

2018-2023

Lake Bonney / Barmera

CARING FOR COUNTRY MANAGEMENT PLAN

[COMPACT NAME] [COMPACT ADDRESS]

Acknowledgements

We acknowledge that the lands surrounding and containing Lake Bonney are the traditional lands for the First Peoples of the River Murray and Mallee Region and we respect their spiritual relationship with their country.

We also acknowledge the First Peoples of the River Murray and Mallee Region as the custodians of the greater River Murray and Mallee region and that their cultural and heritage beliefs are still as important to Traditional Owners, the living Ngaiawang, Ngawait, Nganguruku, Erawirung, Ngintait, Ngaralte, and Ngarkat people today. The First Peoples of the River Murray and Mallee Region (FPRMM) are recognised as native title holders of approximately 260 square kilometres of land and waters in the Riverland, South Australia.

The River Murray and Mallee Aboriginal Corporation (RMMAC) is the prescribed body corporate (PBC) that has been established to manage and administer all matters on behalf of the First Peoples of the River Murray Mallee Region.

Berri Barmera Council acknowledges The First Peoples as the Traditional Owners and that according to their traditions, customs, and spiritual beliefs its lands and waters remain their traditional country. Berri Barmera Council also acknowledges and respects the rights, interests, and obligations of The First People to speak and care for their traditional lands and waters.

RMMAC and Berri Barmera Council established a Memorandum of Understanding (MOU) dated 23 September 2014 providing a framework to guide administration of joint care, control and management arrangements of lands around Lake Bonney subject to the native title determination. In accordance with the MOU, relevant decisions require the authority of each party.

Berri Barmera Council and RMMAC acknowledge significant contributions including draft framework for plan prepared by Myles Fauser, additional contributions by Council's Manager Environmental Services, Myles Somers and final production by Environmental consultants under supervision of Alana Horan and Nicholas Bull of Jacobs Pty Ltd Adelaide South Australia

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1. Introduction

1.1 A Brief History of Lake Bonney

The original indigenous inhabitants of the Riverland and Mallee knew Lake Bonney as Nookamba. It is a site of cultural significance to them, and evidence of the Aboriginal way of life remains scattered around Lake Bonney and surrounds. When Joseph Hawdon, the first Overlander, encountered this inland lake on March 12th, 1838, he named it Lake Bonney after his friend, Charles Bonney (Barmera Visitor Information Centre, 2013). Following the discovery, Overlanders commonly visited Lake Bonney to water their stock on route between a station near Albury and Adelaide (Wikipedia, 2017).

Prior to regulation of the River Murray, the level of Lake Bonney would have fluctuated seasonally and annually. Since the construction of Lock 3 in 1923 in the nearby Murray River system, Lake Bonney has been permanently inundated, with relatively stable water levels outside of major flood events (Tonkin Consulting, 2010).

Today, Lake Bonney and its surrounds are actively promoted to tourists and have become popular for camping, off-road biking and driving, picnics, horse riding, jet skiing, walking and cycling. The regional community regularly uses the lake for water-based activities including swimming, sailing, skiing, fishing, kayaking, canoeing, boating, and rowing.

1.2 Background to the Plan

On 18 November 2011, the Federal Court made a consent determination of native title in relation to part of the First Peoples of the River Murray and Mallee Region (First Peoples) Native Title Claim. This was a significant achievement for traditional owners of the Riverland and Mallee region after a long struggle. The determination provides legal recognition of the First Peoples' prior and continuing occupation, traditional ownership and use of lands and waters. The River Murray and Crown Lands Indigenous Land Use Agreement (ILUA) was also reached with the State Government, which gives First Peoples with further recognition and input into land and water planning and management.

The area of the native title determination and the ILUA takes in the River Murray from the South Australian border through to Morgan and includes the Riverland region and Lake Bonney. The native title and traditional rights of the First Peoples recognised in the determination and the ILUA include:

- Access and move about the area.
- Hunt and fish.
- Gather and use natural resources.

- Share and exchange the subsistence and other traditional resources of the area.
- Take the natural water resources from the area for domestic purposes.
- Camp and to erect temporary shelters in the area.
- Cook and light fires for domestic purposes.
- Engage and participate in cultural activities.
- Conduct ceremonies and hold meetings.
- Teach on the area the physical and spiritual attributes of locations and sites.
- Visit, maintain and protect sites and places of cultural and religious significance.

The River Murray and Mallee Aboriginal Corporation (RMMAC) Registered Native Title Body Corporate has been established to manage and administer on behalf of the First Peoples matters related to their traditional ownership and native rights as recognised in the determination and in ILUA.

As part of the ILUA, RMMAC and the State Government consented to the establishment of the Lake Bonney Recreational and Aboriginal Heritage Purposes Reserve under the joint care, control and management of RMMAC and the District Council of Berri/Barmera (the Council). The Reserve is to be managed in accordance with the wishes of the Parties. The joint care and control provisions administered in accordance with the Memorandum of Understanding (MOU) have the additional effect of enabling acceptable tourism, recreational and other community uses associated with Lake Bonney to continue subject to these being environmentally and culturally sustainable.

The Lake Bonney / Barmera Caring for Country Management Plan (the Plan) has been created to support the ongoing management of Lake Bonney lands under the intended joint care, control and management of RMMAC and the Council.

The MOU is a legal agreement between the two parties and governs their administrative arrangements and decision-making processes. The MOU (attached as Appendix A) calls for development of a Management Plan to guide joint control and management of the lands identified in Table 1 below. The primary focus of the Plan is for preservation of aboriginal cultural heritage, but in a manner which supports a healthy environment and holistic view of Lake Bonney.

The MOU, amongst other things:

- Confirms that at the time it was entered into, the parties *anticipated* that the Lake Bonney area *would be* dedicated to and placed under the joint care, control and management of the Corporation and the Council for '*recreational and Aboriginal cultural heritage conservation*' purposes.
- Provides for the establishment of the *Barmerara Meru Committee* that comprises equal representatives of the Corporation and the Council. The Committee is the vehicle through which the Council and the Corporation communicate to give effect to their joint

care, control and management responsibilities for Lake Bonney; and provides that the Council and the Corporation will, in consultation with each other through the Committee prepare and adopt a Management Plan for Lake Bonney, including for the purposes of *'identifying outcomes for the protection, preservation, access to and use of Lake Bonney and the policies, guidelines and actions to achieve those outcomes'*.

This Plan:

- Investigates and documents existing knowledge about Lake Bonney, describing the cultural, physical, and biological environment.
- Identifies and assesses a number of impacts to cultural and environmental values associated with the current uses of the lake.
- Establishes management strategies and actions aimed at preserving and enhancing cultural and environmental values of Lake Bonney.
- Seeks to provide for an acceptable level of public access to areas around the lake in a manner which protects sensitive cultural and environmental assets.

1.3 Purpose and Objectives

The Plan provides the framework for RMMAC and Council to give effect to their joint responsibility for care, control and management of Lake Bonney. It has been developed to identify outcomes for the protection, preservation, access and use of Lake Bonney and to describe the policies, guidelines and actions to achieve those outcomes.

The key objectives of the Plan are to:

- Further the protection, preservation and promotion of the First Peoples of the River Murray and Mallee Region cultural heritage.
- Recognise and promote the importance of a healthy environment and a healthy Lake Bonney to the well-being of the First Peoples of the River Murray and Mallee Region and the Community
- Prevent development or disturbance from occurring on or near Significant Areas of Aboriginal Cultural Heritage.

There are several specific issues relating to the operation and management of Lake Bonney that the Plan will attempt to resolve. Regarding public access, areas around the lake have traditionally been generally accepted as unregulated free camping zones, however, in recent years, vehicles have degraded these areas and litter and environmental degradation have become significant and costly management issues for Council. Furthermore, pests, including rabbits, take a significant toll on native flora, fauna, and soil condition. The impact on Aboriginal heritage sites from these sources is evident from a recent Cultural Heritage survey and is therefore of particular concern.

1.4 Scope

1.4.1 Geographic Scope

This Plan applies to the parcels of Crown Land placed under the care, control and management of Council pursuant to the provisions of the (now repealed) Crown Lands Act 1929. The determinations continue to have effect under the Crown Land Management Act 2009. The land parcels, which include the southern and eastern foreshore areas are shown in Figure 1 and summarised in Table 1.

Table 1: Crown Land Parcels at Lake Bonney

Parcel Number	Land Section and Allotment Identification
Parcel #1	Allotment 5, DP52018 - CR 5698/936
Parcel #2	Section 415, H740500 - CR 5753/810
Parcel #3	Section 477, H740500 - CR 5340/650
Parcel #4	Section 538, H740900 - CR 6168/652
Parcel #5	Section 610, H740500 - CR 5753/811
Parcel #6	Section 724, H740900 - CR 6168/651
Parcel #7	Section 854, H740500 - CR 5753/812
Parcel #8	Section 855, H740500 - CR 5762/321
Parcel #9	Section 791, H740800 - CR 5771/603
Parcel #10	Section 503, H741000 - CR 5762/324

1.4.2 Statutory Functions and Responsibilities

Numerous entities have roles and responsibilities associated with cultural heritage and environmental management of Lake Bonney and environs. Whilst the Plan seeks to provide a holistic and broad consideration of issues, it focuses primarily upon the management actions which are within the statutory functions and responsibilities of RMMAC and Council as custodians of the land under the determinations. Where other authorities have responsibilities associated with cultural heritage or environmental management of the lake and environs, every effort has been made to identify the need for further research or required actions by external authorities.

Of particular relevance to this Plan, the Department of Environment and Water (DEW) and Aboriginal Affairs and Reconciliation (AAR) have responsibility (under delegated authority) for administering a range of State acts and associated regulations. This means they may have direct responsibility for managing some elements of the Lake Bonney environment and/or a role in regulating Council/RMMAC activities proposed under this Plan. Key areas of responsibility and associated acts and regulations relevant to issues identified in this Plan are summarised in Table 2.

Table 2: Key areas of DEW and AAR administration relevant to this Plan

Administering Authority	Area of Responsibility	Relevant Acts	Relevant Regulations
DEW	Protection of vegetation and wildlife or the welfare of animals generally	National Parks and Wildlife Act 1972 Native Vegetation Act 1991	Various Native Vegetation Regulations 2017 Native Vegetation (Credit for Environmental Benefits) Regulations
DEW	Conservation, protection or management of cultural assets generally	Heritage Places Act 1993	Heritage Places Regulations 2005
DEW	Conservation, protection and management of natural resources, including water	Natural Resources Act 2004 River Murray Act 2003 Murray-Darling Basin Act 2008 Water (Commonwealth Powers) Act 2008	Various River Murray Regulations 2003 None made None made
AAR	Protection and preservation of Aboriginal Heritage	Aboriginal Heritage Act 1988	Aboriginal Heritage Regulations 2017

1.4.3 Resources

Development of this Plan has considered the financial and human resources available to each party to support its implementation. Given the nature of a combined custodial responsibility it is imperative that the Plan provides both parties with a management framework which includes achievable actions and supports ongoing collaboration.



Figure 1: Lake Bonney lands under joint care, control and management

1.5 Governance and Reporting

The Governance and Reporting Framework for implementation of the Plan is underpinned by the MOU and is described in Figure 2.

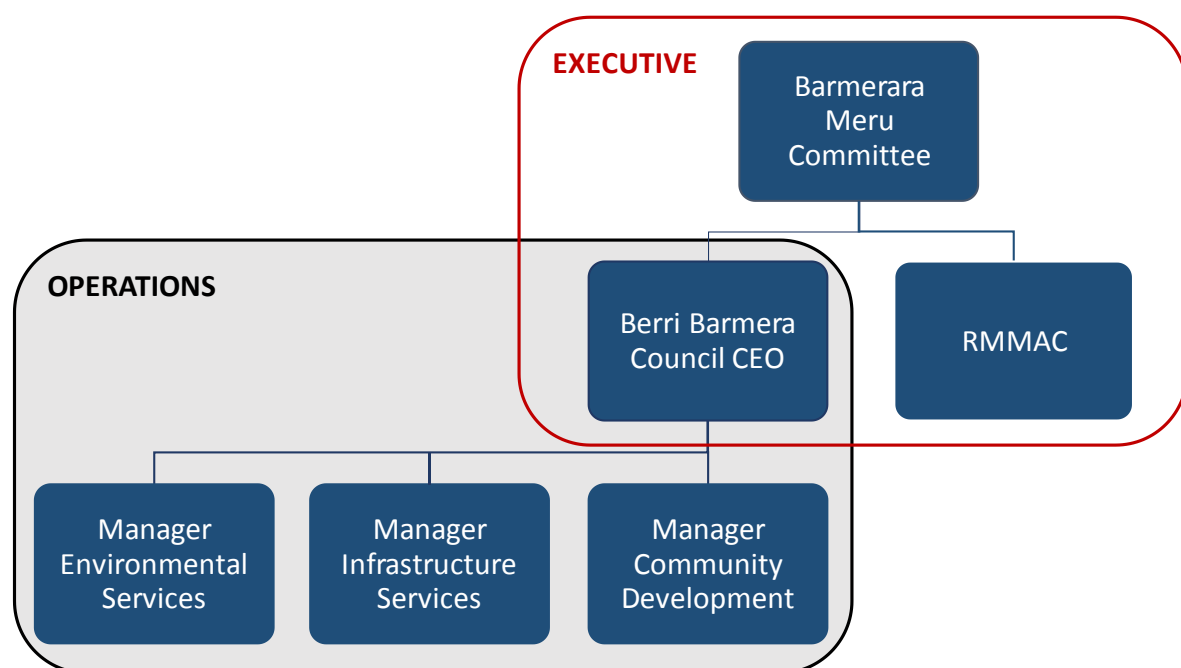


Figure 2: Caring for Country Management Plan Governance and Reporting Framework

Progress reporting of the Implementation Action Plan (Section 6) will occur as follows:

- Council Managers (Manager Environmental Services, Manager Community Development, Manager Infrastructure Services) report progress to Council Chief Executive Officer (CEO) through bimonthly updates (using traffic light system).
- CEO provides updates to RMMAC through Barmerara Meru Committee each 6 months.
- CEO provides update to Berri Barmera Council each 6 months

The Plan will be reviewed annually, comprising:

- Executive review of the Plan including Implementation Action Plan end of calendar year.
- Operational review of the Implementation Action Plan at the start of each calendar year to fit into budget preparation cycles.

1.6 Stakeholder Consultation and Engagement

For the Plan to be effective, it needs to:

- Reflect the ideals and values of the traditional owners, the wider community, regulatory bodies, and stakeholders with relevant specific interests.
- Be formally adopted by Council and RMMAC.
- Be supported by other relevant government bodies.
- Be incorporated into relevant management, policy and planning frameworks produced by Council or other relevant bodies.
- Be implemented by the relevant organisations.

An active and transparent stakeholder communication and engagement process is critical to achieving these outcomes. This includes consultation with the First People, RMMAC, key interest groups, and the general community. A Communication and Engagement Plan will be implemented which is consistent with the Council's Community Consultation Policy under the *Local Government Act* and which meets the needs and objectives of RMMAC. The process adopted is summarised in Figure 3.

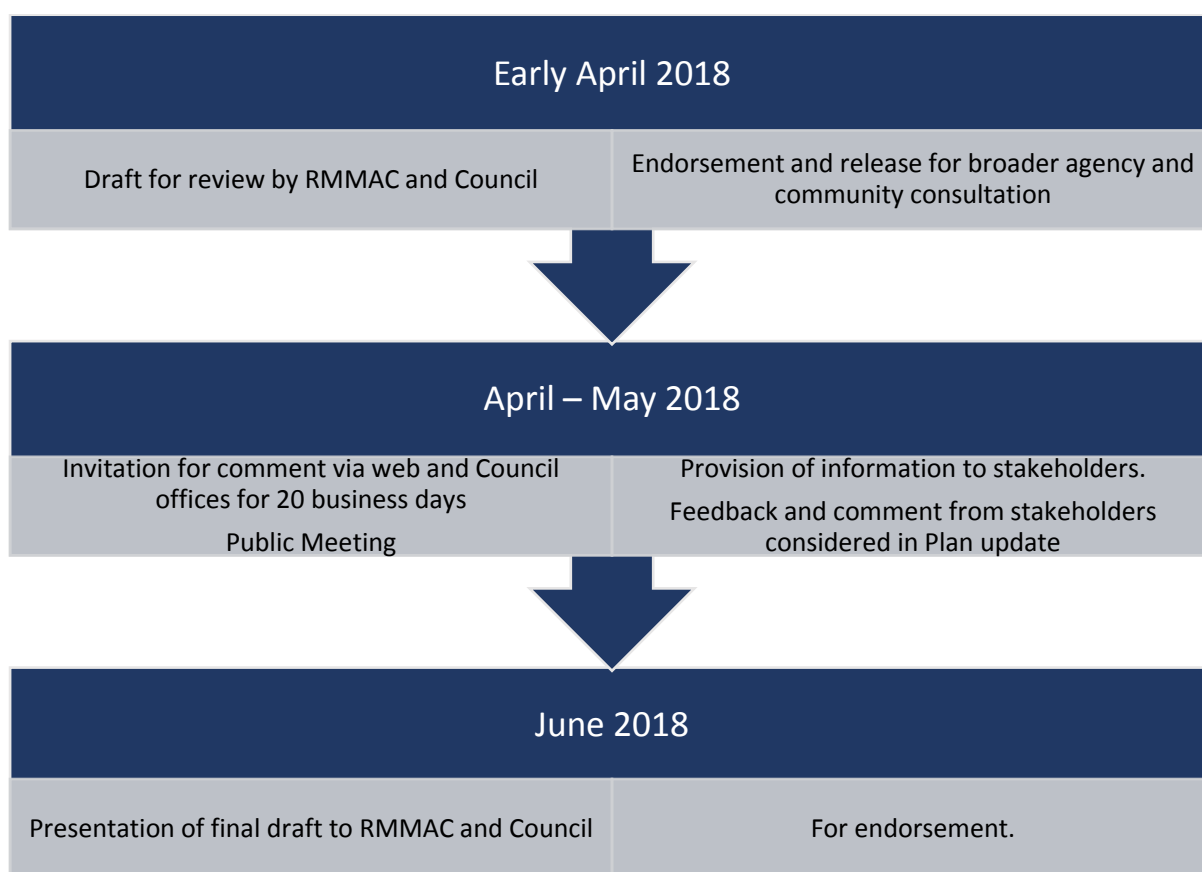


Figure 3: Communication and Engagement Framework adopted for the Plan

2. Site Context and Setting

Lake Bonney has high cultural, environmental, social, and economic value to Barmera and the surrounding regional community. Highly successful regular events such as the Barmera Carp Frenzy, Murray Man Triathlon and Yacht Club Regatta confirm a strong and enduring connection between the local community and Lake Bonney.

Management of the lands surrounding the lake and subject to the MOU will include consideration of different uses of land within the area and ensure that land uses are compatible with the principles of cultural heritage protection and a healthy environment.

2.1 Location and General Description

Lake Bonney is located approximately 220 km north-east of Adelaide in the Riverland region of South Australia. It lies above Lock 3 on the floodplain on the eastern bank of the River Murray, adjacent to the township of Barmera (see Figure 4). It is connected to the River Murray via Chambers Creek and is approximately 7 km long and 3.5 km wide. It covers an area of about 1700 hectares at normal pool level and has a volume of approximately 59,000 mega litres.

Lake Bonney is one of South Australia's largest permanent freshwater lakes. Seasonal fluctuations in the height of the water table and River Murray result in slight changes in the water levels of the lake. The lake is unique in terms of the varied ecosystems represented in its catchment, as well as being the basis of a substantial tourism industry and home to many significant Aboriginal heritage sites.

The specific features of the broader Lake Bonney area include the Barmera foreshore at the southern end of the lake, and its surrounding facilities including jetty, club house buildings and businesses. Many roads and car park areas run parallel with the foreshore and infrastructure in this vicinity includes gates, bollards, barriers, some lighting, and signage. The Lake Bonney foreshore, which is outside of the area covered by Native Title, features a range of exercise equipment, a beach volleyball court, picnic benches, shaded benches and tables, irrigation infrastructure, and hydration facilities.

Within the area covered by Native Title, the primary areas of use are Nappers Bridge and Pelican Point campgrounds (refer to Figure 5). There are also various undesignated areas where free camping has not been restricted in the surrounds. Private commercial operations are located at Camp Kedron and Barmera North Lake Caravan Park.

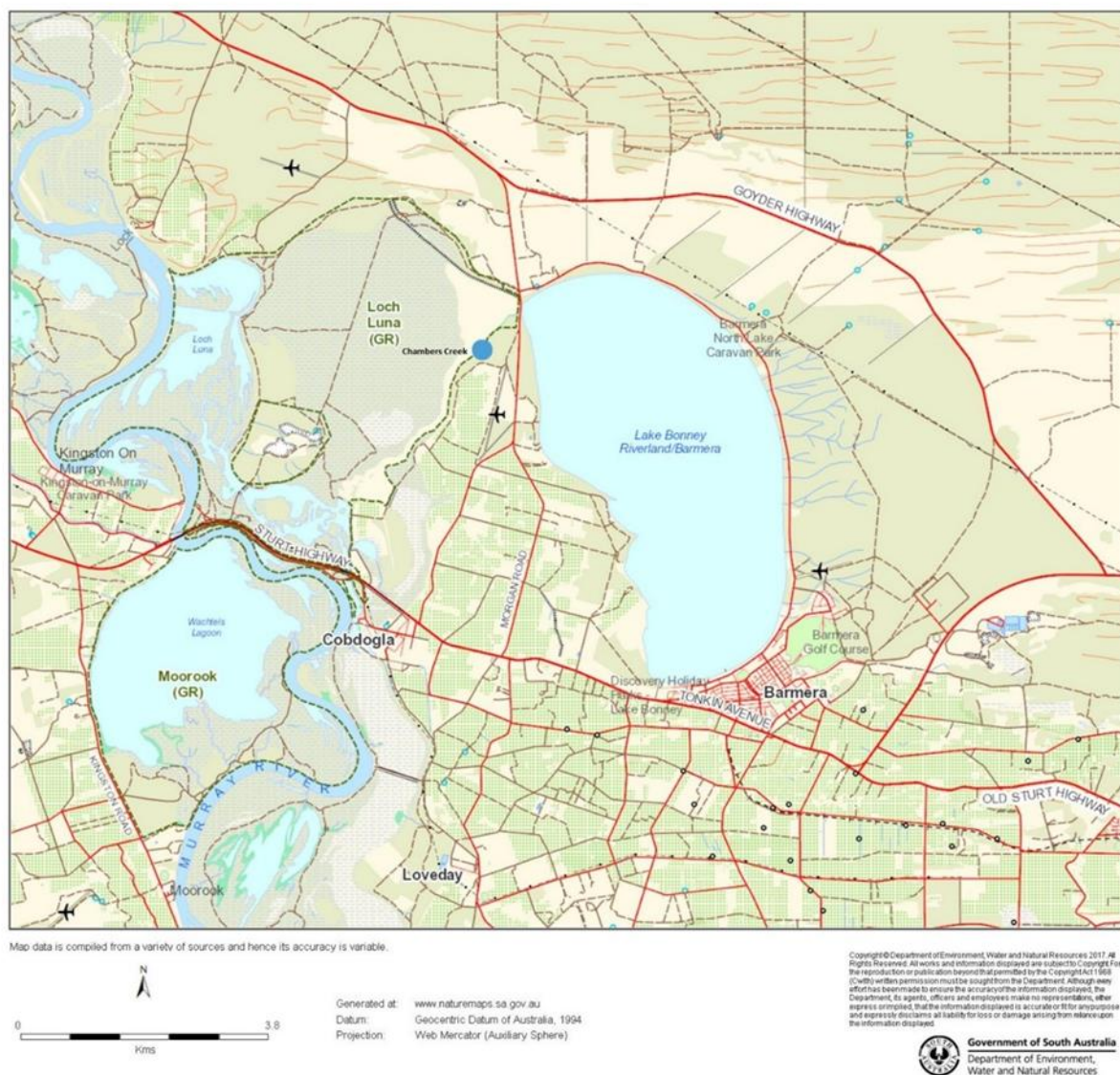


Figure 4: Lake Bonney, Barmera and surrounding area (DEWNR, 2017)



Figure 5: Key locations within the Lake Bonney Native Title area

2.2 Surrounding Land Use

The major land uses surrounding Lake Bonney are:

- Agricultural lands adjacent the northern and western sides of the lake.
- Urban Barmera and foreshore lies on the southern side of the lake.
- A golf course and a rifle club border the south east.
- Chenopod shrubland dominates to the east.
- A lagoon is located between Chambers Creek and Lake Bonney in the north-west corner of the lake.

2.3 Future Plans

At the time of writing, there are no known significant proposals including large scale developments, which would have a bearing upon the Plan. However, future reviews of the Plan should include a consideration of any relevant proposed major development on or near Lake Bonney and potential impacts upon the lake and surrounds.

2.4 Climate

The Riverland region has a Mediterranean semi-arid climate, characterised by hot, dry summers and cool winters, which influences cultural, environmental, and social elements in and around Lake Bonney. Climatic conditions should be taken into account when conducting future strategic land use planning associated with Lake Bonney and surrounding lands.

2.4.1 Rainfall

The average annual rainfall in Barmera between 1939 and 2018 was 244.5 mm, with higher rainfall in winter and spring (see Table 3). The average annual evaporation at Barmera is 2,233 mm, which is well in excess of annual rainfall (Tonkin Consulting, 2010).

Table 3: Monthly mean rainfall recorded in Barmera between 1939 and 2018 (Bureau of Meteorology, 2017a). Evaporation data from (Tonkin Consulting, 2010).

	Month												Annual
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mean Rainfall (mm)	18.5	19.5	12.1	17.0	22.5	22.3	24.1	22.0	23.9	26.6	22.4	19.1	244.5
Evaporation (mm)	324	288	260	143	97	56	52	95	134	184	271	329	2,233

2.4.2 Temperature

The nearest weather station recording temperature is located at Renmark, which is approximately 28 km east of Barmera. The average annual maximum daily temperature at Renmark is 24.3 degrees, peaking at 32.5 °C in January, and dropping to an average of 16.2 °C in July (Table 4). Average daily minimum temperatures range from 5.1 °C in July to 16.7 °C in January.

Table 4: Monthly mean maximum and minimum temperatures recorded at Renmark between 1957 and 2002 from Bureau of Meteorology (2017b).

	Month												Annual
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mean													
Maximum	32.5	32.1	28.8	24.2	19.7	16.8	16.2	17.9	20.9	24.4	27.8	30.3	24.3
Temp (°C)													
Mean													
Minimum	16.7	16.6	14.2	10.8	8.2	5.9	5.1	6.0	8.2	10.7	13.2	15.1	10.9
Temp (°C)													

2.4.3 Wind

The nearest weather station recording wind is located at Loxton Research Centre, which is approximately 36 km south of Barmera. The average wind speed recorded at Loxton between 1984 and 2010 was 11.5 km/h, peaking at 14.1 km/h in September and dropping to a low of 8.2 km/h in June (refer to Table 5). The land to the east and south of Lake Bonney has suffered from large amounts of wind erosion as it has been made vulnerable through grazing pressure and rabbit populations (Tonkin Consulting, 2010).

Table 5: Monthly mean wind speed at 9am recorded at Loxton between 1984 and 2010 from Bureau of Meteorology (2017c).

	Month												Annual
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mean Wind													
Speed	12.5	11.9	10.5	10.2	8.5	8.2	8.8	11.7	14.1	14.9	13.4	12.8	11.5
(km/h)													

2.4.4 Fire Season

Restrictions apply to the lighting of fires during the Fire Danger Season. . On days of extreme weather conditions outside of these prescribed dates fire bans may also be declared for the Riverland and other areas in South Australia. To determine whether a fire ban has been imposed, it is suggested that individuals phone the CFS Hotline on 1300 362 361. Persons may operate a gas or electric element for cooking purposes in the open-air contrary to terms of a total fire ban in the following areas:

- Lake Bonney foreshore between Lake Bonney Yacht Club in the west and Nappers Bridge in the north;
- Barmera Caravan Park and;
- adjacent to the Barmera Caravan Park (east) open space gas BBQ.

2.4.5 Climate Change

Climate change projections for Lake Bonney can be derived from the Murray Basin regional projections. Key messages associated with these projections are summarised in Table 6 (CSIRO and Bureau of Meteorology, 2017).

Climate change has the potential to significantly affect Lake Bonney and its use; including cultural and environmental as well as social and amenity values. Historically, water saving measures for the Murray River during periods of drought have resulted in Lake Bonney being disconnected from the River, resulting in lowering of the water level and exposure of culturally significant materials. With climate change modelling projecting less rainfall, lake water levels could be affected in the future. This Plan, including future iterations, will need to align to regional responses to climate change.

Table 6: Murray Basin climate change projection key messages from CSIRO and Bureau of Meteorology (2017)

Climatic Feature	Key Message	Confidence Level
Temperature	Average temperatures will continue to increase in all seasons.	Very High
	More hot days and warm spells.	Very High
	Fewer frosts.	High
Rainfall	By late in the century, less rainfall is projected during the cool season.	High
	Rainfall will remain unchanged in the warm season.	Medium
	Even though mean annual rainfall is projected to decline, heavy rainfall intensity is projected to increase.	High
Hazards	A harsher fire-weather climate in the future.	High
Sea-level	Mean sea level will continue to rise and height of extreme sea-level events will also increase	Very High

3. Description of the Environment

Lake Bonney is rich in cultural, environmental and amenity values. An appreciation of Lake Bonney's cultural, environmental and social landscape, including values and threatening processes, are key factors which have informed the management framework presented in this Plan. The below sections provide a summary of key elements.

3.1 Aboriginal Heritage

Inland water and wetland habitats of the Lower Murray Darling are recognised as being focal points for pre-European occupation (Pardoe, 1988). These environments provided an array of flora and fauna resources for Aboriginal populations and were therefore occupied frequently (Humphries, 2007). As a result, archaeological sites associated with Aboriginal occupation are often found in these environments.

Cultural heritage surveys have been conducted to understand the extent and significance of cultural values of Lake Bonney and develop recommendations for management and protection of these values. Following the closure of Lake Bonney in 2008 as an emergency drought response measure, a heritage survey was commissioned in response to concerns regarding the exposure of cultural materials around the lake perimeter (Wood and Westell, 2008). A review of the 2008 cultural heritage survey was completed in December 2017 (Westell, 2017).

The surveys concluded that 'the history of occupation at Lake Bonney is more accurately represented by the suite of exposures as a whole' and that it was more appropriate to consider the lake as a cultural landscape in its entirety. For the purposes of this Plan, Lake Bonney is viewed as a unified area of cultural significance.

3.2 European Heritage

There is significant European heritage associated with the Barmera township, which is outside the land parcels subject to this Plan. These heritage values include three registered State heritage places summarised in Table 7. This Plan respects the history associated with the Barmera township, but does not affect these historical values.

Although outside of the land parcels subject to this plan, the Napper's Accommodation House listing (No. 10279) immediately adjoins the Native Title lands and represents a site with documented interactions between early settlers and the local Aboriginal community. Subject to the approval of RMMAC, the historic significance of the Inn as a meeting place

and the interactions between Aboriginal people and owners could form the basis of interpretative materials developed under this Plan (refer to Section 5.5).

Table 7: Registered State Heritage Places in Barmera, South Australia (Department of Environment, Water and Natural Resources - State Heritage Branch, 2018)

State Heritage Place No.	Address	Details
13766	2-4 Barwell Avenue BARMERA	Bonney Theatre
13767	2 Fowles Street BARMERA	Barmera Irrigation Office
10279	North Lake Road, Lake Bonney BARMERA	Napper's Accommodation House (originally Lake Bonney Inn) including Freestanding Chimney and Store [Ruin]

3.3 Flora and Fauna

3.3.1 Bioregion

The Interim Biogeographical Regionalisation of Australia (IBRA) identifies geographically distinct bioregions based on common climate, geology, landform, native vegetation and species information. The bioregions are further refined into subregions and environmental associations. Lake Bonney lies within the Murray Scroll Belt subregion of the Riverina bioregion. The broad characteristics of the IBRA designations are listed in Table 8.

Table 8: IBRA characteristics of the Murray Scroll Belt subregion of the Riverina bioregion

Riverina IBRA bioregion
Floodplain and channel of the Lower Murray River characterised by floodplains, terraces, residual islands, and lakes. Mainly alluvium plains of sand, silt & clay. Point bar, shoal, backswamp, splay & lake deposits & gravel. Cracking clays and brown sands. Broadly characterised by chenopod shrub, samphire shrubs and forblands (DEWNR, 2017).
Murray Scroll Belt IBRA subregion
The Murray Scroll Belt subregion consists of 21,088 km ² running from approximately Cadell to the Victorian border, encompassing the River Murray, significant areas of floodplain including Pike and Chowilla, and important lakes including Lake Bonney, Wachtels Lagoon and Loch Luna.
The subregion reflects the incised ancestral floodplain of the Murray River and adjacent irrigated plains. This area includes a variety of fluvial landforms including discontinuous levees, oxbows, black swamps, lakes and low terraces. Near-vertical cliffs border the ancestral floodplain and vegetative

cover varies from disturbed woodlands of *Eucalyptus camaldulensis* and *E. largiflorens*, and shrublands of *Muehlenbeckia florulenta* or *Atriplex vesicaria* to orchards and vineyards (DEWNR, 2010)

Landform	Floodplain and channel of Lower Murray River. Floodplains, terraces, residual islands, lakes (DEWNR, 2017)
Geology	Mainly alluvium: sand, silt & clay. Point bar, shoal, backswamp, splay & lake deposits & gravel (DEWNR, 2017)
Soil	Cracking clays and brown soils (DEWNR, 2017)
Vegetation	Eucalypt woodlands with a shrubby understorey (DEWNR, 2017)
Conservation significance (data from DEWNR, 2010)	19% of fauna species within the subregion are considered threatened 18% of flora species within the subregion are considered threatened 59 species of threatened fauna (plus 6 spp. considered regionally extinct) 109 species of threatened flora (plus 10 spp. considered regionally extinct)

3.3.2 Vegetation Communities

Flora and fauna in the Lake Bonney area was described by Tonkin Consulting (2010). Relevant information has been summarised here to provide an overview of the ecological values present which are attributable to native vegetation. Relevant information from the Department of Water, Environment and Natural Resources NatureMaps mapping tool has also been included.

Historically, the Lake Bonney vegetation was influenced by soil types and inundation frequency and extent. Typical south-eastern Australian riverine floodplain communities dominated by River Red Gum, Black Box and River Cooba woodlands were widespread, with emergent reeds along shorelines and samphire flats interspersed across low lying depressions. Higher ground supported Chenopod shrubland communities with native pines, mallee and hopbush communities.

Currently, the floodplain fringing Lake Bonney is highly modified, but dominated by remnant *Eucalyptus camaldulensis* (River Red Gum) and *E. largiflorens* (Black Box) open woodland, over an understorey consisting mostly of the introduced *Paspalum distichum* (Water Couch) and other terrestrial weeds (Marsland and Nicol 2007). Chenopod communities consisting of salt-bush (*Atriplex* spp.) and blue-bush (*Maireana* spp.) persist along the eastern side of the lake, while areas of samphire communities (*Tecticornia* spp.) occur along the south-western side of the lake (Tonkin Consulting, 2010). Fringing emergent species, such as *Phragmites australis* (Common Reed) and *Typha* spp. (Bulrushes) are mostly restricted to the south-western shore and around the inlet abutting Chambers Creek (Marsland and Nicol 2007, cited in Tonkin Consulting, 2010). Apart from fragments of *Lepilaena australis* (Austral

Water-mat) observed at Pelican Point on the western shore, minimal submerged aquatic vegetation persists in Lake Bonney (PPK 1999, Marsland and Nicol 2007).

A variety of impacting factors including grazing by pest animals coupled with Aeolian erosion and altered inundation regimes have resulted in areas of bare soils, blowouts, and salt scalds throughout the floodplain. Salt-tolerant vegetation species including *Triglochin striata*, *Phragmites australis*, *Typha* spp., *Tecticornia* spp., and the introduced *Juncus acutus*, are colonising the lake shore to the east of the Barmera jetty (Tonkin Consulting, 2010). A number of the River Red Gum and Black Box trees along the eastern edge of the lake and near the Nappers Bridge are in very poor condition or dead, presumably as a result of elevated saline groundwater and altered hydrological regimes.

3.3.1 Flora Species

BDBSA records (sourced 2017) indicate 196 species of plant that have historically been recorded within 2 km of Lake Bonney, including 73 introduced species. Of the native species recorded, one species is listed as Vulnerable under the South Australian *National Parks and Wildlife Act, 1972* (NPW Act), *Lepidium pseudotasmanicum* (Shade Peppergrass), and a further six species are listed as Rare in South Australia under the NPW Act; *Corynotheca licrota* (Sand Lily), *Elatine gratioloides* (Waterwort), *Eremophila polyclada* (Twiggy Emubush), *Lachnagrostis robusta* (Tall Blown-grass), *Myoporum parvifolium* (Creeping Boobialla) and *Osteocarpum acropterum* var. *deminutum* (Wingless Bonefruit). A number of species are also considered Regionally Rare in the Murray region, including, but not limited to, *Atriplex rhagodioides* (River Saltbush), *Maireana appressa* (Pale-fruit Bluebush) and *Pachyornis triandra* (Desert Glasswort).

3.3.2 Weeds

As noted above, 73 introduced plant species are recorded in the BDBSA for the Lake Bonney region, a significant portion of the plant species present. A summary of the Riverina IBRA bioregion (DoEE, 2008) reports the occurrence of a number of important weed species, including Weeds of National Significance (WoNS) and Declared Weeds within the region. Numerous additional agricultural weeds are present. Significant weed species identified in the region, and their status are listed in Table 9.

Table 9: Significant weed species identified the Riverina bioregion (DoE, 2008)

Significant Weeds	Status
Alligator Weed (<i>Alternanthera philoxeroides</i>)	WoNS, Declared in SA (Class 1)
Athel pine (<i>Tamarix aphylla</i>)	WoNS, Declared in SA (Class 52)
Blackberry (<i>Rubus fruticosus</i>) aggregate	WoNS Declared in SA (Class 24)
Bridal creeper (<i>Asparagus asparagoides</i>)	WoNS, Declared in SA (Class 20)
Mesquite (<i>Prosopis</i> spp.)	WoNS, Declared in SA (Class 1)
Privet (broad leaf or tree privet) (<i>Ligustrum lucidum</i>) ¹	Not declared in SA
Privet (small leaf or Chinese privet) (<i>Ligustrum sinense</i>) ¹	Not declared in SA
Silver leaf nightshade (<i>Solanum elaeagnifolium</i>)	WoNS, Declared in SA (Class 13)
St John's wort (<i>Hypericum perforatum</i>)	Not declared in SA

Notes: 1. These weeds were fluffed for their status as significant weeds in NSW which forms part of the Riverina bioregion

WoNS each have a strategic plan in place and their management requires coordination between all levels of government and relevant landholders with weed management responsibilities. Strategic plans for the identified WoNS can be found at:

<http://www.environment.gov.au/biodiversity/invasive/weeds/publications/index.html>

Declared plants are weeds which are regulated under the *Natural Resources Management Act, 2004* (NRM Act) within South Australia due to their threat to the environment, primary industry and public safety. Natural Resource Management Boards are responsible for control programs of declared plants in their respective regions, with coordination from DEW. Weed classes determine the extent of the control area and which provisions of the NRM Act apply.

3.3.3 Fauna Species

Lake Bonney and surrounds support an overall low bird species diversity as a result of the reduced complexity and diversity of shoreline and floodplain vegetation (Waanders, 2007, cited in Tonkin Consulting 2010). Historically, 102 species of birds have been recorded from Lake Bonney (BDBSA, 2017). Of these, the Regent Parrot is listed as Vulnerable nationally under the *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act) as well as Vulnerable in South Australia under the NPW Act. Two species, the Osprey and the White-Bellied Sea Eagle, are Endangered under the NPW Act, and a further eight species are listed as Rare in South Australia, including Australasian Darter, Australasian Shoveler, Blue-faced Honeyeater, Glossy Ibis, Great Crested Grebe, Hooded Robin, Jacky Winter (ssp) and Spotless Crake.

Thirteen mammal species (excluding stock) have been identified around Lake Bonney (BDBSA, 2017) including six bat species and three introduced species, the House Mouse, Fox and Rabbit. None of the identified mammal species hold particular conservation status.

Eleven species of reptile (including 2 tortoises) and five species of amphibians have historically been recorded at Lake Bonney (BDBSA, 2017). Of those, The Southern Bell Frog is listed as Vulnerable nationally under the EPBC Act as well as Vulnerable in South Australia under the NPW Act. The Macquarie (Short-necked) Tortoise is listed as Vulnerable under the NPW Act, and the Lace Monitor and Carpet Python are listed as Rare species under the NPW Act include. Tonkin (2010) also note that Lake Bonney provides breeding habitat for all three River Murray Tortoises, including the Broad-shelled Tortoise not listed above which is also listed as Vulnerable in South Australia under the NPW Act.

A turtle recovery program exists which aims to protect River Murray Turtles by uniting research efforts with diverse industry partners, indigenous groups and non-government organisations (FNPW, 2017). The Foundation for National Parks and Wildlife is contributing to funding for an extensive study of turtles across Australia to better understand the complex threatening processes including predation by feral animals, climate changes, elevated salinity and ecosystem degradation. The Save Lake Bonney Group Inc. was a partner member involved with the recovery program.

Tonkin (2010) report 12 species of fish from Lake Bonney (including 3 exotic species). Most of the species present are considered to tolerate elevated salinity levels. The Murray Cod is listed Nationally under the EPBC Act as Vulnerable, but was not detected during 2009 sampling and may no longer be present (Ben Smith, SARDI, cited in Tonkin Consulting, 2010).

3.3.4 Pest Animals

As stated above, rabbits, house mice and foxes have been identified as pest mammals around Lake Bonney. Effective management of rabbits and foxes would have a positive impact on ecological values around the lake. Rabbits are known to cause potentially significant habitat damage as a result of warren construction, foraging on native vegetation, spreading of weed species and they can compete with native fauna for resources. Foxes represent introduced predators to the natural environment which native fauna have not co-evolved with. They prey upon birds and bird nests, reptiles including young turtles, amphibians and potentially other small mammals if present.

Whilst not identified in the BDBSA records for the area, it is considered likely that feral cats may also be present, representing an additional introduced predator targeting native fauna species.

A number of introduced bird species have also been identified around Lake Bonney. Whilst not a direct threat to native fauna, they may compete with native birds for resources and nesting sites through their abundance or aggressive behaviour. Silver Gulls, Common Starling, Common Blackbird, House Sparrow and feral Pidgeon have been identified in the area.

Various studies have been commissioned by DEW around rabbit control measures that are appropriate to heritage protection. This includes a collaborative project between the RMMAC and Natural Resources South Australia Murray Darling Basin in 2013 aimed at identifying cultural heritage sites at Lake Bonney and developing methods to reduce invasive species impact on these sites through the development of a best practice model (Miller, 2013).

3.4 Water Resources

While it is recognised that water issues such as water level management and water quality are vital to maintaining and enhancing cultural, ecological and amenity values of the lake, these issues are largely outside of the scope of this Plan. The South Australian Murray-Darling Basin Natural Resources Management Board has commissioned variation reports considering the ecological health of Lake Bonney and management options to improve the ecological health of Lake Bonney including Tonkin Consulting (2010) and Durant (2009). Council and RMMAC will seek to work with relevant agencies to ensure continued focus on Lake Bonney's water resources and promoting a healthy environment.

For completeness, a brief overview of the water resource characteristics of Lake Bonney is provided.

3.4.1 Groundwater

The regional groundwater system of Lake Bonney is made of three major aquifer systems that lie within the Murray-Hydrogeological Basin: the Renmark Group confined aquifer; the Murray Group limestone aquifer; and the Pliocene Sands aquifer. Tonkin Consulting (2010) reports that salinity levels of these aquifers are generally high (over 20,000 mg/L or 36,000 EC).

The main aquifer interacting with Lake Bonney is the Pliocene Sands aquifer. Under natural conditions, some groundwater from this aquifer would have discharged into the lake. However, the cumulative effect of irrigation in the surrounding area in conjunction with dryland salinity has significantly redistributed groundwater and created a major groundwater mound beneath the Berri-Barmera irrigation district (refer to Figure 6). Lake Bonney is located to the west of this groundwater mound and, as a low point in the landscape, is a discharge zone for groundwater (Tonkin Consulting, 2010).

Tonkin Consulting (2010) reported that groundwater depths are less than 2 m below ground level at Lake Bonney. More recently, WaterConnect (Government of South Australia, 2017) recorded groundwater depths of approximately 3.5 – 4.7 m below ground level (measured in November 2017) at observation wells located on the eastern side of the lake (east of Queen Elizabeth Drive).

Tonkin Consulting (2010) reported that from November 2007 to June 2008, groundwater salinity averaged 30,400–31,340 mg/L (55,300-57,000 EC) across nine sites at Lake Bonney; with groundwater salinity generally higher in the southern part of the lake and lower on the higher ground to the north.

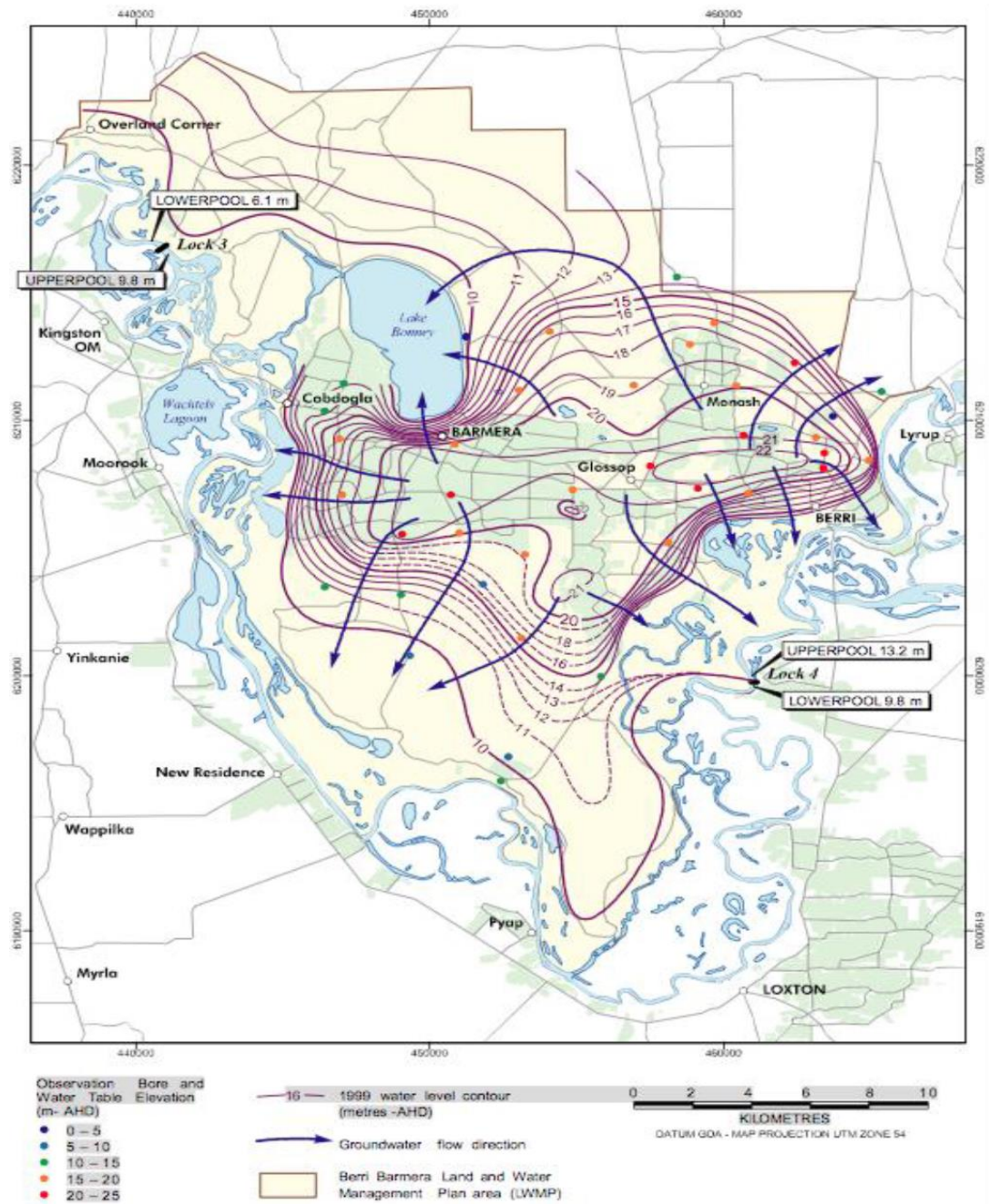


Figure 6: Barmera irrigation district and groundwater contours (Parsons Brinkerhoff, 2006 cited in Tonkin Consulting 2010)

3.4.2 Hydrology

Lake Bonney is a terminal deflation basin, fed by Chambers Creek, which joins the River Murray near Cobdogla, upstream of Lock 3 (Tonkin Consulting, 2010). The lake experiences high evaporation rates (refer to Table 3) and recharge primarily occurs via the River Murray, and to some degree, through groundwater inflows (Tonkin Consulting, 2010). Lake Bonney has a volume of approximately 59,000 ML, and covers an area of about 1700 ha at normal pool level (9.8 metres AHD) (Durant et al., 2009). Since the construction of Lock 3 in 1923, the lake has become permanently inundated outside major flood events.

The South Australian Murray Darling Basin Natural Resources Management Board (SA MDB NRMB) disconnected Lake Bonney and 5 other South Australian wetlands from the River Murray between 2006 and 2008 in order to achieve water savings in the Murray system (Durant et al., 2009). To retain ecological integrity within the Lake Bonney ecosystem, a 10 GL refill was permitted over 2008 and 2009, and another 28 GL over 2009 and 2010 as part of Murray-Darling Basin Authority (MDBA) Environmental Watering Program (Murray-Darling Basin Authority, 2011).

Daily water level records for Lake Bonney Jetty are available from 1990 to 2010 (Water Connect, 2015). These records, presented graphically in Figure 7, show relatively stable levels (9.8 metres AHD) preceding the disconnection of the lake and subsequent decline between 2007 and 2008. Lake levels showed a steady recovery between 2009 and 2010, in correlation with the refilling.

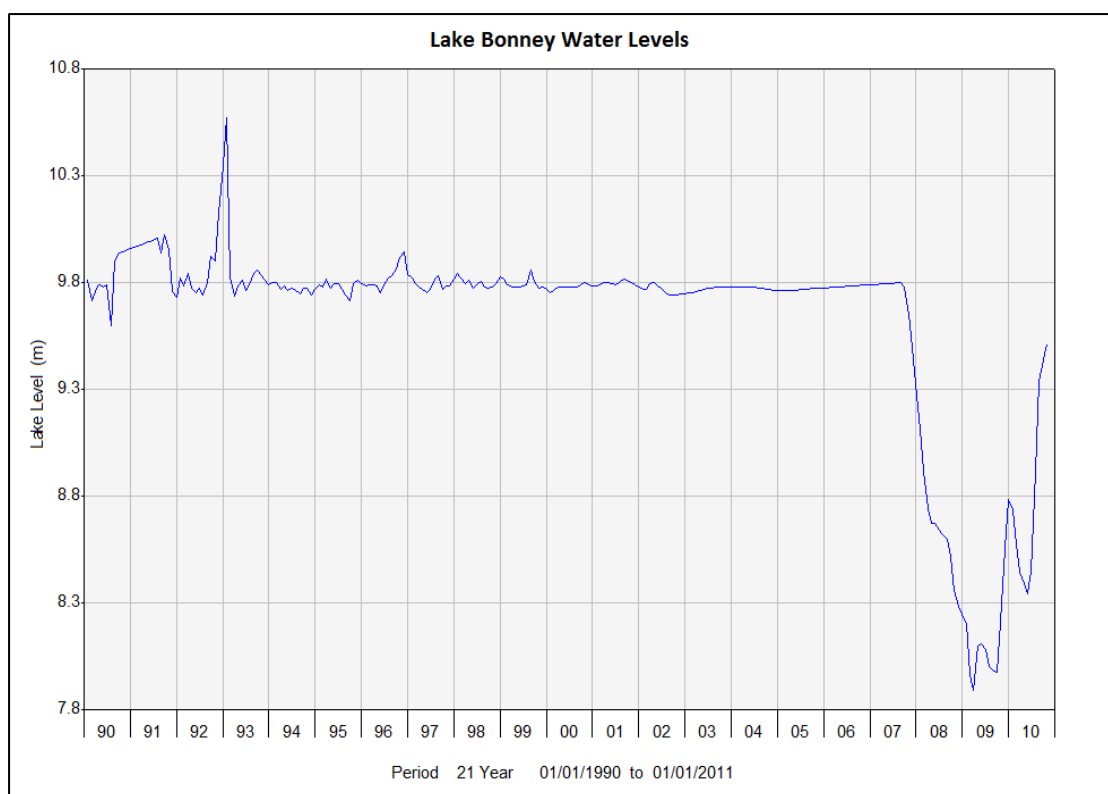


Figure 7: Lake Bonney water level data recorded daily between 1990 and 2010 (Government of South Australia, 2015)

3.4.3 Water Quality

The most recent Lake Bonney water quality studies were undertaken by Smith and Fler (2007), for the Mid-Murray Local Action Planning Committee, and Durant et al. (2009), for the Murray-Darling Freshwater Research Centre. Tonkin Consulting (2010) utilised this research, along with other secondary sources, to assess various Lake Bonney management options for the SA MDB NRMB, as the lake was identified to be declining in ecological health. These studies investigated and documented salinity, turbidity, water temperature, dissolved oxygen, and pH between 2006 and 2009. The South Australian Government's WaterConnect database also provides Lake Bonney surface water salinity records from 1990 to 2010. Save Lake Bonney Group has also undertaken numerous sampling events (Broster, 2017, pers. Comm.).

Both Smith and Fler (2007) and Tonkin Consulting (2010) identify lake salinity as a key factor influencing the ecological health of the lake. Salinities within the lake are typically 7-9,000 $\mu\text{s.cm}^{-1}$ due to evapo-concentration (Smith and Fler, 2007).

The salinity levels in Lake Bonney have been a focal point in water quality discussion and analysis over recent decades, with monitoring increasing throughout its closure. Save Lake Bonney Group (2017a) combined its own surface and salinity records with data assembled

from the WaterConnect website (Government of South Australia, 2015) and the Murray-Darling Basin Authority (2017); refer to Figure 8, Figure 9 and Figure 10. The plots show steadily increasing salinity levels from 1923 to 2007, with a sharp peak in 2009 following the temporary Lake closure. Since 2011, levels appear to have normalised.



Figure 8: Lake Bonney maximum and minimum monthly EC corrected salinity levels (uS/CM) recorded daily between 1923 and 2012 (Government of South Australia, 2015)

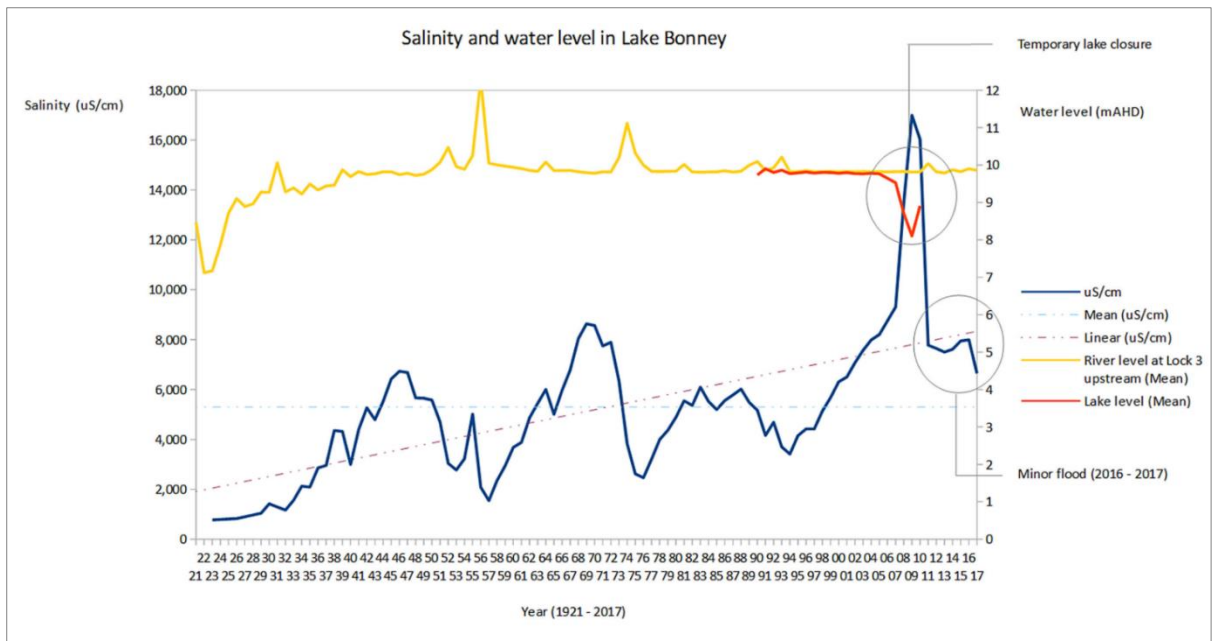


Figure 9: Salinity and lake levels from 1921 to 2017 from various data sources (Save Lake Bonney Group, 2017a).

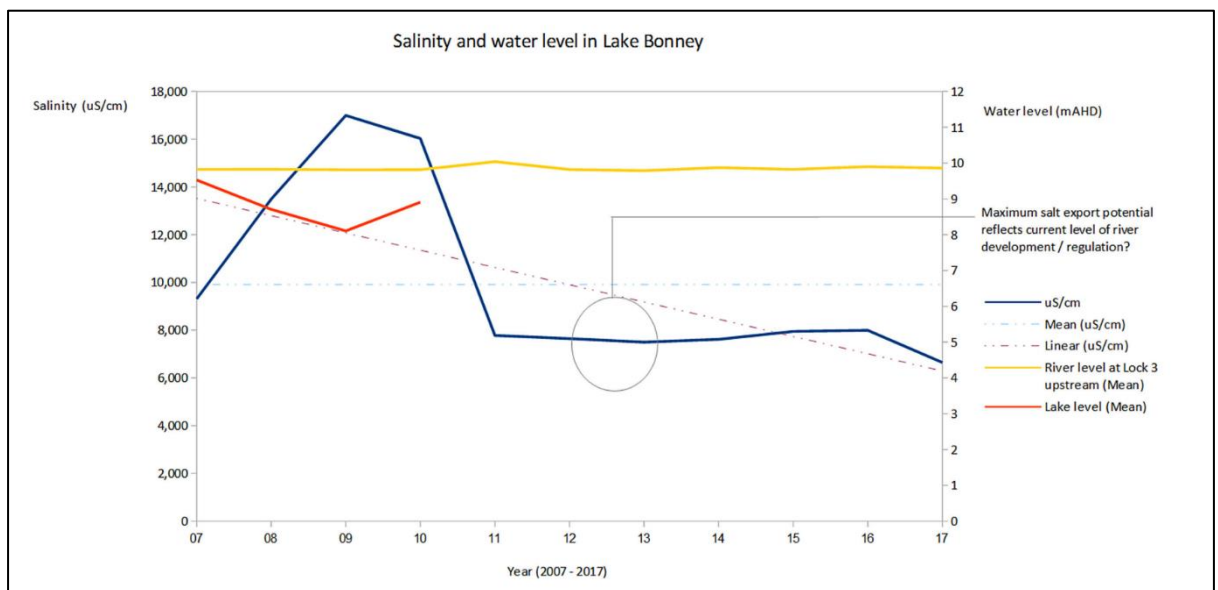


Figure 10: Salinity and lake levels from 2007 to 2017 from various data sources (Save Lake Bonney Group, 2017a).

3.5 Visual and Landscape Characteristics

Barmera and its foreshore are centred around the Lake Bonney water body. Lake Bonney is a popular destination for passive and active recreation and creates an important landscape asset for Barmera, complementing the adjacent parks, gardens, ovals, clubs, and businesses.

Lakeside Drive, Dean Drive and Queen Elizabeth Drive form a single 10.5 km road that extends from Morgan Road (at the north-eastern extent of the lake) and follows the northern and eastern edges of the lake around to the southern foreshore area (Figure 11).

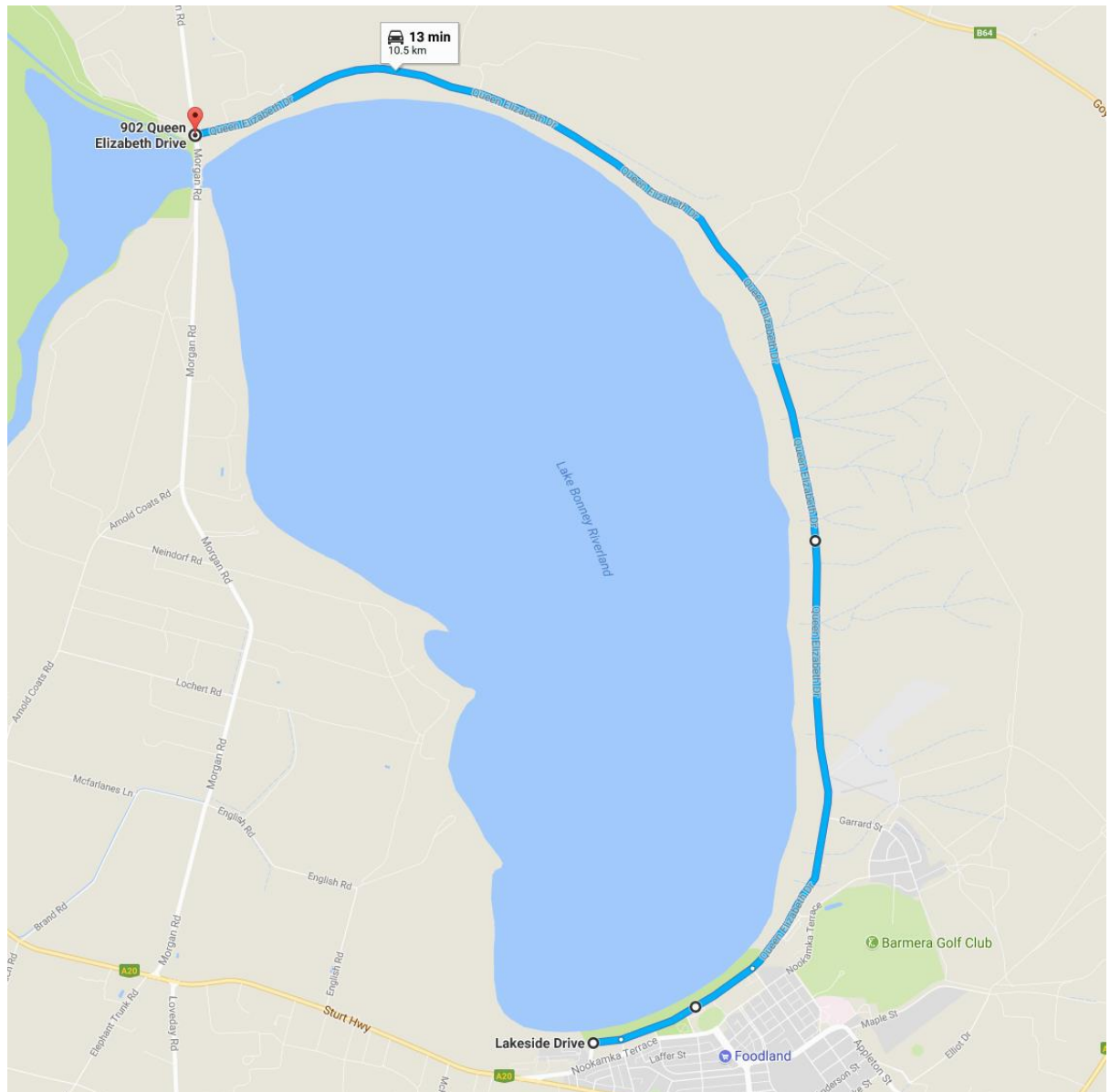


Figure 11: Google Map of Lake Bonney and Barmera area depicting roads surrounding the lake (Lakeside Drive, Dean Drive and Queen, and Elizabeth Drive) (Google Maps, 2017).

The landscape surrounding Lake Bonney is characterised by contrasts from vineyards, and irrigated fruit blocks to open Woodlands and Shrublands. Additionally, farmland featuring dryland crops and grazing, wetlands, and samphire flats are all within close proximity to the lake. The town foreshore is largely set in a maintained grassland setting with various facilities scattered along it. Council staff indicate that many mature trees and vegetation systems are in decline. The lakes and the fringe tree stands are still a dominant and central feature in the landscape of the Reserve and are a popular site for photographers.

Based on existing grey literature resources, the commonly understood characteristics and attributes of Lake Bonney can be described as:

- A natural landscape with a character synonymous with more rural locations.
- One of the most popular aquatic playgrounds in South Australia (Discover Murray, 2016).
- An environment which allows visitors an attractive interaction with natural elements, including flora and fauna (Barmera Visitor Information Centre, 2013).
- A unique water resource for family friendly recreation, sport and educational activities (QED, 2011).
- An area which offers sufficient space for a variety of activities and events to coexist without conflict (Berri Barmera Council, 2017b).
- A system where some ecological and aesthetic values appear to be in decline, including mature trees and vegetation (Save Lake Bonney Group, 2017b; Marsland and Nicol, 2006)

4. Impact Identification and Assessment

Current activities at Lake Bonney are affecting cultural, environmental and amenity values associated with the lake. In order to identify and prioritise management measures, a high level, qualitative impact identification and assessment process was undertaken, which involved the following steps:

- Define activities and key threatening processes occurring at Lake Bonney which drive impacts
- Consider the various interactions of each activity and threatening process with cultural, environmental and amenity values
- Identify existing management and control measures (e.g. existing infrastructure) and consider their effectiveness
- Describe the potential effect of the activity or threatening process on cultural, environmental or amenity values.

Assessment of impacts was informed by:

- Lake Bonney Cultural Heritage update report (Westell, 2017).
- Council report into Potential Impacts from Interim Prohibition of Camping at Lake Bonney (Berri Barmera Council, 2018).

The outcomes of impact identification and assessment will be refined through the stakeholder consultation process. The below summaries describe the key issues identified for further management.

4.1 Unregulated Vehicle and Pedestrian Access

There are a high number of formal and informal tracks around the lake, leading to disturbance of culturally sensitive sites and native vegetation. Vehicle access has been identified as the priority issue. Major areas of concern include Pelican Point, Nappers Bridge and the eastern shoreline of the lake.

Westell (2017) also reports selected walking pathways which traverse culturally sensitive sites have the potential to degrade soils and sub-surface cultural materials.

Traffic controls installed at various locations to prevent access have been reported as inadequate (Westell, 2017). Formal scheduled monitoring of the public use of the area does not currently occur.

4.2 Unregulated Camping

Unregulated camping occurs at designated (Nappers Bridge and Pelican Point) and undesignated areas around the lake. The unregulated nature of camping has the potential to significantly impact heritage values.

The inappropriate disposal of camping refuse is a recognised issue along the eastern shoreline and other preferred camping locations. Westell (2017) reported toilet paper deposited in various locations, suggesting current rubbish disposal and toilet infrastructure may not be adequate. This may be particularly relevant during high-use times such as public and school holidays. Vehicle and pedestrian access to campsites exacerbates the impacts of camping activities (refer to Section 4.1).

A survey of campers and aerial imagery was collated during Easter 2018 (refer to Appendix B).

The survey provides valuable information supporting the intended more in depth consideration of camping locations, impacts, tourist benefits, camping facilities and peak period demands on resources, facilities and the broader environment.

4.3 Caravanning and Long-Stay Camping on Foreshore

Westell (2017) identifies that the use of caravans and long-stay camping along the lake shore appears to be impacting the foreshore, in particular the dunes.

Formal Caravan Parks are available both on the lake side (north-eastern shore) and in the Barmera township.

4.4 Illegal Dumping

In addition to relatively high levels of littering associated with camping and recreational activities, illegal dumping of waste is also occurring within the Lake Bonney area. Illegal dumping has the potential to significantly impact heritage and ecological values, detract from the amenity of the area and cause an unnecessary drain on Council resources.

4.5 Wood collection

The unregulated collection fire wood from the lake surrounds has the potential to impact heritage sites (including scarred trees and surface scatters located on the access to the tree),

reduces habitat for native fauna, and results in direct interference with lake side vegetation. Anecdotal evidence suggests that fire wood collection is related to commercial and camping activities.

Further, under the *Native Vegetation Act 1991*, the broad definition of native vegetation includes dead trees that provide habitat for endangered species. As a measure to protect the habitat of the Regent Parrot (listed as vulnerable under the EPBC Act and NPW Act), in South Australia, any dead eucalypt on the River Murray floodplain upstream of Swan Reach with a trunk circumference of two (2) metres or more and with hollows or a rotten butt is included as 'native vegetation' under the definition of the Act (Native Vegetation Council, 2016). Penalties for unregulated clearance of Native Vegetation include a \$750 expiation fee.

4.6 Water Level Management

While the management of lake water levels is outside of the control and influence of Council and RMMAC, it is acknowledged that any future drop in water levels may provide an opportunity to collect and relocate cultural materials.

4.7 Horse Riding

Portions of the area around Lake Bonney have historically been used for horse riding and swimming of horses. In order to facilitate lawful horse riding on Council land at Lake Bonney and to protect environmental and cultural values, Council has developed a Horse Riding on Council Land Policy - Lake Bonney (refer to Appendix C) and associated permit system to limit and control horse riding activities. Material changes to the Horse Riding on Council Land Policy – Lake Bonney are only made with consultation and agreement from RMMAC

To date, Council and RMMAC considers that horse riding at Lake Bonney is effectively managed via the Policy and associated permit system; however any proposed changes to the Policy or compliance with the Policy may alter the impact of horse riding activities.

4.8 Pest Animals

Westell (2017) reports that Rabbits are impacting various locations around the lake. Grazing and burrowing by rabbits can cause serious erosion problems, reduce recruitment and survival of native plants, modify the landscape and disturb culturally sensitive sites. In

addition, house mice and foxes have also been identified as pest species around Lake Bonney.

The Berri Barmera Council currently has no pest animal control measures in place.

4.9 Council Infrastructure

The relocation or development of new council infrastructure has the potential to directly disturb heritage values and cause significant impact. Westell (2017) identifies that there have been instances where council infrastructure set up to control recreational (and vehicle) activities has had resulted in detrimental impacts on heritage, particularly in the vicinity of Pelican Point.

5. Plan for Management

The Plan for Management identifies the objectives, priority management actions and suggested monitoring considerations to respond to the key issues identified for further management in Section 4. These management actions inform the Implementation Action Plan set out in Section 6.

5.1 Vehicle and Pedestrian Access

The objectives for vehicle access management at Lake Bonney are:

- ***Provide an appropriate level of access whilst preserving the cultural and ecological values of the area***
- ***Encourage low impact pedestrian access.***

Management recommendations to support these objectives are as follows:

- Investigate alternative solutions for track closure to achieve effective traffic control and discourage new track development. Westell (2017) identifies that the use of logs and vegetation appears to be the most effective and least invasive measure. Encouraging the use of a smaller number of tracks through signage and bollards (at strategic locations) should also be considered.
- Identify conservation areas where traffic is to be excluded and provide defined pedestrian access.
- Undertake a strategic program of track closure to consolidate and regulate vehicle and pedestrian movements around Lake Bonney. Specific track closures were identified as part of the site investigations by Westell (2017) and should be considered as part of a broader strategic plan. These include rationalising access tracks from Nappers Bridge and Pelican Point car parks.
- Develop and distribute a tourist brochure showing map(s) to designated camp sites, vehicle access routes and dedicated walking trails.
- Develop and distribute information for local recreational users of the lake, identifying changes to access and the reasons for the changes.

Regular (e.g. weekly or fortnightly) informal surveillance and monitoring is recommended for an initial three-month period following the commencement of track closures and traffic control measures to raise awareness amongst Lake visitors and to monitor compliance and effectiveness of the changes. Surveillance and monitoring outcomes should inform future management actions. After the initial period, the informal monitoring and surveillance should continue at a reduced frequency.

5.2 Camping and Caravanning

The objectives for camping and caravanning management at Lake Bonney are:

- ***Preserve cultural and ecological values of the area.***
- ***Facilitate appropriate recreational activities by providing suitable designated resources and infrastructure***
- ***Provide a safe environment for passive recreation.***

Management recommendations to support these objectives are as follows:

- Through comprehensive review of caravan and camping access identify suitable locations for caravan camping. Ensure these locations are appropriately identified by signage and in associated information.
- Identify appropriate areas for camp ground locations and clearly identify these camp grounds through signage or other physical delineation and maps. Ideally camp grounds should use existing areas of disturbance and clearance and must be sanctioned by the First Peoples. Identification of camp ground locations should:
 - Consider walk-in only camp sites.
 - Review the provision and capacity to manage of camping infrastructure to support the containment of impacts. This primarily relates to the provision of adequate bins and toilets, but may include BBQ hot plates or designated fire pits.
- Undertake broader communication of any changes to camping and caravanning locations (e.g. external databases and resources which travellers use to find caravan and camping sites).
- Operate a permit system to consolidate camping activities to designated locations and manage the use of the lake by campers. Impose conditions for cultural heritage and environmental protection. The permit system would need to include a map of official tracks, camp sites, bins, toilets, water points etc.
- Consider charging a fee to cover the costs of administering and managing permit use, and any follow-up management or remedial action that may be required.
- Develop and disseminate information regarding responsible camping, in conjunction with Lake Bonney tourist brochure. Dissemination of materials should include local residents and tourists.

In order to maximise the effectiveness of the permit system for regulating camping activities, formal compliance monitoring of camping activities is recommended, with greater emphasis on monitoring and compliance during peak periods of use (e.g. Easter). The initial period of monitoring should focus on education and dissemination of information regarding camping.

5.3 Vegetation Management

The objectives for vegetation management at Lake Bonney are:

- ***To preserve and enhance the ecological and amenity values of the area.***
- ***To enhance habitat values and therefore support native fauna to the area.***
- ***To facilitate improved management of camping and access around the lake.***

Management recommendations to support these objectives are as follows:

- Identify priority areas for protection of existing vegetation and rehabilitation. Target species communities which grow in the priority areas naturally once established. Rehabilitation activities should be considered with the intention of:
 - Improving visual amenity and defining camp sites and other access routes
 - Attracting native fauna and thereby improving the overall camping/tourist experience for visitors
 - Providing shade
 - Containing traffic and recreational use.
 - Rehabilitate and prevent erosion.
- Review the need for establishing short-term irrigation at key re-vegetation/rehabilitation sites.
- Collaborate with DEW to develop and implement joint strategies to address illegal timber clearance around the lake, including any activities in contravention of the *Native Vegetation Act 1991*.
- Consult and engage with commercial wood cutters to communicate their obligations and responsibilities in relation to responsible sourcing of wood.
- Lake visitors should be made to provide their own firewood from commercial providers and avoid interference with lake side vegetation. The requirement for visitors to provide their own fire wood should be clearly communicated.

In order to be cost effective, informal monitoring of re-vegetation is recommended every six months for a five-year period after rehabilitation. An approach for monitoring and surveillance of illegal wood clearing should be developed in conjunction with DEW, as the department responsible for administering the *Native Vegetation Act*.

5.4 Weed and Pest Management

The objectives for weed and pest management at Lake Bonney are:

- ***To preserve and enhance the ecological and amenity values of the area.***
- ***Reduce invasive species impact on cultural heritage sites***
- ***To adopt weed and pest management methods which are appropriate to the protection of cultural heritage values.***

Management recommendations to support these objectives are as follows:

- Prepare weed mapping for the Lake Bonney area, identifying the type and distribution of weed species.
- Collaborate and coordinate with DEW in relation to pest control measures that are appropriate to heritage protection
- In conjunction with DEW and RMMAC, identify priority areas for weed and pest control and develop a management program that documents the treatment and maintenance actions (including timing).
- Implement weed and pest control within the area of this Plan according to the weed and best management program.

Monitoring of weed and pest levels should occur in conjunction with regular weed and pest control activities. Informal monitoring may also be useful in identifying and responding to management issues presenting on site such as significant weed infestations or pest outbreaks.

5.5 Cultural Heritage Conservation and Education

The objectives for cultural heritage conservation and management at Lake Bonney are:

- ***To preserve Indigenous heritage at Lake Bonney***
- ***To enhance the amenity and environment of the lake***
- ***To engender respect for heritage through education and engagement with the lake***
- ***To elevate the protection and appropriate use of Lake Bonney as a matter of pride within the Barmera community.***

Management recommendations to support these objectives are as follows:

Education and Engagement

- Develop and establish formal and informal Aboriginal Cultural Awareness and Education programs (formal and informal). This would involve the use of interpretative materials, signage and education to integrate heritage into a greater appreciation of the lake. As recommended in Westell (2017), the notion of a continuous storyline should be encouraged as Aboriginal people's engagement with the lake is part of a continuum. Relevant options and considerations for awareness raising and education include:
 - Guided walks – for example a walking trail around the lake with numbered sites referring to, for instance a particular plant type, the Aboriginal names and uses of the plant, and sites nearby where the plant may have been processed or the implements used, and products generated with the plants (Westell, 2017).
 - Interpretative signage - install, following consultation with the First Peoples, a suite of directional and interpretive signs for selected locations (e.g. designated camping and walking trails) around the lake which define traditional values, historic activities around the site, and connection to site.
 - Use of language and multi-media products – for example an audio or audio visual product could have members of the First Peoples describing the plant and stories around its collection and use (Westell, 2017). It is noted that this option is not suitable for remote camping locations, but may be appropriate in highly frequented locations or even incorporated into the Barmera township.
 - Rehabilitation of the disused outdoor class-room for use in delivering cultural heritage programs.
 - Incorporate Aboriginal Cultural Heritage awareness and educational information in the Lake Bonney tourist brochure.
- RMMAC will be required to sanction: (1) The content of any interpretative material; and (2) The selection of any sites incorporated into interpretative materials.

- Education and awareness activities should preferably be delivered by the First People's, and both council and RMMAC should work together to: investigate funding opportunities; build a business case for funding; and apply for funding to support cultural heritage and awareness activities.
- Provide AARD *Aboriginal Heritage Act* training to all council staff and identified RMMAC stakeholders. Ensure that new staff and stakeholders are provided with training opportunities into the future.

Site Protection and Cultural Heritage Preservation

- A priority action is for Council and RMMAC to work together to identify key heritage sites for conservation and/or protection. The identification of these priority sites will inform the specific management actions around vehicles and pedestrian access and camping.
- Site protection measures should be developed and installed by the First Peoples. Non-intrusive measures are preferred, such as the use of logs and re-vegetation. Reburial of currently exposed material should also be considered.
- Develop scope of work required to conserve and protect priority heritage sites. Consult with AARD to confirm approval requirements and obtain approvals if needed.
- Existing AARD signage should be reviewed in conjunction with AAR, and liaison undertaken with AARD to in relation to upgrading signage that is inadequate (e.g. not visible from vehicles).
- Encourage and support archaeological, anthropological and historic studies within the lands surrounding Lake Bonney, in conjunction with RMMAC.
- Council process for the siting of new infrastructure within the Native Title lands of Lake Bonney area should include referral to the Barmerara Meru committee to verify siting is appropriate and that heritage sites will be avoided.
- Any future drop in lake water levels should trigger a process to consider the collection, relocation and reburial of cultural materials.

Informal monitoring of priority heritage sites for adverse impacts should be undertaken in conjunction with other routine informal monitoring activities under this Plan. Progress of cultural heritage conservation and education actions will also be monitored as part of the annual review of this Plan, the need for further survey to be considered as part of the review.

5.6 Horse Riding Policy

The objectives of the Horse Riding Policy at Lake Bonney are:

- ***To preserve cultural and ecological values of the area.***
- ***Facilitate lawful horse riding on Native Title lands at Lake Bonney***

Council has developed a Horse Riding on Council Land Policy - Lake Bonney and associated permit system to limit and control horse riding activities (refer to Appendix A). Material changes to the Horse Riding on Council Land Policy – Lake Bonney are only to be made with consultation and agreement from RMMAC.

Ongoing application and use of the policy and permit system is proposed under this Plan (refer to Appendix C). As part of the consultation process for this Plan, Council is requesting RMMAC consider extending the length of riding northwards alongside the shoreline. Confirmation of the revised horse riding policy will occur as part of the consultation process for this Plan.

In order to maximise the effectiveness of the permit system for horse riding, formal compliance checks should occur at regular intervals. Review of the policy is to occur periodically in accordance with *Local Government Act* provisions.

5.7 Council Infrastructure and Waste Management

The objectives for infrastructure and waste management at Lake Bonney are:

- ***Preserve cultural, ecological and amenity values of the area.***
- ***Facilitate appropriate recreational activities by providing suitable resources and infrastructure***
- ***Provide a safe environment for passive recreation.***

Management recommendations to support these objectives are as follows:

- A review of waste management in the Lake Bonney area should occur in conjunction with the consolidation of camping arrangements, with the output being a waste management plan. There may be a need for more bins within the area, especially during high-use times such as public and school holidays. It is also recommended that the types of bins used be assessed for practicality, ease of use and include lids to avoid attracting pests.

Inputs to the review would also include records or information about illegal dumping activities occurring in the area (e.g. location, type and volume of waste, frequency etc). Broader waste disposal options within the council area may need to be considered to understand and respond to illegal dumping behaviours.

- Existing infrastructure including toilets, bins, tracks and future infrastructure should be constantly assessed, maintained and when necessary upgraded so that they may continue to function in good working order and be safe for users.
- The toilets at Lake Bonney have been identified as the most regularly used facility within the area. It is therefore recommended that the toilets be kept clean, safe, and unlocked to permit convenient access. It also recommended that adequate lighting be installed to make the area safer and prevent vandalism.
- In the longer term, there is a need to identify, develop and maintain walking paths and trails within the Lake Bonney area (as identified in Section 5.1). Wheelchair and pram access to identified paths should be considered.
- In addition, the construction of a designated bicycle path may be valuable if there is sufficient evidence to suggest so from user surveys. This would reduce the stress on sensitive vegetation and decrease the risk that cultural sites will be disturbed. The need for a separate bicycle path should be addressed in terms of cost and feasibility.

Monitoring of issues associated with existing infrastructure should occur by operations staff as part of routine cleaning and maintenance. The waste management plan will identify specific monitoring tasks to measure the outcomes of the waste management plan against the objectives. Pending completion of the waste management plan, regular (e.g. fortnightly and high use periods) informal surveillance and monitoring is recommended to collect information and records about illegal dumping, littering and use of bins.

6. Implementation Action Plan

RMMAC and Council has developed an action schedule to guide implementation activities associated with this Plan over a five-year period and to provision appropriate resources to support implementation.

Berri Barmera Council has included a contribution of \$500,000 over a five year period in it's Business Plan to 2023 to support delivery of actions and stimulate additional funding opportunities. Within the draft Budget for 2018/19 Council has allocated \$146,000 to commence key high priority works as identified in the Implementation Action Plan at Appendix D.

Key actions to be delivered include individual plans addressing issues such as camping access, regulation, track rationalisation, pest and weed management and waste management. The action plan highlights immediate activity intended to be undertaken in 2018/19 to address vehicle access from the two carparks and key camping areas of Nappers Bridge and Pelican Point into environmentally sensitive adjacent land.

The Implementation Action Plan is provided as Appendix D.

Following the election of the new State Government in March 2018, significant reform to natural resources management is planned to occur within the first year of government. Such significant changes to the structure and resourcing of natural resources management will present risks and opportunities, but also a period of uncertainty in relation to delivery options for this action schedule.

RMMAC and Council will undertake regular progress reviews of the Implementation Action Plan through the Barmerara Meru Committee

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Appendix A Memorandum of Understanding

THE RIVER MURRAY AND MALLEE REGION
ABORIGINAL CORPORATION RNTBC

AND

THE BERRI BARMERA COUNCIL

CONFIDENTIAL AND PRIVATE

Memorandum of Understanding

Preamble

Land around and under Lake Bonney, Barmera will be dedicated to the joint care control and management of the River Murray and Mallee Aboriginal Corporation and the Berri Barmera Council.

This Memorandum of Understanding (MOU) acknowledges the roles and responsibilities of the River Murray and Mallee Region Aboriginal Corporation and the Berri Barmera Council in relation to Lake Bonney.

Each Party recognises that the other can contribute to the sustainable and integrated management of the cultural heritage and natural amenities of Lake Bonney.

The joint dedication is an opportunity to create a forum in which the Parties can explore and discuss their aspirations for the future use and management of Lake Bonney for their mutual benefit.

This MOU is the first document which sets out a framework for how the Parties will co-operate and work together in partnership.

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A MEMORANDUM OF UNDERSTANDING BETWEEN

The River Murray and Mallee Aboriginal Corporation RNTBC (ICN 7494), c/- Level 4, 345 King William Street ADELAIDE SA 5000 ('RMMAC')

AND

Berri Barmera Council, c/- 19 Wilson Street Berri ('BBC')

DATE 23 / September /2014.

This Memorandum of Understanding records an intention on the part of the Parties to co-operate and work together to give effect to an anticipated dedication of Lake Bonney and surrounding lands to their Joint Care Control and Management.

1 Background

- 1.1 RMMAC has been recognised as the Registered Native Title Body Corporate in the consent determination made in *Turner v State of South Australia* [2011] FCA 1312 on 18 November 2011. In that determination the First Peoples of the River Murray and Mallee Region were recognised as the native title holders over land and waters identified, including land and waters under and around Lake Bonney, Barmera.
- 1.2 The BBC is a statutory body constituted under the Local Government Act 1999 (SA). The BBC is responsible for making decisions and delivering services in its Council Area ('the Council Area') pursuant to that Act. Lake Bonney is within the BBC Council Area.
- 1.3 Lake Bonney will be dedicated for Aboriginal Cultural Heritage and Conservation purposes under the Joint Care Control and Management of RMMAC and the BBC by the State of South Australia.
- 1.4 RMMAC and the BBC enter into this Memorandum to establish a framework that gives effect to their responsibilities for the Joint Care Control and Management of Lake Bonney.
- 1.5 RMMAC and the BBC wish to work together to manage the Aboriginal heritage and natural amenities of Lake Bonney in a way that promotes mutual respect between Aboriginal and non-Aboriginal people and promotes mutual respect for the interests of each Party in Lake Bonney.

2 Definitions

Aboriginal Object, Aboriginal Site and Aboriginal remains	have the same meaning in this Memorandum as defined in the Aboriginal Heritage Act 1988 (SA)
BBC	means the Berri Barmera Council constituted under the Local Government Act 1999 (SA)
Commencement Date	is the last date on which a Party signs this Memorandum
Committee	means the <i>Barmerara Meru</i> Committee established pursuant to clause 8
Community	means the people who live within the Berri Barmera Council Council Area and the area known as the Riverland
Council Area	means the area within the external boundaries of the Berri Barmera Council and for which the Berri Barmera Council has local government responsibility.
Lake Bonney	Refers to the following parcels: <ol style="list-style-type: none">1. Allotment 5, DP52018 Cobdogla Irrigation Area (McIntosh Division)2. section 415, OH(Renmark) (H740500) Cobdogla Irrigation Area (Cobdogla Division),3. section 477, OH(Renmark) (H740500) Cobdogla Irrigation

	<p>Area (Cobdogla Division),</p> <p>4. Portion of section 538, OH(Renmark) (H740900) Cobdogla Irrigation Area (Nookamka Division),</p> <p>5. section 610, OH(Renmark) (H740500) Cobdogla Irrigation Area (Cobdogla Division),</p> <p>6. section 724, , OH(Renmark) (H740900) Cobdogla Irrigation Area (Nookamka Division),</p> <p>7. section 854, OH(Renmark) (H740500) Cobdogla Irrigation Area (Cobdogla Division),</p> <p>8. section 855, OH(Renmark) (H740500) Cobdogla Irrigation Area (Cobdogla Division),</p> <p>9. section 791, OH(Renmark) (H740800) Cobdogla Irrigation Area (McIntosh Division); and</p> <p>10. section 503, OH(Renmark) (741000) Cobdogla Irrigation Area (balance).</p> <p>A map of Lake Bonney is provided at Schedule 1.</p>
Memorandum	refers to this Memorandum of Understanding and includes the Schedules
Party or Parties	means River Murray and Mallee Aboriginal Corporation and/or the Berri Barmera Council
RMMAC	means The River Murray and Mallee Aboriginal Corporation
Schedule	means a schedule to this Memorandum
Significant Areas	refers to an area or areas of cultural heritage importance to the First Peoples of the River Murray and Mallee Region, and set out in Schedule 2
Traditional Owner	means a member of RMMAC or the First Peoples of the River Murray and Mallee Region as defined in the determination made 18 November 2011 and as represented by RMMAC
and terms defined elsewhere in this Memorandum have their defined meanings when used in this Memorandum.	

3 Memorandum of Understanding

3.1 The Parties acknowledge that this Memorandum is an administrative arrangement between RMMAC and BBC and is not intended to create legal relations between the Parties.

3.2 This Memorandum starts on the Commencement Date.

4 Recognition

4.1 The BBC acknowledges and recognises the First Peoples of the River Murray and Mallee Region as the Traditional Owners of land and waters within the Council Area and that according to their traditions, customs and spiritual beliefs the land and waters remains their traditional country.

5 Dedication

5.1 It is anticipated that the Minister responsible for the administration of the Crown Lands Management Act 2009 (SA) will dedicate the Lake Bonney to the Joint Care Control and Management of RMMAC and the BBC for Recreational and Aboriginal Cultural Heritage and Conservation purposes.

6 Joint Care Control and Management

6.1 RMMAC and BBC are custodians of the dedicated land, Lake Bonney.

6.2 Joint Care Control and Management is a co-operative arrangement between RMMAC and the BBC to care for and manage Lake Bonney, and will be based on

- mutual respect;
- understanding and value for Traditional Owners' Cultural Heritage; and
- understanding the value of the Community who live and work within the BBC Council Area.

6.3 How Joint Care Control and Management will be given effect to will depend on the

- a. statutory functions and responsibilities of RMMAC and the BBC;
 - b. recognition of native title over parcels of land in and around Lake Bonney;
 - c. effect of statutory requirements in relation to Aboriginal Heritage;
 - d. terms of the Dedication;
 - e. provisions of this Memorandum;
 - f. membership of and procedures for the Barmerara Meru Committee;
 - g. Management Plan;
 - h. financial resources available to each Party; and
 - i. capacity of each party to contribute human resources.
- 6.4 The Parties recognise that Departments within the State Government of South Australia also have responsibilities in relation to Lake Bonney, including the Department of Environment, Water and Natural Resources and the Department of Planning, Transport and Infrastructure.
- 7 Responsibility**
- 7.1 It is acknowledged that both Parties have a responsibility to
- a. communicate with their members, Traditional Owners and constituents about the Care Control and Management of Lake Bonney, and
 - b. ensure that decisions relating to the Care Control and Management of Lake Bonney are made with the authority of each Party.
- 7.2 Each Party has expertise and strong networks within the Community and links to stakeholders, i.e persons who have an interest in Lake Bonney. Engagement with those persons can contribute to the knowledge and information available to the Parties to make decisions about the Care Control and Management of Lake Bonney. Each Party will ensure as far as possible they consider these interests.
- 8 Barmerara Meru Committee**
- 8.1 The Barmerara Meru Committee ('the Committee') will be created.
- 8.2 The Committee will comprise equal numbers of RMMAC and BBC representatives to be decided by agreement.
- 8.3 Subject to subparagraphs a) and b), the Committee will meet regularly and at least once every 6 months.
- a. The first meeting will be held two (2) months after the Commencement Date.
 - b. Subject to clauses 8.4, 8.5 and 8.6 at the first meeting, the Committee members will, establish protocols to adjourn and otherwise regulate its meetings and proceedings as the Committee members see fit.
- 8.4 Subject to subparagraph a), the Committee may meet together in person, by telephone, by other means of instantaneous communication or in such other manner as the Committee members may decide from time to time.
- a. Where the Committee members meet in person, the meeting shall commence with a 'Welcome to Country' by an RMMAC representative. Following the 'Welcome to Country' there shall be one minute of silence as a mark of respect.
- 8.5 Committee members will try to make recommendations by consensus for consideration of their Party; or if a recommendation is not able to be made by consensus the recommendation will be resolved by majority for consideration by their Party.
- 8.6 To be clear, the Committee cannot make decisions which are binding on either Party. The Committee can make recommendations which are considered by each Party in accordance with their internal decision making processes.
- 8.7 Each Committee member is a representative of the Party who has appointed him or her to the Committee, and has a responsibility to communicate with the Party which appointed him or her about the proceedings and recommendations from the Committee.

- 8.8 The Parties acknowledge the Committee is the body through which each Party will communicate with the other about
 - a. the operation and implementation of this Memorandum;
 - b. the achievement of the specific objectives identified in this Memorandum;
 - c. development, administration and implementation of the Management Plan; and
 - d. Lake Bonney generally.
- 8.9 The Committee will document achievements and issues associated with the conduct of this Memorandum annually and provide that document to RMMAC and the BBC.

9 Specific Objectives

9.1 Caring for Country – Management Plan

- a. The Parties in consultation with each other through the Committee shall prepare a Management Plan for Lake Bonney which will be guided by the following principles:
 - i. act consistently with, and seek to further the protection, preservation and promotion of the First Peoples of the River Murray and Mallee Region cultural heritage;
 - ii. recognise the importance of a healthy environment and a healthy Lake Bonney to the well-being of the First Peoples of the River Murray and Mallee Region and the Community.
 - iii. use their best endeavours to ensure that no development or disturbance will occur on or near Significant Areas referred to in Schedule 2.
 - iii.i From time to time RMMAC may advise of additional Significant Areas to be included in Schedule 2.
- b. The Management Plan will identify outcomes for the protection, preservation, access and use of Lake Bonney and the policies, guidelines and actions to achieve those outcomes.
- c. To prepare a Management Plan the following information will be gathered:
 - i. The BBC will provide information about areas of interest to the BBC for use and access by its constituents; and
 - ii. Subject to clause 12, RMMAC will provide information about Significant Areas that are important to Traditional Owners; and
 - iii. A risk assessment of the hazards under and around Lake Bonney will be conducted to enable the Parties to make informed decisions about the ensuring the safety of the public.
- d. The Committee will recommend the Management Plan to RMMAC and the BBC for approval.

9.2 Registration of Lake Bonney

- a. The BBC supports the making of an application by RMMAC under the Aboriginal Heritage Act 1988 (SA) for the registration of Lake Bonney as a site of significance to Aboriginal tradition.

9.3 Renaming Lake Bonney

- a. Lake Bonney is important to the Traditional Owners and the Community.
- b. The lake currently has a European name. In recognition of the connection of Traditional Owners to the lake, the Parties intend to make an application under the Geographical Names Act 1991 (SA) for the re-naming of Lake Bonney with an additional traditional name "Barmerara Meru".
- c. The process will commence with a dual naming for Lake Bonney.

9.4 General - Education, Training, and Employment

- a. Generally, the BBC and RMMAC will work together to
 - i. pursue education and training opportunities; and
 - ii. develop strategies to create employment, economic and business opportunities associated with Lake Bonney.

9.5 Education and Training

- a. RMMAC in co-operation with Committee, may establish a community capacity building program for the education and skills training of Aboriginal people in skills relevant for employment or contracting to the BBC.

- b. The CEO of the BBC will develop in consultation with the Committee, a budget strategy for the training and development of Traditional Owners. The Parties acknowledge that such a strategy is subject to the availability of funds.
 - c. The Parties acknowledge that the budget strategy developed for the purposes of paragraph 9.5b) above will include identification and sourcing of funds from external granting bodies.
- 9.6 Employment
 - a. The BBC shall use its best endeavours to provide for the appointment of one (1) Aboriginal Identified Position in the administration or management, protection and conservation of Lake Bonney, subject to external funding of the position/s.
 - b. The Parties intend to work together and use their best endeavours to provide for additional full time Aboriginal Identified Positions in the administration or management, protection and conservation of Lake Bonney.
- 9.7 Economic and Business Opportunities

Tourists

 - a. The BBC and RMMAC will work together to maintain and improve tourism to Lake Bonney and to promote the Traditional Owners' cultural heritage of Lake Bonney and will include
 - i. the development of a boardwalk around Lake Bonney that provides cultural information ; and
 - ii. the engagement of Traditional Owners as tour guides by RMMAC and/or BBC.

Commercial Operations

 - a. The Committee will consider applications to use Lake Bonney for a business purpose from Traditional Owners and make recommendations to the Parties for approval.
 - b. It is intended that any such approval will be consistent with the provisions of the Management Plan.
 - c. Such approval if given may be given on conditions that the Parties consider appropriate.
- 9.8 Contracts and Services
 - a. This clause relates to the obtaining of goods, services and works by quotation, contract, tender, expression of interest or other manner to achieve the objectives and outcomes identified in the Management Plan.
 - b. The Committee will create and maintain a register of:
 - i local Aboriginal organisations or individuals; or
 - ii organisations that will implement specific measures for the benefit of RMMAC or the First Peoples; that are able to provide services in accordance with this clause.
 - c. The Committee may recommend that the Parties set conditions for obtaining goods, services and works which may include conditions that give preference to:
 - i local Aboriginal organisations or individuals; or
 - ii organisations that will implement specific measures for the benefit of RMMAC or the First Peoples.
 - d. The Committee will recommend a service provider to RMMAC and the BBC for their approval.
- 9.9 Exemption from Fees
 - a. In the event that a Management Plan recommends or requires the payment of fees for access and use of the natural amenities of Lake Bonney, Traditional Owners and other Aboriginal persons authorised by RMMAC will not be liable to pay entry, camping or any other fees for non-commercial use of, or access to Lake Bonney.
- 9.10 Resources
 - a. The BBC is required to prepare planning documents, including an Annual Business Plan under the Local Government Act 1999 (SA).
 - b. When developing its Annual Business Plan, the BBC Committee members will advise RMMAC Committee members of the relevant notice given in accordance with the BBC's Public Consultation Policy.

- c. Each Party recognises the limited ability of RMMAC to contribute financially to the Joint Care Control and Management of Lake Bonney and the protection preservation and conservation of Aboriginal sites of significance to the Traditional Owners.
- 9.11 Funding
 - a. The BBC and RMMAC intend to work together to pursue funding opportunities and prepare funding applications to achieve the outcomes and objectives of this Memorandum and the Management Plan.
- 10 Liability
- 10.1 Neither the Committee nor RMMAC assume any liability for members of the public who use Lake Bonney.
- 11 Term/Review of MOU
- 11.1 Time Frame

This Memorandum will take effect from the date of the last signature and will remain in effect until terminated.
- 11.2 Amendments

This Memorandum may be amended and supplemented at any time with the written agreement of both Parties.
- 11.3 Review

The Parties will ensure the currency of this Memorandum by participating in a review of its content to be completed every five (5) years.
- 11.4 Termination

Parties are able to terminate this Memorandum by providing 6 months' notice to the other Party in writing.
- 12 Dispute Resolution/Mediation
- 12.1 The Parties will take individual and collective steps to abide by the spirit and intent of this Memorandum.
- 12.2 If and when a dispute arises it will be addressed within a reasonable time.
- 12.3 The Parties agree to enter a process to find a lasting resolution of the dispute(s) consisting of:
 - a. Parties will attempt to resolve the issue between themselves in the first instance.
 - b. If the Parties cannot resolve their dispute between themselves, the Parties will enlist a jointly agreed upon facilitator to assist the discussion and resolution of the dispute(s).
 - c. Parties will abide by any agreements reached through the resolution/mediation process and proceed in the spirit and intent of this Memorandum.
- 13 Research and Information
- 13.1 From time to time, RMMAC may undertake research to identify and record Aboriginal sites in and around Lake Bonney. Nothing in this Memorandum requires RMMAC or Traditional Owners to disclose the location and/or significance of any Aboriginal Sites Objects or Remains.
- 13.2 If RMMAC or an RMMAC Committee Member discloses research and information about any Aboriginal Sites Objects or Remains then the BBC shall keep confidential the nature and location of any Aboriginal Site Object or Remain identified and will not without the consent of RMMAC disclose any research or information about the Aboriginal Site Object or Remain to any other person.
- 14 Intellectual Property
- 14.1 It is agreed by RMMAC and BBC that as between them, RMMAC and BBC shall each have the right to use or to commercialise any Intellectual Property Rights in all things produced by the Committee to promote and advertise Lake Bonney, except:-

- a. ownership of the Intellectual Property Rights of ethnographic or cultural information provided by RMMAC or any Aboriginal Person remains the property of RMMAC or those Aboriginal Persons; and
 - b. ownership of the Management Plan remains the property of the BBC and RMMAC.
- 14.2 For the purposes of clause 13, "Intellectual Property Rights" means any patent, copyright, trademark, tradename, design, trade secret, know-how or other form of intellectual property right whether existing before or after the execution of this Memorandum and the right to registration and renewal of those rights.
- 15 Publicity and Promotion**
- 15.1 The format and content of any press release prepared to promote this Memorandum shall be agreed upon between the Parties.
- 15.2 Prior to any public and or media comment on major and or critical issues impacting on Lake Bonney the Parties will make every effort to consult with each other.
- 15.3 This Memorandum is not to be taken to authorise the disclosure of any information about any Significant Areas by the Committee or the BBC.
- 16 Contact**
- 16.1 Communication and contact about this Memorandum is through the Committee. In case of a change membership of the Committee for a Party, it will notify other Party of the change as soon as practical.

Execution as a Memorandum of Understanding

Signed by

Signed for and on behalf of the
THE RIVER MURRAY AND MALLEE
ABORIGINAL CORPORATION
(ICN 7494)

Signature
Witness

Name
Witness

Paul Wilson

Paul Wilson

)
)
) *A. C. Dumas*

Chairperson, RMMAC

Signed by Peter Hunt, Mayor for and
on behalf of the BERRI BARMERA
COUNCIL, SA

Signature
Witness

Name
Witness

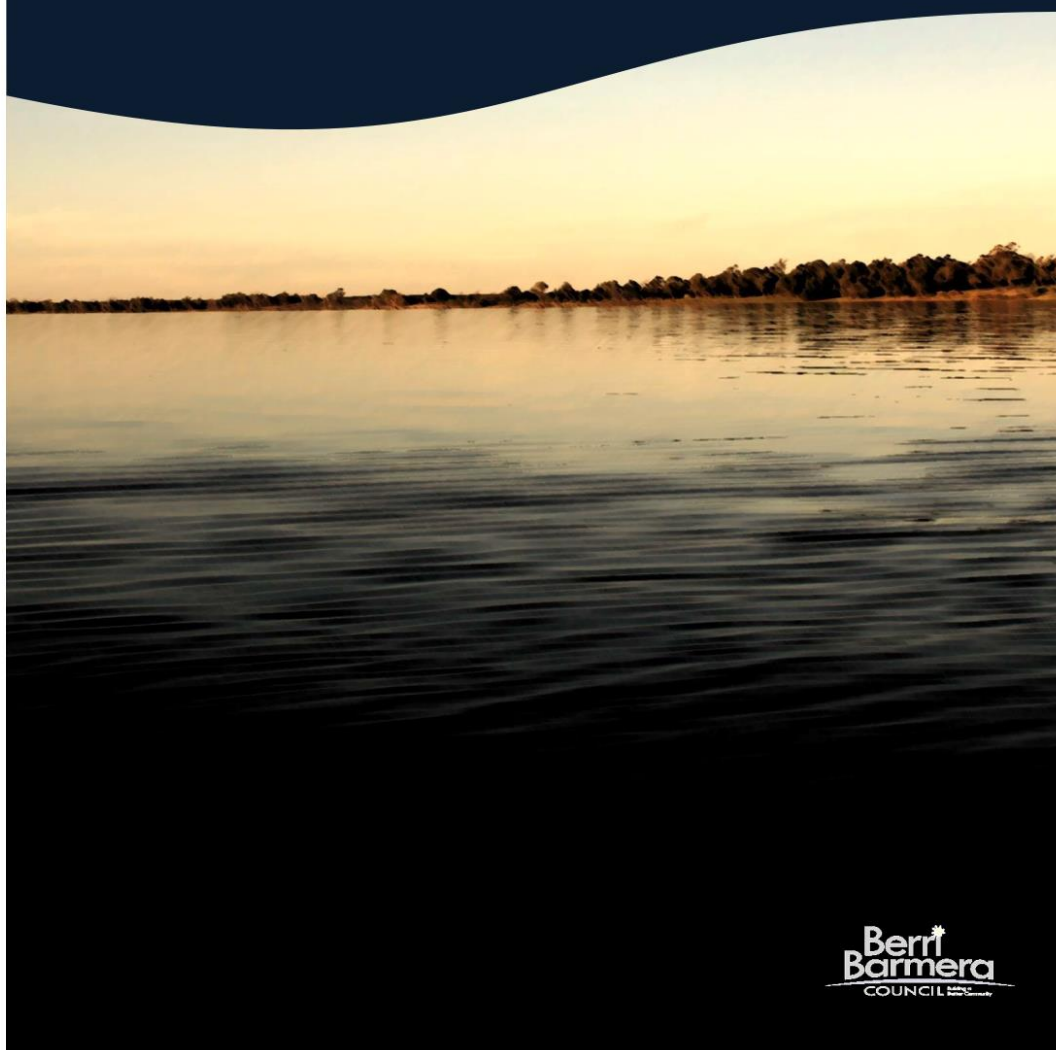
David Beaton

David Beaton

)
)
) *Peter R. Hunt*

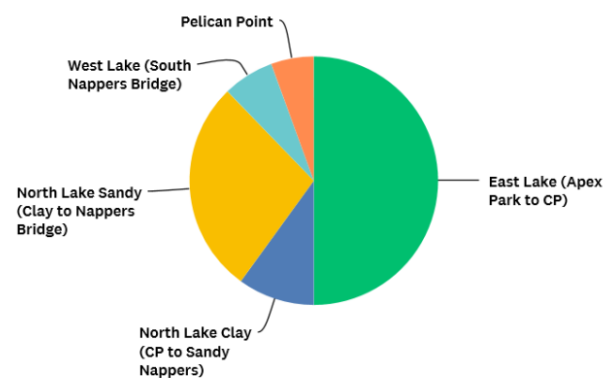
Appendix B Lake Bonney Easter Camping Report

Lake Bonney Camping Easter 2018



Location at Lake

1. Total numbers indicate groups of campers, not individual campers
2. The 11 groups South of Nappers Bridge and at Pelican Point were visitors who do not camp at Lake Bonney regularly, and comprised 70 people
3. Though East Lake represents 50% of groups, this area is significantly larger than the more densely populated North Lake Sandy which represents 28% of groups



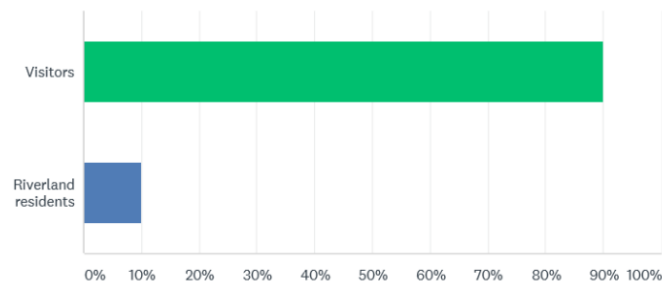
ANSWER CHOICES	RESPONSES	
▼ East Lake (Apex Park to CP)	50.0%	45
▼ North Lake Clay (CP to Sandy Nappers)	10.0%	9
▼ North Lake Sandy (Clay to Nappers Bridge)	27.8%	25
▼ West Lake (South Nappers Bridge)	6.7%	6
▼ Pelican Point	5.6%	5
TOTAL		90

Group Size

1. Total people (adults and children) was 598
2. 57% of groups had kids with them, with half as many children as adults around the lake
3. Regular campers were twice as likely to be families than non-regular campers
4. There was one car for every 4 people, with on average two cars per group
5. 10% of groups brought at least one motorbike with them, with 18 motorbikes in total (all were regular lake Bonney campers from South Australia)
6. 41% of groups brought at least one dog with them, with 63 dogs in total
7. Groups with towed accommodation (caravan or camper trailer) represented 67% of all groups, and 73% of regular campers
8. Groups without towed accommodation (groups in only tents) represented 33% of all groups, but were more likely to not be regular Lake Bonney campers

ANSWER CHOICES		AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Adults	Responses	4	389	89
Kids	Responses	4	209	51
Cars	Responses	2	155	67
Caravans/Motor Homes	Responses	2	60	35
Camper Trailers	Responses	1	31	26
Boats/Jet Skis	Responses	2	38	25
Motorbikes	Responses	2	18	10
Dogs	Responses	2	63	37
Canoes	Responses	2	63	30

Visitors or Residents



ANSWER CHOICES	RESPONSES
▼ Visitors	90.0% 81
▼ Riverland residents	10.0% 9

Resident vs Visitor Group Size

1. Most motorbikes are visitors, not locals
2. Locals are slightly larger groups, with slightly more families with kids

RESIDENTS

ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Adults	5	36	8
Kids	5	26	5
Cars	2	12	7
Caravans/Motor Homes	2	9	4
Camper Trailers	1	3	3
Boats/Jet Skis	2	5	3
Motorbikes	1	1	1
Dogs	1	5	4
Canoes	2	6	3

VISITORS

ANSWER CHOICES ▼	AVERAGE NUMBER ▼	TOTAL NUMBER ▼	RESPONSES ▼
Adults Responses	4	353	81
Kids Responses	4	183	46
Cars Responses	2	143	60
Caravans/Motor Homes Responses	2	51	31
Camper Trailers Responses	1	28	23
Boats/Jet Skis Responses	2	33	22
Motorbikes Responses	2	17	9
Dogs Responses	2	58	33
Canoes Responses	2	57	27

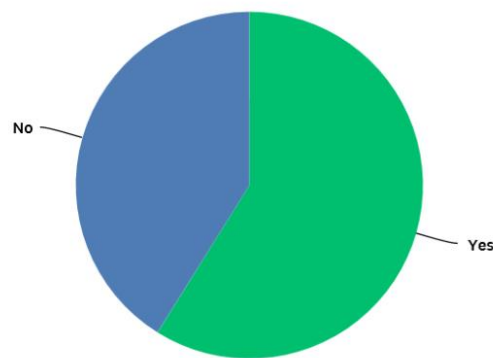
Length of Stay

1. Minimum length of stay was 1 night
2. Maximum length of stay was 14 nights
3. Average length of stay was 4 nights
4. Most common length of stay was 4 nights
5. Total nights camped collectively was 354

Actual nights camped					
BASIC STATISTICS ?	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q1: East Lake (Apex Park to CP)	1.00	14.00	4.00	4.13	2.38
Q1: North Lake Clay (CP to Sandy Nappers)	2.00	5.00	4.00	3.67	0.94
Q1: North Lake Sandy (Clay to Nappers Bridge)	2.00	9.00	3.00	3.80	1.88
Q1: West Lake (South Nappers Bridge)	2.00	4.00	3.50	3.33	0.75
Q1: Pelican Point	3.00	6.00	4.00	4.00	1.10

Regular Campers

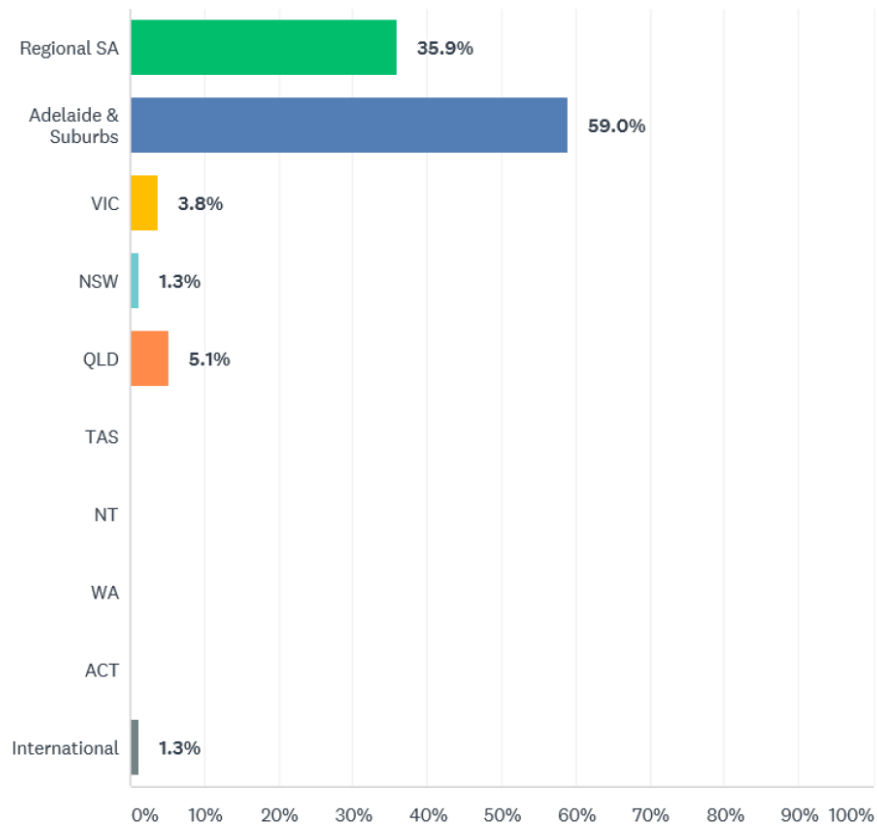
1. Regular campers stayed on average one night longer than non-regular campers
2. Regular campers were the only groups to bring motorbikes, and were more likely to have towed accommodation
3. No regular campers were camping at Pelican Point or south of Nappers bridge
4. All Riverland Resident groups were regular campers
5. Most common were annual Easter campers (40% of regular campers indicated coming once a year)
6. Of the more frequent campers, many coming 2-6 times per year (long weekends or every month in summer)
7. Three groups indicated they camp at Lake Bonney more than ten times per year
8. Average frequency was 3.4 times per year
9. Many of the regular campers indicated they had been doing so for more than 20 years or "forever", with two groups indicating they had been camping at Lake Bonney for more than 40 years
10. Several others who indicated 2-3 years of Easter at Lake Bonney noted they do camp every year at Easter, but have tried other locations which are no longer suitable for them or were booked out so they have settled at Lake Bonney



ANSWER CHOICES	RESPONSES	
▼ Yes	58.9%	53
▼ No	41.1%	37

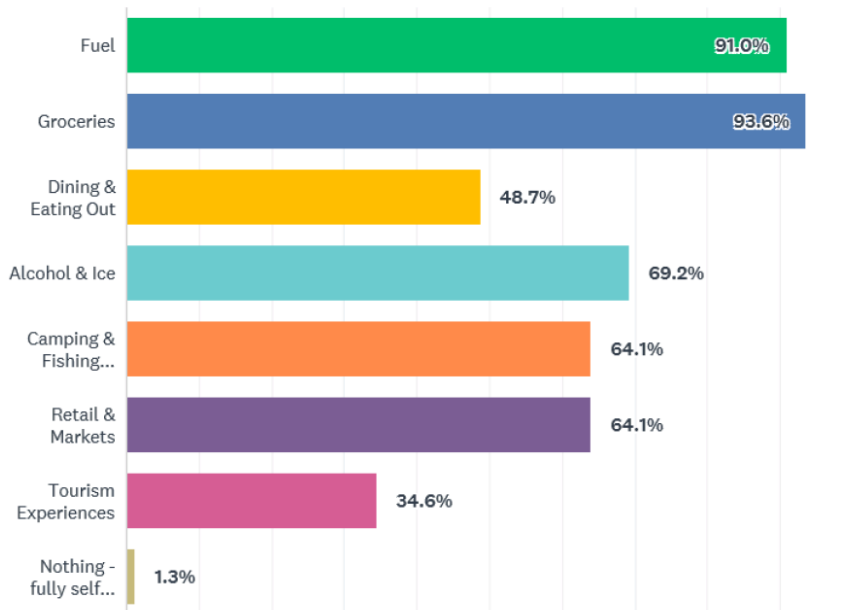
Where are visitors from?

1. Approximately 90% of visitors were from SA, with four groups from QLD, three groups from VIC only one group from NSW and overseas
2. The interstate groups were smaller groups, and less likely to have kids with them
3. Most of the interstate groups were first time Lake Bonney campers, not regular campers



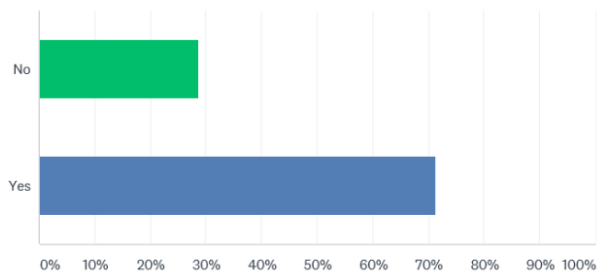
What will the visiting groups spend on while in the Riverland?

1. Nearly all campers expected to spend on fuel and groceries
2. Only one group indicated that they came fully self sufficient and didn't plan on spending on anything
3. Nearly half of the groups planned on spending on dining & eating out and a third on tourism experiences (e.g. cellar doors, cruises), indicating a higher yield than a typical expected camping spend



Do the Riverland residents set up early before camping on site?

1. Riverland residents only represent 10% of total groups, and only 62 people
2. All Riverland residents were regular Lake Bonney campers
3. Of the five local groups who do set up early to 'claim their spot', they set up between a day and week prior to camping



ANSWER CHOICES	RESPONSES	
No	28.6%	2
Yes	71.4%	5

Arial Images

Approximate location indicators on final page

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Appendix C Horse Riding Policy

Horse Riding on Council Land Policy-Lake Bonney

Keywords:

Corporate Plan:	<i>Smart Infrastructure, Objective 5</i>
Classification:	<i>Environmental Services</i>
First Issued/Approved:	
Review Frequency:	<i>Annually</i>
Last Reviewed:	
Next Review Due:	
Responsible Officer(s):	<i>MES, GI</i>
Council File Reference:	
Applicable Legislation:	<i>Local Government Act 1999</i>
Relevant Policies:	<i>Council By-law Number 3</i>
Related Procedures:	
Delegations:	

Purpose

Berri Barmera Council has been granted care and control of Crown Land around Lake Bonney. Portions of this area have historically been utilised for horse riding.

Council's By Law No. 3 – Local Government Land states under clause 2.20 that no person should ride, lead or drive any horse, cattle, sheep and other like animal except where the Council has set aside a track or other area for use by or in connection with the animal of that kind. The undertaking of horse riding at Lake Bonney is a non-permitted use under this clause. The provision of this Policy facilitates lawful horse riding on Council land at Lake Bonney in areas and locations designated for that purpose.

Principles

Horse riding –Lake Bonney

Lake Bonney offers horse enthusiasts a unique opportunity to ride and swim horses in a safe and attractive environment. It is important however that horse owners are aware of the need to contribute to the protection of the Lake and environs and ensure their activities do not adversely impact upon the environment or other users of Lake Bonney.

Recreational horse riding on Council land is only permitted to be exercised within the area of Lake Bonney described in this permit.

Horse riding on Council land within the Barmera township area requires lodgement of application for a Special Permit. Horse riding is strictly prohibited in all other areas of Lake Bonney under the care and control of Council. Please keep our lake shores and access areas beautiful, clean and safe by following the conditions of this permit.

Please be advised that the areas covered by this permit are shared spaces, please respect the rights of all other users of Lake Bonney as the sections of shoreline identified in this permit are also available to the wider public for various activities including camping, boating, walking dogs and exercising.

This form is your permit to ride at Lake Bonney.

All conditions of this permit must be met. You need to carry this permit with you at all times whilst riding at Lake Bonney in the permitted area. You may be required to present this permit to a Council Officer upon request. An electronic version of the permit is acceptable.



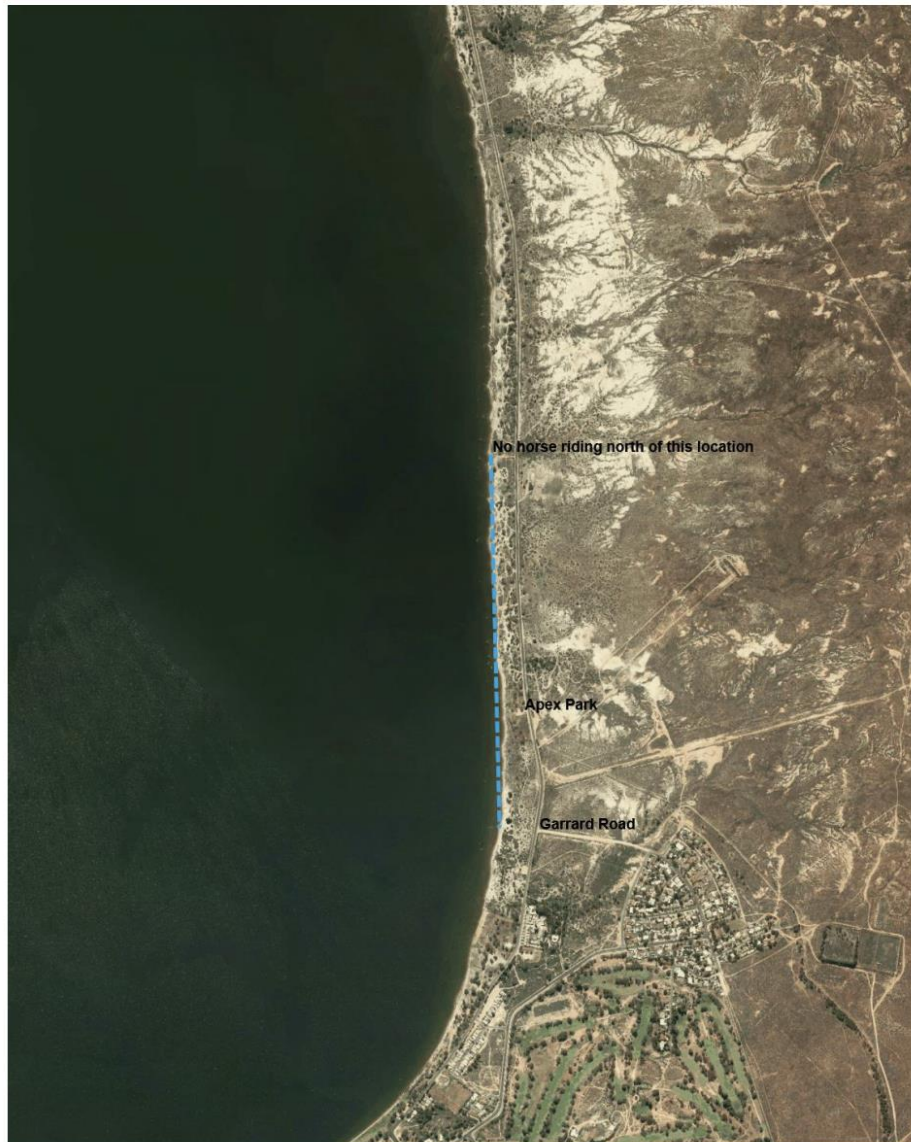
CONDITIONS

- Access to Lake Bonney can be gained from Apex Park as sign posted.
- Riders to use only the section of Lake Shoreline from opposite Garrard Road north to limit as depicted on the Permit Map and as signposted.
- That all horse floats to be parked in designated areas as signposted in Apex Park
- No horses to encroach into fenced off areas or areas signposted for conservation purposes.
- 24 hour access to Lake Bonney is permitted in accordance with the above conditions.
- Generally horses should be ridden at a safe speed at all times and in a manner that does not endanger the safety of any person in the area.
- Horse riders should not unduly interfere with the peace, comfort or convenience of other users of the foreshore.
- Horses should be ridden at walking pace within 50m of all other users of Lake Bonney and environs.
- **All manure and rubbish must be collected and taken with you and NOT placed on land adjacent Apex Park or any other area of Lake Bonney and surrounds without specific permission of Council.**

Apex Park is located on the northern outskirts of Barmera on Queen Elizabeth Drive. Horse float parking is clearly marked at the entrance to the Park.

*Electronic version on the Intranet is the controlled version.
Printed copies are considered uncontrolled.
Before using a printed copy, verify that is the current version.*

Figure 1 Horse riding permitted on shoreline indicated by blue line in map below



Appendix D Implementation Action Plan