



The Rural City of
MURRAY
BRIDGE

Bridge to Opportunity



Rural City of Murray Bridge Riverfront Strategy

May 2016





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1 Introduction



1 Introduction

1.1 Purpose of this Report

The Rural City of Murray Bridge is seeking to identify opportunities for rejuvenation along the Murray River Corridor. These opportunities are to encompass the future potential for residential land uses, recreational uses and sustainable environmental management.

These opportunities will seek to identify ways to improve aesthetic appeal, access to the river, improve water quality and encourage more interaction and integration between social, economic and environmental outcomes identified along the river's edge.

It is intended that this strategy provides suggestions as to how these opportunities can be implemented and a time line for achieving this. This implementation phase is to cover a period of approximately 20 years and be prioritised in order of achievability.



1.2 Scope and Limitations

The Riverfront Strategy is not a detailed project by project implementation document but rather a high level strategy setting the framework for future, more detailed, project implementation plans. It is, however, a basis for planning, funding and further design, providing sound direction for future upgrades and development of the Murray Bridge Riverfront.

The area included within the study includes the Murray Bridge river corridor from Swanport Wetlands in the south to Toora Reserve in the north.

The scope of the study includes the following:

- Review of previous literature relating to the study area.
- Consultation with the Murray Bridge community, Ngarrindjeri, Council staff, Elected Members, state government agencies and statutory authorities in order to establish an understanding of insight, ideas, opinions and alternatives on specific sites within the study area and for the study area as a whole.
- Analysis of Environmental Criteria relating to the riverfront including:
 - > River biodiversity
 - > River water flow and extraction
 - > River and wetland infrastructure and rehabilitation
 - > Stormwater management
 - > Erosion and Sediment Deposition
 - > Contamination including acid sulphate soils
- Analysis of Economic Criteria relating to the riverfront including:
 - > Economic Development and Job Creation
 - > Accommodation Opportunities
 - > Tourism
 - > Promotion of river as destination
- Development of key environmental and economic strategic directions for the study area.
- Development of recommended actions for 13 sites within the study area.
- Development of a high level implementation plan which will set the framework for future, more detailed, project implementation plans.



2 Project Background



2 Project Background

2.1 The Study Area

The following figure outlines the area to be included within the study. The area includes a corridor along with Murray River from Swanport Wetlands in the south to Toora Reserve in the north and is to include analysis of the following individual sites:

- Toora Reserve
- Rocky Gully Wetlands
- Hume Reserve
- Sturt Reserve
- Long Island Reserve
- Long Island
- Tumbella Drive Reserve
- Murray Bridge Resort Marina and Caravan Park
- Swanport Reserve
- Swanport Aquatic Centre
- Swanport Reserve
- Thiele Reserve; and
- Avoca Reserve

Although this report is focused on the development of strategic direction for the riverfront within the study area, it is envisaged that the strategies developed as part of this study will provide guidance for Council on management of all of its riverfront assets. In this sense, the Riverfront Strategy is intended to be pilot project, which will assist the Council with delivering environmental and economic improvements along the whole length of the Murray River within its jurisdiction.



2 Project Background

A Zoning plan covering the study area is also provided (right) for context and information.

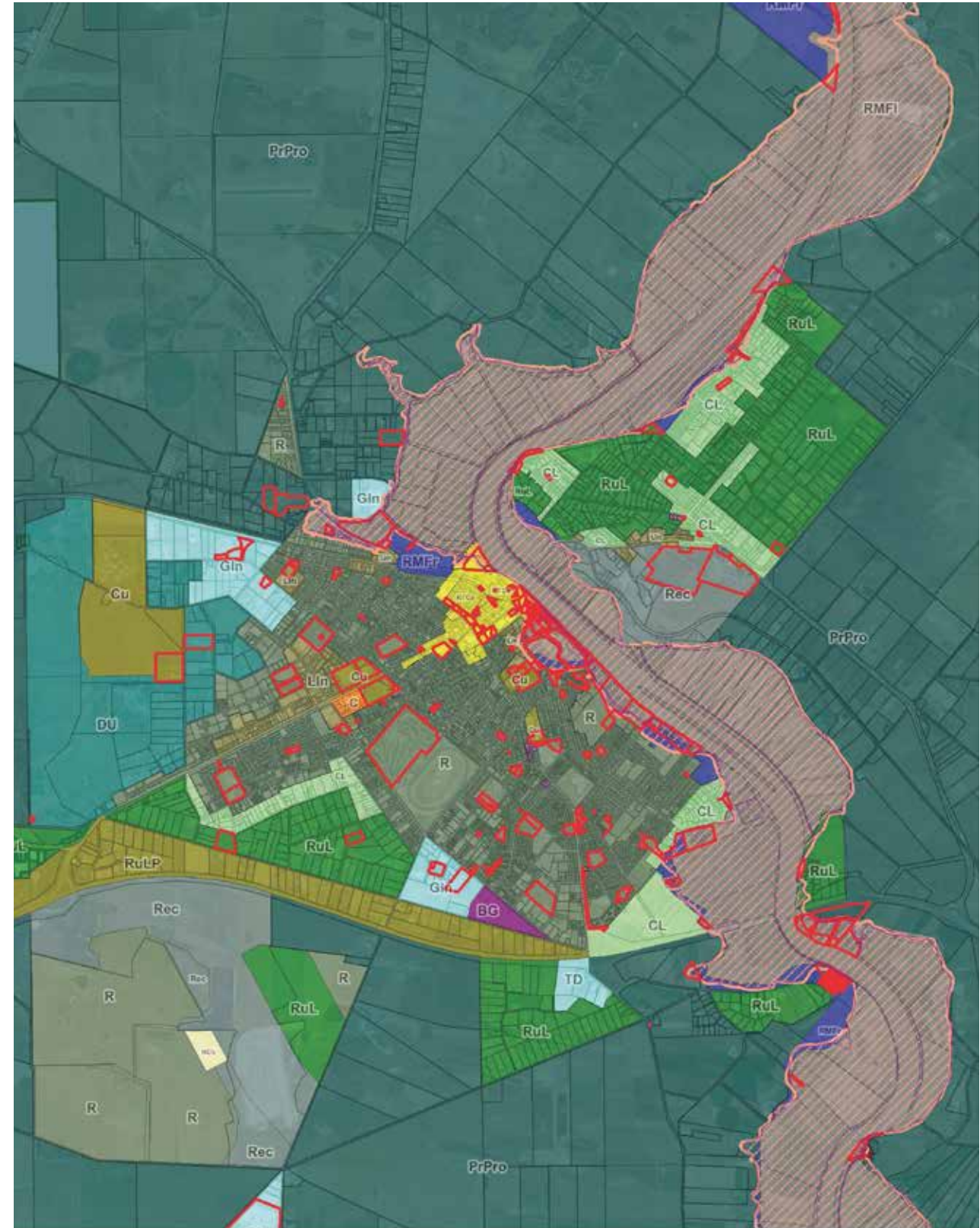
Previous Reports

The following previous reports have been provided by Council as background to this study:

- Review of previous investigations on the Sturt Reserve Landfill – Flinders Research Centre for Coastal and Catchment Environments
- Risk Assessment of Human Health and Environmental Impacts for the former landfill at Sturt Reserve, Murray Bridge – Tonkin Engineering August 2008
- Study into River Bank Collapsing – Lower Murray River – Inspection Report – SKM February 2010
- Discussion Paper – River Corridor Development – Residential Land Division Murray Bridge. McIntyre Robertson Scarborough Pty Ltd – November 2011
- Rural City of Murray Bridge Management Plan for Reserves Kungan Ngarrindjeri Yunnan Agreement Ngarrindjeri Murrundi Management Plan, No. 1. Pomeruk Lewunanangk (Murray Bridge Railway Precinct and Hume Reserve) – Ngarrindjeri Regional Authority Inc. June 2009
- Sturt Reserve Riverfront Study – Internal document July 2013
- Murray Bridge Town Centre Master Plan and Urban Design Framework – GHD, Colliers, RCMB October 2012
- Rural City of Murray Bridge Sport, Recreation & Open Space Strategy – URPS, Tredwell Management & RCMB - October 2013
- Land Use Study and Development Plan Review for the Lower Murray Flood Plain – URPS October 2013
- Murray Bridge – Riverfront Management Strategy QED -July 2007

In general terms, the majority of these studies covered individual sites or discrete elements of the current scope, and therefore represent an important body of work to be consolidated for this project.

A high level review of these documents as they relate to each of the sites is included in Appendix A. A detailed review of these reports as they relate to environmental or economic criteria is covered in the following sections.



ZONING AND COUNCIL OWNED PROPERTIES (Zoning labelled, Council owned properties have a red outline)

2 Project Background



3 Environmental Criteria Analysis



3 Environmental Criteria Analysis

3.1 Background

3.1.1 Key Document Review

Biodiversity Management

The Natural Resources SA Murray Darling Basin Natural Resources Management Plan (SA MDB NRM Board 2015) defines the strategic directions for the management of water, soil and biological assets in each NRM region in accordance with the Natural Resources Management Act (2004).

The NRM plan provides an investment logic which defines the framework for delivering long term outcomes for the region's natural resources through the development of desired condition targets and strategies and the actions required to meet them.

The development of the Management Plan has evolved from the threat based approaches of the 1990s and early 2000s to a systems based approach that incorporates resilience thinking, adaptive management, planning across a landscape scale within a strong monitoring and evaluation framework. Importantly the plan recognises the significantly modified nature of the landscape and to improve the condition of natural resources it must within a socio ecological framework.

Resilience thinking and landscape scale planning are important approaches to implement management strategies for threats such climate change. While these approaches are applied at across a region there are implications for the development of the Riverfront Strategy in recognising the connections between local management of areas within a broader land or water context.

Murray Bridge is within the Ranges to River district of the regional NRM Plan. The plan defines ten key drivers of change to the current state of natural resources. Of the ten identified the following are relevant to the Riverfront Strategy:

- Recreation and tourism
- Urban growth centres
- Fragmentation of habitat
- Increasing population

The Riverfront Strategy has the ability to contribute to the long term management of these drivers of change as managed through Council operations.

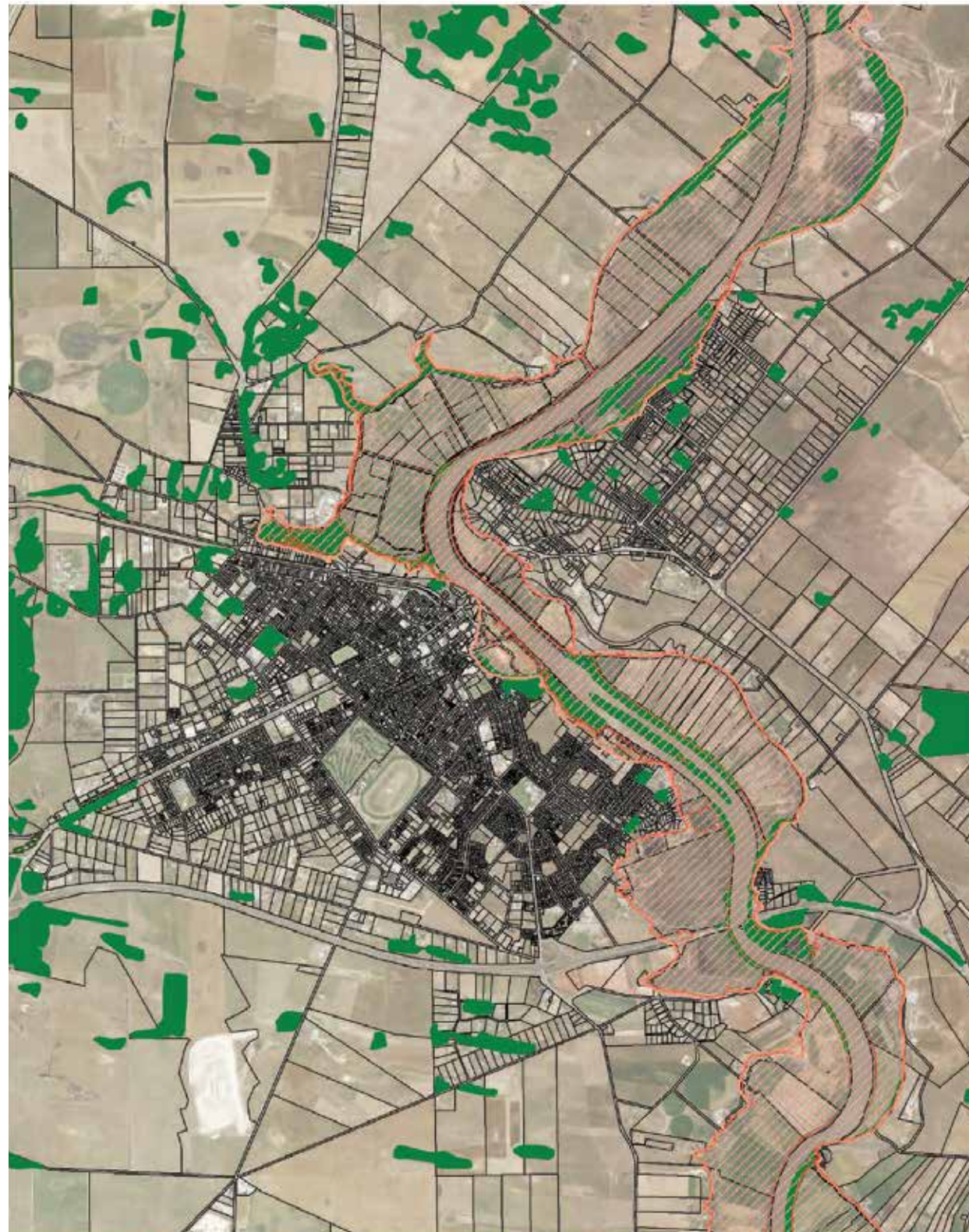
The Rural City of Murray Bridge Biodiversity Strategy 2015-2020 provides the strategic direction guiding principles, actions and monitoring for the protection and enhancement of existing remnant vegetation and habitat on Council land.

The strategy provides an enabling mechanism for the management of Council owned and managed land and reserves in accordance with commonwealth and state legislative requirements. The strategy also provides the framework for the protection and enhancement of biodiversity as part of Council business through:

- Supporting decision making to prioritise conservation, restoration and management of native vegetation including the preparation of Vegetation Management Plans.
- Biodiversity management is implemented within an adaptive management framework supported by monitoring and evaluation processes.
- The implications of the outcomes of the Rural City of Murray Bridge Biodiversity Strategy 2015-2020 for the draft Riverfront Management Strategy are:
 - > Key actions to identify fragmented habitats and identify opportunities for connectivity to allow species movement and adaptation;
 - > In maintaining areas of conservation value balance bushfire fuel loads while maintaining native vegetation of habitat and conservation value;
 - > Maintaining good quality habitat (vegetation and wetlands) for flora and fauna; and
 - > Implementing sustainable land management practices that protect and enhance biodiversity.



3 Environmental Criteria Analysis



Salmon hatched area = 1956 Flood level, Green area = SA Vegetation to be retained (DEWNR)

Flora and Fauna

A review of recent flora and fauna information sources has identified limited remnant vegetation and habitat within the Council riverfront reserves. NatureMaps is an initiative of the Department of Environment, Water and Natural Resources and maps the current extent of remnant vegetation and habitats within the study area (left).

Hyde (2000) conducted a biodiversity study from Mannum to Wellington as part of the local action planning for the region. The study conducted a range of field vegetation surveys across the region mapping vegetation types and identifying areas of significant vegetation. Fauna (vertebrates, birds, fish) information was limited to existing records.

Field surveys identified remnant vegetation types present within reedbeds and swamps, riverbanks and floodplains, tussock grasslands, shrublands, woodlands, and Mallee.

Hyde (2000) identified two significant wetlands in the study area: Swanport wetland (Council managed) and Riverglades Reserve (privately owned). Swanport wetlands provide a good example of reedbeds, Lignum, Samphire and some Redgums. The Lignum and Samphire are considered very important habitat as conservation targets as these vegetation communities are severely degraded within the region.

A series of recommendations are provided to guide future protection and management of remnant vegetation and habitat. Key actions included, vegetation mapping and fauna surveys of significant sites, management plans for significant sites, engaging and capacity building of local government and other stakeholders. Interestingly Hyde (2000) did not provide any commentary on the extensive willow invasion of the riparian zone along both sides of the waterway.

Bjornsson (2006) developed the Rocky Gully Wetlands Management Plan and identified eight plant functional groups across the wetland. The most significant for the management of the wetland was the relatively low abundance of submerged aquatic macrophytes. Long term management should favour maintenance of macrophytes (Bjornsson 2006).

Bjornsson (2006) provided summaries of a series of baseline surveys of fish, birds, frogs, macroinvertebrates and vegetation conducted in 2005 of the Rocky Gully Wetlands. These surveys were conducted by SARDI and consultancies (SARDI Aquatic Sciences 2006, EBS and Hydro Tas, 2006 SA MDB NRMB 2006, SKM 2006 and Bjornsson (2006)). Bjornsson (2006) reported fish surveys identified 17 fish species of which three were exotic. Importantly the wetlands supported populations of five threatened fish species (Unspecked hardyhead, Murray Hardyhead, Dwarf Flat Headed Gudgeon, Murray Rainbow Fish and Freshwater Catfish).

3 Environmental Criteria Analysis

Annual surveys conducted from 2011 of the Rocky Gully wetlands indicate fish populations will change depending on the water regime and salinity levels. The most recent surveys published in 2014 (MDB NRM Board 2014) identified fish species present were reflective of the low salinity levels. The threatened species that are more salt tolerant (Freshwater Catfish, Unspecked Hardyhead and Murray Hardyhead) were not present in the 2014 surveys.

Obst (2005) developed a threatened flora recovery plan for the South Australian Murray Darling Basin. The recovery plan provided plans for eight threatened flora species. The exact locations of individual of these species was not provided. Mapping provided by Obst (2005) indicates there may be critical habitat for the Resin Wattle (*Acacia rheticocarpa*) within the study area.

The Rural City of Murray Bridge Environmental Management Plan (EMP) (RCMB 2013) provides a number of strategies and objectives that focus on the protection and enhancement of biodiversity within Council operations and management of roadsides, parks and reserves. The EMP also identifies integration of activities with other catchment and community stakeholders is required to implement broader actions such as linkages between remnant vegetation and habitat, significant environmental offset programs, plans for water dependant ecosystems, community education and capacity building.

Land Management

Best practice land management of the riparian zone and floodplain across the Council reserves is critical to providing ongoing recreational access and protection of remnant vegetation and habitat. Recent reports have identified a number of land management issues that pose a risk to these values including:

- Current management regime of the reserves (RCMB 2013).
- Historic Landfill in Sturt Reserve has the potential for discharge or seepage to the river potentially impacting water quality (Tonkin Engineering 2008).
- Low water levels in the weir pool during the period 2007-2010 resulted in significant bank slumping and failure at a number of locations in Murray Bridge (SKM 2010). This is exacerbated by infill of the floodplain and construction of levees.
- Management of acid sulphate soils in the areas adjacent to Lower Murray Reclaimed Irrigation Areas.

The Rural City of Murray Bridge Environmental Management Plan (RCMB 2013) provides the basis for the management directions to facilitate opportunities for the sustainable development of the Murray River environment and to improve the conservation and enhancement of the natural environment.

The themes for the strategies and actions of the EMP include:

- Climate Change
- Water Resources
- Biodiversity Management
- Sustainable Development
- Waste Management

In managing parks and gardens the EMP identifies the need to move towards a more integrated water management solution for water use to reduce the dependence on traditional water supplies. This included integration of water sensitive design features into existing and new developments and assessment of the feasibility to use reclaimed water. Biodiversity management principles are addressed above.

The sustainable development features of the EMP provides the mechanism to implement key actions from the biodiversity, water resources and climate change themes into Councils development plans, asset management plans and the planning and assessment process.

The strategies and actions identified in the EMP provide guidance on the principles for the development of the Riverfront Strategy in order to balance the protection of the natural environment with enhanced opportunities for passive and active recreation in riverfront reserves.

The historic landfill located within Sturt Reserve was used for dumping of commercial and domestic waste between the 1960's and the early 1990's.

The landfill was never formally closed although it was capped, and no Closure and Post Closure Plan (CPCP) has been developed. A CPCP would provide Council with a management plan that clearly defines obligations and commitments in closing of a landfill site and actions, timing and frequency of monitoring considered necessary to provide long term protection of human health and the environment.

Tonkins developed a Qualitative Risk Assessment and an Action Plan for the Sturt Reserve based on a review of previous reports pertaining to the site and a site inspection undertaken on 9 April 2008. Two seepage points into the river were identified during the site inspection. Tonkins outline a number of recommendations to further investigate the site, although it is understood that these have not been completed.

The prolonged low weir pool levels (up to 1.8m lower than normal pool levels) during the period 2007 to 2010 resulted in tension crack, significant bank slumping and mass failures at a number of sites within the municipality (SKM 2010). Mass failure occurred at Long Island Marina. Their investigation identified significant risks to public

and private assets along the extent of the weir pool. As a management action weir pool levels have been maintained over the low flow period as a risk reduction measure.

Low weir pool levels and acid sulphate soil management are discussed in the following section.

Water resource management

The draft Water Allocation Plan for the Murray River Prescribed Watercourse (SA MDB NRM Board 2014) is a statutory instrument in accordance with the requirements of the Natural Resources Management Act 2004 (NRM Act). The water allocation plan provides the basis for the water management and allocation for the Murray River in South Australia including the lower lakes.

The purpose of the Plan is to provide for the sustainable management of water resources in the Murray River. The structure and requirements of the plan are detailed in the NRM Act and are in accordance with the Basin Plan. The water allocation plan details policies for a range of water allocation provisions, including:

- Managing consumptive pools;
- Principles for allocating during dry conditions;
- Water entitlements;
- Water allocations; and
- Water trading.

The objectives of the Plan are to:

- Provide allocations that contribute to the water needs of water dependent ecosystems (WDEs).
- Allocate water in a sustainable and equitable manner between the different users.
- Promote the efficient use of water from the Prescribed Watercourse.
- Contribute to fulfilling South Australia's obligations under Basin wide plans and legislation.
- Contribute to the prevention of loss of condition, number or extent of refuge habitats and dependent aquatic biota of floodplains, wetlands, and sites of significance.
- Contribute to the prevention of adverse impacts on water quality.
- Contribute to the prevention of increased soil salinity and acid sulphate soils and associated land management issues.

The plan identified during the drought, low weir water levels and restricted irrigation water allocations resulted in limited irrigation in the lower Murray. This resulted in drying of the floodplain, cracking, slumping and salinisation of soils, slumping of levee banks and the activation of acid sulphate soils. The acid water is able to find its way back to the river through drainage channels and subsurface drains and poses a risk to water quality in the river.

3 Environmental Criteria Analysis

The Water Allocation Plan includes an Environmental Land Management Consumptive Pool for the specific purpose of managing salinisation and acid sulphate soil production in the Lower Murray Reclaimed Irrigation Areas. It is a critical tool for non-productive properties as it reduces the risk of acid sulphate soils developing. Applying Environmental Land Management Allocation (ELMA) to keep the soil profile wet and prevent oxidation assists in managing the issue. They provide maximum benefit to property owners and managers when used in full each year.

In a time of climate change the plan also recognises the need to better manage consumptive demand and allocations more efficiently.

While the overall implications and management of the Murray River Prescribed Watercourse are beyond the scope and influence of the Riverfront Strategy the water allocation plan provides a number of mechanisms for addressing acid sulphate soils and salinity in a number of Lower Murray Reclaimed Irrigation areas that are located within the study area. A 22 GL ELMA is available for use in these areas. Application of the ELMA assists with minimising production of acid sulphate soils and soil salinity.

Importantly there is a very high dependence on water for the long term maintenance of Riverfront parks and reserves and with maintaining and improving the current condition of the lower Murray River.

Cultural Heritage

The Ngarrindjeri Murrundi Management Plan No. 1 (Ngarrindjeri Regional Authority 2009) covers the Pomberuk Lewunananangk (Murray Bridge Railway Precinct and Hume Reserve). The development of the plan follows the signing of the Kungan Ngarrindjeri Yunnan Agreement between Ngarrindjeri Tendi, Ngarrindjeri heritage committee and Ngarrindjeri Native Title Management committee (for and on behalf of the Ngarrindjeri people) and the Rural City of Murray Bridge.

The Plan focuses on providing a balance between protecting and enhancing (and educating) the Ngarrindjeri spiritual and cultural values in relation to the lands and the broader region. The plan provides a framework to approach land development opportunities through respect, sympathy, cooperation and partnership.

The plan identified and provides recommendations for management of four discrete zones in the precinct of Pomberuk Lewunananangk. Each zone has a varying objectives from pedestrian access, conserving and enhancing the strong spiritual and cultural heritage significance of the area, a development zone and a protection, reservation and revegetation zone.

3.2 The Study Area

The river channel within the study area is approximately 100-200m wide and with some cliffs on the outside of the bends and constructed levee banks, wetlands (permanent and seasonal) and the floodplain.

The central and southern parts of the study are within the urbanised areas of Murray Bridge

The development and urbanisation of the catchment has resulted in significant change to the biodiversity of the riparian zone and floodplain. Remnant native vegetation is present in isolated pockets associated with remnant wetlands, areas of the riparian zone, Long Island and reserves.

Riverfront Reserves in the study area are strongly influenced by their interaction with the Murray River and the landuse of the surrounding area. As a result many of the reserves have limited remnant native vegetation and are predominantly a canopy of river redgums and introduced species.

The riparian zone of the river channel through much of the lower Murray River is lined with willows impeding the riparian zone and connectivity to wetlands and the floodplain.

3.3 Environmental Opportunities, Constraints and Issues

The following sections provide an assessment of high level integrated environmental opportunities, constraints and issues that are relevant to the whole of study area. Key issues identified include:

- River biodiversity
- River water flow and extraction
- River and wetland infrastructure and rehabilitation
- Stormwater management
- Erosion and Sediment Deposition
- Contamination
- Acid sulphate soils

3.3.1 River, Wetland and Floodplain Biodiversity

Riparian and floodplain biodiversity across the breadth of the study area has been significantly modified due to agricultural practices and urbanisation. Limited remnant vegetation exists within most of the Council parks and reserves.

Despite loss of vegetation there are a number of significant areas of remnant wetland and vegetation including Swanport, Rocky Gully and Riverglades wetlands and Long Island. These systems provide a key seed bank and nursery for native flora and fauna.

Fish diversity in the river channel and off stream wetlands has a high proportion of native species but is also impacted by a range of introduced species such as European Carp and Mosquito Fish.

The varied intensity of use and visitor access of the parks and reserves along the Murray Riverfront provides a basis for defining the degree to which biodiversity values can be protected and enhanced.

Continued conflicting objectives between recreational use of environmental values pose a risk to riparian areas and biodiversity.

3 Environmental Criteria Analysis

Table 1 Opportunities and constraints for management of river biodiversity

Opportunities	Constraints
For significant high value sites target management actions for specific biodiversity values	Significant recreational values exist at many sites and biodiversity management needs to work with these values
Identify longitudinal and lateral linkages for vegetation and habitat	The fragmented nature of the system limits ability to create linkages
Identify options to enhance water management of wetlands to improve flora biodiversity and native fish populations	Water availability for wetland management and enhancement
Develop individual reserve management plans to target management activities	Willows seen by many as an essential part of the character of the system
Create a wetland linkage between Sturt Reserve and Long Island Reserve	Continued impacts from wake boarding and house boat wash and mooring locations
Seek opportunities to enhance floodplain and wetland management with Environmental Land Management Allocations	
Identify wetland and biodiversity management options for SA Water managed land between of Rocky Gully wetlands and Toora Reserve	
Identify areas for management of willows	
Review soft engineering approaches to bank stability to limit erosion and still provide recreational access	
Review approaches to manage house boat moorings sympathetically with the environment	
Develop conservation plantings for locally depleted indigenous vegetation species (Black Box)	

3.3.2 River Flow and Water Extraction

Water flows and levels in the Lower Murray River are managed in accordance with the requirements of the draft Water Allocation Plan for the Murray River Prescribed Watercourse (SA MDB NRM Board 2014). Water is scarce and water use and management should be within an integrated water management regime.

Maintenance of flows and water allocation in the lower Murray River are important for the protection of ecological values (riverine, riparian and floodplain), recreational use and urban and rural water supply. Maintenance of the current and future values and uses of the Rural City of Murray Bridge parks and reserves is significantly dependent on the continued maintenance of the condition of the lower Murray River and the ecosystem services it provides.

Murray River current services include:

- Weir pool levels reduce the risk of mass failure of Murray riverbank
- Water allocations (ELMA) and weir pool levels reduce the threat of acid sulphate soils and impacts to recreational and urban and rural water use
- Weir pool levels support instream water based recreational activities and tourism
- Weir pool levels and water allocations (including environmental) maintain the existing wetland and riverine biodiversity

Table 2 Opportunities and constraints arising from parks and reserves management of riverine flow

Opportunities	Constraints
Develop integrated water management plan for alternative sources and uses of water	Low rainfall area and volumes generated are relatively small
Opportunities to divert current stormwater into wetlands prior to discharge to the river	Expectations of recreational users of watering and greening of recreational areas
Hydrological reconnection of historic wetland Narooma (Sturt Reserve to Long Island) wetlands with river	Defined water allocation to Council. Full allocation may not be available
Access to or promotion of annual use of Environmental Water Land Management Allocation	
Identify alternative planting regimes and local indigenous species for shade and plantings in parks and reserves (reduced water requirements)	

3.3.3 Water Quality

Water quality influences on the lower Murray River are closely associated with catchment runoff, reclaimed water discharge, environmental flows and upstream water quality. Recreational activities occurring on the river and in parks and reserves are strongly associated with acceptable riverine water quality. Water quality impacts at a smaller scale can also occur through spills of boat fuels, house boats waste and bilge discharges.

Council planning and operations has the potential to influence riverine water quality through:

- Stormwater management within or external to an integrated water management framework
- Urban area growth and development in accordance with sustainable design principles
- Provision and management of recreational access and river based activities
- Management of historical threatening landuse activities (landfills refer section 3.3.5)

The area of greatest influence on water quality is through Council planning and stormwater management programs.

Table 3 Opportunities and constraints for management and improvement in water quality

Opportunities	Constraints
Integrated water management strategy includes assessing future requirements and opportunities	Scale of developments may limit implementation of integrated water management solutions
Capture and reuse of stormwater but does not want to be used to green grass	
Stormwater diverted to riverine wetlands Narooma wetlands reconnection	
WSUD implemented for all new developments	
Developer guidelines for implementation of water sensitive urban design principles in all new developments	

3 Environmental Criteria Analysis

3.3.4 Erosion and Sediment Deposition

Bank stability and erosion is influenced by weir pool water levels and the level of activity on riverbanks and on water. Maintenance of weir pool levels is key to reducing the incidence of mass bank failures as occurred in 2009 along extensive parts of the riverbank. Management of existing and new developments in the floodplain and riparian zone is also an important element of reducing risk of further failures and impacts to life and property. On water and riparian recreational activities play a significant role in speeding the natural erosion processes along the riverbank. The incidence of significant stands of willows has also altered the river channel impacts geomorphic processes and biodiversity. Site observations indicated a key factor is the lack of shallow aquatic vegetation that absorbs wave energy, acts as a depositional zone and reduces bank erosion. Key activities impacting bank erosion include:

- Boat wakes as a range of small and large watercraft activity
- Water skiing, particularly wake boarding
- Informal and formal house boat (and other) moorings
- Car and vehicle access to the rivers edge
- Inappropriate bank stability activities
- Natural wave activity and storm events

Table 4 Opportunities and constraints for management of bank erosion

Opportunities	Constraints
Identify a range of hard and soft engineering solutions for bank stabilisation across a range of recreational uses	Lack of speed zones for most of the length of the river
Review current house boat formal and informal mooring locations and identify options/ locations for moorings	Crown frontage supports informal access points for house boat moorings
Identify options for minimising impacts of house boat moorings on bank stability	Long term use of many river activities creates an expectation of activities are suitable and appropriate
Review boat speed zones and locations for high impact activities such as wake boarding	
Investigate options for minimal setback of structures and facilities on the floodplain	
Investigate impacts of willows on geomorphic processes and relative effectiveness in reducing wave energy of on board activities	

3.3.5 Contamination and acid sulphate soils

The historic landfill located within Sturt reserve was never formally closed although it was capped, and no Closure and Post Closure Plan (CPCP) has been developed. A CPCP provides Council with management plan that clearly defines obligations and commitments in closing of a landfill site and actions, timing and frequency of monitoring considered necessary to provide long term protection of human health and the environment. A Qualitative Risk Assessment has been undertaken which identified that the risk associated with methane generation is considered low, however two seepage points into the river were identified. Detailed investigations are required to identify the nature and extent of contamination, and to manage the potential risk to human health and the environment. The actions are likely to include intrusive investigations and sampling, analysis of contaminants and development of a Closure and Post Closure management plan. Evidence of Acid Sulphate Soils was identified within the study area, in particular along the north western banks of the river as shown in the following figure.

Potential Acid Sulfate Soils along north western bank of river.



It is likely that this has been exacerbated through drought, low weir water levels and restricted irrigation water allocations resulting in limited irrigation practices. This has resulted in the activation of acid sulphate soils. The acid water is able to find its way back to the river through drainage channels and subsurface drains and poses a risk to water quality in the river.

Table 5 Opportunities and constraints for management of contamination and acid sulphate soils

Opportunities	Constraints
Detailed investigation of historic landfill, development of landfill closure plans and remediation.	
Identify locations of acid sulphate soils in Council managed parks and reserves	
Identify if feasible to use Environmental Land Management Allocation more effectively in the region	

3 Environmental Criteria Analysis



4 Economic Criteria Analysis



4 Economic Criteria Analysis

4.1 Literature Review

Over the period 2007 – present, a range of reports have been commissioned into economic matters in Murray Bridge, all of which influence thinking on potential river-front policy. Documents reviewed for this report are discussed below.

4.1.1 Economic Development Strategy 2015 - 2030; Rural City of Murray Bridge (2015)

This document constitutes the latest economic blueprint and data relating to the Murray Bridge LGA and provides insight into Council's economic outlook. It also sets the parameters within which the present project's economic analysis and recommendations may be framed.

The document identifies Council's economic vision as "the focus of South Australia's peri-urban economic growth over the next 20 years, to deliver opportunity, resilience and a wonderful lifestyle that attracts and retains skilled and innovative people and businesses." It aims to achieve this vision by focusing on three themes:

- A robust and diverse regional economy;
- A desirable place to live, work, invest and visit; and
- A progressive, productive community.

The document foresees three stages in which these targets will be met:

- Stage 1 2015-2020 Game Changers - relevant to the project at hand are several components of this stage:
 - > "Beautifying...public spaces", which would include the river-front;
 - > "Reviewing and adapting zoning and planning processes to allow for high-end accommodation with river views and access, to attract professionals and people with discretionary spending capacity";
 - > The tourism strategy, most notably:
 - Encouraging the development of interesting niche businesses in public places, particularly aimed at weekend place activation and day trip tourism;
 - Zoning and planning processes that support river-based tourism activity and the development of high end accommodation and eateries;
 - A target of 100 new high-end rooms by 2018;
 - Developing the capability for visitors experiencing river-based activity (such as water skiing and kayaking) without pre-booking; and
 - At least one successful four star restaurant in the Murray Bridge region (this is most likely to be located in the study area to make use of river views).

- > (Under 'Active Investment Zones'), a target of 20% of currently vacant land in the floodplains to be in production;
- Stage 2 2020-2025 Developing opportunity - relevant to the project at hand is:
 - > Having by this stage highly productive floodplains, contributing to a diverse value-add economy;
- Stage 3 2025-2030 Realising a vibrant future:
 - > Murray Bridge becoming a highly desirable river-based destination for travellers, Adelaide day trippers and retirees, achieved via:
 - Planned development of land adjacent to the River for high-end river-side mansions, good restaurants, interesting and quirky shopping, and quality health and services;
 - > Businesses creating river-based activities so that visitors can access recreation that is currently only available to locals or boat owners;
 - > Maintaining a program of festivals, markets, events and place-making activities.

4.1.2 Murray Bridge Town Centre Urban Design Framework

This report focussed on the Town Centre. It identifies river activation as a key strategy for the positive revitalisation of the Town Centre. It proffers a range of ideas on how to achieve this:

- Activate the round house;
- Enable caravanning in Sturt Reserve;
- Develop a new library marketplace to utilise adjacent river-front reserve as an open air 'reading room';
- Enhance bike paths and walking trails along the river, including extension of lavender federation trail;
- Activate Sturt Reserve by day and night with activities, community events and competitions;
- Review and enhance the use of the recently constructed river-front stage in wharf precinct;
- Activate old train carriages;
- Refresh the skate park and seating in Sturt Reserve through a co-design process with interested youth; and
- Enhance Sturt Reserve as an outdoor programmed event space with appropriate lighting and power supply.

Given that the focus of this report was the Town Centre, it offers insight to our analysis on two localities:

- The river-front precinct from the wharf to Hume Reserve; and
- The Sturt Reserve precinct.

The report lists constraints and opportunities in relation to each locality, which are reproduced below as they remain directly relevant to the issues at hand and have a direct bearing on economic revitalisation arising from river-front initiatives.

As regards the river-front precinct:

- Constraints:
 - > Existing access (wayfinding) to the river-front from the retail core is not well defined;
 - > Pedestrian paths connecting the river-front areas have been neglected;
 - > Land ownership is significantly fragmented;
 - > Existing rail line constrains access throughout the precinct;
 - > Existing river-front reserves are significantly underutilised; and
 - > Existing overgrown landscaping disrupts important views and vistas.
- Opportunities:
 - > Creation of continuous riverside promenade to celebrate the river-front;
 - > Celebrate and enhance cultural and indigenous heritage assets (historic wharf and rail areas);
 - > Improve connections and wayfinding from river-front to adjoining precincts;
 - > Program recreation spaces within river-front through urban design and landscape improvements;
 - > Maximise views for new and existing development;
 - > Pedestrianise east terrace to improve connections;
 - > Provide a range of tourist accommodation options; and
 - > Rationalise land holdings to promote improved coordination of redevelopment.

As regards the Sturt Reserve precinct:

- Constraints:
 - > The precinct is located within the 1956 flood plain;
 - > Murray River Flood Zone discourages development;
 - > Significant underutilised areas detract from the visual amenity of the Precinct;
 - > Contamination associated with former land fill activities and remediation issues;
 - > The precinct is not well connected with the Retail Core Precinct; and
 - > Adjoining industrial development does not create a positive entrance statement along Sturt Reserve Road.

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• Opportunities:

- > Respect and continue to celebrate historical significance of the Ngarrindjeri people;
- > Explore new recreational, community, function, large event, tourism and educational uses within the Precinct, subject to remediation works (separate study), which will assist in activating the Precinct;
- > Improve connections and wayfinding from Retail Core and River-front Precincts;
- > Maintain current zoning (Murray River Flood Zone);
- > Maintain and enhance connections to adjoining river-front precinct to the north;
- > Maintain adequate provision of car parks to promote use;
- > Rationalise existing tennis courts; and
- > Enhance existing commercial facilities (e.g., the community club, riverscape cafe etc.).

These matters will be reiterated and expanded on in Section 6.2 of this report.

4.1.3 Kungan Ngarrindjeri Yunnan Agreement, 2008

This is an agreement between the RC Murray Bridge and the Ngarrindjeri people. It primarily covers Ngarrindjeri rights and interests when decisions are being made about their traditional country, lands and waters. The parties aim to advance harmonious community relations and develop greater community understanding of Ngarrindjeri traditions, culture, laws and spiritual beliefs in the Council Area. There is also a commitment to consultation in relation to development assessments which reflects the rights, interests and obligations of the Ngarrindjeri.

The agreement identifies three 'Highly Sensitive Areas' as regards development. These are defined as areas of high cultural and/or heritage importance to the Ngarrindjeri and are identified as:

- Long Island; and
- Granite outcrops on both sides of the Murray River, adjacent to the Swanport Bridge.

The agreement also refers to 'Managed Areas', for which the parties are to develop management plans. These areas are:

- Narooma Reserve (comprising river-front land that forms a portion of the land covered in the discussion paper described at 4.1.5 below);
- The Railway Precinct; and
- Sturt Reserve.

To our knowledge, only the Railway Precinct plan has been prepared to date, as discussed at 4.1.4 below.

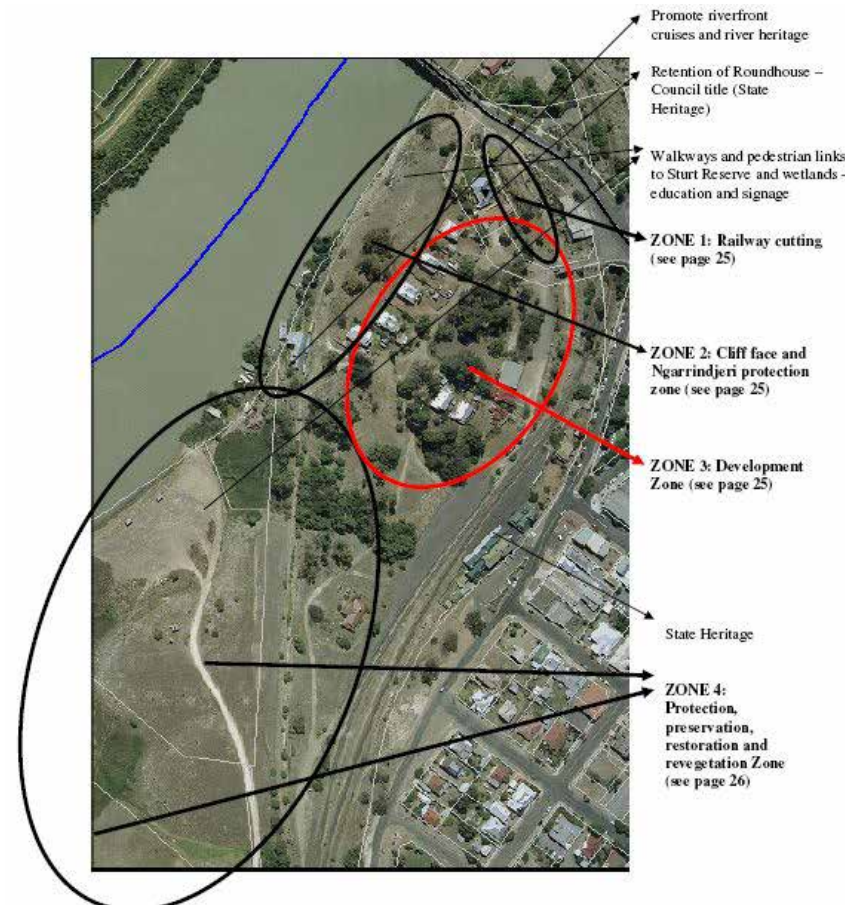
The purpose of the indigenous management plans is to identify areas where development can proceed without restrictions or effect upon Ngarrindjeri cultural or heritage interests, where some restrictions or strategy to minimise risk applies, or where no development should occur.

The agreement also includes provisions in relation to 'Sensitive Areas', however these are not explicitly delineated.

4.1.4 Ngarrindjeri Murrundi Management Plan, No. 1 (Ngarrindjeri Regional Authority, 2009)

This document comprises a management plan broadly encompassing the Hume Reserve, the Railway precinct and the cliff face and river-front to the north of the Old Princess Highway Bridge, all as shown at Figure 1.

Figure 1 River Precinct in Ngarrindjeri Murrundi Management Plan, No.1



Source: Ngarrindjeri Murrundi Management Plan, No. 1, p.24

It goes into some detail regarding the Ngarrindjeri people, their connection to the region and more specifically the land covered by the Plan. For the purpose of the report, this land is divided into four zones:

Zone	Zone Objectives
Zone 1 Railway cutting	<ul style="list-style-type: none"> • Retain as a key pedestrian and walking trail entry into the precinct. • Promote opportunities for walking trails, interpretive and educational signage regarding the Ngarrindjeri, the Creation Story of Ngurunderi and Pondi, the River, the Bridges, the Railway and Lavender Trail - will promote linkages to Sturt Reserve, the CBD and river corridor.
Zone 2 Cliff face and Ngarrindjeri protection zone	<ul style="list-style-type: none"> • Conserve and enhance the strong spiritual and cultural heritage significance adjacent to water's edge and exposed cliff area - this includes restoration of ecosystems. • Provide opportunities for walking trails, open space, interpretive and educational signage regarding the Ngarrindjeri, the story of Pondi and Ngurunderi, the River, the Bridges, the Railway and Lavender Trail - promote Lavender trail and linkages to Sturt Reserve, the CBD and river corridor. • Promote and provide commanding views of the river valley and the Twin Bridges - the Bridges and Railway are also an important feature of Ngarrindjeri heritage.
Zone 3 Development zone	<ul style="list-style-type: none"> • Allow for the future development of the land, including tourism accommodation, conference facility, wetland research centre, cultural and community development. • All development to be undertaken in full cooperation, consultation and partnership with the Ngarrindjeri Regional Authority and to incorporate best practice ecological sustainable systems.

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Zone	Zone Objectives
Zone 4 Protection, preservation, restoration and revegetation zone	<ul style="list-style-type: none">• Protect, preserve, enhance and promote the highly culturally sensitive area, also noting the importance of the Ngarrindjeri creation stories associated with this area. The Ngarrindjeri histories associated with this area and the historic camps will be a key feature of educational and interpretative programs. A memorial to the Old People is recommended. The Ngarrindjeri Regional Authority sees this area as an important site of Ngarrindjeri survival stories, crucial for research and the education of young Ngarrindjeri people. It also has potential to become a focus of reconciliation in Murray Bridge.• Ensure considerable care (and full consultation with the Ngarrindjeri Heritage Authority) is taken with any activity due to burial sites, middens, remains of historic camps and the highly sensitive spiritual nature of the area.• Provide and implement opportunity to remove non-indigenous vegetation and revegetate with original vegetation of the area.• Establish ground cover revegetation on the degraded site at Hume Reserve.• Provide and establish walking trails in line with Caring for Country report, educational and awareness opportunities linking to other areas of the precinct and Murray Bridge.• Promote river cruises and enhancement and maintenance of boat heritage precinct.

Although now 7 years old, The Plan continues to provide useful insight into the stance and thinking of the Ngarrindjeri Regional Authority and provides useful parameters for the economic development of this vital portion of the river front. The area covered by the Plan includes one of this report's focus sites, the Hume Reserve.

4.1.5 Discussion Paper; River Corridor Development, Residential Land Division, Murray Bridge (McIntyre Robertson Scarborough, 2011)

This report comprised a strategic review into a range of potential residential development sites abutting the Murray River, focussing on a particular expanse of land to the south of Murray Bridge CBD. This land extends along the river frontage from Oxford Street and the southern end of Narooma Boulevard to the northern end of Forest Drive.

An important component is the stated intention to create a wetlands and river walk through low-lying areas adjacent to the river. The estimated cost of this project was \$5.814 million in 2011, excluding a number of unknown factors which may impact that cost materially.

The total area covered by the proposal included approximately 17.5 hectares of public land and 15.9 hectares in private ownership.

The review explored the benefits that might accrue to both sides (public and private) through a degree of co-ordination. The proposed river-front wetland development would improve the amenity (and saleability) of any residential allotments but would require the relocation of a number of riverfront shack owners.

MRS identified several intangible benefits that would conceivably accrue from the proposal:

- Environmental and community benefits;
- Improved traffic flows into the city centre;
- An enhanced use of under-utilised riverfront land; and
- The 'rescue' and relocation of the shack leaseholders.

Aerial imagery indicates that subsequent to the MRS report there has been no progress.

In relation to the focus sites of this current report, the land investigated by MRS abuts Sturt Reserve at its north-western end and Long Island Reserve at its South-eastern end.

An important aspect of river-front activation is residential construction. Resident populations generate economic activity. While other ideas will be forwarded in this report, attracting people to live, work and raise their families in a locality cannot be overemphasised as an economy builder¹.

4.1.6 RC Murray Bridge Management Plan for Reserves

The RC Murray Bridge has devised a management plan for its reserves. This is a fairly generic document that may more for internal use than a document with direct bearing on matters to hand. However, some of the focus sites are listed in the plan; these being:

- Avoca Dell Reserve;
- Hume Reserve;
- Long Island Reserve;
- Murray Bridge Wharf Precinct;
- Swanport Reserve;
- Swanport Wetlands;
- Thiele Reserve;
- Toora Reserve; and
- Wharf river-front with boat ramp – Sturt Reserve

4.1.7 Sturt Reserve Riverfront Study (RC Murray Bridge, 2013)

This internal study develops a range of ideas for the Sturt Reserve, which will be a major focus of an economic development strategy for the river-front. Ideas in the Sturt Reserve River-front Study are important input to this report.

The Study develops six themes in relation to Sturt Reserve:

- Theme 1: The creation of vibrant, livable and safe places;
- Theme 2: The conservation of cultural heritage and diversity;
- Theme 3: Improvement and enhancement of natural environments;
- Theme 4: Promotion of thriving, quality rural industry, business and tourism sectors;
- Theme 5: Encouragement of healthy and active lifestyles; and
- Theme 6: Improvement of accessibility and linkages.

Many of the ideas developed in the Study pertain to landscaping development or suggest activities/events that can activate Sturt Reserve. In some ways it represents a 'wish list' of expenditure items, and the trick might be in the funding of them, although many of the ideas have merit.

The Study's appendix is a useful cross-reference of previous reports that feed into the Study, some of which are covered in this current literature review.

¹ Household Consumption Expenditure comprises approx. 60% of GDP.

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4.1.8 RC Murray Bridge Sport, Recreation & Open Space Strategy (Tredwell Management & Aspect Studios, URPS, 2013)

This is a comprehensive 4-volume study of sport, recreation and open space matters, including summaries of every reserve in the Council district. It has some bearing on this study in terms of coordinating recreation development with economic development, and there are specific matters pertinent to those reserves that are focus sites for this report, in particular the major sites such as Sturt Reserve.

4.1.9 Land Use Study and Development Plan Review for the Lower Murray Flood Plain (URPS, 2013)

This study develops recommendations for feasible, sustainable future land uses on the Lower Murray Flood Plain. The study area was defined as all land titles wholly or partly located within the 1956 flood line. As this current report's study area is situated within the (much broader) study area of the Land Use Study, some of its land use conclusions are very pertinent to economic development issues and options herein.

The report's major conclusions are:

- The characteristics of the study area such as access to water, fertile soil, river proximity and landscape and amenity values mean it is most suited to primary production, tourism and recreation, and landscape and conservation uses.
- Primary production land uses are the most suitable land use for the study area;
- Opportunities exist to grow and strengthen the existing dairy industry, as well as to diversify into beef farming, horticulture, and complementary value adding activities;
- Tourism, residential marinas, and created wetlands are also land use opportunities; and
- Notably, residential development, rural living (hobby farming), shack development, and any use where the land is not actively managed are considered by the study to be unsustainable land uses for the Lower Murray Flood Plain and it recommends they be avoided.

The report identifies significant employment growth opportunities in the region from primary production, in particular dairying, but also beef cattle, field vegetables, intensive horticulture and, to a lesser extent, tourism. It is apparent that the employment impacts likely to be generated by matters addressed by this current report pale into insignificance compared to a properly executed strategy aimed at development of rural industries in the Lower Murray Flood Plain.

The report makes a number of recommendations regarding fostering tourism development in the region and this will be reflected herein.

4.1.10 RC Murray Bridge – Riverfront Management Strategy (QED, 2007)

This report from 2007 is a springboard for current investigations, dealing as it does with a range of similar issues and many of the same Council sites. When considering economic development issues with these sites, specific reference will be made to this 2007 report.

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4.2 Economic Development and Job Creation

The blueprint for economic development and job creation in the study area is Council's Economic Development Strategy 2015 – 2030, currently out for public discussion (refer Section 4.1.1 above). Based on the directions set by that report, there are four matters of focus in Council's economic vision that are directly applicable in the study area. These are:

- Activation of primary production land;
- High-end accommodation;
- River-based niche businesses; and
- Beautification of public spaces;

Of the four, the one that will deliver by far the most in terms of job creation is the activation of primary production land, the different types of which are identified in the Land Use Study and Development Plan Review for the Lower Murray Flood Plain (refer 4.1.9 above). Whilst the rural economy is not the central focus of this current report, it is by far the dominant land use by area, and its importance in the context of economic development should be recognised.

A fifth item of economic development in the study area that is not directly addressed in the Economic Development Strategy is that of residential development. The nature and scale of residential development will act as a direct driver of economic development, but the state of the residential property market more generally will come to reflect the degree to which economic development is occurring - because economic growth will stimulate new migration of residents into the locality.

It will also be readily recognisable that all of these factors are interlocking. A successful economic development strategy utilising these initiatives must have all 'firing' at the same time, with the possible exception of primary production, which is somewhat independent of the other initiatives.

4.2.1 Primary Production

The study area for the Land Use Study and Development Plan Review for the Lower Murray Flood Plain comprised the flood plain between Mannum and Wellington, enveloping our current study area, which is also flood plains land but restricted to the area between approximately Big Bend and the Swanport Bridge. The Land Use study's economic profile is somewhat indicative for our purposes.

Its top five contributors to total jobs in the region in 2011/12 were:

- Agriculture, forestry and fishing (20 per cent);
- Retail trade (12 per cent);
- Health care and social assistance (12 per cent);
- Manufacturing (11 per cent); and
- Education and training (8 per cent).

The top five contributors to total value added were:

- Agriculture, forestry and fishing (26 per cent);
- Manufacturing (10 per cent);
- Health care and social assistance (7 per cent);
- Ownership of Dwellings (7 per cent); and
- Retail trade (6 per cent).

The report's outlook for jobs creation by land use is reproduced below:

Estimated regional impacts of future land use scenarios						
Scenarios	Dairy	Beef	Field Vegetables	Intensive Horticulture	Tourism	Total
Employment (fte)						
Low	203	33	45	34	11	326
Medium	338	41	107	81	21	589
High	381	67	203	155	54	860
GRP (\$m)						
Low	24.1	2.6	3.6	3.1	0.9	34.4
Medium	40.1	3.3	8.8	7.8	1.9	62.0
High	48.5	5.4	17.5	15.6	4.7	91.7

Source: Land Use Study and Development Plan Review for the Lower Murray Flood Plain (URPS, 2013)

All this data points to the fact that whilst accommodation and tourism are a focus of this current report, in terms of both job creation and Gross Regional Product (GRP) the clear focus for economic development in the study area needs to be on primary industries, most particularly dairy farming – a use that has significantly diminished there with the removal of flood irrigation. In keeping with the inter-relatedness of the major initiatives of the Draft Economic Development Strategy 2015 – 2030, a revival of dairy farming and the fostering of growth in various other rural land uses in the study area will have flow-on effects in other economic development initiatives. The fostering of food tourism is a matter of particular focus in this regard.

4.2.2 Accommodation

Whilst this brief has a broad remit in respect of accommodation, the clear focus of the Economic Development Strategy 2015 – 2030 is on high-end accommodation, in particular its target of 100 new 'high-end' rooms² by 2018. This may appear an ambitious target, however it is comprised entirely of two projects:

- A project on the former Post Office site in Sixth Street, comprising a 20 bed motel and restaurant; and
- The redevelopment of the Bridgeport Hotel, which is at 'pre-lodgment discussions' stage with the State Government and is intended to consist of approximately 90 beds.

It is to be hoped that the latter will make full use of its River outlook and foster connectedness between the River and the Town Centre.

If the 100 high-end beds target is indeed satisfied, it is possible to investigate other accommodation possibilities within the study area that will contribute to economic development. These accommodation options comprise:

- Caravan, mobile homes and camping accommodation;
- Backpacker accommodation;
- Informal (shack) accommodation;
- Motel accommodation; and
- Bed-and-breakfast and farmstay accommodation.

Caravan, Mobile Homes and Camping Accommodation

The table below identifies formal caravan, mobile homes and camping accommodation currently in the study area:

Name	Description
Avoca Dell Caravan Park	Small park of approximately 20 sites, together with 9 cabins and a 'villa' size holiday house. Situated adjacent to the Avoca Dell Reserve.
Murray Bridge Resort Caravan Park & Marina, 100 Roper Road, Murray Bridge	34 powered sites, 12 powered ensuite sites, an area of unpowered sites, 3 cabins and 4 park units and 1 double park unit. One of the focus sites of this study, situated within Murray Bridge township.

² High end means 4 or 5 star.

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These are the only formal camping accommodation sites in the study area. As regards informal campsites, it is noted that camping is barred in all the Council reserves in the study area.

A third caravan park, Murray Bridge Tourist Park, is situated on the Adelaide Road approach to Murray Bridge, outside the study area.

Backpacker Accommodation

There are no operators in the study area that specifically target backpackers.

Informal (shack) accommodation.

There are two areas within the study area that have shack type accommodation:

- Wildens Way, Murray Bridge – there are approximately 12 dwellings remaining on this Council-owned site, on long-term leases. The majority of the sites face directly onto the River; and
- Riverfront Road via Jaensch Road, Murray Bridge – some 16 dwellings on small sites, facing the river.
- Both these sites are Council owned and are leased to tenants on a long-term basis.

Motel Accommodation

There are four motels in Murray Bridge proper, none of which are situated within the study area. In addition, the Murray Bridge Motor Inn is situated on Old Princes Highway in Murray Bridge East, close to the study area.

Bed and Breakfast/Farmstay Accommodation

There are several bed and breakfast/farmstay accommodation establishments in the study area, with several more in Murray Bridge township. These are noted in passing as completing the accommodation 'picture', however do not contribute materially to the volume of beds supplied and are not a particular focus of this report.

The above survey of accommodation in the study area elicits the following observations:

- Of the accommodation in the Murray Bridge region as a whole, very little takes advantage of the natural environment within the study area. Most is utilitarian accommodation within Murray Bridge township, outside the study area and not particularly targeted at the tourist market;
- Permanent accommodation within the study area is wholly comprised of cabins in the two caravan parks;
- Of the two caravan parks in the study area, one is within Murray Bridge township and the other is in out-of-the-way Avoca Dell. Both serve their purpose, but neither takes advantage of the large volumes of passing traffic on Highway 1;

- Both of the high-end accommodation projects under construction or planned are outside the study area, only one of which is positioned to take advantage of the River and its surrounding natural environment; and
- The development of viable high end accommodation pre-supposes an environment that will entice the market it seeks to attract – a fact which inter-links the proposed developments with this current study.

4.2.3 Tourism

In 2013-14, the tourism industry contributed an estimated \$167 million to the Murraylands regional economy (12.8% of gross regional product) and directly employed approximately 700 people (6.4% of regional employment)³. Table 1 breaks this into visitor segments.

Table 1 Tourism Activity Summary, Murraylands

Visitor segment	Nights ('000)	Nights (%)	Consumption (\$million)	Consumption (%)	\$ per night
Day-trippers	531	48	61	39	114
Domestic overnight	503	45	84	55	167
International	72	7	9	6	128

Source: Deloitte Access Economics (2015)

As shown, the dominant segments overall in the Murraylands region are day-trippers and domestic overnight tourists, with international tourists forming a small cohort. A significant proportion of the day-tripper market in Table 1 would be attributable to Murray Bridge area on account of its closeness and accessibility to Adelaide.

Total tourism expenditure in the Lower Murray Flood Plain region in 2011/12 was estimated at approximately \$97 million in aggregate⁴. It is estimated that expenditure by tourists generated the following level of economic and demographic activity in this more tightly focused region:

- Approximately \$62 million in GRP which represents 4.2 per cent of the regional total (\$1.47 billion);
- Approximately 721 full-time and part-time jobs which represents 5.0 per cent of the regional total (14,500 total jobs);
- Approximately 605 FTE jobs which represents 4.2 per cent of the regional total (14,300 FTE).

The potential to improve tourism as an economic driver in the study area is considerable. Aside from the River environment, which is a focus of this report, the study area possesses a number of inherent advantaged that aid tourism development:

- Fast access via the South-eastern Freeway from Adelaide, which is also a recognised 'ant-trail' for the 'grey nomad' market. The Swanport Bridge is a funnel for road tourists, both west-bound (towards Adelaide) and east-bound (from Adelaide), the only other real alternative crossing of the River being the Wellington Ferry;
- A well-stocked regional city from which to source provisions in a competitive retail market;
- An abundant and growing local rural sector;
- Murray Bridge is a base for paddle-boat cruises and houseboats;
- A strong Aboriginal cultural and historical connection; and
- A good climate – suited to water activities in the summer and low rainfall in the winter;
- More recently, the Taillem Bend Raceway project has emerged as a new regional driver of tourism activity and visitation.

The study area does, however, have some disadvantages:

- A shortage of non-natural 'attractions';
- Little compelling reason to leave the highway;
- For road tourists, there is a good chance that they have either just left Adelaide and have a long journey ahead (east-bound), or they have just completed a long journey and might as well continue on to Adelaide (west-bound). There is incentive not to break such a journey at Murray Bridge – such that the decision to stop has to be a conscious choice, made for a reason;
- A small, generally lower end accommodation offering;
- Poor non-river linkages within the study area;
- Poor food offering;
- Much of the tourism infrastructure is old, or in a poor state of repair;
- A low tourism profile; and
- Inadequate tourist information sources within the study area (the Murray Bridge Tourist Information Centre is adjacent to the Council chambers, with little or no information provided near or on the River).

³ Regional Tourism Satellite Account, Murraylands 2013-14, (Deloitte Access Economics, 2015).

⁴ Land Use Study and Development Plan Review for the Lower Murray Flood Plain (URPS, 2013), p. 23.

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4.2.4 Tourism & Accommodation Opportunities

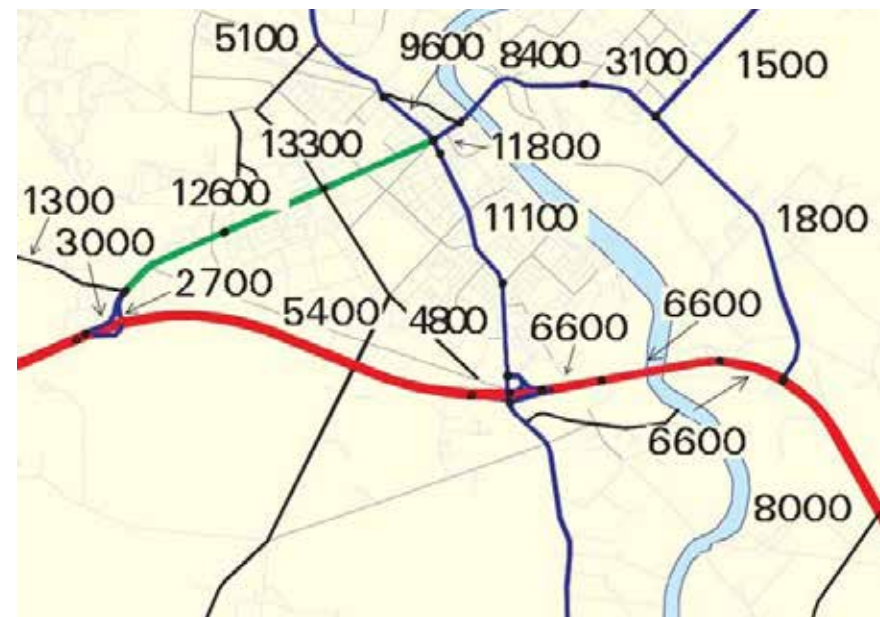
The above discussion appears to characterise tourism development in the study area as starting from a low base. However, the River is great foundation for tourism development. A broad range of water-based tourist activities are already in place and enjoyed by a wide range of visitors, including boating, fishing, water-skiing and jet-boat activities, kayaking, swimming, houseboats, paddle-steamer cruising and short paddle-boat cruises. Much of the infrastructure in place to service this market in the study area is quite good – for example boat ramps, access roads and parking bays, toilets and the like. The objective of this report recommendations will be to build on these assets to realise opportunities in areas where performance is currently not as good.

Current investigations indicate that several opportunities are presented:

- The food sector is forecast to account for a major portion of growth in the South Australian economy in future decades, not just in primary production but in value-added transformation. Food tourism is already a significant economic base of several South Australian regions, most notably the Barossa, Adelaide Hills and McLaren Vale. The Land Use Study and Development Plan Review for the Lower Murray Flood Plain (URPS, 2013) points to pronounced rejuvenation of primary industry within the study area, which in itself will become a major jobs growth driver. The opportunity exists to ride the back of this revival with food tourism initiatives, directed at all three market segments in Table 1. There is much that local government can do to encourage and foster development of food tourism and many South Australian Councils are active in the field. Initiatives include networks of producers, operators and retailers, and digital economy initiatives;
- The natural beauty of the riverfront environment is not presently accessible for the substantial length of the River in the study area. Walking and cycling trails have been successfully developed elsewhere in South Australia. Examples of this include the Yorke Peninsula shared use trail, 'Walk the Yorke', and the Riesling Trail in the Clare Valley. Numerous reports in the literature review identified the potential to establish walking and cycling trails in the region, and the opportunity exists to connect key focus sites to facilitate this;

- The study area is home to deep indigenous culture and history, and the leadership of the Ngarrindjeri Regional Authority is interested in developing opportunities in cultural tourism. Sites of significance are situated close to the Murray Bridge CBD and are easily accessible to, for example, river cruise clients who currently have very few attractions during their Murray Bridge stop. Cultural tourism is a significant tourism component in Australia's near neighbours, (most notably New Zealand, where Maori Trusts operate highly successful enterprises), and has the potential to play a role in the Murray Bridge river-front economy;
- The Swanport Bridge is a gateway to the study area and the region. However, there is currently little or no incentive for travellers to reduce speed and explore. The opportunity exists to exploit this gateway to a much greater extent via an entrance statement and signage that gives the riverfront region an identity, and give visitors an incentive to leave the highway. Figure 2 shows traffic numbers in and around Murray Bridge.

Figure 2 Traffic Count, Murray Bridge Region



Source: DPTI

- As shown, some 6,600 vehicles per day traverse the freeway in the vicinity of the Swanport Bridge, providing a significant market. If some of these vehicles can be attracted off the highway, a significant source of visitors can be tapped. However, this can only be effective with a greater range of activities and interests to present to them;
- Further to the previous dot-point, the location of accommodation needs to be appropriate to the source. At present, the two caravan parks in the study area are within the Murray Bridge urban area and at Avoca Dell. Both require pre-planned intent on the part of the traveller to effect a stay. Traveller accommodation should be visibly accessible, and to this end the opportunity exists for a site that is visible from the highway to be developed for at least caravan/camping travelers and perhaps other more permanent accommodation. This should ideally have some relationship to the River; and
- Further potential exists for event based tourism. This is becoming a crowded marketplace, but event based tourism nonetheless has the potential to overcome a major constraint of tourism development in the study area: that of the 1956 Flood Zone as a barrier to permanent development close to the riverfront. Event based tourism has the advantage of being a temporary attraction requiring no permanent buildings. If such attractions reach sufficient scale, peak accommodation can imaginatively be supplied via (for example) shipping containers - which is a solution that has been employed in Christchurch and Northern Territory indigenous community functions to highly imaginative effect – or via other 'pop-up' facilities.

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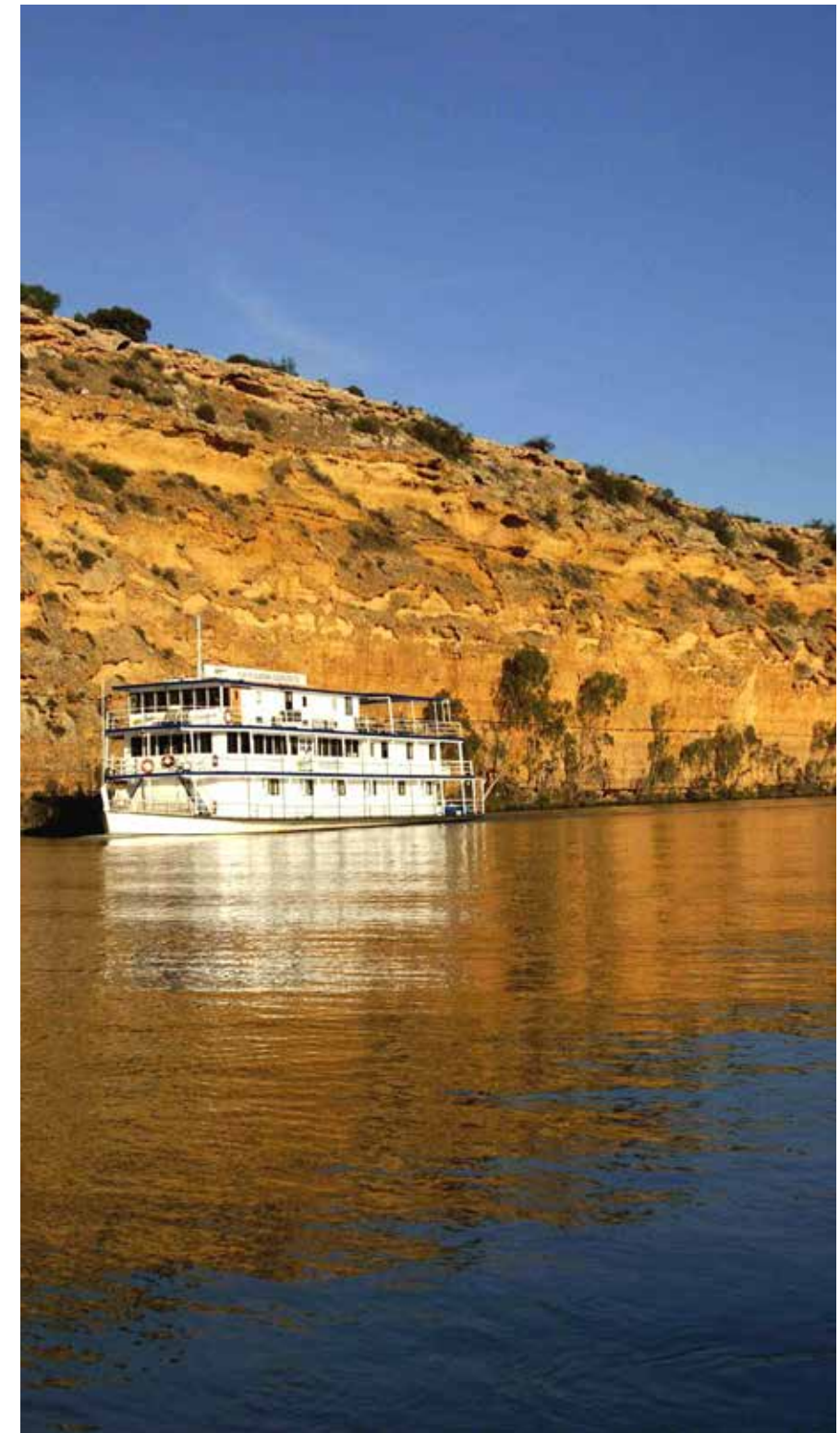
4.2.5 Promotion of the River as a Destination

Opportunities may only be realised if visitors have awareness of the River in the vicinity of Murray Bridge and have reasons to visit. For this to occur, it needs to be promoted effectively. Ideally, there should be a proper marketing plan prepared and agreed upon by a range of local stakeholders, including local Government, tourist office management, community organisations and tourism operators. It is beyond the scope of this study, and premature, to detail such a plan herein. Promotion of the River is only one arm of putting that plan into effect. A typical approach would have the following stages:

- Gain an understanding of the market (visitors) and the offering (the River and its associated experiences). This current report has gone a long way towards an understanding of the physical component of the offering, however a focus on visitor experience is also required. The 'market' consists of both the type of people that are currently visiting the study area but also perhaps untapped markets that various stakeholders would like to attract. Understanding that market requires research and analysis, talking to current visitors and deriving quality data from them.
- Based on evaluation of this research, develop a plan in consultation with the stakeholders identified above;
- With that plan in place, consider how the River may be physically improved as a destination. The opportunities identified in 4.2.5 above present a veritable buffet of ways in which this may be achieved; local stakeholders may have additional ideas. The manner in which the River is actually developed as a destination will involve some of these opportunities, however stakeholder attitudes and cost will shape how the destination is ultimately developed; and
- Finally, the River may be marketed in a targeted way, with the objective of:
 - > Increasing visitor satisfaction;
 - > Increasing visitor numbers;
 - > Increasing visitor length of stay;
 - > Increasing visitor expenditure.

Marketing and promotion of the River is about growing visitor awareness and demand for 'River experiences', consistent with the 'brand' that the destination management process outlined above develops for it. It involves clearly and effectively communicating the River's unique offering, both before visitors arrive and once they are in Murray Bridge or its River surrounds.

Additionally, there should be ongoing communication with local stakeholders and community, so that visitor importance remains in focus as an essential element of the local economy and local tourism managers can keep abreast of progress. As a result of such a feedback loop, the management of the River as a destination can be monitored, refined and improved on a continual basis.



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5 Consultation



5 Consultation

5.1 Introduction

The process of developing the Riverfront Strategy has involved consultation with the Murray Bridge community, Ngarrindjeri, Council staff and Elected Members and state government agencies and statutory authorities. People were asked to share their insight, ideas, opinions and alternatives on specific sites within the Murray Bridge area and also for the study area Murray Bridge as a whole. This main body of this report summarises the information received from these groups. The complete response documents are made available in the appendices (Appendix B) and should be read in order to gain a complete picture of the response to consultation. Separate to this, information from the Council's 'Let's Talk' community plan engagement was also used to inform the preparation of the Riverfront Strategy.

5.2 Elected Member and Staff Member Workshop, 8 December 2015

5.2.1 Overview

Separate discussions were held consecutively on the 8th of December 2015 for staff and elected members. The first of the two sessions was held with the Council staff, and the second with the Elected Members, the agenda for both sessions is attached in Appendix 2.

In the meeting with Council staff three discussion points were raised:

- How does this project link with Council's current strategic documents and plans?
- What is the community likely to tell us?
- What are the Elected Members likely to tell us?
- In the second session Elected Members were given an overview of the project and detailed information about each site. These discussion points included:
 - What are the important values of the Riverfront?
 - What are the overall opportunities to revitalise the Riverfront for the benefit of the community, economy and environment?
 - Which sites have the greatest potential to contribute to the revitalisation of the Riverfront?
 - Which sites have the greatest value to the community in their current form?
 - Are there any sites that could be used to fund improvements to other sites?



5 Consultation

5.2.2 Key issues

The following table summarises the views of both the Council Staff and Elected Members of the Rural City of Murray Bridge, a more comprehensive version of the Council Staff and Elected Member responses are attached in Appendix 2.

Site	Council Staff	Elected Members
Sturt Reserve	Council recognised that there are issues with this site particularly with the bank stability, lighting, the wharf structure, hoon driving and also anti-social behaviour. The area is heavily utilised for sport both on and off the water, with the tennis club being in operation on the weekends. The Council identified that there is the potential for the site to be better connected to the town and that it needs to be made houseboat friendly, as well as there being the opportunity with improvement to host events on the site.	Elected members identified that this area can be underutilised, and that the area needs to be opened up for skiing and the 4 knot speed limit needs to be lifted. The open space in the area is a massive benefit. The elected members discussed the need to keep parts of the area open in the strategy development and also better activate the space. Key to recognise that the area is prone to movement due to being a swamp environment. Similar to Council Staff, the Elected members suggested improvements to various existing aspects and also connectivity.
Hume Reserve	Council staff concluded that Hume reserve has significant importance to the Ngarrindjeri people within the area, and that it would be crucial that the NRA be consulted in any change there is in the area. The site was identified as being a past site for the Adelaide Ski club and that the Lavender walking trail runs through the site. There are issues with four wheel drives in the area and Council staff would also like to see the area be grassed in the future.	The Elected members recognised that any form of development that did not include the NRA would be impossible, but that the NRA are prepared to negotiate on development. It was suggested that there needs to be a balanced solution for this site that is respectful.
Rocky Gully	The Council staff identified the area around Rocky Gully as being used by cyclists, and that the trail within the site leads to the abattoir, so the locals use it as a commute path to work. Other than that, Council staff concluded that the site is ok as it is.	It was identified by the Elected Members that there is the opportunity with this site to create a better welcome to the town, especially with signage, and that the site is testament to what the community can achieve. It was also mentioned that a buffer could be put in place away from the meatworks for the sake of future development.
Avoca Dell	This site was identified as being frequented and very busy often, and the Council staff mentioned that there is currently a report before Council to have a mobile coffee boat in operation on the water. Issues that were identified by the Council staff included people parking on the grass, the boat ramp requiring an upgrade, there not being anywhere to tie or moor a boat, safety issues with the edge of the bank into the water and the public toilets not being able to cope with the patrons that visit the reserve.	The Elected Members discussed the upgrades required to the site including parking, access to amenities, the boat ramp and also river access. It was also mentioned that a pontoon may be beneficial and that the site is constrained by neighbouring lands.
Toora Reserve	Council staff identified that Toora Reserve requires improvement. The staff made a number of suggestions regarding the site such as tourism development and also the improvement to signage.	It was discussed that the stretch of river at Toora Reserve is good, and that people would visit this site frequently if the facilities and access to the river were upgraded.
Swanport Wetland	The Council staff stated that there is already investigations into the improvement of the boardwalk structure. Further suggestions for the site included the creation of more river access for boats to access the area, as well as the need for more funding to make improvements.	The Elected Members identified that maintenance is an issue at this site, and agreed with recommendations previously made regarding the parking, signage and boardwalks. It was mentioned that there is the potential for the site to be an employment site for the green army or work for the dole in order to improve facilities.
Tumbella Reserve	This site was identified as being popular for water sports as there is a 4 knot speed limit in the area. It was also discussed that shacks on this site are on a 99 year lease that ends in 2062, but some are being sold back to Council.	This site was described as being quite untidy, and without facilities such as shaded areas. It was discussed that the site could include a rotunda and could also be a site where private investment is considered.
Thiele Reserve	Council staff recognised that similar to the Avoca Dell area, this reserve is well patronised and there are good facilities but the boat ramp requires an upgrade, as to the amenities. It was also highlighted that the development opportunities to this site may be limited due to cliff structures.	It was mentioned by the Elected Members that this site is surrounded by private development. Furthermore, the Elected Members discussed the possibility of federal funding being available to focus on the wetlands and also that there is SAMS funding available for wetlands.

5 Consultation

Site	Council Staff	Elected Members
Long Island Reserve	There were a number of safety issues identified with this site, in particular the 4 knot speed limit and also the creation of a bottleneck as the river is narrow. The front bank of the river was identified as a hazard as it is up to 1 meter deep. It was identified that the adjoining paddock is proposed to be redeveloped as a tourism facility as part of the retirement village.	The Elected Members suggested upgrades to extend the carpark and improve the amenities. It was also suggested that shade be installed over the playground.
Swanport Reserve and Aquatic Centre	Council identified that there is a restriction of the use of motor craft in this area, but there is the potential for this to be rectified to allow skiing. This area is used for private functions, by private schools, is leased throughout school terms and that the Council occasionally use the area.	The Elected Members questioned if Murray Bridge as a whole is getting the best use out of this site. As well as the suggestion of a boat ramp for the site.
Murray Bridge Resort Marina and Caravan Park	Council informed that this area is a 4 knot area and that it is a private development. Furthermore, there are plans to maintain the dry dock facilities, function centre and also expand the camping area and caravan cabins. SA Water are interested in developing a new sewage treatment facility some distance out of Murray Bridge, but that a new pumping station may be developed on the site. There is also the potential to create a riverfront multi-use path.	It was highlighted that SA Water are not interested in relinquishing the site. It was also mentioned that Development of this site would be beneficial for the town.
Long Island	It was addressed by Council that this area cannot be touched from a development perspective. There are also issues with the motorboat restrictions, as the area is only briefly used by rowers throughout the year.	The discussion around this site surrounded how the best long term solution can be reached for this site, with still having regard to the Native Title issues.
Ukee Boat Landing		The elected members mentioned that they felt this site should be included in the strategy. It was identified that it could be a boating heaven and it is currently on a group title.
General	The Council staff discussed the possibility of rationalisation of assets, including the sale of non-riverfront assets to fund the future riverfront development. There is the possibility that the 4 knot speed limit can be lifted as it was only in place as a temporary measure. Potential to make Murray Bridge the rowing capital of SA.	Overall, the Elected members believed that the boat ramps and amenities across the whole study are need to be reviewed and possibly upgraded. It was raised that there is the potential to create houseboat friendly areas, as well as considering the best locations for aspects such as boat ramps, camping facilities and jetty structures. The Elected believed that the people who use the study area for fishing also need to be included in the strategy.

5 Consultation

5.3 Government Agency and Statutory Authority Workshop, 10 December

5.3.1 Overview

A workshop was held with representatives from key state government agency and statutory authorities. This meeting was held by staff from both Jensen Planning + Design and GHD, at the GHD offices in Adelaide. The stakeholders that attended the meeting were:

- Michael Scott (GHD)
- Mark Separovic (GHD)
- David May (GHD)
- Andrew Meddle (Rural City of Murray Bridge)
- Mike Penhall (DEWNR)
- Daniel Walton (DEWNR)
- Brian Gilbert (DPTI)
- Chas Allen (SA Water)
- Mark Van Roekel (SA Water)
- Melissa Bailey (Jensen Planning + Design)
- Justin Clisby (Jensen Planning + Design)

In addition, separate discussions were held with Tim Smythe (PIRSA Regions); Jo Pondoliak (Regional Development Australia Murraylands) who were unable to attend the workshop.

5.3.2 Key issues

The table below shows a summary of the feedback received for the whole study area and in relation to particular sites. The complete notes of the workshop are attached as Appendix 3.

Organisation & Representative	Opportunities	Constraints
Study Area whole PIRSA (Regions SA)	Create opportunities for 'executive housing' with views of the river in key locations to attract skilled staff, particularly to support the expansion of food production industries. 'Liven up' the Riverfront to attract people to live and work in Murray Bridge rather than commute from other areas. Marina, wetland.	Planning controls should ensure that any new housing on the riverfront does not have a negative visual impact from the opposite side of the river.
Regional Development Australia (RDA), Murraylands and Riverland	'Pop up' and temporary infrastructure could be used for event based tourism and an interim solution to development controls eg. Shipping container accommodation.	1956 Flood Zone is a major barrier to permanent development and could be reviewed.
	Linear cycling and walking trail along the riverfront to connect key sites. An example of a new trail at a low capital cost is the Yorke Peninsula shared use trail 'Walk the Yorke'	
	'Bookend' investment in tourism development at either end of the study area (eg. Toora Reserve and the bottom river crossing) and in the middle (Sturt Reserve) to maximise the potential to attract investment in the study area.	
	Primary production – there is an opportunity for the region to value-add primary production to create more jobs.	
	Major development opportunity adjacent Swanport Bridge to bring tourists in.	
	Create opportunities for high end housing near the river to broaden economic base of town.	
SA Water	Opportunities to use recycled wastewater for irrigation.	
DEWNR	The strategy should be adaptive to climate change – using WSUD and drought tolerant grasses.	There is a need to balance river based recreation with limiting bank erosion. Strike a balance between conservation/protection and recreation.
		Site are subject to the Murray River Act which regulates development near the river with regard to native vegetation, flood zones, water quality, maintenance of natural flows, maintenance of natural appearance, heritage etc.
Toora Reserve and Mobilong Reclaimed Irrigated Area (owned by SA Water)		
PIRSA (Regions SA)	The land is no longer irrigated from the River but has potential for primary production use such as intensive horticulture. Treated wastewater could be used for irrigation to increase the productivity of the land.	1956 Flood Zone limits development in this area. There is potential to review the zone with a view to determine whether the constraints on development are necessary, and whether the zone boundaries are relevant. Primary production land should be protected from encroachment by urban development to avoid a conflict of land uses.

5 Consultation

Organisation & Representative	Opportunities	Constraints
Regional Development Australia, Murraylands and Riverland	The adjacent private property has heritage buildings (original school, bakehouse, smokehouse). Potential for Toora Reserve to have a caravan park / cabins replacing old shacks.	
Andrew Meddle, RCMB	Council is developing a 'food bowl' concept for the area utilising available water resources.	
Rocky Gully Wetlands		
DEWNR	Improve biodiversity in wetland areas. Enhance/improve biodiversity corridor from Monarto crown land to Rocky Gully Wetlands via Rocky Gully Creek.	
Hume Reserve		
	The strong link between houseboat moorings and Hume Reserve should be exploited. Extensive riverfront trail could be established (Sturt Reserve to Hume Reserve via Railyard Heritage precinct).	
Sturt Reserve		
Regional Development Australia, Murraylands and Riverland Jo Podoliak, CEO	Create a high quality architectural building on Sturt Reserve that can be used for arts and cultural events or exhibitions.	
RDA	Improve the connectivity between Sturt Reserve and the CBD. Opportunity for significant family based water recreation attraction at Sturt Reserve to help put Murray Bridge "on the map"	Currently the appearance of Sturt Reserve is below the standard of other riverfront towns in the region. Murray Bridge should aim to reach the standard set by other places.
DEWNR		Seals causing disruption to river based events (e.g. water skiing event).
DPTI		The 4 knot limit is likely to be retained for safety reasons in front of Sturt Reserve.
Murray Bridge Resort Marina and Caravan Park		
SA Water	SA Water waste water treatment plant is outdated and overloaded and being moved to a site south of Murray Bridge by 2021. Moving the treatment plant could include removal of the treatment lagoons, providing public access to the riverfront, extension of the marina.	SA Water will retain the WWTP land for a pumping station and pipe to bring treated wastewater across the river to the army base.
Swanport Reserve and Aquatic Centre		
RDA		The dry and unappealing appearance of the Swanport Reserve from the Bridge may also deter people from stopping in the town.

5.4 Ngarrindjeri Regional Authority Meeting

5.4.1 Overview

The NRA recognise opportunities for redevelopment of the Riverfront to achieve community development outcomes for Ngarrindjeri people.

The Ngarrindjeri wish to consider and provide a response to the draft Riverfront Strategy.

There are sensitive cultural areas identified within the study area, but the whole study area is of importance to the Ngarrindjeri as the riverfront was a place where its people have lived more intensively including burial areas. The NRA would like to develop a Cultural Management Plan in response to the recommendations for the Riverfront Strategy in partnership with Council which would be asked to contribute funding towards this work. The whole of the Riverfront Strategy study area falls within the Native Title Claim Area. The Ngarrindjeri wish to be recognised as the traditional owners of their country and for this to form the basis of their ongoing involvement in the development and implementation of the Riverfront Strategy.

5.4.2 Key Issues

Ninkowar Incorporated

The Ninkowar facility located adjacent to the Railway Precinct is in a culturally sensitive location but the organisation could potentially move if a more suitable building could be provided. Note: Ninkowar is an organisation run by and for Ngarrindjeri women to promote and protect cultural heritage.

Kunkun Ngarrindjeri Yunnan Agreements (KNYA)

The agreement which translates to 'listening to Ngarrindjeri speaking' was signed between Council and the NRA in 2008. It establishes a formal basis for Council and the NRA to consult with each other in relation to develop a greater understanding of Ngarrindjeri culture and to manage sensitive areas identified in the agreement. The agreement establishes a joint committee to oversee the agreement.

The NRA considers the Riverfront Strategy should reflect and make reference to the KNYA process, but says that some of the details within the agreement are now dated. [Note the KNYA lists the following places within the study area as Highly Sensitive: Long Island, Swanport Granite Outcrops. The following places are listed as Managed Areas: Narooma area, the Railway Precinct, and Sturt Reserve.]

5 Consultation

The NRA also has a KNYA with DEWNR, the NRM and NRA and a committee that meets monthly to consider development within Ngarrindjeri land.

5.5 Community Consultation Event

5.5.1 Overview

Community Groups and members of the Murray Bridge community were invited to participate in a drop-in style public consultation event at the Murray Bridge Town Hall on the 17 December 2015 between 4pm and 7pm, with a formal briefing about the Murray Bridge Riverfront Strategy project by the General Manager of Sustainable Communities, Andrew Meddle at 6pm. There was a flyer prepared for this session (see Appendix 5), and the community were invited to seek more information from the Rural City of Murray Bridge website, or by contacting Council directly on a supplied phone number.



Participants were encouraged to sign an attendance sheet and 29 people provided details for future contact (Appendix 5). Community members were encouraged to take part in a number of different activities to share their opinions and views on all of the project individual sites within the project area. Furthermore, the participants were asked to share their 'One Big Idea' for the riverfront (Appendix 5).

5.5.2 Key Issues

There were many key ideas and issues raised with the multiple sites included in the study area, a comprehensive table for each site can be found in Appendix 5, however the main points for each site are summarised below.

Avoca Reserve

This site was identified as being a great place to be as it is very accessible to all, is a clean and open space, is adjacent to the caravan park and wetlands and also is a good spot for water sports. People who utilise this this space include tourists from the caravan park, locals, people fishing, and those that use the river. More vegetation and facilities were identified as an area where people would make changes, as well as improved signage to the area, and a possible link to the existing walking trail. When asked what their one big idea for the site would be, community members discussed the implementation of interpretive play equipment and also creating better walking trails both up and down river. Further to this, fire pits were suggested as a possible option for the winter months.

Thiele Reserve

This site was identified as being a good place along the river as it is fairly quiet and has good access to the river. Furthermore, it was identified that the area is well maintained and is used as a picnic spot. People who use the river were identified to frequent the site as well as families. Suggestions for changes to the area included the further development and installation of facilities such as shade, bbq facilities and play equipment, as well as improving the amenities and the current vegetation. It was also suggested that the levy banks could be used as a trail to connect different parts of the river, and that the water activities could be promoted to encourage more visitors. It was also mentioned that there is the potential for an additional boat ramp, and the incorporation of both motorised and non-motorised watercraft in a safe area.

Long Island

This place area has a strong connections to the Ngarrindjeri people. Long Island is valued for its cultural heritage and also the natural environment. The people who use this place most include people using the river, researchers and also the Ngarrindjeri people. Potential improvements include removing introduced plant species, improving the signage about cultural history and also having moorings for watercraft. A further suggestion is for a cultural tourism venture with Aboriginal canoe tours (note this has not come from indigenous people).

Swanport Wetlands

The Swanport Wetlands were identified as a great place to be along the river due to the serenity of the site, as well as the boardwalks and wildlife that are within the site. There are many people who use the site including schools, families, tourists, bird watchers and mountain bikers. Changes that were suggested to make the place better included replacing the broken boardwalks, improving maintenance and amenities, improving the parking, walkways and access, and installing better signage.

Big ideas for the place include increased publicity, educational tours and the encouragement of public support in upkeep of the area. Other thoughts for the area included the installation of directional signage to and from the site and also the installation of a kayak landing.

Swanport Reserve and Aquatic Centre

Aspects that make this site a great place to be included the river and vegetation, as well as the facilities on the site including those that allow visitors to look out onto the river. People who utilise this space include tourists, locals for fishing and picnics, school groups, and people participating in aquatic camps and sailing. Changes to improve the area included improved maintenance and also the possibility of the site being made available to outside groups.

Murray Bridge Resort Marina and Caravan Park

Elements that make this area a great place to be included the riverfront, the facilities and opportunities for water sports, the environment and also the location. It was identified that some tourists and visitors use the area, but it is generally underutilised. The upgrade of the site to a more modern and attractive place would make the site even better. Other thoughts and comments on the site included how Murray Bridge would benefit greatly from centrally located tourist accommodation and the benefits it would have on the area.

5 Consultation

Tumbella Drive Reserve

Features making Tumbella Drive Reserve a great place to be included the proximity to the river and the natural environment on the site. Appealing features included it being a good area to both swim and fish. It was identified that local residents and families use the site for dog walking, swimming and fishing. Elements that could improve the attractiveness of the site included seating, better signage, its inclusion on tourist information, the installation of public amenities and also the planting of trees and grassed areas. Other ideas for the area included a mixed-use path from the reserve to the wharf area along the riverfront, the connection to Long Island Reserve through better roads and trails, and the reduction of some river traffic.

Long Island Reserve

This site was identified as being a great place to live due to the existing facilities on the site, as well as the existing established vegetation. People who use this place included locals throughout the week and the broader community on the weekend, as well as people that are on the river in varying forms of watercraft. Things that the community would change to make the place better included linking it with Sturt and Swanport Reserves, creating more parking for boat trailers, and creating a trail to Sturt Reserve for walking and cycling. Furthermore, the local reserve feel could be preserved, as well as the addition of more shelter. Another element that may be appealing is the installation of a permanent bike repair station with pumps and tools available to the public.

Sturt Reserve

Sturt Reserve is the major Riverfront destination within the study area. The stretch of river that is closest to this site is used by rowing clubs, paddle boat cruises and also recreational watercraft. Sturt Reserve was identified as being a great place due its proximity to the river, the beauty of the environment and how the area is maintained, the facilities provided for families and visitors. A number of stakeholders have raised specific issues in relation to Sturt Reserve as outline below:

Murray Bridge Rowing Club – New Boatshed Facility

The Rowing Club has secured a lease from Council to build a new clubroom and boat shed adjacent to the existing Community Club building to create a 'Regional rowing hub' on the site (see Volume 2 Report: Individual and Community Stakeholder Group Submissions). The proposal still requires funding and planning approval to proceed.

RSL

The RSL has proposed to build a remembrance garden on Sturt Reserve close to the corner of East Terrace and Wharf Road (see Volume 2 Report: Individual and Community Stakeholder Group Submissions for exact location). This would be used on ceremonial occasions and whilst the RSL has indicated the space would be shared with other users, they will not accept activities that conflict with the sombre and reflective nature of the place.

Sturt Reserve Leaseholders Association

The Sturt Reserve Leaseholders Association provided commentary on number of issues in relation to the reserve, including:

- Review of bank stabilisation issues
- Maximising the use, and reviewing the security, of the existing developed areas
- Providing camping and caravan accommodation on the reserve
- Reviewing shack area land in relation to re-leasing or conversion to freehold
- Ensuring that the shared riverfront path is not blocked by users
- Encouraging use of the reserve by community groups
- Providing a floating dock in front of the existing jetty to accommodate boats

Wider Community

Encourage afterhours use of the area and greater use for events throughout the year, improvement to the existing community and sporting club facilities, the implementation of walking, cycling and also historical walking trails, and also the installation of better signage in the carpark. Further ideas for the place include keeping the amenities open 24 hours a day, making the area the regional centre for rowing, creating public art from the existing dead trees. Other suggestions included more undercover dining areas, and reducing the number of trucks, cars and petrol tankers that drive across the lawns regularly.

Hume Reserve

This site was identified as being a great place to be within the Murray Bridge area due to its proximity to the CBD, the river and also the wetlands. The site is used by 4WD enthusiasts, fishers and horse trainers but has poor access and signposting. Other issues raised include:

- Aboriginal heritage on the site; and
- Lack of maintenance

Suggested improvements include:

- Signage that recognises and protects the heritage;
- Improved access and maintenance; and

- Creating better connections with existing walking trails and the Lavender trail.

The 'big ideas' for the site include:

- A caravan park;
- Installing amenities and picnic facilities; and
- Improving the visual appearance with more vegetation and possibly an arid garden. Other improvements include screening the meatworks which is currently the first thing that you see at the reserve.

Rocky Gully Wetlands

The community value the wildlife and birdlife within the area, as well as the walking surfaces and trails, and also the proximity to the river. When asked who uses the place, there were mixed responses, some community members expressed that the site isn't used at all, and other expressed that a variety of people use the area but it is mostly used by locals. Suggested improvements include better trails, fitness opportunities, and connections to the Lavender Trail. Other ideas for the area included creating canoe access and also recreational fishing, and also adding some timber walkways to enhance access to the birds, reeds and insect life within the wetlands.

Toora Reserve

The community value the natural environment, the serenity and it not being a well known place to the broader community. It was addressed that the site is not very well used by the community, as many people do not know that it exists. Changes that could be made to the area included better maintained areas for houseboat mooring, improvements to the overall maintenance of the site especially weed control, and also attempting to keep the grassed areas within 10m of the river bank. Other suggestions for the site included creating cycling and walking links between the site and other sites within the study area, and also obtaining access to the river as it is currently fenced off.

Mobilong Swamp

The Mobilong Swamp provides opens space and proximity to the river front. The site is used by people such as researchers, contractors, walkers, and that farmers previously used the land. When asked how to change the place to better it, the community responded with ideas including developing the land into environmental sanctuaries and community facilities, better connecting the site with the Rocky Gully Wetlands and Sturt Reserve, and also recognising and protecting the Ngarrindjeri burial ground that is at the foot of the cliff within proximity to the site. It was also suggested that prior to future development Robert Hutchinson and SA Water are consulted.

5 Consultation

5.6 Online Survey

5.6.1 Overview

An online survey was undertaken, to give members of the community who were not able to attend the drop-in session the opportunity to share their opinions of the Riverfront area in Murray Bridge, and also share their ideas for the future. The survey was created using the SurveyMonkey software, and was distributed to the community through the Rural City of Murray Bridge website (responses area attached as Appendix B).

Overall, the survey gathered 17 responses. The survey asked the following questions:

- How do you use the River and where on the Riverbank do you go to use it?
- What do you value most about the Riverbank?
- Looking at the map above. Which places work well and why?
- Looking at the map above. Which places need improvement and why?
- What riverbank initiatives do you think will bring more visitors to Murray Bridge and encourage them to stay?

5.6.2 Key issues and points raised

The Riverfront is valued as a public place for recreation and sports. The natural environment is also valued for being calm and relaxing. The places within the study that are considered to work well now are Sturt Reserve for its large space and the events that are held there. Avoca Dell, Thiele Reserve and Long Island Reserve are also valued for their natural amenity, boat access, and shade and bbq facilities.

The areas identified as in greatest need for improvement are Hume Reserve which is described as an 'eyesore' in need of beautification, and Sturt Reserve, particularly the wharf and railway carriages.

Suggestions from the community to attract visitors encourage use of the space for a greater range of events such as music concerts and activities, healthy food outlets, improvements to the wharf precinct and improved links to the town centre and other areas of Riverfront. There was a common view that more visitor accommodation should be located close to the Riverfront, particularly a caravan park (Renmark Big 4 was given as an example) and camping areas.

A number of other river towns were given as examples for Murray Bridge to follow including Mildura and Echuca.

5.7 Submissions by Individuals and Community Stakeholder Groups

Specific written submissions were received from the following local residents who have given significant thought to the Riverfront precinct and the key points are presented below (for further details see Volume 2 Report: Individual and Community Stakeholder Group Submissions):

Ms Pat O'Riley – The river itself is an attraction and more can be done to attract visitors by promoting the European and Aboriginal culture and history of the Riverfront. Trails and interpretive signage is required to highlight these features. There are opportunities to use festivals and events that feature culture, history and food.

Mr Andrew Baltensperger – A floating playground



Floating playground photo supplied by Andrew Baltensperger

Mr Graham Hallandal – Glow-in-the-dark bike paths

Mr Mal Victory

- The wharf development at Echuca is a good example of waterfront development
- Sturt Reserve – use the landfill area for caravans and cabins.
- Housing development - West Lakes style housing – create an artificial lake – waterway off the river – like Encounter Bay / Victor Harbor. Could be on the eastern side?
- Boat ramps need to be lengthened to cater for more significant boats – some boats / trailers drop off the end or the side and create damage as they run their engines to get off the trailer creating bank damage. 15m into the river.
- Refuelling on water – only available at Long Island Marina. Could also be put in at Thiele & Avoca Dell. May also need to be extra sites on the opposite side of the river.

Mr Peter Harden – Create a riverboat tourist office at the river end of Bridge St, at the intersection of Bridge St and Railway Reserve Road. A building resembling a paddle steamer at this location would become a tourist office and attraction 'in one'.

A meeting was also held with the **Boating Industry Association**, who provided an overview of current issues associated with river based recreation.

5 Consultation

5.8 Previous Consultation by Murray Bridge Council

Previous consultation with the community via Council's "Let's Talk" website portal in relation to the Riverfront Masterplan (2007) suggests there is considerable support for revitalisation of the Riverfront. The survey received a number of suggestions to bring greater activity to Sturt Reserve. These include: the value of the existing playground, and a proposal for a bike track loop for children, and more entertainment and events in that area.

There were also general comments in relation to the Riverfront and these included:

Tourism infrastructure, accommodation options, indigenous tourism, paddle boats, cafes, festivals and events. There was also support for more access to the river and wetlands including camping options along the river.

5.9 Summary and Conclusions

The consultation process has provided strong support for initiatives to revitalise and activate the Riverfront. Overall there was a view that other river towns (particularly Mannum, Renmark, Mildura) have set a standard for Riverfront precincts that Murray Bridge should aspire to. Council and Regional Development Australia say objective of revitalising the Riverfront should be to attract professionals and white collar workers to live in the town as well as to attract visitors in greater numbers.

The overall strategy for the study area could be to focus on 'bookending' the study area with new initiatives and improving Sturt Reserve in the middle. The new motorsports park at Tailem Bend will make the Swanport Bridge crossing more important and there is an important opportunity to use this as a gateway to Murray Bridge. There was a general view that individual sites on the river should be linked by walking and cycling trails.

There was also a view that a range of visitor accommodation could be offered closer to the river, particularly caravan parks and camping opportunities. The promotion of water sports was also a consistent theme with support for more houseboat mooring places. There were different views about the 4 knot speed limit which restricts motor boats in the river areas closest the town centre. Some respondents felt this unnecessarily restricts water based activities whilst others felt it provides a safer environment for other non-motorised water sports such as rowing, swimming and kayaking.

Whilst suggestions were made to improve amenities at each of the individual sites, Sturt Reserve and to a lesser extent Hume Reserve received the greatest amount of feedback. Improving the links between Sturt Reserve and the town centre is paramount and the wharf and railway precincts are considered to be in greatest need of improvement within the reserve. There is also a view that this site would benefit from more food outlets, events and activates. The proposals by the rowing club and RSL to develop specific facilities on Sturt Reserve will help to attract people to the area for specific activities but may potentially encroach on the amount of space that is accessible to the public.

There was a strong view that Hume Reserve is in need of 'beautification' and that its current condition detracts from the town. The idea of attracting visitors with cultural tourism had some support, particularly using interpretive signage and a walking trail. This was not however an initiative that was put forward by the Ngarrindjeri. The NRA indicated they wish to respond to the Riverfront Strategy and receive assistance to develop a Cultural Management Plan for the study area. They would also like to be involved in the ongoing implementation of the Strategy.

The feedback from stakeholders has not proposed any significant development within the 1956 Flood Zone (other than the new rowing club) however the zone remains a constraint and should be reviewed by the state government for its current appropriateness.

The quality of the natural river environment is the main reason people visit places in the study area and the wetlands were highlighted as places with high conservation value that could be better promoted.

6 Key Environmental and Economic Riverfront Strategic Directions



6 Key Environmental and Economic Riverfront Strategic Directions

6.1 Guiding Principles

The review of previous studies, environmental and economic analysis and consultation with the community has identified a number of key themes and opportunities across the broad study area. It is recommended that the following Guiding Principles are used as the basis for future strategic decisions in relation to the riverfront.

- Improve access and build connectivity along the riverfront
- The focal point for the riverfront is Sturt Reserve. It is the hub for community activities, tourism, and promotion of Indigenous and European heritage.
- Activate the Swanport Bridge area to create a gateway to Murray Bridge
- Focus river based recreational facilities, initiatives and investment around broad river “zones”.
- Balance recreational and environmental values of Councils reserves through defined levels of service.
- Encourage Riverfront investment through review of restrictions around flood zoning, consideration of innovative solutions and exploring the potential of other sites with river views
- Improve contact and consultation with the Ngarrindjeri Regional Authority

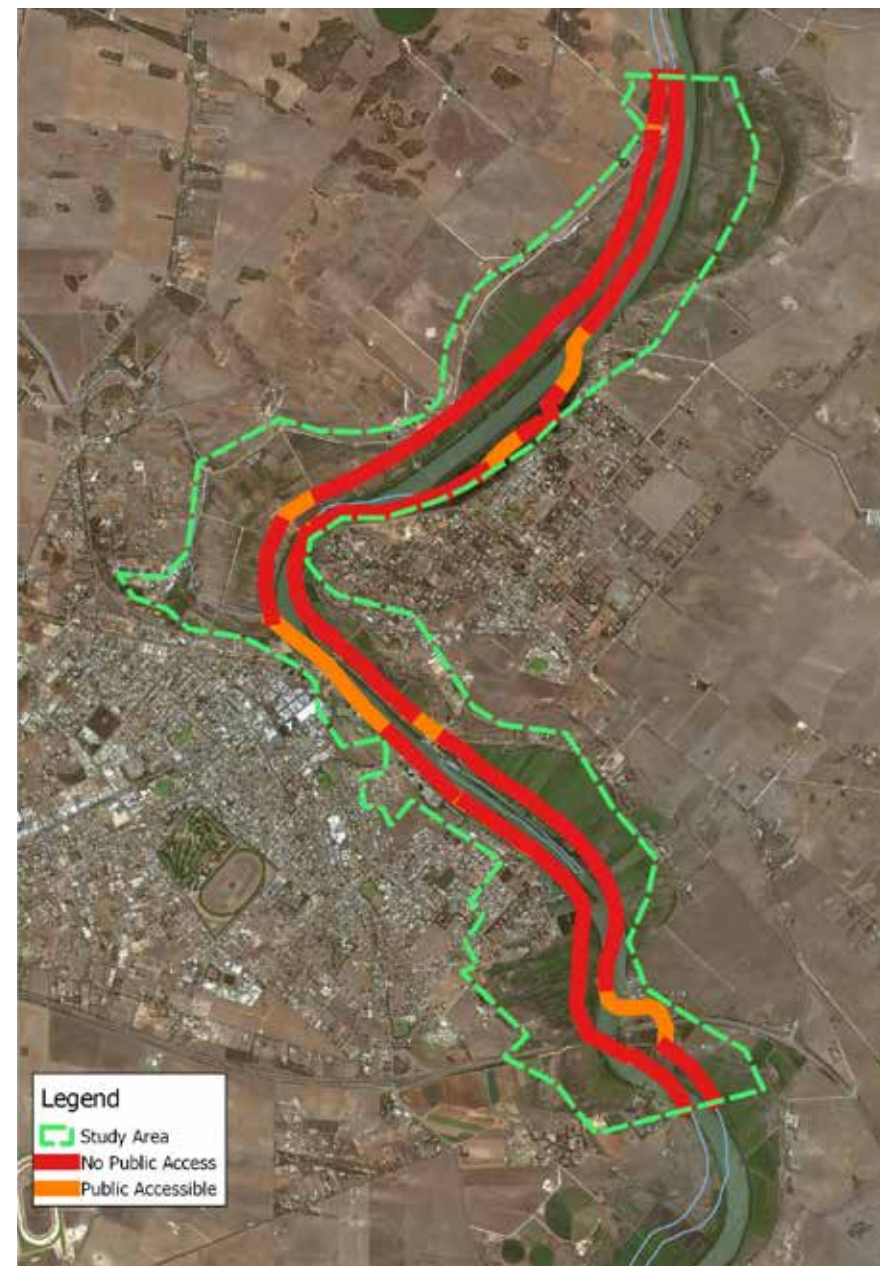
Each of these Guiding Principles is discussed in greater detail below. Although the primary focus of this report has been on the analysis of issues within the defined study area, it is envisaged that the guiding principles have the potential to be overlaid or extended to provide direction to all river frontage within Council control. In this sense, the Riverfront Strategy is intended to be pilot project, which will assist the Council with delivering environmental and economic improvements along the whole length of the Murray River within its jurisdiction.

6.1.1 Riverfront Connectivity

This guiding principle is based on riverfront connectivity in a physical, wayfinding and environmental context.

Physical Connectivity

At the present time, the River is inaccessible by the broader public (including those who don't own either a boat or river frontage) for most of its length, as illustrated below.



As shown, particularly acute are those stretches of river between Hume Reserve and Toora Reserve, between Avoca Dell Reserve and Thiele Reserve, Thiele Reserve to Swanport Wetlands and Swanport Reserve to Murray River Resort.

This needs to be remedied, most effectively by creating walking and cycling links between these points. Consultation undertaken during this project also identified that the linkage of Council assets by walking and cycling paths was important to the community.

These linkages will provide the dual benefit of allowing greater access to the riverfront for visitors and the local community, rebuilding the emotional connectivity of the town with the river, while also providing the ideal outlet for physical activity along the waterfront.

In some locations, establishing these linkages will require that new rights of way be obtained across numerous private properties, but there are precedents – most recently, the Walk the Yorke trail.

Wayfinding and Signage

Within the study area, directional and information signage is limited. When signage is present it is inconsistent and often appears quite old and in need of a refresh.

Currently, visitors within the town are not drawn to the riverfront and access points to the river (e.g. the Council reserves) are not easy to identify. Conversely visitors arriving by boat (for example at Sturt reserve) would not be able to easily identify where they are or where the key attractions of Murray Bridge are located.

The riverfront (and potentially the whole of Murray Bridge) would benefit from a well considered and implemented wayfinding and signage strategy. The key elements of the strategy are the unique identification and grouping of key locations, and the linking of these locations. This strategy needs to allow visitors to determine their location, determine their destination and develop a plan that will take them there.

6 Key Environmental and Economic Riverfront Strategic Directions

Environmental Connection

Biodiversity across the breadth of the study area has been significantly modified due to agricultural practices and urbanisation. Currently there is limited remnant vegetation present, however the Council parks and reserves provide an excellent opportunity to enhance environmental values.

Despite loss of vegetation there are a number of significant areas of remnant wetland and vegetation including Swanport, Rocky Gully and Riverglades wetlands and Long Island. These systems provide a key seed bank and nursery for native flora and fauna, and should be protected.

In addition, there are opportunities to increase diversity of canopy and shrub vegetation within the other Council reserves.

Although the fragmented nature of the system limits the ability to create strong environmental linkages, the establishment of this chain of vegetated "pockets" will go some way in providing enhanced connection for flora and fauna.

Priorities

Whilst the initiation and investigation phase of this initiative is a high priority, it is recognised that obtaining rights and establishment will occur in the medium term. The following figure outlines a suggested route for the linkages, along with priorities for implementation. It is also envisaged that many of the lower priority trails will be established as less formal tracks initially, before progressing to more formal walking and cycling paths.



Riverfront Connectivity

PRIORITY

- Short Term
- Medium Term
- Long Term

6 Key Environmental and Economic Riverfront Strategic Directions

6.1.2 Sturt Reserve – “The Jewel in the Crown”

The riverfront strategy has identified that to effectively “turn the town around to embrace the river” it requires a focal point, for both residents and visitors. Sturt Reserve is the obvious location due to its proximity to the town, its existing facilities and its potential to be the centre of community, river focused activities. It is therefore recommended that Sturt Reserve becomes a focal point for Councils riverfront investment.

There are a number of issues that need to be addressed within the reserve, including but no limited to:

- Current uses within the reserve are disjointed with no obvious linkage between the different areas.
- Historic areas and places where visitors disembark tourist vessel are untidy and lack obvious connection to the town centre or tourist attractions
- The development potential for a large portion of the reserve is unknown, due to lack of information on the historic landfill. As stated by a community member during the consultation, this area is a “blank canvas we are not able to paint”.
- There are unresolved issues related to bank stability along the southern sections of the reserve.

Sturt Reserve should be the focal point of major investment, embracing the river as a destination. The investment should include a combination of infrastructure upgrades and activation of the space.

Detailed recommendations are outlined in section 6.3.4.

6.1.3 The Gateway to Murray Bridge

The majority of potential visitors that pass Murray Bridge do so by passing over the Swanport bridge. The new motorsports park at Taillem Bend will make the Swanport Bridge crossing more important. As this is the first and only taste that many travellers have of the town it is important to capture the potential of this area, and identify it as the gateway to Murray Bridge.

Currently there is little or no incentive for travellers to reduce speed and explore.

The opportunity exists to exploit this gateway to a much greater extent via an entrance statement and signage that gives the riverfront region an identity, and give visitors an incentive to leave the highway. There is also an opportunity to investigate the development potential of this highly visible area, as either a residential or accommodation offering, which would serve as an advertisement of riverside living in Murray Bridge.

Development in this area would need to be cognisant of the limitations of building within the floodplain. However, through clever design these risks could be mitigated.

6.1.4 Environmental and Recreational Levels of Service

A series of biodiversity management principles have been developed to guide Council's management of remnant vegetation and habitat in its parks and reserves. The principles reflect the highly modified nature of the river frontage in the study area and the services these areas provide supporting recreational uses and opportunities. In defining the management objectives for the reserves three levels have been defined to reflect different recreational expectations for use. These objectives are defined by levels of service for recreational and environmental values.

High impact recreational use with supporting infrastructure

These sites predominantly contain non-native vegetation with large proportions of the site containing grassed areas, playing fields, bank stabilising structures, boat ramps etc. Remnant vegetation, if present, is present as canopy trees only.

Recommended Recreational Level of Service

- Maintain current recreational activities and provide opportunities for new or alternative access
- Maintain existing infrastructure and identify opportunities for future infrastructure development

Recommended Environmental Level of Service

- Protect and maintain existing ecological values
- Identify opportunities to increase diversity of canopy and shrub vegetation

Reserves in this category include Toora Reserve, Long Island Reserve, Sturt Reserve, Avoca Dell, and Thiele Reserve.

6 Key Environmental and Economic Riverfront Strategic Directions

Moderate impact recreational use with some supporting infrastructure

These sites support lower impact recreational opportunities (such as picnicking, swimming and walking) with some remnant native vegetation, usually limited to canopy trees. There may be some aquatic vegetation located in the fringes of the riverbank.

Recommended Recreational Level of Service

- Maintain current recreational activities and provide opportunities for new or alternative access
- Maintain existing infrastructure. Identify opportunities for low environmental impact infrastructure to support biodiversity values

Recommended Environmental Level of Service

- Protect and maintain existing ecological values
- Identify opportunities to increase diversity of canopy and shrub vegetation (as small stands/clumps)

Reserves in this category include Swanport Reserve and Swanport Aquatic Centre.

Low impact recreational use, low impact infrastructure and high environmental values

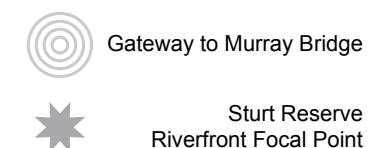
Recommended Recreational Level of Service

- Support passive recreational activities that are in character with the ecological significance of the site
- Infrastructure renewal / replacement as low environmental impact

Recommended Environmental Level of Service

- Protect and enhance existing ecological values
- Identify opportunities to increase diversity of vegetation and habitat through targeted planting and management of water regimes.

Reserves in this category include Rocky Gully wetlands, Swanport Wetlands and Hume Reserve.



Recreational & Environmental Levels of Service

- High Impact Recreational Use (blue circle)
- Moderate Impact Recreational Use (green circle)
- Low Impact Recreational Use, High Environmental Values (orange circle)

6 Key Environmental and Economic Riverfront Strategic Directions

6.1.5 Targeted River-Based Recreation Investment

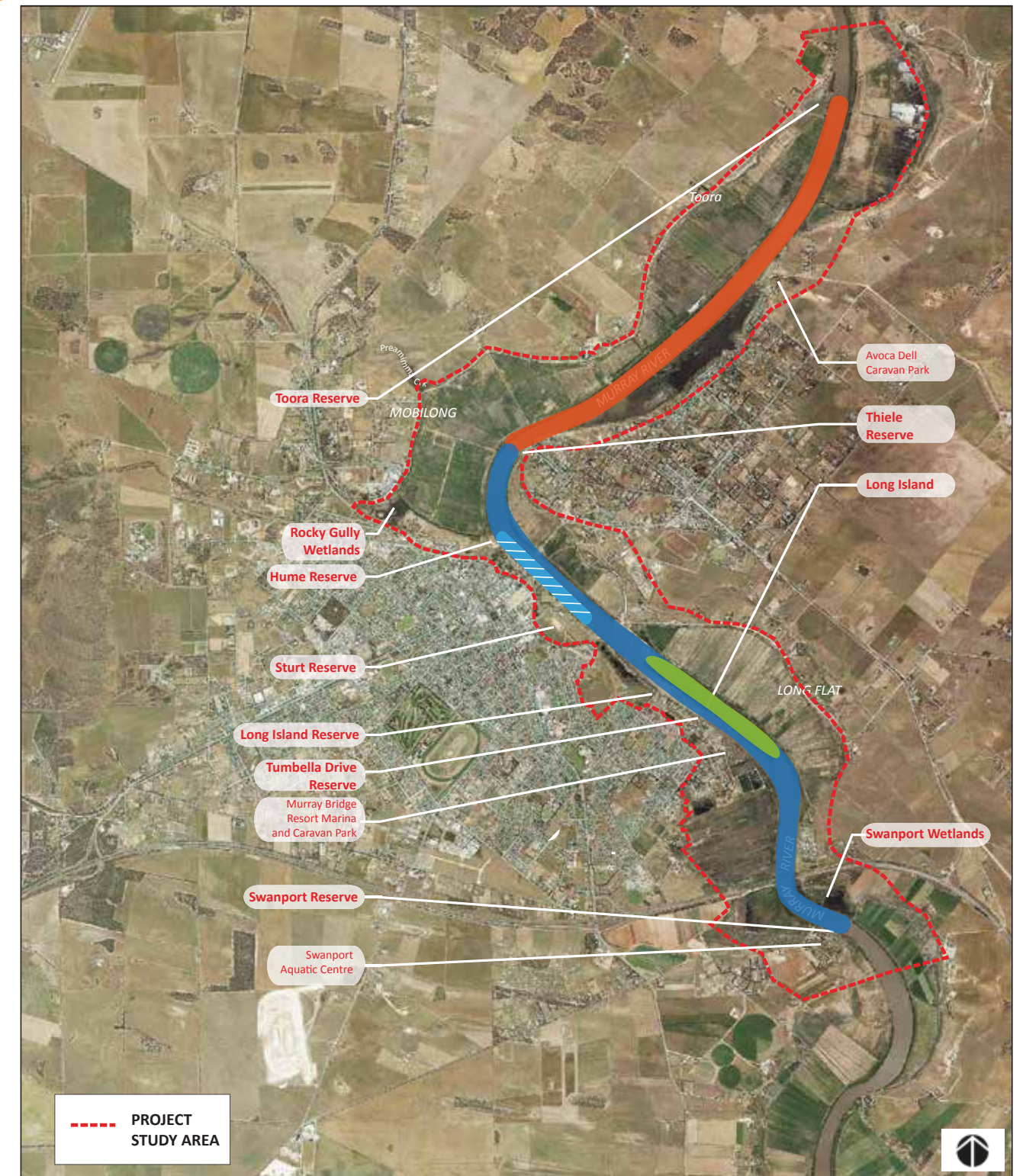
It has become evident through development this study that it is important to identify "what should go where". Providing this focus will allow Council to set a direction for infrastructure investment.

As a riverfront strategy, it is critical to define where Council should invest in various types of infrastructure to support river based recreation. Based on the findings of this report, the following figure provides an overview of where Council may wish to focus its efforts to support the recommended uses.

The intent of this figure is provide a guide for targeting of investment in land based infrastructure. It is not a recommendation in relation to restrictions on certain watercraft within particular stretches of the river, as this is outside the scope of this report.

However, it is evident through liaison with the various stakeholders that a management plan for water based recreation is of high importance to ensure the safety and continued enjoyment of river users. It is recommended that Council facilitates this process with assistance from the Department of Planning, Transport and Infrastructure (DPTI), and involves Government stakeholders, water based recreation industry associations, community groups and other interested river users. Many of the concerns raised by the community during this study relate to activity in the waterway around Long Island, and therefore it is recommended that future discussions involve:

- Consideration of congestion and non-complementary uses in the area;
- Restrictions on motor craft on the eastern side of Long Island and consideration of relaxation of this at particular times of the day; and
- Restrictions on personal watercraft (i.e. jetskis) and potential alternative locations for this activity.



Targeted River Based Recreation Investment

- Low Energy Activity Zone (Tourism, Houseboats, Unpowered Craft, Swimming)
- General Water Recreation Zone
- Unpowered Craft Recreation Zone
- High Energy Craft Recreation Zone (e.g. Skiing, Jet Skiing)

6 Key Environmental and Economic Riverfront Strategic Directions

6.1.6 Encourage Riverfront Development

It is recommended that Council investigate options to encourage residential development within the study area. Residential development will act as a direct driver of economic development, but the state of the residential property market more generally will come to reflect the degree to which economic development is occurring - because economic growth will stimulate new migration of residents into the locality.

As outlined earlier in this report, resident populations generate economic activity. Attracting people to live, work and raise their families in a locality cannot be overemphasised as an economy builder.

A number of opportunities in this regard were identified during the study, as outlined below and as shown on adjoining figure:

- Investigate, potentially in co-operation with adjoining Councils, ways of improving development potential and flexibility within the 1956 Flood Zone, with a view to loosening some of its strictures and fostering development. As detailed in the previous section, this may encourage development around the Swanport bridge area.
- Explore the potential of other sites with River views for residential subdivision in the study area, facilitated with zoning changes where appropriate. Potential sites include:
 - > Part of a large site in Murray Bridge East bordered by speedway, railway line and showgrounds, zoned 'Recreation'; and
 - > Land in Murray Bridge East on Long Flat Road, currently zoned 'Primary Production'.
- Explore the potential for residential development on Council land with river views at the rear of Avoca Dell and Theile Reserve. Refer to the site specific recommendations later in the report for more detail.
- Continue to advance the residential subdivision of Council land situated between Oxford Street, Narooma Boulevard and Forest Reserve.

Analysis should also be undertaken to understand the benefits, or otherwise, of conversion of Council riverfront leasehold land to freehold (e.g. numerous riverfront shacks), which may stimulate improvements and higher end residential opportunities along the riverfront while providing Council with improved sources of revenue from these developments.



Riverside Residential Development

Explore potential for residential development with river views.

6 Key Environmental and Economic Riverfront Strategic Directions

6.1.7 Contact and Consultation with the Ngarrindjeri Regional Authority

As identified earlier in the report, the whole study area is of importance to the Ngarrindjeri and it all falls within the current Native Title Claim Area. A number of individual sites, such as Hume Reserve, are of particular significance.

The Ngarrindjeri wish to be recognised as the traditional owners of their country and for this to form the basis of their ongoing involvement in the development and implementation of the Riverfront Strategy.

It is recommended that Council begin specific dialogue with the Ngarrindjeri Regional Authority so that they can be involved in the implementation of this strategy. It is also recommended that the Ngarrindjeri Regional Authority develop a Cultural Management Plan, in partnership with Council, so that this can also guide further actions.

6.2 Study Area Recommendations

In alignment with the guiding principles the following overarching actions are recommended.

Item	Recommendation	Priority
MBR1	Prepare a Destination Management Plan focusing on the Murray River and the study area in particular. That plan should include market research comprising engagement with visitors, tourism operators and other stakeholders. It should include a marketing plan for River tourism, but it must be recognised that promotion in isolation is an inadequate response. The plan should not be Government centred, but rather Government facilitated; a range of local stakeholders should control its formulation and execution. It should not be static, but constantly refined and reimagined as the trading environment changes over time. Although outside the study area, the plan should also include identification of opportunities from the proposed Tailem Bend Raceway and investigation of a food tourism plan.	High
MBR2	Development of a Murray Bridge Walking and Bicycle Trail Masterplan and Concept Design.	High
MBR3	Development of a Murray Bridge Wayfinding and Signage Strategy and Wayfinding and Signage Manual.	High
MBR4	Analyse the Swanport Bridge and its approaches as a gateway to the study area. This may include architectural entrance statements designed to highlight the area as a 'brand'. Consider potential for accommodation and/or residential development in this area, facilitated by zoning changes where appropriate.	Medium
MBR5	Explore the potential of sites with River views for residential subdivision in the study area, facilitated with zoning changes where appropriate. Potential sites include the large site in Murray Bridge East bordered by speedway, railway line and showgrounds, zoned 'Recreation'; and land in Murray Bridge East on Long Flat Road, currently zoned 'Primary Production'. Review merit of conversion of Council riverfront leasehold land to freehold.	Medium
MBR6	Investigate, potentially in co-operation with adjoining Councils, ways of improving development potential and flexibility within the 1956 Flood Zone, with a view to loosening some of its strictures and fostering development	Medium
MBR7	Improve contact and consultation with the Ngarrindjeri Regional Authority with multiple intent, including development of a Cultural Management Plan and discussion around: <ul style="list-style-type: none"> Developing cultural and historical tourism within the study area which can be integrated into the Destination Management Plan; Identifying a future role for Hume Reserve and putting it into effect; and Facilitating redevelopment of the Railway Precinct. 	High
MBR8	Facilitate rural industry growth to the fullest extent possible, with particular focus on the dairy industry. Rejuvenation of rural industry on the study area flood plain holds the promise of generating many more jobs than the tourist industry. Opportunities include opening discussions with SA Water in regard to encouraging beneficial use of their significant riverfront landholding, from an environmental and economic perspective. (Refer section 6.3.13 for additional discussion).	High
MBR9	Develop a management plan for water based recreation, outlining preferred uses within the river and recommending restrictions if required.	High

6 Key Environmental and Economic Riverfront Strategic Directions

6.3 Site Specific Recommendations

In this section of the report, the spotlight shifts from the broader picture to the specific manner in which the individual sites can contribute better to community amenity, economic and environmental advancement within the study area. The analysis below is drawn from previous studies in the literature review, recent site inspections and consultation with Council elected members, CEO and staff, state government agencies and statutory authorities, Ngarrindjeri Regional Authority, community organisations and the wider Murray Bridge community. The recommended actions align with the Guiding Principles outlined previously.

6.3.1 Toora Reserve

Toora Reserve is a little-known or visited site, situated some 12 kilometres north of Murray Bridge on the western side of the River. Access is via unsealed roads.

The reserve is a relatively undeveloped with limited infrastructure and formal access points. Environmental values are limited to the riparian zone with small wetland vegetation at the edge of the river channel. The river channel is lined with willows.

The remainder of the reserve contains pasture and weeds and is not maintained.

Environmental and Recreational Levels of Service:

High impact recreational use with supporting infrastructure.

Recommended Actions

The following actions are recommended in relation to this area.

Item	Recommendation	Priority
TR1	Undertake needs analysis, and prepare concept design for upgrade of reserve. The upgrade should include walking trail linkages, amenities and signage as a minimum. Considerations should also include provision of facilities for river based recreation to complement facilities, and alleviate congestion, at Thiele, Long Island and Avoca Dell reserves.	High
TR2	Develop reserve in accordance with concept design. There may be potential for private funding for redevelopment as it may support a proposed private tourist venture in the area.	Medium



Council Owned

Toora Reserve Actions

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.2 Rocky Gully Wetland

Rocky Gully Wetlands, are a series of constructed wetlands, situated on Mannum Road, on the western bank of the River, a short distance to the north-west of the Murray Bridge CBD.

The wetlands contain significant environmental values and provide refuge habitat for a number of threatened fish species. Fish populations inhabiting the wetlands will vary depending on the salinity regime with higher salinity favouring a greater diversity of threatened species.

The reserve supports passive recreational opportunities with a series of trails around the wetland that are used for activities including walking, cycling and birdwatching.

Environmental and Recreational Levels of Service:

Low impact recreational use, low impact infrastructure and high environmental values

Recommended Actions

The following actions are recommended in relation to this area.

Item	Recommendation	Priority
RGW1	Maintain current walking trail infrastructure and improve walking trail signage including improving connection to Lavender Federation trail.	Medium
RGW2	Improve "information board"/entry statement in line with Signage strategy.	Medium
RGW3	Improve vehicle access to the information bay/wetlands entry, as currently there is no direct access if travelling out of Murray Bridge on the Mannum Road (no right turn).	Medium
RGW4	Implement weed management program for terrestrial weed species.	Medium
RGW5	Review water regime requirements to promote diversity of wetland flora	High
RGW6	Review existing 2006 Rocky Gully Wetlands Management Plan.	High
RGW7	Continue revegetation activities to improve terrestrial vegetation diversity of all functional groups and provide habitat for fauna.	Medium



Council Owned

Rocky Gully Wetlands Actions

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.3 Hume Reserve

Hume Reserve is situated on the western bank a short distance to the north of the Murray Bridge CBD and railway precinct. The site has close access to the Town Centre and wetlands and has direct access to the river. It is used for fishing, 4WD driving, and training horses. The site is presently in poor condition with no amenities.

Hume Reserve contains significant cultural heritage values but has been substantially modified through earthworks across the floodplain area to the north of the site. Improvements to the site should be in accordance with the Ngarrindjeri Murrundi Management Plan No. 1 (Ngarrindjeri Regional Authority 2009).

The Plan provides a balance between protecting and enhancing (and educating) the Ngarrindjeri spiritual and cultural values in relation to the lands and the broader region. The plan provides a framework to approach land development opportunities through respect, sympathy, cooperation and partnership.

The plan identified and provides recommendations for management of four discrete zones in the precinct of Pomberuk Lewunananangk. Each zone has a varying objectives from pedestrian access, conserving and enhancing the strong spiritual and cultural heritage significance of the area, a development zone and a protection, reservation and revegetation zone.

Due to the reserves proximity to town, and the significance of the site, there is potential for Hume Reserve to create cultural heritage/eco-tourism opportunities with major habitat improvements. Revegetation would also minimise current less desirable uses of the area.

Environmental and Recreational Levels of Service:

Low impact recreational use, low impact infrastructure and high environmental values

Recommended Actions

Any opportunities that are adopted in the future may only be achieved through extensive consultation and active participation of the Ngarrindjeri Regional Authority.

The following actions are recommended in relation to this area.

Item	Recommendation	Priority
HR1	Design a revegetation plan, focused on removal of non-indigenous vegetation and revegetation with native species. Considerable care (and full consultation with the Ngarrindjeri Regional Authority) should be taken during design and implementation due to burial sites, middens, remains of historic camps and the highly sensitive spiritual nature of the area. This opportunity has potential to be implemented at a community based clean up and initial revegetation along the estuary in the short term with more substantial improvements coordinated with the concepts and development of the Railway Precinct. This action will also require development of measures to protect the area from 4 wheel drive damage.	High
HR2	Hume Reserve has an existing walking and cycle trail connection to Rocky Gully Wetlands, albeit in a basic to poor condition. There is also an existing trail through the railway precinct that connects Hume Reserve to the wharf precinct and other areas of Sturt Reserve beyond. Improve walkways and signage to enhance this linkage.	Medium



6 Key Environmental and Economic Riverfront Strategic Directions



The Rural City of
MURRAY
BRIDGE

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Hume Reserve Actions

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.4 Sturt Reserve

Sturt Reserve is situated directly between the Murray Bridge CBD and the River. It is the Riverfront site that is best known and most favoured by the local community and visitors to Murray Bridge. The reserve is used by the local community and tourists for a range of passive recreational activities including swimming, walking, cycling and fishing. It is also used for organised sports, particularly rowing and tennis and community events including a Christmas parade, fireworks and Pedal Prix. In 2015 the site hosted an ANZAC day dawn service attended by 3,500 people and the RSL would like to see it continue to be used for this purpose in the future. The current economic activities include a café and paddle steamer cruises.

Environmental values are limited due to the nature of the space and its use for active and passive recreation. Values are limited to remnant canopy vegetation. Bank stability is an issue in parts of the reserve as a result of low water levels during the millennium drought and continued wave action and boat wash.

A portion of the site was previously used for landfill of commercial and domestic waste between the 1960's and the early 1990's. The landfill has been capped and is no longer used, although it appears to have not been "formally" closed, as no Closure and Post Closure Plan (CPCP) has been developed.

A small stormwater wetland is located in the southern area of the reserve providing limited attenuation of stormwater. This water could be directed into the wetlands located to the south connecting them through to Long Island Reserve providing improved biodiversity and recreational access.



Existing Signage for Historic Attractions



Existing Walkway Northern End



View from Historic Wharf

6 Key Environmental and Economic Riverfront Strategic Directions



View from Rose Garden



Existing Walkway Midway along Reserve



Midway along reserve near Cafe



Bank Stability Warning Signage



Narooma Wetland

6 Key Environmental and Economic Riverfront Strategic Directions

Environmental and Recreational Levels of Service:

High impact recreational use with supporting infrastructure

Recommended Actions

In line with the Guiding Principles for the riverfront, Sturt reserve should be the focal point for riverfront investment.

Focus through Precinct Definition

To assist in the future planning and investment, it is recommended that the reserve is considered as a number of "precincts". The precinct plan is outlined in the adjacent figure, and has been developed based on existing infrastructure and the expressed future desires of the community.

Definition of the precincts is provided below.

- **Play – Activation, energetic and alive** – The focus of the play precinct is community activities and events, visitor experiences and fun. It will be an area where there is "always something happening" or something to do, whether you are a community member, day tripper from Adelaide or tourist. It will build on the current infrastructure and events. Examples of future activities may include a moonlight cinema; music, food or cultural festivals, or events to coincide with public holidays (e.g. Australia Day). Options for future infrastructure may include a "splash" zone water play area, floating playground or river "beach".
The potential for additional cafes/eateries should be explored, including the review of any restrictive zoning constraints. Innovative solutions, such as "pop-up" venues or "fork in the road" food truck events may be possible in the short term.
- **Recreation** – Focus around more formal recreation activities, building on current infrastructure, but in particular on development of rowing infrastructure and establishment of Murray Bridge as the "home of South Australian rowing".
- **Historic/Tourist Precinct – Relaxed and Reflective** – The focus of this precinct is on visitor experiences and information, and celebration and reflection of both Indigenous and European heritage. This precinct includes landing facilities for tourist cruising vessels.

Currently there a number of historic relics located in this space in need of restoration. There is potential to incorporate these items within the fabric of the precinct, as outlined in the Sturt Reserve Riverfront Study. Examples include incorporating the railway cutting, or information on sunken historic vessels into the paving or enhancing the cultural history of the site through sculpture and design elements in the street furniture.

This precinct would make an ideal location for a tourist information/interpretive centre due to its riverfront location, proximity to the landing point for tourist vessels and the town centre, historic surroundings and potential links to Hume reserve.

It is also envisaged that this precinct would also be an ideal location for a remembrance garden, which would be utilised for ANZAC day and other important events for returned service people. The reflective nature of this facility would align with the use of the precinct.

- **Accommodation** – The accommodation precinct is ideally located to provide caravan, cabin and/or camping accommodation alongside the river and the key activity area for Murray Bridge. Establishment of accommodation in this location would be a major drawcard for visitors and people attending the regular events held in Sturt Reserve.

Critical to the success of Sturt Reserve is the connection of these precincts, the town centre and adjoining reserves. It is important that future planning of this site includes a riverfront promenade/ walking/cycle path, and well defined pathways and directional signage to important locations.

Key Themes

The key themes identified within the Sturt Reserve Riverfront Strategy – 2013 continue to be relevant and it is recommended that they continue to influence the direction of development moving forward. These themes are:

1. The creation of vibrant, liveable and safe places
2. The conservation of cultural heritage and diversity
3. Improvement and enhancement of natural environments
4. Promotion of thriving, quality rural industry, business and tourism sectors
5. Encouragement of healthy and active lifestyles
6. Improvement of accessibility and linkages

Understanding the Constraints and incorporating into Design

There are currently two major environmental constraints within Sturt Reserve which are currently not well defined; the old Landfill site and the riverbank stability. Although some investigation has been undertaken to identify risks associated with these sites, the investigations to date are not sufficient to fully define the constraints or provide enough detail to design a solution.

It is important that these items are investigated prior to development of a masterplan and/or concept design, so that any site restrictions or remedial solutions can be incorporated into the design.

These items should be addressed as a high priority to ensure the future protection of the community, the environment and this important asset.

6 Key Environmental and Economic Riverfront Strategic Directions

Item	Recommendation	Priority
SR1	Encourage a yearly program of community activities and events focused on activating Sturt reserve. Promote temporary "pop up" cafe or mobile facilities for events.	High
SR2	Undertake detailed investigations into bank stability and design appropriate controls.	High
SR3	Understand detailed investigations into the nature and extent of the old landfill site, and remediate or design for appropriate uses.	High
SR4	Detailed Masterplan for Sturt Reserve and Concept Design for Historic/Tourist and Play precincts. Seek funding for implementation.	High
SR5	Improve linkages, signage and wayfinding. Incorporate riverfront promenade (including feature lighting), new mooring points, connection to town centre and tourist facilities. Include connection to Hume reserve and Long Island reserve.	High
SR6	Major investment in Historic/Tourist precinct. Improve visitor experience (including from cruise vessels) including additional information, signage and wayfinding, restoration of wharf, incorporate historic elements into design and remove or screen unrestored antiques. Develop tourist information and/or interpretive centre.	Medium
SR7	Invest in "Play" precinct around a water/river focus (e.g. "Splash" zone water play area, floating playground and/or river "beach".) Encourage additional eateries/cafes in precinct.	Medium
SR8	Maintain existing remnant flora vegetation values. Identify opportunities to reintroduce Black Box in the upper areas of the floodplain	Medium
SR9/ LIR4	Investigate options to rehabilitate Narooma Wetlands through diversion of stormwater from Sturt Reserve and Long Island Reserve.	Medium

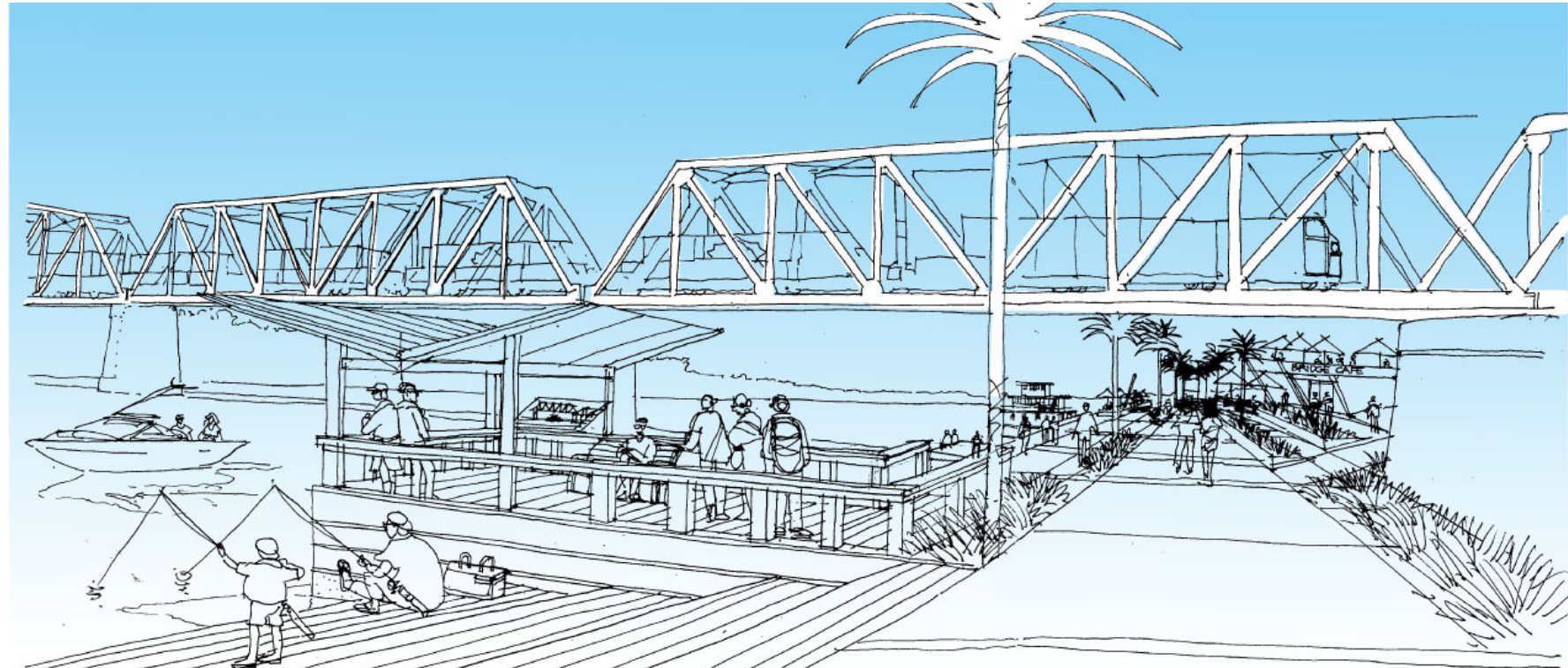


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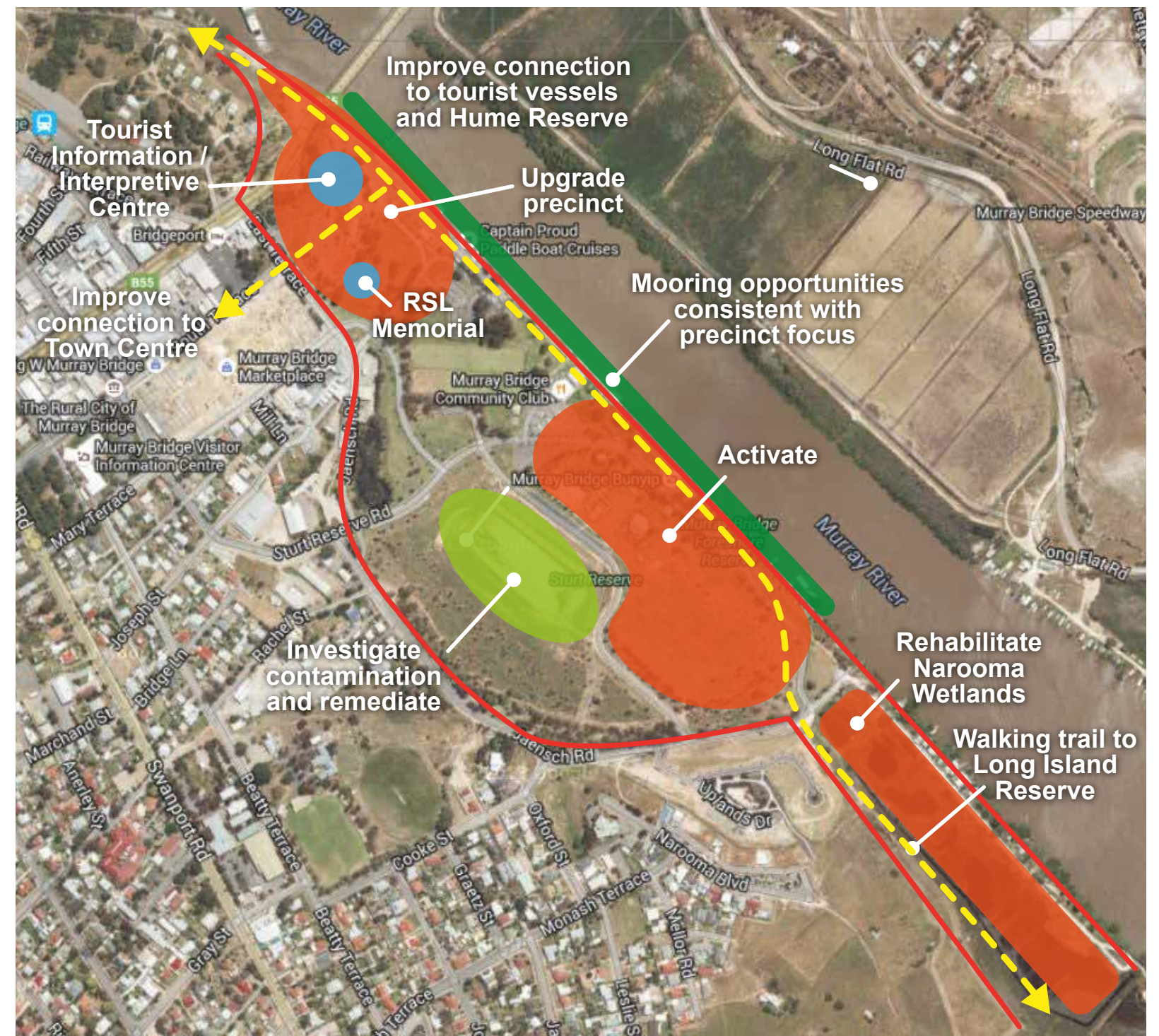
Sturt Reserve Precinct Plan

6 Key Environmental and Economic Riverfront Strategic Directions

Examples of Activating Riverfront



6 Key Environmental and Economic Riverfront Strategic Directions



 Council Owned

Sturt Reserve Actions

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.5 Long Island Reserve

Long Island Reserve is situated on the western side of the River within the Murray Bridge township, some 3 kilometres south-east of the CBD by road. It supports a range of active recreational activities with supporting infrastructure including a boat ramp, small jetty and house boat mooring piles. The reserve is well-maintained and used for boating and water skiing by locals during the week, and also by the wider community on weekends.

Ecological values are limited with remnant and planted vegetation consisting of mainly canopy species.

Bank stability is an issue in a number of places as a result of boat wake and waves.

The wetland (Narooma wetlands) between Sturt Reserve and Long Island Reserve present an opportunity for rehabilitation by improvement to the water regime. A stormwater drain runs parallel to the boat ramp and discharges directly to the river. This could be diverted to the north and into the wetlands.

A proposal has been made for the creation of a watersports park to the north of Long Island Road, which would be a significant tourist drawcard as a world class facility. Discussions with the proponent are on-going.

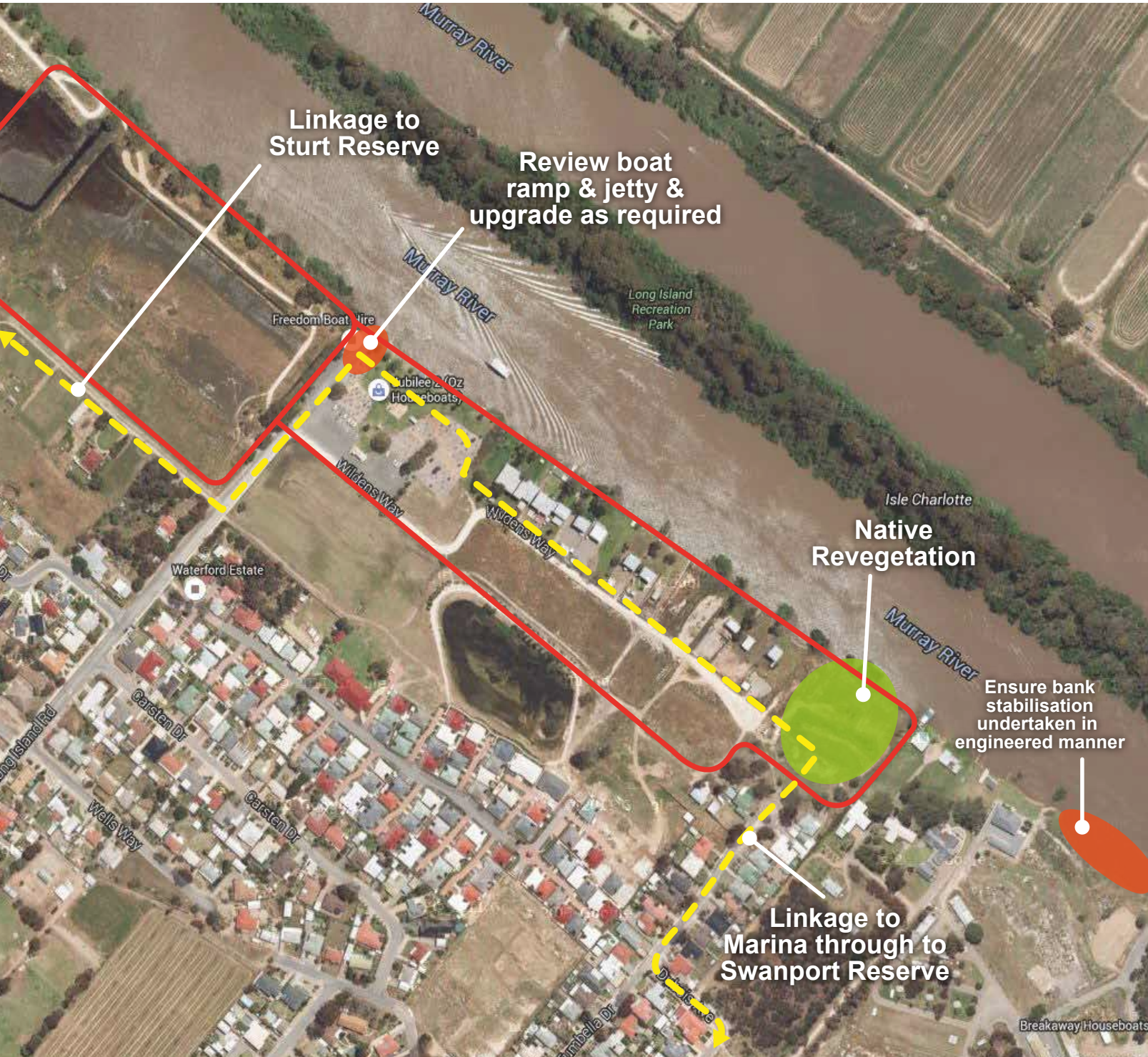
Environmental and Recreational Levels of Service:

High impact recreational use with supporting infrastructure.

Recommended Actions

The following actions are recommended in relation to this area.

Item	Recommendation	Priority
LIR1	Develop walkway and directional signage connections. Long Island Reserve has a tenuous walking connection to Sturt Reserve, however this needs to be properly constructed and made suitable for cycles as well. Pedestrians and cyclists may also reach Tumbella Reserve via Wildens Way.	Medium
LIR2	Review boat ramp and jetty and upgrade as required.	Medium
LIR3	Maintain existing remnant flora vegetation values. Identify opportunities to reintroduce Black Box in the upper areas of the floodplain.	Medium
SR9/ LIR4	Investigate options to rehabilitate Narooma Wetlands through diversion of stormwater from Sturt Reserve and Long Island Reserve.	Medium



The Rural City of
MURRAY
BRIDGE



Council
Owned

Long Island Reserve & Tumbella Drive Reserve Actions MURRAY BRIDGE RIVERFRONT STRATEGY (2015-25)

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.6 Long Island

Long Island itself is an elongated island in the middle of the River. Its northern end is adjacent to Long Island Reserve. It has no improvements, but is valued as a natural place and a significant site to the Ngarrindjeri. That portion of the River to the east of the island is limited to non-motorised boats.

Environmental and Recreational Levels of Service:

Low impact recreational use, low impact infrastructure and high environmental values

Recommended Actions

There may be some opportunity for actions at this site including low level development (for example kayak moorings), however these are generally considered low priority and likely to be outside the timeframe of this strategy.

Generally this area should be considered as a protected area, and any opportunities that are pursued in the future may only be achieved through extensive consultation and active participation of the Ngarrindjeri Regional Authority.

6.3.7 Tumbella Drive Reserve

Tumbella Reserve is a little-known reserve situated on the western bank of the River within the Murray Bridge township, some 3.7 kilometres from the CBD by road. The site is not generally well known but is used by the local community for fishing and water sports which are made safe by the 4 knot speed limit on the river at this point. The site was described as 'untidy' at the Elected Member workshop, and is without facilities and shaded areas.

Environmental and Recreational Levels of Service:

Moderate impact recreational use with some supporting infrastructure

Recommended Actions

The following actions are recommended in relation to this area.

Item	Recommendation	Priority
TDR1	Revegetation with native species to improve environmental and recreational benefits.	Medium
TDR2	Negotiate walkway link through Long Island Marina and SA Water Waste Water Treatment Plant towards Swanport Reserve.	Low



Long Island Reserve



Long Island Reserve



Tumbella Drive Reserve



Tumbella Drive Reserve

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.8 Swanport Reserve

Swanport Reserve is a relatively quiet reserve situated some 8 kilometres downstream from Murray Bridge on the western bank of the River. Access, which is via Jervois Road, is not obvious. The reserve is used by tourists and the local community for fishing and picnics. It is considered to have reasonable facilities.

Environmental and Recreational Levels of Service:

Moderate impact recreational use with some supporting infrastructure

Recommended Actions

The following actions are recommended in relation to this area.

Item	Recommendation	Priority
SPR1	Walking and cycling links to Swanport Reserve would be a major undertaking due to the distance, and agreements with private landholders would need to be negotiated, and therefore are considered a low priority. The priority of connecting this reserve with the town centre may change if development is realised in the Swanport area (as outlined in the Guiding Principles).	Low

6.3.9 Swanport Aquatic Centre

Swanport Aquatic Centre abuts Swanport Reserve, with a nearby separate access road. The site is leased to the Education Department and, as such, is not accessible to the general public. It is used as a camp site, where school groups are given outdoor education and water craft skill training. Short term accommodation is provided in small cabins.

Private hirers can book the facility on weekends, Public Holidays and during School Holidays with information available on the Council's website.

The facilities at the Aquatic Centre are well used and maintained and serve an important function for South Australian school students. Aside from continuing its existing uses, there are no additional actions recommended for the facility.

Item	Recommendation	Priority
	Nil Recommendation.	



Council Owned

Swanport Reserve and Aquatic Centre Actions

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.10 Swanport Wetlands

The Swanport wetlands site is situated south of the Swanport Bridge on the eastern bank, some 9 kilometres from Murray Bridge by road. Access is reasonably hidden, being via the lookout turnoff for eastbound traffic on Princes Highway. Thus it is hard to find, with poor signage to direct visitors to the area. The boardwalks are used and the wildlife observed by tourists, schools, families, bird watchers and mountain bikers.

The wetlands are a significant ecological site in the area and contain good examples of floodplain vegetation including Reedbeds, Lignum, Samphire and Redgums. The Lignum and Samphire communities are considered very important habitat and their conservation should be targeted as these vegetation communities are severely degraded within the region.

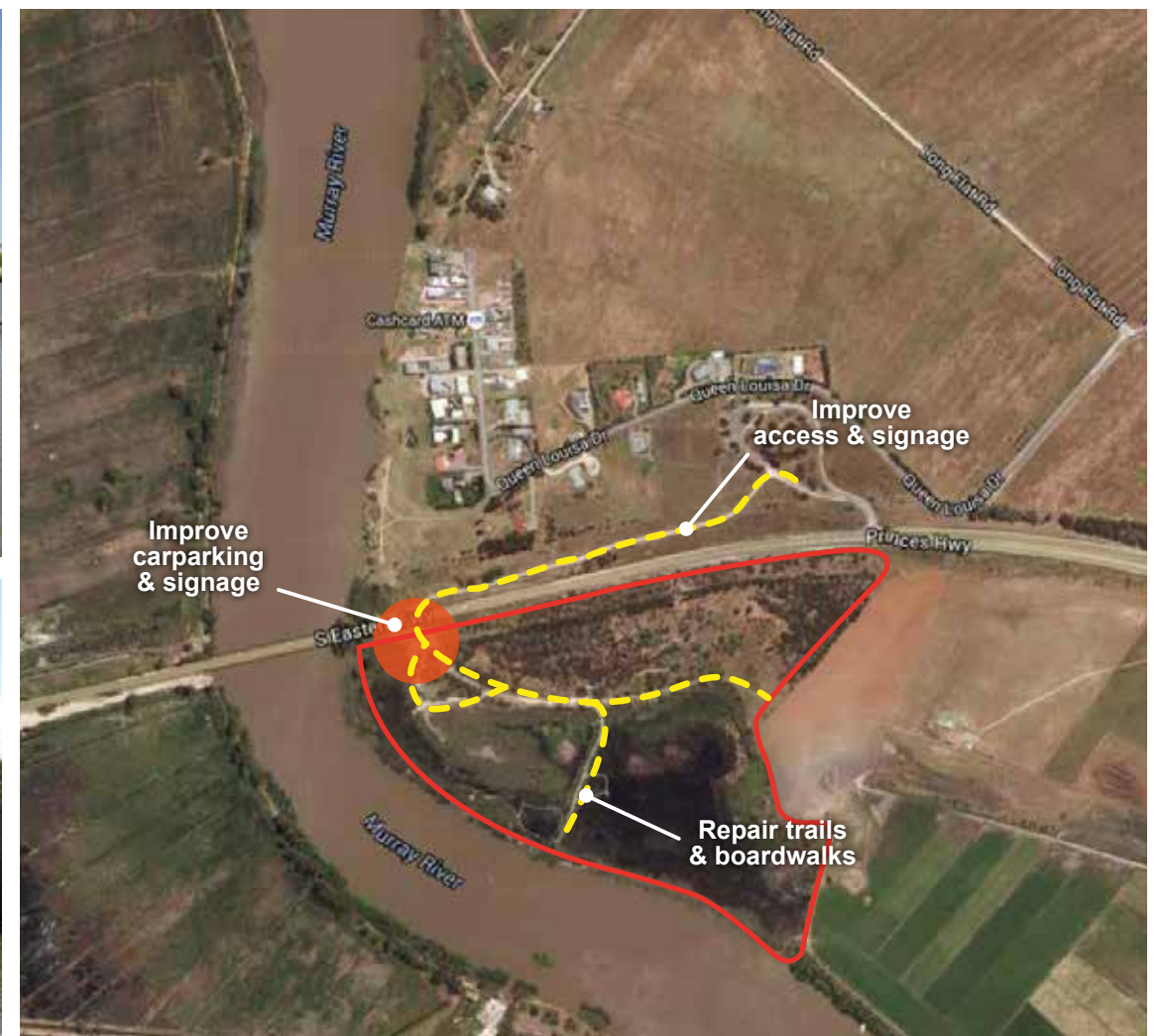
Environmental and Recreational Levels of Service:

Low impact recreational use, low impact infrastructure and high environmental values

Recommended Actions

The following actions are recommended in relation to this area.

Item	Recommendation	Priority
SW1	Improve signage - directional signage to Wetlands from the highway, wetlands entry signage and interpretive signage within wetlands.	Medium
SW2	Improve access to the wetlands from the highway and formalise carparking.	Medium
SW3	Review condition of walking trails and boardwalks and repair.	High
SW4	Develop a management plan for the reserve to guide rehabilitation of vegetation communities and habitat and provide appropriate low impact recreational opportunities.	High
SW5	Implement weed management program for terrestrial weed species.	High
SW6	Review water regime requirements to promote diversity of wetland flora.	High
SW7	Continue revegetation activities to improve terrestrial vegetation diversity of all functional groups and provide habitat for fauna.	Medium



 Council Owned

Swanport Wetlands Actions

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.11 Thiele Reserve

Thiele Reserve is situated on the eastern bank of the river, a short distance to the north of the Murray Bridge CBD. It is a popular reserve valued for its grassed area and amenities, including boat ramp, carpark, toilets and some picnic facilities. The community feedback is that the reserve is well-maintained and used for boating and water skiing, and also by families for picnics.

The boat ramp is partially closed due to significant bank slumping in the upstream section, which may also have future impact on the roadway if any additional slumping occurs. Apart from this area, the general bank erosion due to wind and wave action seems to be lower in this area due to the location on the inside of the bend and relatively short fetch for wave action.

Environmental values are limited to stands of River Redgums with remnant vegetation predominantly outside of the reserve. There is the opportunity to connect the reserve with disused house boat moorings located immediately downstream of the reserve. This area has been disconnected from the reserve due to growth of willows and weed species.

Environmental and Recreational Levels of Service:

High impact recreational use with supporting infrastructure.

Recommended Actions

The following actions are recommended in relation to this area.

Item	Recommendation	Priority
THR1	Bank stabilisation urgently required at northern end of the reserve to reopen boat ramp and protect roadway. Investigate erosion in detail and design remediation measures.	High
THR2	Identify opportunities to include more diverse remnant vegetation plantings along the boundary of the reserve.	Medium
THR3	Review the suitability of the area immediately downstream of the reserve as a house boat mooring location and manage vegetation.	Medium
THR4	Manage weeds to enhance the wetland diversity immediately downstream of the wetland.	Medium
THR5	Review condition of boat ramp and repair as required.	High
THR6	Relocate toilets to location closer to the main reserve.	Low
THR7	Develop walking trail linkage to Avoca Dell.	Medium
THR8	Develop walking trail linkage to Ukee Boat Club and beyond to Swanport Wetland.	Low
THR9	Investigate potential for sale of Council owned land at the rear of the reserve. Due to the cliffs behind the reserve this land cannot be used for expansion of the reserve itself, however with elevated river views may have residential development potential.	Medium



Council Owned

Thiele Reserve Actions

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.12 Avoca Dell

Avoca Dell Reserve is situated on the eastern bank of the river, some six kilometres north-east of Murray Bridge. It is a popular site for water sports and fishing, with supporting infrastructure including boat ramps, large carpark space for cars and boat trailers, picnic facilities. It is used by tourists from the adjacent caravan park as well as the local community.

Environmental values are limited to stands of River Redgums with some remnant vegetation in the northern edge of the reserve. High use grassed areas of the riverbank are eroding in places due to wave action and boat access. Some areas upstream are buffered by aquatic vegetation reducing incidence of bank erosion.

Environmental and Recreational Levels of Service:

High impact recreational use with supporting infrastructure

Recommended Actions

The following actions are recommended in relation to this area.

Item	Recommendation	Priority
ADR1	Review and upgrade boat launching facilities to cater for high demand. This may include inclusion of additional boat ramps or pontoons to relieve congestion at the existing ramp.	High
ADR2	Identify opportunities to include more diverse remnant vegetation plantings in the area that align with recreational use.	Medium
ADR3	Identify and implement options for bank protection in areas of informal boat mooring and beaching.	High
ADR4	Provide additional carparking adjacent to existing car parks.	High
ADR5	Provide play equipment.	High
ADR6	Investigate the residential development potential of the land to the north east of the site. The topography of this land does not support expansion of the reserve, however may have potential for residential development due to its elevated river views.	Medium
ADR7	Improve walking trail linkage to Riverglades.	Medium



Council Owned

Avoca Dell Actions

6 Key Environmental and Economic Riverfront Strategic Directions

6.3.13 Other Important Riverfront Sites

Murray Bridge Resort Marina and Caravan Park

This site is situated on the western bank, within the Murray Bridge township and some 3.9 kilometres from the CBD by road. The site is in private ownership.

Riverbank Slumping

This area was the site of major riverbank slumping in 2009, as detailed earlier in the report. The following figure showing riverbed contours after the riverbank collapse indicates the severity of the issue.

To ensure the safety of users of the marina, and the general public using the river in general, it is important that any riverbank rehabilitation/stabilisation is undertaken in an engineered manner.

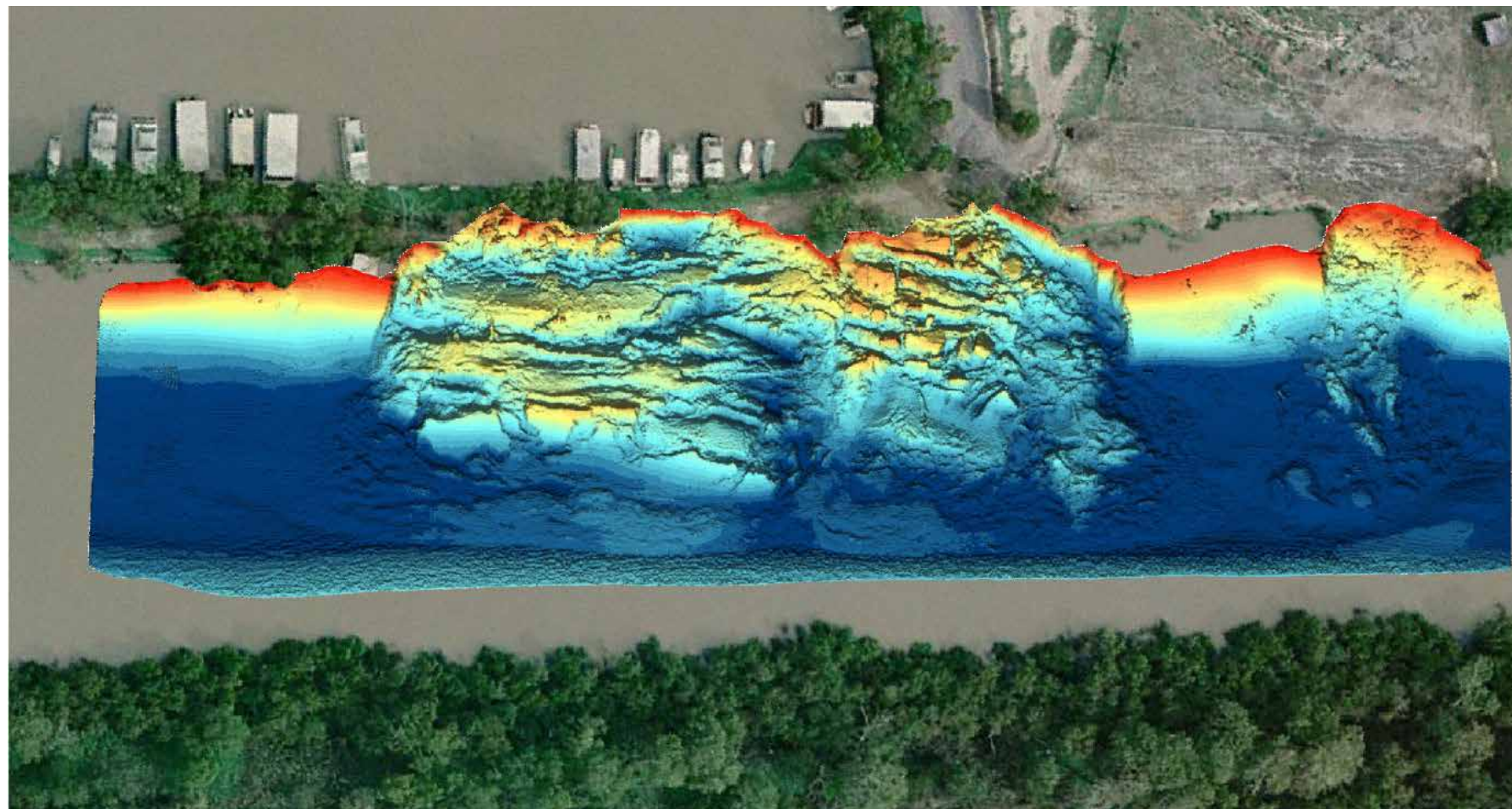
Walking Trail Access

As outlined in the preceding sections the long term strategy for the riverfront is to develop connections from Toora Reserve to Swanport Reserve. Currently the marina (and other landholdings to the south) create a constraint to achieving this vision, and therefore direct linkages with other focus sites would have to be created via agreements with adjacent private landholdings. This is considered to be a low priority within the timescale of this study.

Ukee Boat Club

This site is situated on the eastern bank of the river, approximately 3.5km from the town centre. The site is in private ownership, and provides moorings and slipway facilities.

There are no recommendations within the scope of this study applicable for this site. There is potential for a walking trail to pass this facility which will connect Theile Reserve to the Swanport wetlands, although this is considered to be a low priority.



6 Key Environmental and Economic Riverfront Strategic Directions

SA Water Owned Land

SA Water owns significant areas of riverfront land within the study area, as highlighted in the following figure.

The land to the south of the town centre, adjacent the Murray Bridge Resort Marina and Caravan Park, is the current site of the Murray Bridge Waste Water treatment plant. SA Water is currently in the process of exploring options to relocate the waste water treatment plant to an alternative location, although some infrastructure will remain at the site for the foreseeable future.

The modified operations have the potential to reduce environmental risk and community impacts (e.g. odour) and therefore will be a positive step towards enhancing the riverfront.

Some consultation was undertaken with SA Water during the course of this study, however the exact use of the SA Water land to the north of the site is unclear at the time of writing. As described earlier within the report, there is evidence of activation of acid sulphate soils in this area, which poses a potential treat to water quality in the river.

The land also has potential to be used for primary production purposes, and local job creation. Additionally, depending on the success of Avoca Dell and Theile Reserve, there may be opportunity for the development of an additional reserve tailored for skiing activities on this land.

It is therefore recommended that Council commence discussions with SA Water to identify opportunities for this riverfront land, in particular in regard to encouraging beneficial environmental or economic uses and the creation of a walking trail utilising the levy banks.



7 Implementation Plan



7 Implementation Plan

The following table provides a plan for implementation of the recommendations outlined in Section 6. The implementation plan has been developed by prioritising each of the recommendations, allocating them to 4 year banding and estimating the cost of each of the initiatives.

Item	Location	Recommendation	Priority	Estimated Cost ('000)	Timeframe	2016-2019	2020-2023	2024-2027	2028-2031	2032-2035
MBR1	Study Area	Prepare a Destination Management Plan focusing on the Murray River and the study area in particular.	High	\$100	2016-2019	\$100				
MBR2	Study Area	Development of a Murray Bridge Walking and Bicycle Trail Masterplan and Concept Design.	High	\$100	2016-2019	\$100				
MBR3	Study Area	Development of a Murray Bridge Wayfinding and Signage Strategy and Wayfinding and Signage Manual.	High	\$100	2016-2019	\$100				
MBR4A	Study Area	Analyse the Swanport Bridge and its approaches as a gateway to the study area. Consider potential for accommodation and/or residential development in this area, facilitated by zoning changes where appropriate.	Medium	\$100	2020-2023		\$100			
MBR4B	Study Area	Swanport Bridge Gateway - Design and implement architectural/signage entrance statements	Medium	\$100	2020-2023		\$100			
MBR5	Study Area	Explore the potential of sites with River views for residential subdivision in the study area, facilitated with zoning changes where appropriate.	Medium	\$100	2016-2019	\$100				
MBR6	Study Area	Investigate, potentially in co-operation with adjoining councils, ways of improving development potential and flexibility within the 1956 Flood Zone, with a view to loosening some of its strictures and fostering development	Medium	\$100	2016-2019	\$100				
MBR7	Study Area	Improve contact and consultation with the Ngarrindjeri Regional Authority with multiple intent, including development of a Cultural Management Plan	High	\$50	2016-2019	\$50				
MBR8	Study Area	Facilitate rural industry growth to the fullest extent possible, with particular focus on the dairy industry.	High	\$100	2016-2019	\$100				
MBR9	Study Area	Develop a management plan for water based recreation, outlining preferred uses within the river and recommended restrictions if required.	High	\$100	2016-2019	\$100				
SUBTOTAL	Study Area			\$950		\$750	\$200			
TR1	Toora Reserve	Undertake needs analysis and develop concept plan for upgrade	High	\$50	2016-2019					
TR1	Toora Reserve	Upgrade reserve in accordance with approved concept plan	Medium	\$500	2020-2023		\$500			
SUBTOTAL	Toora Reserve			\$550			\$500			
RGW1	Rocky Gully Wetlands	Maintain current walking trail infrastructure and improve walking trail signage including improving connection to Lavender Federation trail	Medium	\$50	2020-2023		\$50			
RGW2	Rocky Gully Wetlands	Improve "information board"/entry statement in line with Signage strategy	Medium	\$50	2020-2023		\$50			
RGW3	Rocky Gully Wetlands	Improve vehicle access to the information bay/wetlands entry, as currently there is no direct access if travelling out of Murray Bridge on the Mannum Road (no right turn).	Medium	\$50	2020-2023		\$50			
RGW4 - 6	Rocky Gully Wetlands	Implement weed management program for terrestrial weed species. Review water regime requirements to promote diversity of wetland flora. Review existing 2006 Rocky Gully Wetlands Management Plan	High	\$50	2016-2019	\$50				
RGW7	Rocky Gully Wetlands	Continue revegetation activities to improve terrestrial vegetation diversity of all functional groups and provide habitat for fauna.	Medium	\$50	2020-2023		\$50			
SUBTOTAL	Rocky Gully Wetlands			\$250		\$50	\$200			
HR1	Hume Reserve	Design a revegetation plan, focused on removal of non-indigenous vegetation and revegetation with native species.	High	\$50	2016-2019	\$50				
HR2	Hume Reserve	Improve walkways and signage to enhance this linkage.	Medium	\$50	2024-2027			\$50		
SUBTOTAL	Hume Reserve			\$100		\$50		\$50		

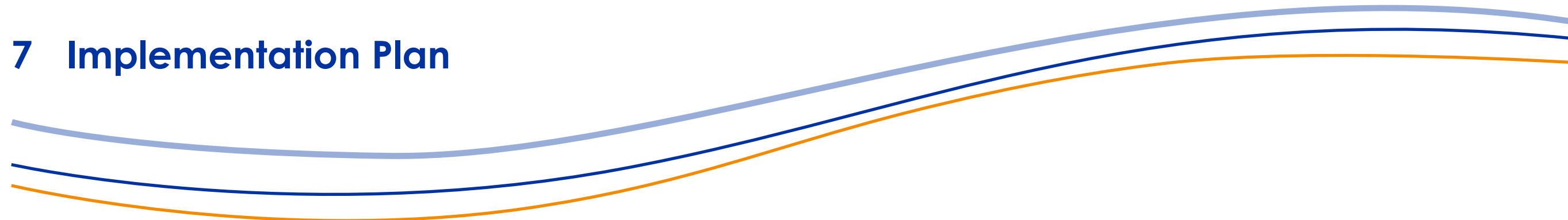
7 Implementation Plan

Item	Location	Recommendation	Priority	Estimated Cost ('000)	Timeframe	2016-2019	2020-2023	2024-2027	2028-2031	2032-2035
SR1	Sturt Reserve	Encourage a yearly program of community activities and events focused on activating Sturt reserve.	High	\$ 50 annually	Ongoing	\$200	\$200	\$200	\$200	\$200
SR2	Sturt Reserve	Undertake detailed investigations into bank stability and design appropriate controls.	High	\$200	2016-2019	\$200				
SR3	Sturt Reserve	Understand detailed investigations into the nature and extent of the old landfill site, and remediate or design for appropriate uses.	High	\$200	2016-2019	\$200				
SR4	Sturt Reserve	Detailed Masterplan for Sturt Reserve and Concept Design for Historic/Tourist and Play precincts. Seek funding for implementation.	High	\$200	2016-2019	\$200				
SR5	Sturt Reserve	Improve linkages, signage and wayfinding. Incorporate riverfront promenade (including feature lighting), connection to town centre and tourist facilities. Include connection to Hume reserve and Long Island reserve.	High	\$5,000	2020-2023		\$5,000			
SR6	Sturt Reserve	Major investment in Historic/Tourist precinct. Improve visitor experience (including from cruise vessels) including additional information, signage and wayfinding, restoration of wharf, incorporate historic elements into design and remove or screen unrestored antiques. Develop tourist information and/or interpretive centre.	Medium	\$25,000	2024-2031		\$2,000	\$18,000	\$5,000	
SR7	Sturt Reserve	Invest in "Play" precinct around a water/river focus (e.g. "Splash" zone water play area, floating playground and/or river "beach".) Encourage additional eateries/cafes in precinct.	Medium	\$2,000	2020-2023		\$2,000			
SR8	Sturt Reserve	Maintain existing remnant flora vegetation values. Identify opportunities to reintroduce Black Box in the upper areas of the floodplain	Medium	\$50	2020-2023		\$50			
SR9/LIR4	Sturt Reserve	Investigate options to rehabilitate Narooma Wetlands through diversion of stormwater from Sturt Reserve and Long Island Reserve.	Medium	\$500	2020-2023		\$500			
SUBTOTAL	Sturt Reserve			\$34,150		\$800	\$9,750	\$18,200	\$5,200	\$200
LIR1	Long Island Reserve	Develop walkway and directional signage connections.	Medium	\$100	2020-2023		\$100			
LIR2	Long Island Reserve	Review boat ramp and jetty and upgrade as required	Medium	\$100	2020-2023		\$100			
LIR3	Long Island Reserve	Maintain existing remnant flora vegetation values. Identify opportunities to reintroduce Black Box in the upper areas of the floodplain	Medium	\$50	2020-2023		\$50			
SUBTOTAL	Long Island Reserve			\$250			\$250			
TDR1	Tumbella Drive Reserve	Revegetation with native species to improve environmental and recreational benefits.	Medium	\$50	2024-2027			\$50		
TDR2	Tumbella Drive Reserve	Negotiate walkway link through Long Island Marina and SA Water Waste Water Treatment Plant towards Swanport Reserve.	Low	\$100	2028-2031				\$100	
SUBTOTAL	Tumbella Drive Reserve			\$150				\$50	\$100	
SPR1	Swanport Reserve	Walking and cycling links to Swanport Reserve	Low	\$100	2032-2035					\$100
SUBTOTAL	Swanport Reserve			\$100						\$100

7 Implementation Plan

Item	Location	Recommendation	Priority	Estimated Cost ('000)	Timeframe	2016-2019	2020-2023	2024-2027	2028-2031	2032-2035
SPW1	Swanport Wetland	Improve signage - directional signage to Wetlands from the highway, wetlands entry signage and interpretive signage within wetlands	Medium	\$50	2020-2023		\$50			
SPW2	Swanport Wetland	Improve access to the wetlands from the highway and formalise carparking	Medium	\$100	2020-2023		\$100			
SPW3	Swanport Wetland	Review condition of walking trails and boardwalks and repair.	High	\$50	2016-2019	\$50				
SPW4-6	Swanport Wetland	Develop a management plan for the reserve to guide rehabilitation of vegetation communities and habitat and provide appropriate low impact recreational opportunities. Implement weed management program. Review water regime requirements to promote diversity of wetland flora.	High	\$50	2016-2019	\$50				
SPW7	Swanport Wetland	Continue revegetation activities to improve terrestrial vegetation diversity of all functional groups and provide habitat for fauna.	Medium	\$50	2020-2023		\$50			
SUBTOTAL	Swanport Wetland			\$300		\$100	\$200			
THR1	Theile Reserve	Bank stabilisation urgently required at northern end of the reserve to reopen boat ramp and protect roadway. Investigate erosion in detail and design remediation measures.	High	\$300	2016-2019	\$300				
THR2	Theile Reserve	Identify opportunities to include more diverse remnant vegetation plantings along the boundary of the reserve	Medium	\$50	2020-2023		\$50			
THR3	Theile Reserve	Review the suitability of the area immediately downstream of the reserve as a house boat mooring location.	Medium	\$50	2020-2023		\$50			
THR4	Theile Reserve	Manage weeds to enhance the wetland diversity immediately downstream of the wetland.	Medium	\$50	2020-2023		\$50			
THR5	Theile Reserve	Review condition of boat ramp and repair as required.	High	\$100	2016-2019	\$100				
THR6	Theile Reserve	Relocate toilets to location closer to the main reserve.	Low	\$50	2028-2031				\$50	
THR7	Theile Reserve	Develop walking trail linkage to Avoca Dell.	Medium	\$100	2024-2027			\$100		
THR8	Theile Reserve	Develop walking trail linkage to Ukee Boat Club and beyond to Swanport Wetland	Low	\$100	2032-2035					\$100
THR9	Theile Reserve	Investigate potential for sale of council owned land at the rear of the reserve.	Medium	\$50	2020-2023		\$50			
SUBTOTAL	Theile Reserve			\$850		\$400	\$200	\$100	\$50	\$100
ADR1	Avoca Dell Reserve	Review and upgrade boat launching facilities to cater for high demand.	High	\$300	2016-2019	\$300				
ADR2	Avoca Dell Reserve	Identify opportunities to include more diverse remnant vegetation plantings in the area that align with recreational use	Medium	\$50	2020-2023		\$50			
ADR3	Avoca Dell Reserve	Identify and implement options for bank protection in areas of informal boat mooring and beaching.	High	\$200	2016-2019	\$200				
ADR4	Avoca Dell Reserve	Provide additional carparking adjacent to existing car parks	High	\$100	2016-2019	\$100				
ADR5	Avoca Dell Reserve	Provide play equipment	High	\$50	2016-2019	\$50				
ADR6	Avoca Dell Reserve	Investigate the residential development potential of the land to the north east of the site. The topography of this land does not support expansion of the reserve, however may have potential for residential development due it its elevated river views.	Medium	\$50	2020-2023		\$50			
SUBTOTAL	Avoca Dell Reserve			\$750		\$650	\$100			
TOTAL				\$38,400		\$2,800	\$11,400	\$18,400	\$5,350	\$400

7 Implementation Plan



The cost estimates presented in this section have been developed for the purposes of prioritising options and providing Council with an order of magnitude costing for implementation. As such they have generally been rounded to the nearest \$50 thousand for minor actions and nearest \$1 million for major projects. They have been estimated based on industry unit rates and the project team experience. However, the scope and quality of the works has not been fully defined and as such the **accuracy of the estimates is not expected to be better than about +/- 50%** for the items described in this report. Development of concept plans are recommended before Council allocates a budgets for any of the recommendations.

7.1 Potential Sources of Funding for Implementation

Due to the nature of the recommendations in this report, there may be potential to deliver a number of the minor recommendations through the support of local community groups, business sponsorship or government grants.

Similarly it is envisaged that the major recommendations will only be possible through external funding assistance. A number of external funding opportunities are available for Council facilitated projects with the primary funding sources being the Federal and State governments.

Appendix A Literature Review



Report	Notes on Report	Toora Reserve	Rocky Gully Wetlands	Hume Reserve	Sturt Reserve	Long Island Reserve
Riverfront Management Strategy - July 2007	Gave priority works and actions and management options for some reserves as an outcome of a 2007 post drought study	-	-	PRIORITY WORKS <ul style="list-style-type: none"> Rubbish removal, stabilisation/ restoration and revegetation (community project) Boardwalk and landings for small water craft adjacent to River in Rocky Gully Creek (community Project) Formalise car park with gravel surface and with edging Toilets (but delayed awaiting Railway Precinct re-development) Small Marina/ Boat Facilities at ‘Burdels Landing’ Walking Trail to Sturt Reserve Camping area MANAGEMENT OPTIONS <ul style="list-style-type: none"> Development in association with the Railway Precinct Decrease horse swimming following reserve clean up, bank stabilisation and revegetation Future ‘Bush Camping’ Ground – as part of the Railway Precinct Dogs on leash (at nominated times) 	PRIORITY WORKS <ul style="list-style-type: none"> Bank stabilisation in selected locations Revegetation using native species for the western areas of the Reserve Construct walk/cycle trail to Hume Reserve and to Long Island Reserve Permanent lighting to waterfront and power supplies for houseboats and events MANAGEMENT OPTIONS <ul style="list-style-type: none"> Dogs ‘on leash’ along Riverfront (at nominated times) Dogs ‘off leash’ in an area on western side in area (bounded by Jaensch Road, Charles Sturt Road and Reserve Road) Consider further permits for MV’s overnight camping in northern car park area through the Tourism Office Support upgrades to ‘Community Club’ and retention of ‘Rowing Club’ in the area with participation of ‘Dragon Boating’ Consider CCTV to waterfront areas 	PRIORITY WORKS <ul style="list-style-type: none"> Bank stabilisation and repair to jetty Additional shade/ tree planting (community project) MANAGEMENT OPTIONS <ul style="list-style-type: none"> Water Traffic Regulation around Long Island retained in consideration of Murray Bridge Rowing Club and other passive river users such as canoe and kayak enthusiasts with no motor craft east of the Island (except houseboats below 4 knots) Exemption to water speed limits for special authorised events Long Island protected as a conservation reserve in consultation with the Ngarrindjeri Community No further car parking areas
Management Plan for Reserves - no date	"current" strategies/conditions of reserves	<ul style="list-style-type: none"> Riverfront Reserve without any facilities 	-	<ul style="list-style-type: none"> Reserve has significant indigenous history Dedicated Reserve 	-	<ul style="list-style-type: none"> Well utilised riverfront Reserve by water skiers. Adjacent to Long Island boat ramp. Toilet and BBQ facilities available
River Corridor Development Residential Land Division- Nov 2011	Review of land division proposals between sturt reserve and long island reserve, not including riverfront enhancement or wetlands - no info on our reserves	-	-	-	-	-
Kungun Ngarrindjeri Yunnan Agreement	Agreed upon managed areas and highly sensitive areas for the Ngarrindjeri people	-	-	-	Managed area	Highly sensitive area for the Ngarrindjeri people
Land Use Study and Dvelopment Plan Review for the Lower Murray Flood Plain - Oct 2013	General study giving general recommendations - was not site specific - no info on our reserves	-	-	-	-	-
Sport, Recreation & Open Space Strategy Vol 1: Introduction & Overview - sept 2013	General sport, recreation & open space discussion. Refers to Vols 2 and 3 for further discussions of strategies	-	-	<ul style="list-style-type: none"> Improve/expand key riverfront reserves in accordance with Riverfront Management Strategy: Improve the quality and accessibility of water access points (upgraded boat ramps, water entry, moorings) 	<ul style="list-style-type: none"> Review Sturt Reserve lawn tennis courts and consider relocating the courts to the racecourse land Establish additional recreation space along Sturt Reserve riverfront: <ul style="list-style-type: none"> Grassed area (near Narooma Wetland) Lawn tennis court area Activate open space to south of Sturt Reserve Road/Charles Sturt Drive (BMX, bike tracks, picnic areas, event infrastructure etc) Relocate BMX mounds at Sturt Reserve to south side of Charles Sturt Drive to create high quality separate bike area Maintain existing skate park at Sturt Reserve and create additional facilities at other locations 	-

Report	Notes on Report	Tumbella Drive Reserve	Murray Bridge Resort Marina and Caravan Park	Swanport Reserve	Swanport Aquatic Centre	Swanport Wetlands
Riverfront Management Strategy - July 2007	Gave priority works and actions and management options for some reserves as an outcome of a 2007 post drought study	PRIORITY WORKS <ul style="list-style-type: none"> Bank stabilisation Native revegetation to detention basin (community project) Shade tree planting MANAGEMENT OPTIONS <ul style="list-style-type: none"> Negotiate walk/cycle link to Long Island Marina (over private land) Dogs on leash (at nominated times) 	-	PRIORITY WORKS <ul style="list-style-type: none"> Bank stabilisation for sections of the northern reserve Grade and gravel surface to northern car park and wheel stops Repair boat ramp for 'safe' local use (possible community/service club project) MANAGEMENT OPTIONS <ul style="list-style-type: none"> Retain current use of the Swanport Reserve OPPORTUNITY A marina facility for the North of Reserve, incorporating a riverfront reserve, large boat ramp, large car parking and amenities. LONG TERM OBJECTIVE A trail connection from the Swanport Reserve, under the Swanport Bridge, through the SA Water land to the Long Island Marina, and across private land to Tumbella Reserve and incorporated within any marina scheme. This would complete the Riverside West Trail from Hume Reserve to Swanport Reserve and provide access for students at the Aquatic Centre to the Murray Bridge Township as well as a very interesting trail for local residents and other visitors.	-	PRIORITY WORKS <ul style="list-style-type: none"> Direction signage Improve access road Formalise car park with graded and gravel surface and edge fencing/wheel stops Provide interpretive signs Install environmental toilet (self composting) MANAGEMENT OPTIONS <ul style="list-style-type: none"> The current use and management structure should be supported. POTENTIAL OPPORTUNITY <ul style="list-style-type: none"> Connect the Swanport Wetland with Ukee Boat Club and a recommended Riverside East Trail via Queen Louisa Drive and Long Flat Road subject to access agreements with private landowners. LONG TERM <ul style="list-style-type: none"> Proposals for a second bridge to duplicate the Swanport Bridge have been discussed. Should pursue a protected footpath on either the current bridge or the anticipated new bridge to facilitate the east-west movement by walkers and cyclists
Management Plan for Reserves - no date	"current" strategies/conditions of reserves	-	-	<ul style="list-style-type: none"> Attractive riverfront reserve with picnic facilities and toilet facilities 	-	<ul style="list-style-type: none"> Well utilised and managed wetlands recently upgraded by Work for the Dole and Mannum to Wellington LAP. Boardwalks, interpretative signage, picnic facilities
River Corridor Development Residential Land Division- Nov 2011	Review of land division proposals between sturt reserve and long island reserve, not including riverfront enhancement or wetlands - no info on our reserves	-	-	-	-	-
Kungun Ngarrindjeri Yunnan Agreement	Agreed upon managed areas and highly sensitive areas for the Ngarrindjeri people	-	-	Granite Outcrops is a highly sensitive area	-	-
Land Use Study and Dvelopment Plan Review for the Lower Murray Flood Plain - Oct 2013	General study giving general recommendations - was not site specific - no info on our reserves	-	-	-	-	-
Sport, Recreation & Open Space Strategy Vol 1: Introduction & Overview - sept 2013	General sport, recreation & open space discussion. Refers to Vols 2 and 3 for further discussions of strategies	-	-	-	<ul style="list-style-type: none"> The high proportion of children and young adults indicates that there may be heightened demand in the Swanport/Murray Bridge South area for more active recreational facilities and open spaces. Population of older people in the Swanport/Murray Bridge South area is currently small, those in the 'pre-retirement' age groups today may generate demand for 'age friendly' recreational facilities and open spaces in the longer term if they age in place. 	-

Report	Notes on Report	Thiele Reserve	Avoca Dell Caravan Park
Riverfront Management Strategy - July 2007	Gave priority works and actions and management options for some reserves as an outcome of a 2007 post drought study	PRIORITY WORKS <ul style="list-style-type: none"> • Upgrade toilets (planned) • Formalise existing car park with gravel paving and edging • Construct trail/Boardwalk to Avoca Dell • Construct walking trail to Ukee Boat Club along the embankment and walk/cycle trail along the road • Extend the Reserve to the south for picnic and houseboat use with the support of the property owner • Additional house boat landings • Tree Planting (community project) • Bank stabilisation MANAGEMENT OPTIONS <ul style="list-style-type: none"> • Dogs on leash area (at nominated times) • Horse swimming at nominated times (until new race track facility constructed) 	PRIORITY WORKS <ul style="list-style-type: none"> • Additional tree planting to create shade – River RedGums (Eucalyptus Camaldulensis) suggested • Additional house boat landings for short stays (overnight) • Walking trail to Thiele Reserve via Riverglen Wetlands and boardwalk • Promote reserve for high speed/energy water based activities north of Avoca Dell MANAGEMENT OPTIONS <ul style="list-style-type: none"> • Dogs on Leash (at nominated times) • No horse swimming • Discussions with Avoca Dell Caravan Park Owners to promote extensions including Cabin Accommodations
Management Plan for Reserves - no date	"current" strategies/conditions of reserves	<ul style="list-style-type: none"> • Riverfront Recreation Reserve • Difficult accessibility due to steep rocky embankment • Subject of capital upgrade 2004/05 (subject to budget provisions) 	<ul style="list-style-type: none"> • Plans to be developed and upgraded to accommodate houseboat mooring, fishing and water skiing
River Corridor Development Residential Land Division- Nov 2011	Review of land division proposals between sturt reserve and long island reserve, not including riverfront enhancement or wetlands - no info on our reserves	-	-
Kungun Ngarrindjeri Yunnan Agreement	Agreed upon managed areas and highly sensitive areas for the Ngarrindjeri people	-	-
Land Use Study and Development Plan Review for the Lower Murray Flood Plain - Oct 2013	General study giving general recommendations - was not site specific - no info on our reserves	-	-
Sport, Recreation & Open Space Strategy Vol 1: Introduction & Overview - sept 2013	General sport, recreation & open space discussion. Refers to Vols 2 and 3 for further discussions of strategies	-	-

Report	Notes on Report	Toora Reserve	Rocky Gully Wetlands	Hume Reserve	Sturt Reserve	Long Island Reserve
Sport, Recreation & Open Space Strategy Vol 2: Sport & Recreation Strategy - Sept 2013	Sport & recreation recommendations (at existing sporting areas - sturt, swanport and avoca dell reserve)	-	-	-	PREFERRED LONG TERM OPTION: Combined indoor&Aquatic facilities at Sturt Reserve <ul style="list-style-type: none"> Undertake a feasibility study and masterplan to assess the viability of locating a new indoor recreation facility (minimum 3 courts) and combined indoor aquatics facility - further investigations would need to be conducted prior to committing a major built facility at this site. Provide for the ongoing development and viability of the Murray Bridge Rowing Club and Murray Bridge Lawn Tennis Association Investigate the future of tennis facility provision across the city and outlying areas including investigating the feasibility of creating a tennis facility hub at Christian Reserve, combining outdoor lawn and hard courts in one location and benefiting from economies of scale through potential joint use of clubrooms (extended), toilets, spectator facilities, lighting and car parking. Explore feasibility of extending/enhancing outdoor gym facilities to cater for people of all abilities Investigate the possibility of establishing a new club facility within the reserve to include clubrooms, storage and office space for water sports and other sports based at Sturt Reserve. Explore the feasibility of upgrading/extending/relocating clubrooms that function for both soccer and cricket clubs and servicing both ovals. Opportunities for longer term expansion plans for both clubs at this site might include utilising additional land at Sturt Reserve, to the north of Jaensch Road / Charles Sturt Drive. Consider opportunities to enhance existing skatepark at Sturt Reserve 	-
Sport, Recreation & Open Space Strategy Vol 3: Open Space Strategy - Sept 2013	open space recommendations for most reserves	Continue to maintain at current levels	Continue to maintain at current levels	<ul style="list-style-type: none"> Improve flora and fauna diversity and ecological links through continued revegetation/ restoration of natural reserves and road corridors through use of native species. Take opportunities to involve local aboriginal people in environmental enhancement projects, making use of their local knowledge, traditions and expertise. Ensure all proposals are in accordance with the Ngarridjeri Murrundi Management Plan No.1 (Murray Bridge Railway Precinct and Hume Reserve) Improve trail link to Hume Reserve. Link forms part of the Murray Bridge Bicycle Plan recreational bicycle network. Improve and maintain boat ramp facilities & associated amenities. Improve trail quality and linkages, including wayfinding signage to town, Lavender Federation Trail etc. Opportunities to link with the proposed recreational bicycle network (Murray Bridge Bicycle Plan). 	<ul style="list-style-type: none"> Further investigation into stormwater harvesting and managed aquifer storage systems for supply of additional irrigation water within the City of Murray Bridge. Focus areas to be; Old Racecourse Site, Land Adjacent to Cemetery and possibly Sturt Reserve (if the proposed Indoor Sport and Leisure Centre relocation were to not proceed). Investigate opportunity for stormwater capture and harvesting along with extensive revegetation zones within western portion of the park. Develop a Playground Strategy that investigates further proposed locations for establishing new playgrounds or enhancing existing playgrounds. Upgrade playspace including nature play elements, additional BBQ/picnic facilities and extensive landscaped areas with tree plantings for shade. Develop Youth Precinct/Hub based around existing facilities such as play area, 'Rage Cage' and skate park. Consider relocation of BMX track to another location within Sturt Reserve to accommodate an expanded skate park. Improve park entrance and visual connection to the river through selective tree removal, consolidation of tennis courts and enhanced landscaping. Improve park infrastructure and path links to support increased activation eg. event space or unstructured recreation. Riverside path forms part of the Murray Bridge Bicycle Plan recreational bicycle network. Consider an events program to increase use of the park. Investigate as a site for the development of a future regional indoor recreation and aquatic centre (refer Volume II Sport and Recreation Strategy). Consider strategies to maintain and enhance the existing old railway line, main rail yard and Old Shell Depot, and identify ways of integrating these features further into the reserve. Involve local Ngarrindjeri people to develop aboriginal interpretation and provide local environmental knowledge of the area. Ensure all proposals are in accordance with the Ngarridjeri Murrundi Management Plan No.1 (Murray Bridge Railway Precinct and Hume Reserve) 	<ul style="list-style-type: none"> Continue to maintain at current levels. Formalise riverfront path/trail links to Sturt Reserve and south to Long Island Caravan Park. Opportunities to link with the proposed recreational bicycle network (Murray Bridge Bicycle Plan).
Murray Bridge Town Centre Master Plan and Urban Design Framework Pt1	Study area including Murray Bridge Town Centre and Sturt Reserve, not other reserves	-	-	-	<ul style="list-style-type: none"> Largest open space reserve within Murray Bridge incorporates skate park, gazebo and BBQ facilities, Bunyip tourist site, eateries (eg. Riverscape Café) and underutilised passive open space. Much of Sturt Reserve is currently unimproved. This is due to Sturt Reserve being historically used as a land fill site. Any future uses proposed on Sturt Reserve will need to consider land and ground water remediation works to be determined in a separate study. Pedestrian and cyclist linkages between Bridge Street and Sturt Reserve should be improved Provide opportunities for incorporation of interpretative signage regarding the Ngarrindjeri people, the creation stories of Ngurunderi and Pondi; the River, the Bridges, the Railway and Lavender Trail, which will promote linkages to Sturt Reserve, the CBD and River Corridor; Ideal venue for larger scale events and festivals, which might form the cornerstone(s) of an annual calendar of arts and culture. Enable caravans and camping in Sturt Reserve or Hume Reserve Activate Sturt Reserve by day and night with activities, community events and competitions; Refresh the skate park and seating in Sturt Reserve through a co-design process with youth; and Enhance Sturt Reserve as an outdoor programmed event space with lighting and power supply. 	-
Murray Bridge Town Centre Master Plan and Urban Design Framework Pt2	Focus on Town Centre planning, not reserves	-	-	-	-	-
Murray Bridge Town Centre Master Plan and Urban Design Framework Pt3	Analysis of Retail Demand in Murray Bridge 2011, Appendix of whole report, no info on our reserves	-	-	-	-	-

Report	Notes on Report	Tumbella Drive Reserve	Murray Bridge Resort Marina and Caravan Park	Swanport Reserve	Swanport Aquatic Centre	Swanport Wetlands
Sport, Recreation & Open Space Strategy Vol 2: Sport & Recreation Strategy - Sept 2013	Sport & recreation recommendations (at existing sporting areas - sturt, swanport and avoca dell reserve)	-	-	<ul style="list-style-type: none"> Establish pedestrian/cycle links to create a comprehensive network across Murray Bridge connecting key nodes, strategic open space and outlying townships, utilising dedicated and shared use paths. Significant links within Murray Bridge to be considered for enhancements include along: <ul style="list-style-type: none"> -Princes Highway -Swanport Road -Mannum Road -Brinkley Road (link to Gifford Hill development) -Western riverbank -Long Flat Road ↔ Karoonda Road Investigate feasibility of establishing a wakeboard facility at Swanport Reserve. 	-	-
Sport, Recreation & Open Space Strategy Vol 3: Open Space Strategy - Sept 2013	open space recommendations for most reserves	<ul style="list-style-type: none"> Continue to maintain at current levels 	(referred to as long island caravan park) <ul style="list-style-type: none"> Continue to maintain at current levels. Formalise riverfront path/trail links to Sturt Reserve and south to Long Island Caravan Park. Opportunities to link with the proposed recreational bicycle network (Murray Bridge Bicycle Plan). 	<ul style="list-style-type: none"> Improve flora and fauna diversity and ecological links through continued revegetation/ restoration of natural reserves and road corridors through use of native species. Take opportunities to involve local aboriginal people in environmental enhancement projects, making use of their local knowledge, traditions and expertise. Capitalise on the relatively 'natural' aesthetic by undertaking riparian revegetation works. Incorporate interpretive signage with links to education programs at the Aquatic Centre. Improve pedestrian links to the Aquatic Centre and links to the wider area. Opportunities to link with the proposed recreational bicycle network (Murray Bridge Bicycle Plan). 	<ul style="list-style-type: none"> Incorporate interpretive signage with links to education programs at the Aquatic Centre. 	<ul style="list-style-type: none"> Continue to maintain at current levels Explore the feasibility of creating a linkage between Queen Louisa Park and Swanport Wetlands.
Murray Bridge Town Centre Master Plan and Urban Design Framework Pt1	Study area including Murray Bridge Town Centre and Sturt Reserve, not other reserves	-	-	-	-	-
Murray Bridge Town Centre Master Plan and Urban Design Framework Pt2	Focus on Town Centre planning, not reserves	-	-	-	-	-
Murray Bridge Town Centre Master Plan and Urban Design Framework Pt3	Analysis of Retail Demand in Murray Bridge 2011, Appendix of whole report, no info on our reserves	-	-	-	-	-

Report	Notes on Report	Thiele Reserve	Avoca Dell Caravan Park
Sport, Recreation & Open Space Strategy Vol 2: Sport & Recreation Strategy - Sept 2013	Sport & recreation recommendations (at existing sporting areas - sturt, swanport and avoca dell reserve)	-	<ul style="list-style-type: none"> Establish pedestrian/cycle links utilising dedicated and shared use paths.
Sport, Recreation & Open Space Strategy Vol 3: Open Space Strategy - Sept 2013	open space recommendations for most reserves	<ul style="list-style-type: none"> Continue to maintain at current levels. Provide additional tree plantings to car park and edge of grassed area. Long term upgrade of public toilets. Explore opportunities to provide riverfront trail links to Avoca Dell. <p>Opportunities to link with the proposed recreational bicycle network (Murray Bridge Bicycle Plan).</p> <ul style="list-style-type: none"> Involve local Ngarrindjeri people to develop aboriginal interpretation and provide local environmental knowledge of the area. 	<ul style="list-style-type: none"> Explore opportunities to provide riverfront trail links to Avoca Dell. <p>Opportunities to link with the proposed recreational bicycle network (Murray Bridge Bicycle Plan).</p> <ul style="list-style-type: none"> Improve trail signage and linkages to Avoca Dell and potentially Thiele Reserve - incorporate interpretation of local native flora and fauna.
Murray Bridge Town Centre Master Plan and Urban Design Framework Pt1	Study area including Murray Bridge Town Centre and Sturt Reserve, not other reserves	-	-
Murray Bridge Town Centre Master Plan and Urban Design Framework Pt2	Focus on Town Centre planning, not reserves	-	-
Murray Bridge Town Centre Master Plan and Urban Design Framework Pt3	Analysis of Retail Demand in Murray Bridge 2011, Appendix of whole report, no info on our reserves	-	-

Report	Notes on Report	Toora Reserve	Rocky Gully Wetlands	Hume Reserve	Sturt Reserve	Long Island Reserve
Ngarrindjeri Murrandi Management Plan pt1 - June 2009	Describes Ngarrindjeri traditions and linkage with the land around Hume and Sturt Reserve	-	-	-	-	-
Ngarrindjeri Murrandi Management Plan pt2 - June 2009	as above, contains recommendations at end of report and Appendix	-	-	<ul style="list-style-type: none"> Hume Reserve be named Karloan Ponggi (Albert Karloan) Reserve. Hume Reserve has special heritage and spiritual importance. It was the last permanent camp site of the Ngarrindjeri people in Murray Bridge. The Hume Pipe Company forced Ngarrindjeri people to leave their land - the land was named after the Hume Pipe company. Part of Zone 4 (in study): Protection, preservation, restoration and revegetation zone. To provide and implement opportunity to remove non-indigenous vegetation and revegetate with original vegetation of the area. To establish ground cover revegetation on the degraded site at Hume Reserve. 	-	-
Ngarrindjeri Murrandi Management Plan pt3 - June 2009	Appendix continued from previous parts (no further info on our reserves)	-	-	-	-	-
Review of Previous Investigations on the Sturt Reserve Landfill - Oct 2007	no site investigations - a review of data provided by client and recommendations for further research at Sturt Reserve	-	-	-	<ul style="list-style-type: none"> Recommends further investigations of a more rigorous nature be undertaken. Current information is "presently not adequate for forming the basis of any policy decision or remediation plan for the site. 	-
Risk Assessment of Human Health and Environmental Impacts for the Former Landfill at Sturt Reserve - Aug 2008	Includes recommendations on how and what to monitor at Sturt Reserve following from Oct 2007 review (above)	-	-	-	<ol style="list-style-type: none"> Development of a scope of work based on this Action Plan detailing the further work required. Meeting for agreement of scope of work between Council, EPA and consultant. LFG monitoring on soil and buried waste landfill gas concentrations by Geoprobng and precautionary sampling of service pits for determination of current methane generation potential. Site history aerial photography review for planning of test pits for determination of extent of waste. Test pits for determination of extent of waste and capping. Compaction and permeability testing of fill cap to determine the cap characteristics and potential for surface water infiltration. Review of surface water management at the site to achieve diversion of any surface run off from infiltration of the buried waste and pooling of rainwater on fill cap to be avoided. The wells located in the buried waste must be located and decommissioned appropriately. 9a. Development of a ground water monitoring plan and design of monitoring well network. 9b. Installation of groundwater monitoring wells. 9c. Installation of depth gauge for river water level monitoring. 9d. Regular monitoring of groundwater and river water level as specified in monitoring plan. 10. Sampling for leachate contaminants in riverbank sediments at seepage points. Complete suite analysis of samples for detection of all possible traces of leachate contaminants. 11 . Evaluation of sampling results and development of a Closure or Post Closure Management Plan including a quantitative update of this risk assessment. 	-
Study into River Bank Collapsing - Lower River Murray - Feb 2010	Study area included Sturt and Long Island reserve - gave current conditions, recommendations, and further monitoring required	-	-	-	<p>Feature: Tension cracks and shallow slide</p> <p>Further recommended investigations: boreholes and survey</p> <p>Management: Fence of Sturt Reserve, advise residents to vacat premises</p> <p>Monitoring: measure tension cracks, repeat survey</p>	-

Report	Notes on Report	Tumbella Drive Reserve	Murray Bridge Resort Marina and Caravan Park	Swanport Reserve	Swanport Aquatic Centre	Swanport Wetlands
Ngarrindjeri Murrandi Management Plan pt1 - June 2009	Describes Ngarrindjeri traditions and linkage with the land around Hume and Sturt Reserve	-	-	-	-	-
Ngarrindjeri Murrandi Management Plan pt2 - June 2009	as above, contains recommendations at end of report and Appendix	-	-	-	-	-
Ngarrindjeri Murrandi Management Plan pt3 - June 2009	Appendix continued from previous parts (no further info on our reserves)	-	-	-	-	-
Review of Previous Investigations on the Sturt Reserve Landfill - Oct 2007	no site investigations - a review of data provided by client and recommendations for further research at Sturt Reserve	-	-	-	-	-
Risk Assessment of Human Health and Environmental Impacts for the Former Landfill at Sturt Reserve - Aug 2008	Includes recommendations on how and what to monitor at Sturt Reserve following from Oct 2007 review (above)	-	-	-	-	-
Study into River Bank Collapsing - Lower River Murray - Feb 2010	Study area included Sturt and Long Island reserve - gave current conditions, recommendations, and further monitoring required	-	Called "Long Island Marina" in report Feature: Rotational slip, tension cracks and toppling Further recommended investigations: boreholes and survey Management: Prevent pedestrian access, area is at high risk of continued failure of large sections of river bank Monitoring: measure tension cracks in areas surrounding past failures	-	-	-

Report	Notes on Report	Thiele Reserve	Avoca Dell Caravan Park
Ngarrindjeri Murrandi Management Plan pt1 - June 2009	Describes Ngarrindjeri traditions and linkage with the land around Hume and Sturt Reserve	-	-
Ngarrindjeri Murrandi Management Plan pt2 - June 2009	as above, contains recommendations at end of report and Appendix	-	-
Ngarrindjeri Murrandi Management Plan pt3 - June 2009	Appendix continued from previous parts (no further info on our reserves)	-	-
Review of Previous Investigations on the Sturt Reserve Landfill - Oct 2007	no site investigations - a review of data provided by client and recommendations for further research at Sturt Reserve	-	-
Risk Assessment of Human Health and Environmental Impacts for the Former Landfill at Sturt Reserve - Aug 2008	Includes recommendations on how and what to monitor at Sturt Reserve following from Oct 2007 review (above)	-	-
Study into River Bank Collapsing - Lower River Murray - Feb 2010	Study area included Sturt and Long Island reserve - gave current conditions, recommendations, and further monitoring required	-	-

Report	Notes on Report	Toora Reserve	Rocky Gully Wetlands	Hume Reserve	Sturt Reserve	Long Island Reserve
Sturt Reserve Riverfront Study - July 2013	Clear study objectives by the Rural City of Murray Bridge which all aim to promote the area and allow more public access and use	-	-	-	<ul style="list-style-type: none"> • Implement the wayfinding Strategy for Murray Bridge town centre and Sturt Reserve. • Define key entrances to Sturt Reserve. • Improve pedestrian access to and within Sturt Reserve. • Reduce vehicle speed limits within Sturt Reserve. • Improve existing walking and cycle network. • Activate Sturt Reserve day and night with appropriate lighting. • Upgrade existing exercise equipment. • Encourage active and passive water activities from fishing to canoeing and boating. 	-

Report	Notes on Report	Tumbella Drive Reserve	Murray Bridge Resort Marina and Caravan Park	Swanport Reserve	Swanport Aquatic Centre	Swanport Wetlands
Sturt Reserve Riverfront Study - July 2013	Clear study objectives by the Rural City of Murray Bridge which all aim to promote the area and allow more public access and use	-	-	-	-	-

Report	Notes on Report	Thiele Reserve	Avoca Dell Caravan Park
Sturt Reserve Riverfront Study - July 2013	Clear study objectives by the Rural City of Murray Bridge which all aim to promote the area and allow more public access and use	-	-

Appendix B

Detailed Consultation Documents



1 - Key Stakeholders and Stakeholder Groups within Murray Bridge

Group Name	Brief Description	Contact Person	Email Contact	Phone Contact
Residents/Community Groups				
Murray Bridge and Districts Progress Association	A group to promote the interest of ratepayers and residents of Murray Bridge and surrounding areas	Kevin Richards (President) Christine Jones (Secretary & Treasurer) Edgar Schubert (Vice President)	jonesc@lm.net.au	08 8534 4124 08 8532 2698
Murray Bridge Community Centre	Providing a wide range of informal training and leisure activities to the community		mbcci@internode.on.net	08 8531 1799
Murray Bridge and Districts Historical Society	Recording, preserving and adding to the substantial current Local History Collection and providing historic advice to the community	Ken Wells (President) Jenny Ashton (Secretary) Maureen Stones (Treasurer)	mbhistorical@hotmail.com	08 8532 2669 08 8531 1586 08 8532 1761
Murraylands Community Men's Shed	Encouraging the men of the Murraylands to share, disseminate and preserve skills and abilities that benefit themselves and the community	Mick Loeckenhoff	mick.loeckenhoff@internode.on.net	0477 691 500
Council Community Groups				
Youth Action Committee (Council)	Recognising and promoting young leadership in the community	Paul Ankerson	p.ankerson@murraybridge.sa.gov.au	08 8539 1157 0438 282 747
Community Advisory Committee	8 community members appointed by	Contact Council		08 8539 1100

(Council)	council			
Lunch Laughter and Leisure (Council)	Social community group for older women who live alone	Deb Burton	d.burton@murraybridge.sa.gov.au	08 8539 1116
Men of the Barbie (Council)	Social community group for older men who live alone	Deb Burton	d.burton@murraybridge.sa.gov.au	08 8539 1116
Environmental Groups				
Murray Mallee Local Action Planning Association	Non-for-profit organisation involving the community in identifying and prioritising the major NRM issues in the region		admin@mda.asn.au	08 8531 2066
Save the Murray/Murray Darling Association	Community Group/information group regarding environmental management of the Murray		info@mda.asn.au	08 8226 4402
Eastern Hills and Murray Plains Catchment Group	Community Association that focuses on natural resources management	Steve Coombe	admin@ehmpcg.org.au	08 8531 2077
Broader Community Organisations/Businesses				
Ngarrindjeri Regional Authority	Represents communities and organisations that make up the Ngarrindjeri nation	Margaret Sexton	margaret.sexton@ngarrindjeri.org.au	08 8531 3868
Rotary Club of Mobilong	Creating positive and longer lasting change in our communities	Bronwyn Heard	mobilong.rotary@gmail.com	468 434

2 - Elected Member and Staff Member Workshop Agenda and Notes

Council Staff Meeting

Tuesday 8 December
4:00pm – 5:00pm

PowerPoint Presentation:
Project Purpose, Study Area, Scope and timeframes.

- Discussion topics:
- How does this project link with Council’s current strategic documents and plans?
 - What is the community likely to tell us?
 - What are the Elected Members likely to tell us?

Elected Members Workshop

Tuesday 8 December
5:30pm – 7:00pm

1. Welcome and introduce the project team
2. PowerPoint Presentation:

Slide no.	Slide Content
1	Overview
2 - 3	Project purpose and study area
4	Project scope
5	Question: <i>What are the important values of the Riverfront?</i> Prompt: to the community, business
6	Question: <i>What are the overall opportunities to revitalize the Riverfront for the benefit for the community, economy and environment?</i>
7	Land use and zoning overview
8-20	1 slide per site showing <ul style="list-style-type: none">• Aerial photo• Site ownership / current land use / zoning
21	Question: <i>Which sites have the greatest potential to contribute to the revitalization of the Riverfront?</i> Question: <i>Which sites have the greatest value to the community in their current form?</i> Question: <i>Are there any sites that could be used fund improvements to other sites?</i>
22	Next Steps <ul style="list-style-type: none">• Community drop-in session 17 December• Timing of draft report

Sturt Reserve	<ul style="list-style-type: none">▪ Bank stability is state government responsibility▪ Land fill<ul style="list-style-type: none">- “Blank canvas that you’re not allowed to paint”- Need to deal with this or it will be a constraint forever- “Bite the bullet” on landfill and clean it up- Removal of the fill is key to developing the reserve▪ Timber wharf<ul style="list-style-type: none">- At end of useful life. (approx. \$1M to replace)- Cannot be used for water skiing- Only 1 commercial operator currently licensed to use the wharf- Too high for house boats – require a pontoon to capture house boat market- Owned by DPTI- Need more seating▪ Skiing - Big money into town (should we capture this, bring into town). Currently \$10 million of boats roll in on the weekend and they go past – why?▪ Rowing – talk of upgrading facilities▪ 4 knot zone is issue for motorboats. Currently they do a U-turn at worst slumping zone▪ Tennis – Packed on weekends. May be underutilised during week. Needs lighting▪ Events. Need power, shade, and lighting▪ Needs connectivity up to shopping centre▪ Should be “Vibrant”▪ Improve signage and way finding▪ Interpretive Centre – possibly at Wharf Hill. Link Ngarrindjeri to River to Town▪ Lighting for security. Some issues with “hoon driving”▪ Rail historic carriages – worn out▪ Potential reconfigure of road – Too much like a “race track”? Or embrace it as “race track”?▪ Motor boats are currently in the most sensitive area where the embankments are corroding and washing away▪ 2 private schools interested in rowing clubs – and expanding facilities▪ Sturt Res could be used as an event park – for multi – use events
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	<ul style="list-style-type: none"> ▪ Create better connectivity to the new shopping centre ▪ Premium family destination to town ▪ Need to be house boat friendly ▪ Cricket grounds – prime real estate ▪ Linkages to town – improve with co-ordinated and improved signage and wayfinding ▪ Improved lighting could discourage anti-social behaviour ▪ Provide feature lighting to bridge ▪ Train carriages – outlived its useful life ▪ Prime spot for events
Hume Reserve	<ul style="list-style-type: none"> ▪ Used to be site for Adelaide Ski club ▪ Last camping site of Ngarrindjeri ▪ Work with NRA to determine what to do with site ▪ Lavender walking trail – would like to formalise that ▪ Significant area for Ngarrindjeri but not a lot of detail of exactly where important sites/elements are ▪ Significant area of riverfront ▪ How about grassing the area? ▪ Issues with four wheel drives ▪ Site of the Birthing Tree – Ngarrindjeri significance
Rocky Gully	<ul style="list-style-type: none"> ▪ Pretty well ok as it is ▪ Already used for cycling – locals use the bike trails to cycle into to work at the Abattoirs
Avoca Dell	<ul style="list-style-type: none"> ▪ Report going to Council re: mobile water based coffee boat ▪ Completely packed ▪ Parking issue. “Bollards” may stop people parking on grass. ▪ Boat ramp needs upgrading and widening ▪ Nowhere to tie boat to - need a little jetty ▪ Riverglades wetlands – well linked ▪ Jetty may assist with congestion at boat ramp ▪ Water’s edge a safety issue – the first 3 m steeply falls away – management of bank an EPA issue ▪ Toilets struggle to cope with the influx of visitors ▪ One of the most utilised reserves in Murray Bridge
Toora Reserve	<ul style="list-style-type: none"> ▪ Needs improvement

	<ul style="list-style-type: none"> ▪ Council owned Caravan Park? ▪ Tourism development proposed by neighbouring property – could be possibility ▪ Redevelop for skiing facility ▪ Key node for walking trail ▪ Need to improve signage to welcome visitors instead of encouraging them to go away
Swanport Wetland	<ul style="list-style-type: none"> ▪ Already looking at improving boardwalk ▪ More river access so that boats can pull up to wetlands ▪ Require more funding for more boardwalks
Tumbella Reserve	<ul style="list-style-type: none"> ▪ Ski – facilities ▪ 4 knot zone ▪ Shacks on 99y lease (until 2062) – people are selling them back to council ▪ Connect to wetlands
Thiele Reserve	<ul style="list-style-type: none"> ▪ Well utilised – similar to Avoca Res ▪ Good Facilities – Boat Ramp needs upgrade ▪ Opportunities may be limited by cliffs behind site ▪ Toilets need upgrading
Long Island Reserve	<ul style="list-style-type: none"> ▪ Dangerous – 4 knot zone creates bottleneck as area is narrow ▪ North side of Long Island - no motorboats ▪ Front bank a hazard – 1 metre deep ▪ Adjoining paddock is proposed to be redeveloped as a tourism facility with cafe – as part of the retirement village
Swanport Reserve and Aquatic Centre	<ul style="list-style-type: none"> ▪ Used for private functions on weekends ▪ Private schools used= the facilities during January ▪ Only leased during school terms. Council does use it sometimes for functions ▪ Could be developed for skiing. But current restriction on motor boats ▪ 5 + 5 year lease arrangement ▪ Cabins provide accommodation ▪ Not allowed to use power boats
Murray Bridge Resort Marina and Caravan Park	<ul style="list-style-type: none"> ▪ Plans to maintain dry dock, function centre, expand camping. Some issues with slumping ▪ Expanding caravan cabins ▪ New rowing club ▪ 4 knot zone ▪ Private development ▪ SA Water looking for new filtration system & pump station ▪ Create riverfront path/walking /cycling trail

Long Island	<ul style="list-style-type: none"> ▪ Can't touch it ▪ Look at "no motorboat" section. Currently used for rowers 10 days a year. Instead of a permanent arrangement, could this only be implemented when required by rowers?
General	<ul style="list-style-type: none"> ▪ Discuss rationalisation of assets – Could include selling non-riverfront assets to fund riverfront assets ▪ Comment that 4kt speed limit was put in place as a temporary measure due to slumping. Can it be removed now/in the future? ▪ Rowing <ul style="list-style-type: none"> - Looking at making Murray Bridge the "rowing capital" / regional rowing hub – moved from West Lakes - Regattas - Conflicting water uses

Elected Member Workshop	
Ukee Boat Landing	<ul style="list-style-type: none"> ▪ Should be considered within project ▪ 40 members – strategic opportunity ▪ Group title ▪ Boat heaven
Sturt Reserve	<ul style="list-style-type: none"> ▪ Landfill – "Bite the Bullet" – have been advised \$600k to investigate ▪ Under utilised ▪ 4 knot zone. "Only town with a river without motorboats" ▪ Open it up to skiing ▪ Others don't agree with high powered boats. Lose beach effect. Safety for kids ▪ Benefits of the space is the open space ▪ Has to be a solution for alternate ski location ▪ "It's a swamp" so it will move around. ▪ Aim to keep parts of area open ▪ Activate the space ▪ "Is the road too close to the river?" ▪ Connectivity <ul style="list-style-type: none"> - "Lavender Trail could be used as nexus" - Look at what the deal breakers are for connectivity. How do we break these down? ▪ Mary Tce / behind Market Place. Get the planning right so private enterprise can do the work to creak linkage (Andrew Meddle advised this is currently part of a DPA) ▪ Big bang for buck

	<ul style="list-style-type: none"> - "Sturt Reserve improvement" - "Industrial area" – Flour & Timber - "Railway yards" ▪ Could "slumping" area become speed boat area ▪ Consider different river scenarios ▪ Is it too hard for Council to control – needs private enterprise ▪ Can utilise reserve for Cars shows / rock concerts in certain sections while Peddle Prix needs to be closed off ▪ Is the access road too close to the river? It makes the river frontage too narrow ▪ Consider options to connect trails in front of private properties to gain access to the riverfront ▪ Gaps between riverfront and the commercial centre ▪ Flour Mill area / Old timber mill –rezoning will assist in revitalising the town and connection to the river – from Light Industry to Town Centre or Tourism Centre ▪ Steve Moritz – 0412 833 188 about the river and the boats ▪ Slumping occurs in bottom end ▪ Speed boats at capacity ▪ Consider two scenarios – high river and low river impact on tourism ▪ Need private enterprise/partnership
Hume Reserve	<ul style="list-style-type: none"> ▪ Caravan Park? Lease it. Don't run it ▪ Development that does not include the NRA would be almost impossible ▪ Needs to be very balanced solution ▪ NRA are prepared to negotiate. Not necessarily anti - development. Must be partners <ul style="list-style-type: none"> - Either directly involved or trade off interests ▪ Report needs to create the discussion and be respectful
Rocky Gully	<ul style="list-style-type: none"> ▪ 'Stinky' ▪ Really good. More tracks ▪ An opportunity to create a better "welcome" to the town ▪ Improved signage – Across the board on all sites ▪ Testament to what the Murray Bridge community can achieve ▪ 'Welcome to town' – upgrade to

	<ul style="list-style-type: none"> contemporary gateway 500 m buffer to meat works – Swamp Road as boundary to future housing development
Avoca Dell	<ul style="list-style-type: none"> Constrained by neighbouring lands Boat ramp needs to be repaired. Needs a pontoon Boat ramps generally need upgrade More parking and toilets Not enough access to the river
Toora Reserve	<ul style="list-style-type: none"> Upgrading for access to river “Good stretch of water” “People would flock there” if upgraded
Swanport Wetland	<ul style="list-style-type: none"> Agree with recommendations (upgrade parking, signage, boardwalk/tracks) Boardwalk 13 – 14 years old Maintenance an issue Need better access to car park and boardwalk Well regarded by users Could consider using work for dole or green army to improve the overall facilities
Tumbella Reserve	<ul style="list-style-type: none"> Untidy \$2 million shacks Consolidate reserves (close to Long Island Res) Provide a Rotunda Potential for development: Shade – only passive recreation Open for discussion on private investment
Thiele Reserve	<ul style="list-style-type: none"> Surrounded by private land Fix boat ramp Toilets Federal money may be available to focus on wetlands Utilise SAMS funding - \$45 million for wetlands
Long Island Reserve	<ul style="list-style-type: none"> Asphalt extended gravel car park Toilets need upgrading Lawns extended to Wilsons Way Shade for playground
Swanport Reserve and Aquatic Centre	<ul style="list-style-type: none"> Question is Murray Bridge getting best use of site? without endangering current lease Should it have a boat ramp?
Murray Bridge Resort Marina and Caravan Park	<ul style="list-style-type: none"> SA Water doesn't plan on relinquishing site. Marina – need to talk to them Development of this site would be good for town
Long Island	<ul style="list-style-type: none"> What is best long term solution but need to consider native title

General	<ul style="list-style-type: none"> Boat ramps and toilets need to be reviewed across the study area. Upgrade? Do we have them in the right place? What about houseboat friendly areas? . <ul style="list-style-type: none"> Sturt Reserve? 2 Markets: <ul style="list-style-type: none"> General Hire – Currently hire and then immediately leave Murray Bridge Potential for high end accommodation during local/regional events (Taillem Bend Motor Sport Park) Facilities required for houseboats. Access (can get stuff on boat), power, mooring access, parking, drinking water and bollards People who hire house boats may not want to be near town. That is part of the appeal What goes where? Are boat ramps in right location? Where should houseboats be? Fishing? - Consider anglers in plan Camping Facilities? Model Boating? RSL looking to move facility to Sturt Reserve. But open to location. Tie in with other facilities. “Multi use” Check with SA Water on all their land
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3 - Government Agency and Statutory Authority Workshop Agenda and Notes

Government Agency & Statutory Authority Workshop	
Venue, Date and Time	GHD Offices, Victoria Square, Adelaide 11 December 2015 10am
Attendees	Michael Scott (GHD) Mark Separovic (GHD) David May (GHD) Andrew Meddle (Regional Council of Murray Bridge) Mike Penhall (DEWNR) Daniel Walton (DEWNR) Chas Allen (SA Water) Mark Van Roekel (SA Water) Melissa Bailey (Jensen Planning + Design) Justin Clisby (Jensen Planning + Design)
Agenda	
Item 1	Welcome and Introductions
Item 2	Project Background and Overview
Item 3	Issues for Discussion <ul style="list-style-type: none"> SA Water land and assets within the study area Environmental issues including: River, riverbank, flood plain, biodiversity Environmental improvement: opportunities and challenges Any other issues?
Item 4	Project Timelines and Further Consultation
Item 5	Meeting Close

Government Agency and Statutory Authority Workshop Notes

Item	Description
Item 1: General Introductions including roles	
Item 2: Project background and overview	<p>Project study area clarified as the extent of the riverfront within the area marked. Specific sites 'string of pearls' have been identified for possible upgrading and improving for recreational purposes or environmental / conservation purposes. Regional Council of Murray Bridge either owns or has a particular interest in each of these sites.</p> <p>District Council of Murray Bridge are keen to implement riverfront improvement projects after 10-15 years of strategic planning resulting in limited project implementation.</p> <p>Plan will act to position future investment. Growth in Murray Bridge has tended to be away from or 'turning its back to' the river. Future development to recognise the Murray River as an important recreational and environmental asset to stimulate growth and employment opportunities.</p> <p>A \$50,000 grant from PIRSA was secured to conduct current investigations.</p> <p>Plan report is to be delivered in February 2016 with implementation of the plan to be staged over the next 5, 10 and 15 years.</p>
Item 3: Issues for discussion	
<ul style="list-style-type: none"> SA Water land and assets within the study area 	<p>Waste water treatment plant operating close to the riverbank south of Murray Bridge Resort Marina and Caravan Park. Waste is currently delivered to the site from a pipe the runs from Sturt Reserve (where sewers are drained) to the treatment plant along the river edge. Residential development was occurred directly adjacent treatment plant causing issue with odours. Treated water is currently piped via Long Island to the east bank and onto the army barracks and wetlands on Kepa Road. Access to the waste water treatment facility is through the marina.</p> <p>Existing waste water treatment plant is outdated and overloaded and being moved to a site south of Murray Bridge by 2021. Treated waste water is intended to be used</p>

	<p>locally, perhaps at the racecourse.</p> <p>Moving the treatment plant could include removal of the treatment lagoons, providing public access to the riverfront, extension of the marina.</p> <p>There are some concerns that the treatment lagoons being close to the waterfront could cause issues in the event of flooding.</p>
<ul style="list-style-type: none"> Environmental issues including: river, riverbank, flood plain, biodiversity 	<p>The need to balance river based recreation with limiting bank erosion is a key issue – striking a balance between conservation/protection and recreation.</p> <p>In sections of the river where there is high recreational use, terrestrial biodiversity is limited.</p> <p>Information on fish diversity, threatened species etc. is being sought.</p> <p>There are high levels of biodiversity in wetland areas – Rocky Gully Wetlands, Swanport Wetlands, Riverglades Wetlands (privately managed wetland south of Avoca Reserve). These areas could be further protected and improved.</p> <p>Possibility to enhance/improve biodiversity corridor from Monarto crown land to Rocky Gully Wetlands via Rocky Gully Creek (as in former development plan – circa 1996). Rocky Gully Creek currently ‘disappears’ from Mobilong prison to Rocky Gully Wetlands (further investigation required).</p> <p>A former development plan (circa 1996) included a 20m vegetation corridor either side of S.E Freeway but never realised. Could this be revisited?</p> <p>Current stormwater management is unclear, requires further investigation.</p> <p>Issues with acid sulphate soils.</p>
<ul style="list-style-type: none"> Environmental improvement: opportunities and challenges 	<p>Council looking to reuse current/former dairy farms for recreational or conservation/environmental purposes</p> <p>A strategy that is adaptive to climate change needs to be pursued - water sensitive design, drought tolerant grasses etc.</p> <p>Site are subject to the River Murray Act which</p>

	<p>regulates development near the river with regard to native vegetation, flood zones, water quality, maintenance of natural flows, maintenance of natural appearance, heritage etc.</p> <p>1956 Flood Zone: DEWNR is not opposed to development within the 1956 flood zone, proposals will be considered on an individual basis. 1956 Flood Zone is precautionary and does not exclude appropriate development. Flood Zone policy dates from the 1980s and may need reviewing. In 2000, Coorong District Council amended the 1956 Flood Zone in their development plan.</p>
<ul style="list-style-type: none"> Any other issues 	<p>River speed limit discussed with possibility for review and change;</p> <ul style="list-style-type: none"> Conflicts arise regarding speed limits due to the diverse mix of motorised boating, non-motorised boating and environmental/conservation water based activities. A 4 knot speed limit in areas subject to slumping. Sturt Reserve identified as key site for water based recreational activities. Seals causing disruption to river based events (e.g. water skiing event). DPTI Marine Department to make contact with Melissa Bailey with information clarifying speed limits. <p>Heritage considerations – Murray Bridge Railway Yards</p> <ul style="list-style-type: none"> Currently under review for provisional relisting (State Heritage) – individual sites (including bridges, buildings and remnants) to be consolidated into one heritage precinct. Ship wreck elements at wharf area could provide opportunities for tourism. DPTI are looking to sell off rail yards. <p>Development opportunities</p>

4 - Ngarrindjeri Regional Authority Meeting Notes

	<ul style="list-style-type: none"> The strong link between houseboat moorings and Hume Reserve should be exploited. Extensive riverfront trail could be established (Sturt Reserve to Hume Reserve via Railyard Heritage precinct). <p>Council is looking to develop 'food bowl' for the north near Mobilong adjacent Onkaparinga pipeline.</p>
Item 4: Project timelines and future consultation	Not discussed.
Item 5: Meeting close	No future meetings arranged.

Meeting details	Ngarrindjeri Regional Authority Thursday 18 December 1:00pm
Attendances	Clyde Rigney, NRA incoming CEO Candice Love, NRA Anthropologist Michael Diplock, NRA Heritage Adviser Margaret Sexton, NRA Executive Officer Melissa Bailey (Jensen Planning + Design) Justin Clisby (Jensen Planning + Design)

Item	Description
1. Approach to the Riverfront Masterplan	<ul style="list-style-type: none"> The whole of the Riverfront Strategy study area falls within the Native Title Claim Area. There are sensitive cultural areas identified within the study area, but the whole study area is of importance to the Ngarrindjeri as the riverfront was a place where its people have lived more intensively including burial areas. The NRA see opportunities for development of the Riverfront to achieve community development outcomes for Ngarrindjeri people. The NRA would like to develop a Cultural Management Plan in response to the recommendations for the Riverfront Strategy in partnership with Council which would be asked to contribute funding towards this work.
2. Ongoing Consultation	<ul style="list-style-type: none"> The Ngarrindjeri wish to consider and provide a response to the draft Riverfront Strategy. The Ngarrindjeri wish to be recognised as the traditional owners of their country and for this to form the basis of their ongoing involvement in the development and implementation of the Riverfront Strategy.
3. Native Title Claim	<p>The Native Title Claim is intended to establish Ngarrindjeri as a living culture. The claim is nearing completion and the NRA would not like to see any decisions over land within the study area does not have regard to a successful resolution of the claim. As part of the claim, the Ngarrindjeri are looking to benefit socially and economically from the use of the land as the traditional custodians.</p>
4. Railway Precinct Land owned by DPTI	<p>The NRA do not want this land to be sold prior to the resolution of the Native Title Claim.</p>


Item	Description
5. Ninkowar Incorporated	<ul style="list-style-type: none"> The Ninkowar facility located adjacent to the Railway Precinct is in a culturally sensitive location but the organisation could potentially move if a more suitable building could be provided. Note: Ninkowar is an organisation run by and for Ngarrindjeri women to promote and protect cultural heritage.
6. Documents Referred to	
Kunkun Ngarrindjeri Yunnan Agreements (KNYA)	<ul style="list-style-type: none"> The agreement which translates to 'listening to Ngarrindjeri speaking' was signed between Council and the NRA in 2008. It establishes a formal basis for Council and the NRA to consult with each other in relation to develop a greater understanding of Ngarrindjeri culture and to manage sensitive areas identified in the agreement. The agreement establishes a joint committee to oversee the agreement. The NRA considers the Riverfront Strategy should reflect and make reference to the KNYA process, but says that some of the details within the agreement are now dated. [Note the KNYA lists the following places within the study area as Highly Sensitive: Long Island, Swanport Granite Outcrops. The following places are listed as Managed Areas: Narooma area, the Railway Precinct, and Sturt Reserve.] The NRA also has a KNYA with DEWNR, the NRM and NRA and a committee that meets monthly to consider development within Ngarrindjeri land.
Ngarrindjeri Nation Yarluyar-Ruwe Plan Caring for Ngarrindjeri Sea Country and Culture	The 'Sea Country' plan has been developed by Ngarrindjeri people to help government agencies and other organisations to understand their culture and relationship to their Country.
RDA Cultural Tourism Plan	

Ngarrindjeri Native Title Claim area



Source: DEWNR, NRA, 2013, Kungun Ngarrindjeri Yunnan Agreement (KNYA) Listening to Ngarrindjeri People Talking, Annual Report 2012 and 2013, p.10

5 - Public Consultation Event



MURRAY BRIDGE RIVERFRONT STRATEGY

The Rural Council of Murray Bridge is preparing a Riverfront Strategy that will be used to deliver projects that improve the quality of the river environment and build prosperity for the community.

The Murray Bridge Riverfront Strategy will provide a significant benefit to the environment, local business and the community

How can the Riverfront attract visitors to Murray Bridge and encourage them to stay longer?

The strategy will focus on projects that:

- improve the natural environment
- strengthen cultural heritage values
- diversify the local economy
- improve connections from the River to the Town Centre


Further information

Further information and a map of the study area can be found at www.murraybridge.sa.gov.au or by contacting Council on 8539 1100.

FIND OUT MORE AND TELL US YOUR IDEAS!

Members of the community are invited to drop-in to a Public Consultation Event on **Thursday 17 December** at the **Murray Bridge Town Hall** between **4:00pm and 7:00pm**.

There will be a formal briefing about the project at **6:00pm** from **Andrew Meddle**, General Manager Sustainable Communities.



Public Consultation Event Attendances

Name	Organisation	Contact Details
Adam Bruce	Above Board Shop	0409 859 021

	South Side Wakeboarding Club	
Ian Pithers	Cottage Box Chocolates	8531 3761
Graham Hallandae	Lavender Federation Trail	8532 3939
Ken Wells	Murray Bridge Historical Society	8532 2669
Jan Brand	Murray Bridge Historical Society	0438 810 782
Jean Filmer	Murray Bridge Lions University of the Third Age	
John Filmer	Murray Bridge Lions University of the Third Age	
Jeff Fox	Murray Bridge Resident	8535 4010
Don Watts	Murray Bridge Resident	0427 324 857
Ron Jericho	Murray Bridge Resident	0407 970 326
Pat O'Riley	Murray Bridge Resident	0488 668 547
Jesse Budel	Murray Bridge Resident	0457 903 059 budeljesse@gmail.com
Peter Harden	Murray Bridge Resident	0427 671 838
Ray Morris	Murray Bridge Resident	0447 596 024
Roger Goodman	Murray Bridge Resident	0457 094 795
Stacey Siedel	Murray Bridge Rowing Club	0419 855 178
Craig Christian	Murray Bridge Rowing Club	0419 855 178
Chris McRae	Murray Bridge Rowing Club	0419 855 178
Peri Strathearn	Murray Valley Standard Riverglades	8532 8000
Carol Bath	RCMB	0402 890 405
Andrew Baltensperger	RCMB Councillor	0421 596 189
Kevin Schrapel	Riverglades	0488 129 951
David Laing	RSL	0470 791 822
Ruth Schrapel	RSL	0488 129 951
Jerry Wilson	RSL	0401 697 133
Merv Schopp	RSL	0428 323 891
John Meers	RSL	0408 324 291
Mick Loeckenhoff	RSL	0419 380 493
Fred McInerney	RSL	0418 843 246

'One Big Idea' Notes

What is your "One Big Idea" to improve the Riverfront area?

ENVIRONMENTAL FOCUSED

- Arid Flora Park in Hume Reserve

DEVELOPMENT FOCUSED

- Focus on the major river crossings for the volume of people crossing the bridges and their first impressions
- Integrate new and existing developments with environment and ecosystems, not against them
- Maintain the River Frontage and develop in the public domain

RECREATION FOCUSED

- Casual eateries within Sturt Reserve
- Connect the Hume Reserve, Rocky Creek Wetlands and Sturt Reserve for walking
- More places to walk and cycle along the Riverfront
- New sporting complex located upriver/town side of Swanport bridge with facilities for football, tennis netball etc.
- Riverfront Walkway from Hume Reserve to Long Island Reserve similar to Renmark

CAMPING FOCUSED

- Central caravan park
- More casual camping facilities
- More facilities for camping

WATER FOCUSED

- Attracting more House Boats
- More recreational boating facilities
- Restrict some areas from speed boats

Public Consultation Event Notes

Avoca Reserve
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • Adjacent to caravan park and river • Next to the best and most accessible wetland along the river • Very accessible to all • Clean open space • Large areas • Good for water sports • Location on the river
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • People fishing • Rowers • Water skiers • Houseboats • Walkers • Tourists from the caravan park • Locals
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • More trees and vegetation • Work with Riverglades to better utilise the norther end (bridge across small channel) • Lawn and more trees on the barren area • More BBQ facilities in this area • More Shade • Better signage and advertising of the available space • Encourage the feedback of users as to their needs and wants • Link with the current walking loop trail • Heritage signage and site information – telling the site history and why it is named as it is
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Install a cleverly designed concrete climbing Bunyip structure (that is low and long – minimise safety risks) • View towards walking trails both upstream and downstream available to all visitors – this would require agreement from landowners on the upstream properties
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Fire pits and wood may be a good idea during the winter months

Thiele Reserve
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • River access • Picnic spot • In good condition • Good boat ramp • Well kept • Quiet area • Recreational area
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Lots could • Water skiers • Boating people • Families
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Add heritage signage for 'Sunken Tyro' • More trees • Develop further – larger area, second boat ramp, safe swimming area, implementing recreational aspects such as shade, bbq and play equipment, better toilet and shower facilities as well as food options
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Use the levy banks as a trail connecting other parts of the river • Make larger and more attractive • Promote to the boating and skiing community of SA
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Could another area for other safe aquatic sports be incorporated such as paddle boats, canoes or row boat, without interfering with skiers? • Potential for second boat ramp

Long Island
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • Important Ngarrindjeri Dreaming Site (Lenteilin) • Notable environmental feature in the Murray • Important biodiversity • Natural environment
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Researchers • Community • Rowers • Motorboat users • Ngarrindjeri community • Naturists • Nobody, need a boat and it is overgrown and full of snakes
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Remove the introduced Willow species and replace with natives • Provide some recreation usage as well as environmental sanctuary • Preserve current boat restrictions on eastern side (to protect waterfront refuge and aquatic sandscape) • Better information about significance • Kayak and boat moorings
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Interpretive signs about Ngarrindjeri heritage and history • Do we need to leave it as a sanctuary for wildlife? • Clean it up and make it so to get rid of feral introduced vegetation such as willows
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Consult Ngarrindjeri Elder and community as well as Bruce Frazer, Jack Reddin and Ken Wells • Control the snakes

Swanport Wetlands
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • Signage • Boardwalks • Wildlife • Quiet location • Significant wetland with boardwalks, bird hides and a variety of birdlife • Fantastic 'chill out' area, mostly peaceful with a variety of birdlife
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Not enough people • Schools • Bird life and enthusiasts • Students • Walkers • Mountain bikers • Very few people, location is almost unknown to most residents and very few visitors • Families and tourists
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Replace the broken treads on the boardwalks • Maintenance • Better toilet facilities • Connect the end of Long Flat reserve back along the riverfront, under the Swanport bridge to wetlands for tourist bike and walking trail • Has been neglected many times and has broken slats in walkways • Bird hides not maintained with steps into them often broken • More interpretive signage • Update parking, walkways, seating and access
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Signposting and more publicity so more people know it exists • Educational tours • Update signage, advertise the area and encourage public support in upkeep
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Needs directional signage – lots of people give up when trying to find it • Needs a Kayak landing • Needs to be better promoted and better maintained

Swanport Reserve and Aquatic Centre
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • River • Trees • Outlook facilities • Good facilities
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Tourists • Locals for fishing and picnics • Sailing people • Aquatic campers • School groups
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Better maintenance • Make available for outside groups

Murray Bridge Resort Marina and Caravan Park
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • Riverfront • Water sport facilities and opportunities • Opportunity to expand or increase aquatic activities for the local community and visitors • Environment/location
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Currently underutilised • Tourists and visitors
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Relocate • Make more attractive
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Tourism in and around Murray Bridge would benefit greatly from a centrally located holiday/caravan park. This would encourage many more visitors to the area and for businesses and dining places. Hopefully it could encourage new businesses to the CBD and increased trade for those existing • No expansion

Tumbella Drive Reserve
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • Close to the river • Natural Features • Bird Life • Environmental Friendly • Close to the river and nearby residences • Nature – reed beds, frogs, birds • Good swimming area • Good fishing from bank
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Does it have to be used? • Local Residents • Didn't know that it existed • Children swimming • People walking their dogs • Fishers
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Seating • Better signage and access • Include on tourist information • Provide more parking, seating and notify Murray Bridge people of its existence • Trees, seats, lawn, easier access to the river for swimming • Stop speed boats and jet skis going by or turning near the banks
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Preserve • Public toilets • Walking and bike trail direct from reserve to the wharf area, along the riverfront • Dedicated cultural area or fishing reserve • Connect to Long Island Reserve by a better road and trail for bikers and walkers • Keep as is, but stop some river traffic – as it stops people using the bank areas
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Wonderful if you could walk from Sturt Reserve along the river front and stop at the other reserves on the way

Long Island Reserve
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • Location and ambiance • Boat ramp • Toilets • Bbq • Town area • River boats • Playground • Trees in several sections give shade
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Locals during the week and broader community on weekends • Ski and jet boats
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Link with Sturt Reserve and Swanport Reserve as a matter of urgency • More parking for boat trailers • Size means little can change • Riverfront connection with walking and bike trails to Sturt reserve
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Maintain the local reserve feel • More shelter areas • Bike/walking pathway from Sturt Reserve to Long Island Reserve and beyond if possible
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Permanent bike repair station with pumps and spanners etc.

Sturt Reserve
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • Proximity and location to the river • Beautiful environment – a pleasure to visit • Waterfront cycling circuit • Solemn-ish, peace and quiet • Parking • Everyone knows where it is • Playground • Train • Captain Proud • Great potential • Well maintained gardens and parks • Access to and view of the river • Places to eat where you can see the river • Activity at the rowing club – watching boats come and go • People walking along the path • Outdoor facilities – gym, skate park, playground • BBQ areas • Events • Lawn and leisure areas • Inexpensive to visit • Close to the business areas • Wide riverfront access
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Community and residents • General public and visitors • Community and rowing clubs • People on River Cruises • Club and riverfront patrons • Sports people – rowers, runners, skateboarders, swimming, motorised and non-motorised craft
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Do up and preserve • Make it accessible to children, do up the trucks and make them secure • Wharf and rail part of Murray Bridge Heritage • Keep public toilets open 24 hours per day • Encourage after hour's use of the area (BBQ breakfasts etc.)add signage that encourages people to drive to the river • Visitor information centre between the RSL proposed site and the water • More public toilets • Joins/links town to the riverfront • Maintenance on the train engine • Toilets by the community club • Better facilities for the community and rowing clubs • Remove unsightly areas fenced off because of 'slumping' – only slight danger in low river

- Connect the town to the river and create a venue to host events like 'A day on the Green' and escalate the events held there
- Viewing platform on top of boatshed
- Pontoon for launching rowing boats
- New rowing shed with historical museum and gym facilities
- Walking path past Ninkowar to CBD
- History walks around Murray Bridge including along the river
- Greater promotion of artwork for more cultural experience to visitors
- Create access between Sturt Reserve and Hume Reserve and tidy the area between
- Water feature for kids to play in, as the river can be dangerous
- Walkways
- Cafes – with longer opening hours and outdoor areas/good coffee
- Pontoon for leisure activities
- Historical walk
- Better access from the CBD
- Signage on North side of road bridge needed to show track access
- Separate bike track – bikes tend to be too fast and to near children. The shared bike and walking path is too narrow
- Signage at the carpark opposite Bridgeport showing to the river

YOUR BIG IDEA FOR THIS PLACE

- Use existing structures to enhance the waterfront
- Keep toilets open 24/7
- Water feature – kids play area
- An information centre near the Wharf Area
- Plenty of parking for caravans/campervans with signage on the freeway and Main Street for direction.
- RSL memorial park concept – capable of hosting 3000-5000 people in 2018
- Mural depicting 'footprints of early settlers and Aboriginal heritage'
- Utilise the stage area
- Attract more houseboats to stay
- Open up the road behind shacks and extend to Long Island Reserve
- We are passionate to relocate our memorial to this area and in fact create a memorial garden to be used by the community and visitors, something that Murray Bridge is sadly lacking
- Make it a Regional Centre for Rowing
- A model boating lake
- Viewing platforms along the riverfront
- Pontoon for launching various water craft and for fishing
- River cruises in smaller vessels that are more affordable for families
- Needs more art – maybe a carved river gum competition on the existing dead trees throughout the reserve
- Interpretive signs
- Link to northern car park at wharf by a one way road to southern section of reserve. Tourists tend to drive in, turn around and go back to the CBD

OTHER THOUGHTS OR COMMENTS?

- Caravan park between Jaensch Road and Playground Area
- To be the place of memorial for the next 100 years and beyond

- A beautiful area underutilised
- Replace the 'Don't Do' signs with what is available
- Have public facilities available (toilets and skate park) when events such as pedal prix is staged
- Sturt Reserve is the keystone of Murray Bridge and should be used much more than is currently the case. Mannum and Renmark are classic example of what can be achieved
- More areas that are under cover but alfresco
- Paddleboats for hire
- Slow the speed limit
- Signage to reflect the history of Murray Bridge Rowing Club
- Museum to honour 'The Cods'
- Proud Mary to dock at the old wharf
- Trucks, cars and petrol tankers drive over lawns to the boats
- Old wharf needs an upgrade particularly at the road are where sections of the existing road surface have fallen into the river

Hume Reserve
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • It isn't, there is mud in the water and it is used by 4WD to tear around and create tracks up the hill, there is also poor access and no signposting • Proximity to river and wetlands • It is close to the CBD
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Fisherman and idiot hoon drivers • Local people • Horses and trainers
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Aboriginal midden on the hill behind the river level in great danger of being destroyed, the council recently cut the grass and drove over them. They need to be blocked off and grass be hand cut. • It can be a tourist attraction, so would require more signage about the Aboriginal heritage • Better connections – walking trail • Connect along the old railway to the lavender trail. Use the old railway line as a walkway. Don't remove the link and make it accessible for walking. • Put in a caravan park with cabins • Improved access, more maintenance, landscaping and lighting
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Ideal caravan park location with road access currently used by railway houses, easy walking distance from the CBD. My brother-in-law is the ex-CEO of West Beach Caravan Park and looked at the location and agreed as long as there was new direct access. • Re-establish speed boat facilities • Toilets and picnic facilities • Aboriginal heritage trail • Arid garden space • Sculpture garden – reusing the existing structures • Building up and levelling the land • Add in more trees and amenities
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Signage • The meat-works is one of the first things you see and the Hume Reserve is an 'eyesore' • Respect Aboriginal Culture • Railyard heritage important • Restore the train engines • Get the approvals in place and let a developer develop it as part of a long term lease • A caravan park linked to the town centre by good walking and cycling tracks, tree and shrubbery covered for shade to make it a pleasant walk

Rocky Gully Wetlands
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • Volume of birdlife • Good walking surfaces and rest points • Near to the river • Walking trails • Good work done on wetlands with walking trails
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • No one • A variety of people – mostly local, keep-fit groups, parents and children • Walkers and cyclists – part of the lavender trail and connecting point for proposed river trail • Travellers • Locals • Walking groups
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Focus on upgrading paths or at least maintaining toward this being more exercise and fitness oriented • Connect to Lavender Trail • Good as it is
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Model boats could use this as the water is out of the way of wind and is not far from the land if something goes wrong • Canoe access – canal • Recreational fishing • Add timber walkways over the water to instil and enhance closer access to birds, reeds and insect life • Use existing structure to enhance the connections in the area i.e. the railway line
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Better access for all, birdwatcher in particular

Toora Reserve
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • A quiet place • Natural environment • Isolated and not well known as a reserve • It isn't, it is completely neglected, overgrown with weeds and grass
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Not many people know about it • Very few • Nobody
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Bike or walking trail along the river to Hume Reserve and beyond, could go through to SA Water Pump Station yard along the river bank • Link with Murray Bridge riverfront walking and cycling • Use a grass slasher and control feral plants • Obtain access to the river – currently its blocked off with private fences
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Would like to see it maintained for houseboat mooring • Keep the grassed areas within 10m of the bank • Control the weeds that cause punctures to bike tyres • Weed management • Identify and clear underwater trees and snags
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • The existing owners still use the historical buildings including the old shed and stables for visitors • This is on the proposed River Trail planned to go along the levy bank. SA Water in the middle blocks unrestricted levy bank access

Mobilong Swamp
WHAT MAKES THIS A GREAT PLACE TO BE?
<ul style="list-style-type: none"> • Spacious land • Close to the river front
WHO USES THIS PLACE?
<ul style="list-style-type: none"> • Researchers • Contractors • Walkers • Land and water managers • Farmers previously used the land
WHAT WOULD YOU CHANGE TO MAKE THIS PLACE EVEN BETTER?
<ul style="list-style-type: none"> • Acquire land and develop environmental sanctuaries as well as a community facility (sporting, recreational, agricultural) • Work with SA Water and other researchers to improve acidic soils and water conditions in the area • Connect better with the Rocky Gully Wetland and Sturt Reserve
YOUR BIG IDEA FOR THIS PLACE
<ul style="list-style-type: none"> • Recognise and protect the Ngarrindjeri burial ground at the foot of the cliff (Pump and Toora Road Intersection)
OTHER THOUGHTS OR COMMENTS?
<ul style="list-style-type: none"> • Consult with Robert Hutchinson and SA water

6 - Online Survey Responses

How do you use the River and where on the Riverbank do you go to use it?
I go fishing, walking the dog and general enjoyment of the park areas sturt reserve usually
Take visitors to Sturt's Reserve for lunches and walk along Wharf precinct
Walking from Narooma Boulevard around to the Long Island Reserve and back to Sturt Reserve (along the river path when the water is low enough). Try to cycle the Lavender Trail, but it gets a bit rocky as you head to Monarto!
Sturts picnic playground skate park
Walking, boating - skiing
I walk the dogs at Sturt Reserve. I do a Body Balance class there on Saturday mornings in summer & ride my mountain bike along the levee banks & other places I can go. We also do a bit of kayaking in the river.
Boot camp exercise
For showing tourists and relaxing. At Sturt Reserve and The old Wharf
The Murray Bridge RSL has a vested interest in the redevelopment of Sturt Reserve, as that is the preferred location for all future ANZAC Day Dawn Services.
Swimming during summer, I walk daily to Sturt reserve area with my dogs Often canoe and fish
To sit by river to watch wildlife, the flow of the river, have a meal. Sturt reserve as has lawned area as well.
Skiing , paddling , running , walking, relaxing , admiring
Then Murray Bridge Lawn Tennis Association has 22 courts situated in Sturt Reserve east of the Community Club. We have over 90 juniors and 40 coaching kids using our facilities each Saturday morning from October to March, plus 80 adults in the afternoon. We also have social competitions on Thursdays and Sundays, plus coaching on Wednesday and Friday afternoons. We are currently upgrading our facilities, which will be ready for the Tennis competition of the Masters Games in April. We have been based in Sturt Reserve for almost 30 years, from the time when the Reserve was first established.
Sturt Reserve
We utilise public open space for swimming, boating, canoeing , walking, running, education, turtle watch, picnics etc.
Skiing Along Avoca Dell while walking and Sturt reserve
I live at the top of Tumbella Drive Reserve and love to walk along the river bank.

What do you value most about the Riverbank?
The open space, great access to the water area, paths
The river aesthetics and open space.
Public access - the whole river front should be available for public access. Currently Sturt Reserve is great, but vastly under utilised. We need to be stepping up the game massively to capitalise on the huge numbers of new people coming to the area when the SA Motorsport Park opens.
Lawn
The walkways and bikeways
It is pretty & green & I like the sculptures & artwork.
Land
The river and the historic features of the wharf.
The Sturt Reserve was host to over 3,500 people for the 2015 ANZAC Day Dawn Service, and the foothills opposite are reminiscent of the foothills of Gallipoli. Sturt Reserve is an ideal location for future commemoration services, and the RSL is keen to work with council to develop an area sufficient for the needs of the community to commemorate and reflect on the sacrifices of those who went before us.
I value that we are able to access the river and are provided with facilities to enjoy the rivers surrounded parks etc. Personally I value the lawn tennis courts location I coach tennis and see great potential in the sport in this area.
Scenery greenery wildlife/birdlife peaceful area to relax.
Beauty, sustainability , safety , accessibility
The riverfront is a fantastic location for summer sports, and we value our location as being a unique drawcard for promoting a healthy active lifestyle.
Nice relaxing environment
It's being public open space. Available to enjoy come rain hail or shine!!!!!!
It's calming atmosphere
The natural environment, the birds and wildlife.

Looking at the map above. Which places work well and why?
Sturt reserve, I like it
Sturt's Reserve for parking and lighting.
Sturt Reserve & Long Island Reserve - as they are accessible. Both could do with upgrading and have a year round riverfront walking access between them. Wetlands good for cycling, but a proper cycle trail needs to be developed along the river.
Any reserve with lawn boat ramp and rubbish bins
Avoca Dell & Thiele Reserve work really well. Toilets, shade areas & play spots for the kids. Boat ramps & nice green grass. Sturt Reserve is always nice. The Swanport Aquatic Centre is good for functions.
None are really used well
Sturt Reserve and Thiele Reserve for most aesthetically pleasing parks.
Sturt Reserve is well developed, but further expansion of the Rowing Club will leave little room for the area that was used this year for the ANZAC Dawn Services.
Sturt reserve is fantastic and needs to be promoted more, Sturts works well as of location but the fantastic space, trees and infrastructure currently set up
Not sure on numbers of people who visit areas, where there is speedboat access areas seem more popular.
Thiele reserve, Sturt reserve, Long Island reserve
Speaking only for Sturt Reserve, I think that the area is marvelous for events like the Pedal Prix and the Xmas Parade and Fireworks. It is good to see that Relay for Life has now based its annual event, The playground and Gym Equipment are great,
Sturt Reserve. It has limited facilities for locals and Tourists
I utilise most of these spaces at different times. That aquatic centre is private but beautiful. We need to enhance the experience but maintain it as freely accessible
Avoca dell , it's got lots of parking and has barbecue facilities
The reserves and designated boating areas.

Looking at the map above. Which places need improvement and why?
Probably all, Sturt reserve more seating for get togethers and cooking, bins, wider paths for both direction travelling, maybe a bike way somewhere, somewhere nice to park and sit on east side be good, gardens, I think some of the area at sturt reserve is wasted space, a walking trail maybe
Wharf and Railway precinct and Hume Reserve.
Hume Reserve is a disgrace
Sturt needs more picnic tables and the bunyip needs an overhaul
Hume reserve - is always untidy, so close to town, it is a haven for 4 wheel drivers, and hoon drivers, there is always rubbish dumped. This would be a great area for an artificial lake and model boat races etc.
I would suggest some of the Councilors visit Mildura if they haven't done already. Their revamped river front is spectacular. They have those pop up water fountains & the kids just loved them. We went there on a cool day but the area was still being used with great enthusiasm.
Sturt reserve, not being used well all the land could be put to better use
Sturt Reserve (especially Wharf and Railway sidings). This is where most tourists go. The wharf and railway sidings need to be accessible and easy to use and the information centre needs to be reallocated nearby
Sturt Reserve, for the previous reasons.
Hume reserve has always been an eyesore, more trees and beautification of this area drastically needed!!!
Sturt reserve needs development towards bridge end needs more to attract tourists. Develop a tourist info outlet @ river. Cafe at other end which sells fishing tackle. More events like music concert as Mannum holds annually.
Hume reserve, no toilets , no lawn area
There needs to be more major events for the "jewel in the crown" of the Murray Bridge community to fully utilize its potential i.e. only Pedal Prix and Xmas Parade. There needs to be more public facilities on the northern side i.e. public toilets (the public toilets near the community club are embarrassing).
Hume reserve is a non-entity. Sturt Reserve needs a face lift, old trains repaired more tourist attraction's
Start at Sturt reserve. Water access without the high risk. A wading area or water play space that children and adults can use set back from the river proper. The service providers on the reserve need a rocket. A parent with children at the playground cannot buy food to take away. A Drive to McDonalds is not good enough in a community that suffers from poor health outcomes. Provide a licence for a pop up option if others cannot lift their game!!! Other sites have toilets and basic facilities, interpretive information would be useful.
Not sure mate
The use of jet skis needs to be restricted to one or two areas, they are eroding the river bank and make excessive noise.

What Riverbank initiatives do you think will bring more visitors to Murray Bridge and encourage them to stay?
focused events near the riverbank, water comps, fishing comps, outdoor eating, more play areas and explore
Open up spaces such as Wharf and Railway precincts located between Hume and Sturt's reserve. More activities such as amusement parks and more opportunities to host events.
Develop Sturt Reserve more and link it to the town centre - maybe find a way to develop the reserve more with a linkage to the town centre and perhaps a small shopping/cafe/bar precinct along a raised wooden deck/walkway along the riverfront. Boat/canoe hire facilities at Sturt Reserve - including sail boats and small engine motor boats.
More activities and events at Sturt Reserve, sounds by the river, bands, water floatation equipment, anything for tourism
Water sport parks, concerts - family areas, pop up coffee shops and cafes
See comment 4. Better accommodation would help i.e. hotels etc. A conference centre that could hold 400 - 500 people. A fenced dog park close to the river would be welcome. More bike trails & infrastructure.
Have a market shed for the farmers market, bands on the river front, more shade and activities areas.
More tourist friendly environment. Easy to navigate areas, better signage, lighting and parking. Clearing of reeds and junk in old shipyard by railway station and opening it up. New easy to find information centre.
Sturt Reserve is the main place that attracts tourists (other than those with water craft) so this area should be the first considered for expansion and redevelopment.
Bands on the river with community club links meal and entertainment packs!! Fun runs and other sports more tennis tournaments. !! Create areas for clubs to meet, auto groups etc. a couple more BBQ areas with roofs etc. soccer goals or goal posts on open area at end of Sturt!! More history photos perhaps a jetty monument. !!!
Music concerts, show'n'shines, food festivals cheese n wine, 2nd art gallery, tourist info outlet which contains displays & information about river fish, birds & other wildlife. Houseboat hire river boat tours, extension of lawned area & shelters.
Quality caravan park e.g. Renmark big four, quality conference center and community club with large deck and jetty out the front which multiple pleasure boats can pull up to.
Hume Reserve needs to be upgraded with more facilities as does Swanport Reserve. Swanport Wetlands needs to be promoted more and access upgraded.
Create a Port Murray Bridge at Sturt reserve like Echuca and create water features for the kids like Mildura.
For short stay - good healthy food to service take away needs at Sturt Reserve. While riverfront accommodation would be great I believe this is needed on private not public land as there is so little public space left now. We need to link the riverfront to the CBD to engage people in both spaces. Encourage a range of accommodation options, bush camping to 5 star. The water park, interpretive info and further connectivity so that even locals engage more and communicate to other the things to do. The bunyip is embarrassingly bad but a draw card across generations, a MURRAY bridge icon, and build on it with other experiences on the theme. Outdoor fitness and education, walking, cycling and bike/canoe hire etc. when you get here
More accommodation And we need a Kmart
More defined usage areas. More river bank walking tails. Well defined Riverbank camping areas.

Appendix C

Community Consultation

Site Summaries



Murray Bridge Riverfront Strategy

Site Specific Summary of Feedback from Consultation



The following is a summary of the feedback received for **each Riverfront Strategy site** from consultation with: Council Elected Members, CEO and Staff; state government agencies and statutory authorities; Ngarrindjeri Regional Authority; Community Organisations, and the wider Murray Bridge community.

Toora Reserve

What works and doesn't work well now?

The natural environment, a quiet place that is not well known or well-used

Opportunities for improvement

- Potential for a caravan park and / or cabins to replace old shacks
- Tourism potential for heritage buildings on adjacent private property (original schools, smoke house)
- Create a greater area of riverfront access
- Create mooring areas
- Improve signage
- Clear weeds including underwater trees and snags

Big Ideas

Houseboat mooring and tourism potential from heritage buildings

Constraints

No constraints were identified through consultation.

Avoca Dell Reserve

What works and doesn't work well now?

A popular site for water sports and fishing with limited amenities to support high levels of public use. It is used by tourists from the adjacent caravan park as well as the local community. It is the most accessible wetland on the river and is valued for large areas of clean open space. The barbeque areas and available parking are also valued.

Opportunities for improvement

- Upgrade boat ramp
- Create boat moorings including a potential pontoon to provide greater space to tie boats.
- Review toilet and car parking facilities
- Revegetation
- Shade

- Improved signage including heritage interpretation
- Consider interpretive play equipment and fire pit (for winter months)
- Link to the current walking trail loop

Big Ideas

- Install a cleverly designed concrete climbing Bunyip structure (that is low and long – minimise safety risks)
- View towards walking trails both upstream and downstream available to all visitors – this would require agreement from landowners on the upstream properties

Constraints

The site is constrained by adjacent private property.

Thiele Reserve

What works and doesn't work well now?

A popular reserve valued for its grassed area and amenities including shade, play area, toilets and boat ramp. The community feedback is that the reserve is well-maintained and used for boating and water skiing and also by families for picnics.

Opportunities for improvement

- Add heritage signage for 'Sunken Tyro'
- Larger area and more trees
- Improve boat ramp and create a second boat ramp
- Safe swimming area
- Implement recreational aspects such as shade
- Bbq and play equipment
- Better toilet and shower facilities
- Food outlets

Elected members indicated Federal government grants may be available to improve the wetlands.

Big Ideas

- Use the levy banks as a trail connecting other parts of the river
- Make larger and more attractive
- Promote to the boating and skiing community of SA

Constraints

The site is constrained by surrounding private property and topography (cliffs behind the site).

Rocky Gully Wetlands

What works and doesn't work well now?

This area is valued for its environmental qualities, particularly wildlife and birdlife. It is mostly used by the local community and visitors for walking and cycling. The walking trails and fitness equipment in particular are valued by the community. The feedback from consultation is focused on enhancing biodiversity and improving connections (eg. to the proposed Murraylands River Trail) and access.

Opportunities for improvement

- Improved signage to make a better ‘entrance statement’ to welcome people to the town.
- Include a buffer between this area and the abattoir to protect new residential development
- Connect to the Lavender Trail and to Monarto via Rocky Gully Creek.

Big Ideas

- Model boats
- Create a canal for canoe access
- Recreational fishing
- Add timber walkways over the water to provide closer access to birds, reeds and insect life
- Use existing structure to enhance the connections in the area i.e. the railway line

Constraints

- The area has been described as ‘stinky’.
- The area has higher biodiversity and conservation values.

Hume Reserve

What works and doesn’t work well now?

This site has special heritage and spiritual significance for Aboriginal people. It was the last permanent campsite of the Ngarrindjeri people in Murray Bridge¹ and there are remnants of this use including a midden on the site. The site has close access to the town centre and wetlands and has direct access to the river. It is used for fishing, 4WD driving, and training horses. The site is presently in poor condition with no amenities.

Opportunities for improvement

- General improvement in amenity
- Improve the link between Hume Reserve and Sturt Reserve using the trail along the old railway line
- Link to the Lavender trail
- Improve access

Big Ideas

- Future use as a caravan park with cabins
- Arid garden demonstration
- Sculpture Garden – reusing existing structures
- Aboriginal Heritage Trail with signage

Constraints

Poor access by vehicle

¹ Ngarrindjeri Regional Authority (2009) Ngarrindjeri Murrundi Management Plan, No 1 Pomberuk Le: wunanangk (Murray Bridge Railway Precinct and Hume Reserve).

Sturt Reserve

What works and doesn’t work well now?

This is the Riverfront site that is best known and most favoured by the local community and visitors to Murray Bridge. Sturt Reserve is valued for the beauty of the environment, grassed open space, facilities provided for families and visitors and being within close proximity to the Murray Bridge town centre. The reserve is used by the local community for a range of passive recreational activities including swimming, walking, cycling, fishing, yoga. It is also used for organised sports, particularly rowing and tennis and community events including a Christmas parade, fireworks and Pedal Prix. In 2015 the site hosted an ANZAC day dawn service attended by 3,500 people and the RSL would like to see it continue to be used for this purpose in the future. The current economic activities include a café and paddle steamer cruises.

Feedback from consultation is that the site is underutilized and is the greatest priority for improvements. The appearance of the reserve was considered to be below the standard of other Riverfront towns in the region and interstate.

Opportunities for improvement

- Encourage a greater range of events and after hours use.
- Development of a regional facility rowing through upgraded facilities and Adelaide schools using the site.
- Public art from dead trees
- More picnic tables and overhaul the Bunyip.
- Creating a permanent RSL memorial garden for ceremonial use on ANZAC day.
- Reducing cars and trucks that drive on the reserve
- Establish more casual eateries with food that can be taken away.
- Connect with other sites via a cycling and walking trail (eg. Hume Reserve and Long Island Reserve)
- Houseboat mooring area
- Boat hire facilities
- RSL memorial garden
- Create a safe play area with water features for children
- Separate fishing and recreational boating areas

Big Ideas

- Look to Mannum and Renmark to see how Sturt Reserve could be developed as a ‘keystone’ of Murray Bridge
- Locate tourism information close to the wharf and railway precinct as this is where visitors go
- Use a floating dock to allow recreational craft to moor at Sturt Reserve (the existing wharf is too high)
- Floating playground
- Create a paddle steamer tourism office at the intersection of Bridge Road and Railway Reserve Road
- Establish a caravan park on the landfill land to the rear of the reserve.
- Develop a high quality architectural building that could be used as a venue for cultural or arts events or exhibitions

- More development near the bridge to attract tourists
- Link to town centre
- Accommodation on private land
- Glow-in-the-dark cycle paths

Constraints

- Poor connections to the town centre
- Future events require better shade, lighting and power supply
- Land fill area that requires remediation before site can be properly developed
- Timber wharf requires replacing. It is too high to support water skiing or houseboat mooring.
- River speed limit of 4 knots limits the range of water sports that can be based at Sturt Reserve
- Traffic speeds along the roadway (hoon driving)
- Riverbank slumping
- Smell of acid sulphate soils

Long Island

What works and doesn't work well now?

Long Island is valued as a natural place and a significant site to the Ngarrindjeri. The river to the east of the island is limited to non-motorised boats.

Opportunities for improvement

- Low level development including kayak and boat moorings
- Removal of weeds and introduced species

Big Ideas

A sanctuary with cultural interpretation

Constraints

- A native title claim is current for the site
- Snake population

Long Island Reserve

What works and doesn't work well now?

- The reserve is used by locals during the week and the wider community on weekends.
- The 4 knot speed limit creates a 'bottleneck' on the river as the area is narrow

Opportunities for improvement

- Upgrade and extend the carpark
- Upgrade toilets
- Shading for playground

- A tourism facility has been proposed on an adjacent area of private land as part of a retirement village and café

Big Ideas

Link to Hume Reserve via a Riverfront walkway similar to Renmark

Constraints

- The riverfront bank is a hazard – only 1 metre deep
- Currently too small

Tumbella Reserve

What works and doesn't work well now?

The site is not generally well known but used by the local community for fishing and water sports which are made safe by the 4 knot speed limit on the river at this point. The site was described as 'untidy' at the Elected Member workshop and without facilities and shaded areas. There are shacks on the site that are on long term leases until 2062 although some are being bought back by Council.

Opportunities for improvement

- Private investment opportunity
- A rotunda
- Links to other reserves
- Parking for boat trailers

Big Ideas

Link to the wharf area on Sturt Reserve with a trail.

Constraints

Shacks on 99 year leases

Murray Bridge Resort Marina

What works and doesn't work well now?

The site is in private ownership and was described as being underutilized with potential for redevelopment. It is adjacent to a SA Water WWTP that creates odour. The plant and evaporation ponds will be relocated in the near future, but a pumping station will remain on-site.

Opportunities for improvement

- Improve public access to the SA Water riverfront area following relocation of the WWTP with a cycling and walking trail
- Potential new location for the Rowing Club
- Expand cabin accommodation and camping

Big Ideas

A great site for a centrally located caravan park and camping area.

Constraints

Some riverbank slumping

Swanport Wetlands

What works and doesn't work well now?

The boardwalks and wildlife are used by tourists, schools, families, bird watchers and mountain bikers. It is considered hard to find with poor signage to direct visitors to the area.

Opportunities for improvement

Repair broken boardwalk and improve facilities

Big Ideas

- Connect the end of Long Island reserve back along the riverfront, under the Swanport Bridge to wetlands for tourist bike and walking trail.
- Kayak landing

Constraints

Relatively unknown, poor access

Swanport Reserve

What works and doesn't work well now?

The reserve is used by tourists and the local community for fishing and picnics. It is considered to have good facilities. The 'dry and unappealing' appearance of the reserve may deter people from stopping in the town.

Opportunities for improvement

Install a boat ramp

Green the reserve to improve its appearance. The Swanport Bridge will be used more frequently when the Tailem Bend Motorsport Park opens and will become a more significant gateway to Murray Bridge.

Big Ideas

No big ideas

Constraints

Restrictions on the use of power boats in the area limit opportunities for water skiing

Swanport Aquatic Centre

What works and doesn't work well now?

Used by schools during term time, especially January and private functions on weekends

Opportunities for improvement

Better maintenance

Big Ideas

Elected Members indicated more could be done with this site by making it available to other groups

Constraints

Restrictions on the use of powerboats limit activities to non-motorised boats

Appendix D

Potential Funding Sources



7 Potential Funding Sources

Both levels of government have a particular focus in South Australia and more generally on:

- Regional development; and
- Employment generation.

The focus on regions is relatively new and has arisen out of the regionally focussed National Party's support for the Liberal led Coalition who enjoyed a resurgence of support leading up to the last Federal election in 2013 and subsequently formed government. The development of the National Stronger Regions Fund (NSRF) was an initiative of the new government and Rounds 1 and 2 have already been facilitated by the Commonwealth.

The NSRF continues to enjoy strong support and the objectives and scope of the fund are discussed in further detail below.

The outcome of the last State election was also influenced by a heightened interest in regions as neither major party won a majority and the Member for Frome (mid-north SA) chose to join with the minority Labor party to form government on the basis they support his regional focus and funding initiatives. As a result the Regional Development Fund (RDF) was developed, with a component for regional projects and another for employment generating projects in the regions.

A large range of grant streams are available to Council, community organisations and local enterprises to access for the purposes of improving the public realm, providing activities and events, through to supporting business innovation and exports. All could have a degree of applicability along the river frontage and be geared in such a way as to bring a combination of benefits from improved facilities, public art, environmental improvements, employment growth, annual events and tourist activity.

Acting as a facilitator, Council could identify development and improvement opportunities and leverage funding from various grant streams and Council's own Annual Business Plan to entice participation from local community organisations and businesses with an interest in the riverfront zone.

Council's access to grant application skillset could prove to be the catalyst in obtaining grants for local enterprises that they otherwise would be unaware of but acting in unison with Council could bring benefit to the community.

A sample of the more relevant grants on offer is included below. Note they will all have eligibility criteria and specific objectives, close dates, annual funding limits and other restrictions. However the scope is broad and the opportunities are numerous. More information and options can be sourced through www.grantassist.sa.gov.au In summary:

The **National Stronger Regions Fund (NSRF)** commenced in 2015 and provides funding of \$1 billion over 5 years to fund priority infrastructure in regional communities. Grants must be between \$20,000 and \$10 million. Local government and incorporated not-for-profit organisations are eligible to apply.

Grant funding must be matched in cash on at least a dollar for dollar basis.

NSRF funding will be provided for capital projects which involve the construction of new infrastructure, or the upgrade or an extension of existing infrastructure. The project must deliver an economic benefit to the region beyond the period of construction. Projects should support disadvantaged regions or areas of disadvantage within a region.

The **Regional Development Fund (RDF)** helps fund regional projects and critical community infrastructure that create sustainable economic benefits and support the South Australian Government's Economic Plan. In 2014 the RDF was increased from \$1.6 million to \$15 million a year over four years. The Major Projects Program is designed to provide funding from \$500,000 up to a maximum of \$2 million with leveraged investment at a minimum of \$3 for each \$1 grant.

Larger amounts may be considered where there are outstanding benefits for the region and the State.

The Natural Resources Management (NRM) Act 2004, requires the South Australian Murray-Darling Basin Natural Resources Management Board to provide financial assistance to priority projects undertaken by groups in the region. Eligible groups include:

- Local Action Planning groups
- Incorporated specialised community groups
- Councils
- Schools
- Industry groups
- Other organisations and community groups involved in the management of natural resources.

Projects can focus on research and development, monitoring and reporting, planning and engineering design, on-ground works, or education and awareness but must relate to the key areas of the Regional NRM Plan:

- People
- Water
- Biodiversity
- Land
- Atmosphere
- Monitoring and evaluation

Community grant application forms can be submitted to the NRM Board at any time and are normally assessed within six weeks of being received.

The **Recreational Boating Facilities Fund** has been set up under the Harbours and Navigation Act (1993) with the aim of establishing, maintaining and improving recreational boating facilities throughout SA. The primary purpose of the fund is to encourage the expansion and improvement of boating facilities for recreational boating users by making funding available to local Councils and established community organisations that are endeavouring to establish and operate such facilities.

The **Planning and Development Fund** was first established in the 1960s under the Planning and Development Act 1967 and is currently used to finance funding programs aimed at improving the public realm in South Australia, including:

- The **Open Space Grant** Funding program which provides funding to local government for the purchase, development or planning of regional open space throughout South Australia and the Metropolitan Open Space System (MOSS)
- The **Places for People** Funding program which provides funding to local government for the development of urban design frameworks and guidelines, concept designs, design development and capital works for prominent public places in South Australian cities, suburbs and urban centres.

These grant programs are administered by the Urban Design and Public Space Team of the Department of Planning, Transport and Infrastructure. Applications may be made only by local governments and the Outback Communities Authority (not by community groups or private organisations). Councils are encouraged to jointly apply for grant funding to achieve regional priorities.

7 Potential Funding Sources

Projects should create vibrant public spaces and develop a sense of place and identity that reflects local character, improves the relationship between public and private areas, and enhances usability, safety and visual appeal. Projects should be of regional significance and directly linked to the directions and priorities of the Planning Strategy for South Australia and relevant local government strategies.

Commencing in 2014/15, the Open Space program was also made available for local playground and reserve projects. Funding will be made available to create new or enhance existing local reserves and playgrounds to provide recreation and social opportunities in our local communities - eg play equipment, shade structures and park furniture.

The **Community Recreation and Sport Facilities Program** provides assistance to eligible organisations to plan, establish or improve sport and active recreation facilities that meet the needs of the community in South Australia. Organisations can apply under the each of the following categories: Category 1 – facility planning Category 2 – facility development (requests \$1 – \$200,000) Category 3 – facility development (requests \$200,001 – \$1,000,000). Eligible organisations: State Sport and Active Recreation Organisations, Industry Representative Bodies, Local Government, Schools, Community Groups, Incorporated Sport or Active Recreation Clubs that do not hold a gaming machine license.

Crime Prevention and Community Safety Grants are to:

Prevent crime and reduce fear of crime, make neighbourhoods safer, improve community capacity to reduce crime and increase community safety and increase agency collaboration and community participation in local crime prevention initiatives.

To be eligible to receive funding, applicants must be an organisation with an ABN, which is either: an incorporated, not-for-profit, community body; a local government Council; or an organisation sponsoring an unincorporated, not-for-profit, community body.

Public Art and Design: Major Commission Funding supports significant new work by leading South Australian artists, to be presented in high profile, publicly accessible environments in South Australia. Applicants to this category will have an artist's concept or development proposal they seek to commission. The commissioning process must be sufficiently advanced to enable the applicant to provide plans, indicative drawings, artist's impressions and maquette of the proposed work.

Funding applications are considered from individuals, community groups, organisations, including those in receipt of ongoing funding from Arts SA, and local and State Government agencies. Assistance can be sought for every stage of a project's development,

including further concept design and the implementation, fabrication and installation costs. It is a requirement that commissioners have a minimum of 30% of the project's implementation budget (cash or in-kind). Refer to Arts SA website for full eligibility criteria.

South Australian Recreational Fishing Grants: Community grants of up to \$50,000 are being offered to help boost recreational fishing in South Australia. Applications are sought from Councils, fishing clubs, businesses and other incorporated bodies. Projects to improve recreational fishing experiences upgrade infrastructure, offer specialised training or improve sustainable fishing practices are encouraged.

Visions of Australia: The Visions of Australia regional exhibitions touring program (Visions of Australia) will support the development and touring of exhibitions of cultural material originating or created in Australia, as well as cultural material originating from elsewhere that is held in Australian collections. The Commonwealth provides approximately \$2.4 million each financial year for Visions of Australia.

Visions of Australia funds tours to and from regional Australia. To be eligible for funding, a tour must include at least three venues located outside of the applicant's state or territory, with consecutive exhibition dates. Tours originating in metropolitan areas may include metropolitan venues; however regional venues are a higher priority for funding.

Further eligibility requirements for Visions of Australia are listed in the program guidelines.

Regional Marketing Funding Available Regional tourism groups are being urged to apply for additional marketing funding through the Regional Consumer Cooperative Marketing Fund for South Australia. Each of South Australia's 11 regional tourism bodies is eligible to apply for up to \$20,000 and the funding must be matched and committed to marketing activities. Adelaide Hills Tourism, Tourism Barossa Inc., RDA Yorke and Mid North (for the Clare Valley), RDA Whyalla and Eyre Peninsula, Fleurieu Peninsula Tourism, Flinders Ranges Outback SA Tourism, Tourism Kangaroo Island, South East Local Government Association, Murraylands Tourism Partnership, Destination Riverland and Yorke Peninsula Tourism are all encouraged to apply. Applications can be made for the full \$20,000 designated for the region, or for smaller amounts (minimum of \$5,000) over a number of applications to the maximum \$20,000.

Rural land management: Natural Resources SA Murray Darling Basin, through the rural land management program, provides support to farming groups and land managers to increase awareness, knowledge, skills and confidence to implement sustainable land management improvement.

The **Business Transformation Voucher Program** supports businesses to enhance their profitability through diversification, process improvement and innovation. Vouchers up to \$50,000 are available for South Australian manufacturing firms on a competitive basis.

The **Export Partnership Program** provides funding assistance for small and medium-sized businesses to access new global markets through marketing and export development opportunities. Successful applicants may receive up to a maximum of \$50,000 to assist with export activities.

Advanced Food Manufacturing (AFM) Grants program: Funding can be provided from \$25,000 to a maximum of \$100,000 with leveraged funding at a minimum ratio of \$1 for each \$2 grant for Food Manufacturing businesses with an annual turnover of up to \$5 million. Funding can be provided from \$50,000 to a maximum of \$100,000 with leveraged funding at a minimum ratio of \$1 for each \$1 grant for Food Manufacturing businesses with an annual turnover of up to \$20 million.

Competitive Foods Initiative is a partnership between Primary Industry and Regions SA, and Food South Australia. The program, managed by Food SA, aims to help develop smart food clusters, encourage innovation and apply new technologies in the state's food manufacturing sector.

Horticulture Innovation Australia Limited - Funding, tenders and investments invests in projects in partnership with the horticultural sector, including research, development and marketing activities.

New and Developing Plant Industries aims to facilitate the development of new industries based on plants or plant products that have commercial potential for Australia.

South Australian History Fund is an annual grant fund totalling \$35,000 with funding available for projects in three categories: Projects: (maximum available \$2000); Publications: (maximum available \$3000) and Research: (maximum available \$5000)

Sport and Recreation Development and Inclusion Program provides assistance to eligible organisations to develop and implement projects that will grow the sport or activity, improve services and/or address barriers to inclusion.

The National Partnership Agreement on **South Australian River Murray Sustainability Program (SARMS)** commits Australian Government funding to the South Australian Government to support a healthy working Murray-Darling Basin. Running until 30 June 2017, a component of the program has a total allocation of \$12.5 million to a Regional Development and Innovation Sub-program, from which funds may be available for suitable projects.



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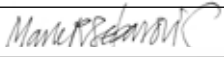
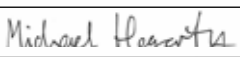
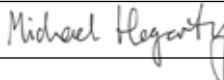
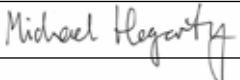


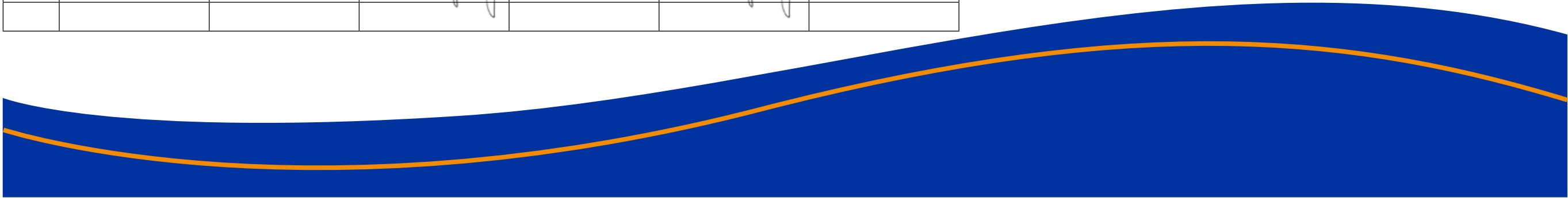
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