunities to develop a Kaurna place of belonging within the park.
THEME 3: Maintaining access and creating opportunities for nature-based tourism

Public access to the park will continue, however people will be asked to respect the conservation needs of shorebirds during their visit. Information provided for visitors will help them to minimise their impact and understand the global significance of the park.

The main townships adjacent to the park have local foreshore precincts that will continue to be managed by the City of Salisbury (St Kilda) and the Adelaide Plains Council (Middle Beach, Thompson Beach, Webb Beach and Parham). The foreshore precincts at Thompson Beach and St Kilda are the primary access points for the park. They require infrastructure improvements to create a sense of arrival to the park, orient visitors, and provide them with information. Work within and adjacent to these precincts requires coordination between State Government departments, local communities, the City of Salisbury and the Adelaide Plains Council.

People living in these communities enjoy a natural landscape and a relaxed coastal lifestyle. This area is also recognised internationally among bird enthusiasts and attracts ornithologists from all over the world. Bird watching tourism has capacity to expand in the park, raising awareness of the park’s significance, supporting local businesses and contributing to shorebird conservation goals. The park also provides the opportunity to develop new tourism experiences based on Kaurna culture, ecologically sensitive accommodation, outdoor education activities, or participation in ecological research and monitoring.

While the primary purpose of the park is to protect migratory shorebirds, the beaches and other intertidal areas within the park provide opportunities for a range of compatible recreational activities including fishing, boating, canoeing and swimming.

Access to the Upper Gulf St Vincent Marine Park Restricted Access Zone which provides for defence force activities, is not permitted. In addition, fishing is not permitted in the Upper Gulf St Vincent Marine Park Light River Delta Sanctuary Zone, and fishing restrictions apply over the Barker Inlet - St Kilda Aquatic Reserve and the St Kilda - Chapman Creek Aquatic Reserve (Figure 1). These restrictions predate the creation of this park and will continue to apply.

Off-road driving and associated activities such as rubbish dumping have caused considerable disturbance to shorebirds in this area and have degraded large areas of important shorebird habitat. Prior to the creation of the park, the former Mallala Council and the Adelaide Plains Council made considerable investments to addressing illegal off-road vehicle use. This work will continue to be a major priority.

Vehicles including motorbikes and bicycles may be used on the network of beaches and tracks designated. Motor vehicles must be registered and their use outside this network is illegal. Addressing illegal off-track access to areas of the park adjacent to the privately managed Port Gawler Off-road Park will be a key priority. People will be encouraged to stay on designated tracks through clear information for visitors and residents, compliance patrols, fencing and revegetation of unnecessary tracks.

People may bring their dog into the park however dogs must remain on a lead. Visitors with dogs will be encouraged to stay on beaches, signposted trails, and the tracks designated. Horse-riding and horse float parking may be authorised within designated areas. It will be necessary to work with horse riders and the Adelaide Plains Council to develop strategies for the safe management of horse float parking.

In the past, people have camped within the park however there are not yet any toilets in the park to support minimal impact camping. The establishment of sites for camping may be considered in the future. Other activities which have been known to occur in this area include powered hang gliding, flying model aircraft and drones, land yachting and the use of hovercrafts. Further engagement with user groups and an assessment of risks will be necessary before the authorization of these activities is considered.
A minimal impact code will be developed to explain how people can enjoy the park while leaving no trace of their visit and avoiding any disturbance to shorebirds. The code will encourage walkers (including people walking and exercising dogs) to stay on walking trails and tracks designated for public access. In future, additional management tracks may be made available to walkers.

The level of visitor use and any impact of recreational activities on the park will continue to be monitored. Should environmental impacts, safety concerns, or conflicts between recreational activities arise, it may be necessary to modify access arrangements within the park. Visitor access may be reviewed and altered on a temporary, seasonal or permanent basis in consultation with the community if this is necessary for public safety or the protection of birds and their habitat.

**Objective and strategies**

**Maintain access to the park and ensure that it is ecologically sustainable.**

- Enable recreational and ecotourism opportunities that help people to develop a deeper appreciation of the park and its birdlife, encourage people to help in the management of the park, and provide opportunities to contribute to the conservation of migratory shorebirds.

- Based on a minimal impact code, provide information for visitors to help them ‘tread lightly’. This will include information focused on beach access, horse riding, boating, fishing, crabbing, exercising dogs, and vehicle access.

- Develop a visitor strategy for the park to direct the development of visitor experiences and supporting facilities, minimise disturbance to migratory shorebirds, and reverse incremental damage to their habitats caused by past recreational activities. The strategy will guide visitor information, orientation, interpretation and compliance at each park entry precinct – St Kilda, Port Gawler, Middle Beach, Thompson Beach, Webb Beach and Parham.

- Work with the City of Salisbury, the Adelaide Plains Council, State Government departments and local residents to facilitate a safe and seamless transition for people between the park and the adjacent townships, foreshore areas, roads, trails, carparks and boat ramps. This will include achieving synergy between Council by-laws and park regulations.
Figure 1

Adelaide International Bird Sanctuary National Park - Winaintyinaityi Pangkara

Management overlays:
- Adelaide International Bird Sanctuary National Park - Winaintyinaityi Pangkara
- Torrens Island Conservation Park
- Adelaide Dolphin Sanctuary

Legend:
- Salt fields (privately owned)
- Main road
- Vehicle access

Map details:
- Port Wakefield
- Webb Beach
- Thompson Beach
- Port Prime
- Parham
- Port St Vincent
- Adelaide
- Salt fields (privately owned)
Bibliography

Adapting Northern Adelaide (2016). *Climate change adaptation plan for the Northern Adelaide region. A plan prepared for the City of Salisbury and City of Playford by Seed Consulting Services, URPS, the Workplace Innovation and Social Research Centre (University of Adelaide), CSIRO Land and Water and FMG Engineering.*


Coleman 2009 Shorebird Conservation Management Plan


