



jane eliza

RENMARK PARINGA COUNCIL · MASTER PLAN · DECEMBER 2016

TABLE OF CONTENTS

	ACKNOWLEDGEMENTS.....	3
1.	INTRODUCTION.....	4
2.	BACKGROUND.....	6
3.	THE SITE.....	7
4.	PRELIMINARY INVESTIGATIONS.....	12
5.	OPPORTUNITIES & CONSTRAINTS.....	14
6.	THE VISION FOR THE MASTER PLAN.....	17
7.	THE MASTER PLAN - PRELIMINARY CONCEPTS.....	20
8.	THE MASTER PLAN - FURTHER INVESTIGATIONS ...	32
9.	THE MASTER PLAN - FINAL CONCEPT.....	35
10.	IMPLEMENTATION.....	42
11.	CONCLUSIONS.....	45

acknowledgements

This project has been prepared for the Renmark Paringa Council (Council) by MasterPlan SA Pty Ltd (MasterPlan) in conjunction with Ian Robertson Design, Tonkin Consulting, Jones Lang LaSalle, Systems Solutions and Rider Levett Bucknall.



The project team would like to thank the following people for their contribution during the investigations and consultation stage of the project:

- Chief Executive Officer, Tony Siviour
- Tim Vonderwall
- Paul Day
- Geof Meaney
- Sharon Jardine
- Rebecca Muller
- Mark Cresp
- Stephen Flaherty
- Cr Peter Hunter
- Tony Sharley
- Tim Grieger
- Mark Booth
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- Carissa & Greg Austin

A special thank you is extended to the stakeholders of the Renmark community who attended the stakeholder workshop and participated in the early investigations process. This input into the direction of the project and confirmation of the vision for the future of the Jane Eliza was invaluable.

1 introduction

MasterPlan SA Pty Ltd together with a team of consultants including Ian Robertson Design, Tonkin Consulting, Jones Lang LaSalle, System Solutions Engineering and Rider Levett Bucknall were engaged by the Renmark Paringa Council to undertake the Master Plan development for the Renmark Waterfront Estate - Jane Eliza.

In its brief, the Council wished to set new benchmarks in the delivery of a contemporary leading edge and transformative development achieved through thoughtful collaboration between Local Government, State and Federal Government, and the private sector, to maximise the business and investment opportunities for the Jane Eliza.

The consultant team collaborated with Council to deliver a master plan exemplary in its practicality within the Council's regional and strategic planning framework. The consultancy brief from Council required the following from the team:

- deliver a creative approach to all elements of the project including town planning, infrastructure engineering, waterfront, the public realm, sustainability and potential market sectors to advance the opportunities to develop a sense of place;
- bring to the table advanced thinking on energy efficiency and renewable energy sources, best practice community wellbeing and engagement strategies, and ideas for practical land use options;
- create a Master Plan that is marked by ideas and concepts that guide smart, vibrant, liveable and connected outcomes that successfully interface with neighbouring land uses and existing communities;
- utilise and maximise the unique characteristics of the surrounding environment and look at opportunities to drive new demand from potential markets;
- support key objectives of Council's Strategic Plan, and through creative planning and urban design improve amenity and provide a desirable destination that makes the most of the location along the River Murray; and
- support the precinct with a high level of understanding of the investment for the necessary infrastructure required to facilitate and encourage development to occur.

Renmark is recognised as the premier river boating destination of the state, where strong ties to the environment, recreation and education reinforce the links between waterscapes and landscapes to attract and retain residents and visitors through unique opportunities and lifestyle.

The Consultancy commenced in early November 2015. After a period of desktop review performed by all members of the team and assisted by Council, a site visit was held on 25-26 November 2015. The desktop review included:

- a preliminary market property analysis to determine the demand for residential development;
- a preliminary review of existing infrastructure requirements for the subject land; and
- a review of the past and existing Development Plan Policy; and
- a review of the literature provided by the Renmark Paringa Council inclusive of previous consents, the Environmental Impact Statement and various planning proposals for the Jane Eliza.

MasterPlan led a series of stakeholder engagement sessions with both Council and key stakeholders at the Renmark Paringa Council. A detailed site and locality inspection to analyse the site and determine the opportunities and constraints of the land was also held at this time.

The workshops revealed a strong sense of community ownership and pride in the township of Renmark and painted a picture of the needs and aspirations of the community for the Jane Eliza site. These ideas, together with the findings of the opportunities and constraints site analysis, helped to create a defined 30-year vision for the Jane Eliza Master Plan.

A Status Report was then prepared and presented to Council for their consideration in January 2016. Following this, the findings of the Status Report were reviewed by the Council at a Special Meeting held on 9 February 2016, this gave direction to the Consultant team to proceed further with the development of the Master Plan.

The Master Plan evolved through a series of detailed investigations regarding the commercial and infrastructure aspects of the proposal with the final plan being shaped by the community's vision underpinned by these investigations.

The supporting investigation documents are provided in a separate volume incorporating:

- Residential Market Assessment, JJJ, April 2016;
- Infrastructure Provision, Tonkin Consulting, April 2016.

This report summarises the process of the project team, which in close collaboration with the staff and community of the Renmark Paringa Council has provided the basis for the completion of the Jane Eliza Master Plan.

A master plan, however, is not a finite proposal and should be used as a guide to future development and a catalyst to innovation and more detailed project analysis.

background 2

The project was undertaken on the basis of the following background information provided by the Council:

- The Renmark Paringa Council is situated in the Riverland region of South Australia. With established sectors in tourism, agriculture and viticulture, business and investment opportunities continue to grow as the Riverland region becomes increasingly recognised for its pest free status and environmental production standards;
- Renmark Paringa is committed to investment in infrastructure that will allow businesses to prosper in order to underpin growth in the sustainability of the community;
- The population of Renmark Paringa is approximately 9,900 and has remained relatively static since 2007;
- The Jane Eliza Waterfront Estate is a riverfront residential development located on the flood plain in Renmark, South Australia, covering an area of approximately 500 hectares. The Waterfront Estate was originally conceived as a river based marina, tourist, commercial and residential development in 1986. Broadly, the works approved at the time were as follows:
 - 457 residential allotments;
 - 27 hectares of commercial/tourist/marina development sites;
 - 9 kilometres of roads;
 - 34 hectares of waterways;
 - 4 bridges;
 - 9 hectares of landscaped reserves;
 - 9 beaches;
 - 50 hectares of amenity woodlot plantation; and
 - 67,500 woodlot trees.

Since the original Development Approval was granted approximately 207 residential allotments have been developed and Stage 1A, 1B and part of 1C has been completed. There are only a handful of allotments undeveloped.





SITE FEATURES

The study area as detailed on the following page titled 'Study Area Plan' comprises the following key features:

- accessibility from the Renmark Township via Cowra Street and Jane Eliza Avenue;
- the 'Johnson's Waterhole' located at the northern-most extent of the study area which has high amenity and significance to the Township of Renmark;
- naturally defined areas of flood plain located in the northern third of the subject land. These areas are susceptible to inundation during flood events from the Johnson's Waterhole via the Ral Ral Creek;
- the u-shaped irrigated "Woodlot" located centrally on the site;
- the area is generally bound by the River Murray and Ral Ral Creek to the south and east, the horticultural production area on Goolwa Street to the north and Ral Ral Avenue and Bookmark Creek to the west;
- the existing Jane Eliza development including 207 residential allotments together with two residential lagoons;
- the small craft Marina;
- a boat dry dock;
- the Liba Liba Houseboat leased frontage to the river and Ral Ral Creek;
- river frontage currently tenanted by private houseboats;
- a Community boat ramp;
- frontages to Goolwa Street and Ral Ral Avenue;
- an undeveloped frontage to the Ral Ral Creek;
- the existing former Tower Tavern (the original Jane Eliza site office and former restaurant) is located on the river frontage at the end of New Landing Way together with a public reserve and public facilities. At the time of writing an application was being considered by Council to redevelop the Tourist Accommodation Zone, including the former Tower Tavern site into higher density residential and tourist accommodation; and
- a shared use pathway (Matulick Walk) which extends along the river frontage from beyond the District Centre to the edge of the Jane Eliza Estate.

These features are also identified on the Opportunities and Constraints Plan on page 16.





— Study Area

- 1 Jane Eliza Avenue
- 2 Cowra Street
- 3 Ral Ral Avenue
- 4 Goolwa Street

STUDY AREA

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LAND TENURE

The 'undeveloped part' of the study area predominately comprises two Certificates of Title, known as Allotment 902 (Certificate of Title 5782/742) and Allotment 803 (Certificate of Title 6053/488) as depicted on the Land Tenure plan as 'E' and 'B' respectively.

Allotment 902 contains an area leased to Liba Liba Houseboats on the Ral Ral Creek frontage. An unrestricted right of way exists to enable the community to access the public boat ramp. This allotment also contains the small craft marina.

The vast majority of the study area is located within Allotment 803 which contains the existing dry dock area and the remainder of the land within the River Murray Flood Zone. The total area of Allotment 803 is 434.6 hectares.

Allotment 550 (Certificate of Title 5434/792) contains the woodlot planted in 1988. It consists of 67,500 planted woodlot trees on approximately 50 hectares. There are also two small allotments containing a pump station and other infrastructure (Allotments 451 and 452).

ZONING: PAST & PRESENT

In November 1989 the Jane Eliza Landing Supplementary Development Plan re-zoned the study area to a Marina Commercial Zone, Residential (Waterfront) Zone and Tourist Accommodation Zone. The Tourist Accommodation Zone related to all of the river frontage land south of Jane Eliza Avenue and all of the remaining land, including the woodlot, was located in the Flood Zone.

In September 2001, as part of the General PAR, the Tourist Accommodation area was reduced in size and rezoned to its current form. At the same time the Residential (Waterfront) Zone was extended accordingly.

The zoning changed in December 2011 when the Better Development Plan and Alignment DPA came into effect. This created a Marina Zone over the entire area that was formerly the Marina Commercial Zone and Residential (Waterfront) Zone, and provided a Residential (Waterfront) Policy Area over the previous corresponding zone area. No changes were made to the Tourist Accommodation Zone and the original Flood Zone was renamed The River Murray Flood Zone.



— Study Area

A	CT5434/792	D2426	AL550
B	CT6053/488	D27497	AL803
C	CT5782/743	D27497	AL901
D	CT5375/85	D27497	AE4003
E	CT5782/742	D27497	AL902
F	CT6053/489	D72521	AL2
G	CT5387/651	D45654	AE4052
H	CT5387/650	D45654	AE4051
I	CT5322/185	D28274	AL467
J	CR5763/694	D24267	AL601
K	CR5753/658	D24267	AL602
L	CR5261/522	H836200	SE968
M	CR5779/259	H741500	SE199
N	CT5386/233	D24267	AL451
O	CT5434/793	D24267	AL452

LAND TENURE

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- Study Area
- 3 Residential Waterfront Policy Area
- MA** Marina Zone
- RMFI** River Murray Flood Zone
- TA** Tourist Accommodation Zone

ZONES & POLICY AREAS

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preliminary investigations

4

DETERMINING DEMAND FOR RESIDENTIAL DEVELOPMENT

In keeping with Council's Brief, consideration was given to the demand for future residential development in the Township of Renmark.

Jones Lang LaSalle undertook desktop and on-the-ground investigations to determine the demand for residential allotments in Renmark. A summary of the findings follows:

- the demand for residential land in Renmark is approximately 20 allotments per annum;
- there is a limited supply of residential lots and the future stages of Jane Eliza provides an opportunity for long term supply. In order to maximise take up the following was recommended:
 - Provide a broad range of lots to suit a broad range of buyers (including non-waterfront lots; small and large waterfront lots);
 - Ensure a large portion of lots are of sufficient size to enable storage of recreation vehicles (caravans, boats etc.);
 - Where possible, provide canal front allotments with private frontage to water;

- Consider the provision of supporting services for residents, including a small convenience store / café and public park with play equipment;
- there is potential pent up demand given the limited supply of waterfront land;
- future water front subdivisions should achieve around 15 sales per annum over a substantial period of time, however the demand for premium waterfront allotments will be less (5-8 sales per annum); and
- increasing market demand beyond 15 lots per annum will rely on driving population growth, accessing new markets and building on emerging markets; including:
 - Medium density accommodation for rental / tourist market;
 - Building a holiday house market, although we note the difficulties due to distance from major source markets such as Adelaide;
 - Marketing the lifestyle advantages of both Renmark and the Riverland in general to prospective purchasers outside the Riverland. This could be through marketing via the Big 4 Tourist Park and other tourism destinations in the town.

Overall, these findings provide a basis for generating innovative commercial based development opportunities to occur in a staged manner together with residential development to drive further growth in Renmark.

For further detail refer to the final report prepared by Jones Lang LaSalle, titled Residential Market Assessment – Residential Waterfront Estate – Jane Eliza April, 2016, contained in the accompanying Investigation Reports document.

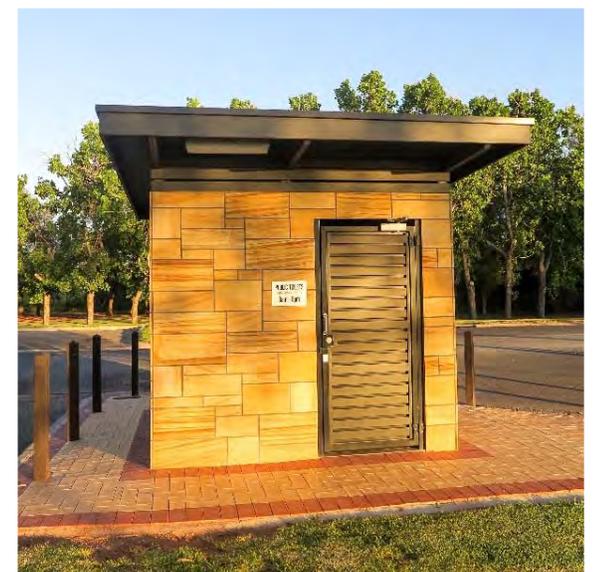
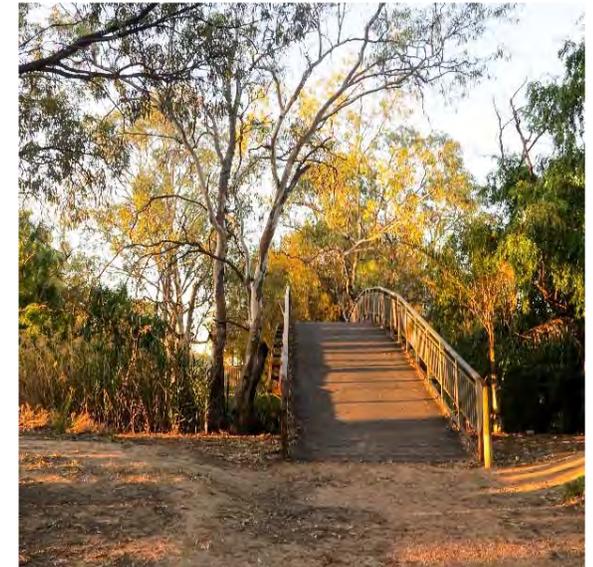
INFRASTRUCTURE ANALYSIS

A preliminary infrastructure analysis was prepared by Tonkin Consulting in the first stage of the project to inform the Council of the current and future infrastructure issues relating to the site.

These investigations identified the existing infrastructure and to identify the upgrades required for any future development, including:

- utilities infrastructure including: power, water, gas and waste water;
- access points from boundary roads;
- the location of likely stormwater discharge points;
- stormwater management; and
- site levels
 - current levels;
 - the fill required;
 - the cut required; and
 - the suitability of fill.

The findings of these investigations are summarised in Section 8 – Further Investigations and in the separate Investigation Reports document prepared by Tonkin Consulting.

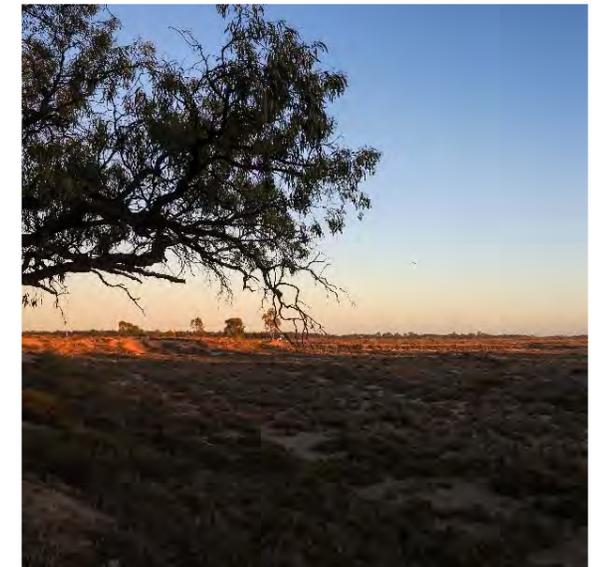


opportunities & constraints

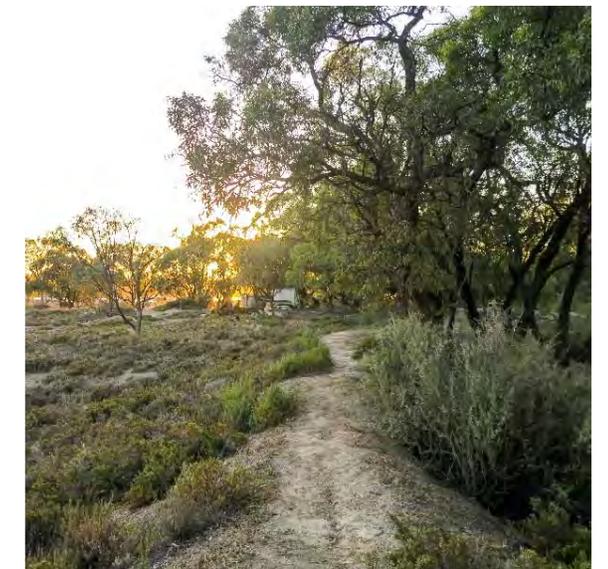
The project team undertook a SWOT Analysis during the initial desktop review which identified the various challenges or constraints relating to subject land and area.

The identification of these constraints has led to a list of corresponding opportunities that can be pursued in relation to each component. The details of these findings are provided in the following table form and graphically on page 16.

CONSTRAINTS	OPPORTUNITIES
Poor houseboat management and unregulated mooring.	Partnership with Council / DEWNR / EPA to better regulate. Opportunity to provide a test site for the One River Murray Authority Concept.
Existing slip is not rated and has limited capacity.	Develop slip site for boat servicing / maintenance which will provide a service for all of Riverland.
Size of small craft marina.	Extend and improve marina for the small craft and larger craft.
Current houseboat leases in small craft marina.	Extend and improve marina capable for houseboat mooring.
Jane Eliza LMA restrictions in regard to outbuildings / storage.	Alter restrictions for outbuildings / storage in the LMA.
Ral Ral Creek and wetlands of National Importance - physical and environmental constraints.	Natural asset which could be incorporated into educational / ecological programs / trails / camping etc.
Lack of vacant residential waterfront land left for purchase in the Jane Eliza.	Provide residential waterfront land for future development.
Lack of housing choice.	Provide smaller allotments / low maintenance land for wakeboarders etc. in accordance with anecdotal demand.
Low lying nature of site and the flood plain.	Use appropriate fill to required levels.
Soil may not be suitable for use as fill / cost associated with bringing in new clean fill.	Undertake bore log tests and analysis to determine the feasibility of cut and fill.
Lack of outside storage.	Provide dedicated areas for outside storage of boats / trailers.
Lack of opportunity for small scale commercial development.	Provide small scale commercial development in association with the Marina.
Lack of facilities.	Provision of community based facility which links with aquatics focus and education / environment / sponsored by Government funding / relocation of the McCormick Centre.



CONSTRAINTS	OPPORTUNITIES
Lack of gradient to promote gravity fed flushing of lagoons.	Provide additional inflow and outflows using Ral Ral Creek and Bookmark Creek.
	Provide complimentary Tourist Accommodation and small scale convenience facilities to accompany proposal at Tower Tavern site.
Liba Liba Houseboat Lease Area.	Integration of existing lease site into the overall Master Plan in the accommodation of an existing established houseboat operator to promote the houseboat industry sector.
Lack of on-water refuelling.	Provide on - water re-fuelling facilities.
McCormick Centre for the Environment is isolated from activity.	Provide links to McCormick Centre for the Environment and take advantage of its services.
Limited commercial and recreation based community infrastructure in the study area.	Ski Park / space for national slalom events/ ski school.
	Rowing course of international standard.
	Cable Wake Park and Aquatic centre.
Site contamination issues (if present).	
Width of channel into marina / cost of widening.	Upgrade width of channel into existing/ extended basin.
Lack of service infrastructure.	Provide upgrades to infrastructure. Investigations in regard to renewal power options.
Flood Plain / Current Zoning.	Preliminary stages of development can be restricted to current zones with any long term development outside of zone boundaries the subject of future DPA's.
Negative stigmas surrounding the failure of the Jane Eliza and its long term lack of development.	
Proximity to RAMSAR Wetlands.	Links to RAMSAR for education / research etc.
Existing Woodlot.	Remove or revitalise with walking trails etc.
Demand for housing to continue into the future.	Opportunities to create "place" and increase desire to live in Renmark and in turn drive demand for housing.
Lack of connectivity.	Continuation of Matulick Way and other shared path linkages as identified in Council's Tracks and Trails Strategy.





- 1** Existing Jane Eliza Estate
- 2** Existing Small Craft Marina
- 3** Dry Dock / Slip
- 4** Houseboat Moorings
- 5** Current Rowing Course
- 6** Liba Liba Houseboats
- 7** Tourist Accommodation Zone & Existing Bridge Link
- 8** Riverfront Reserve
- 9** Matulick Walk / Shared Pathway
- 10** Road Link to/from Town
- 11** Riverside Retirement Village
- 12** McCormick Centre for the Environment
- 13** Existing Pump Station & Gas Supply
- 14** Existing Woodlot
- 15** Existing Substation

- Project Area
- Link
- Road Link
- Degraded View/Poor Visual Outlook
- Waterfront Precinct
- Potential Eco Tourism / Education Area
- Water Flow
- Unsealed Road
- Zone Boundary
- Trail

OPPORTUNITIES & CONSTRAINTS

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the vision for the master plan

At the Workshop, participants discussed their vision for Renmark in relation to the Jane Eliza Landing.

These visions described:

“Renmark as a boating destination...as the houseboat / ski park capital of the state”;

“Renmark with strong ties to the environment and education”; and

“Renmark as the HUB for tourism in the Riverland all year round”.

These visions also described a place that:

“reinforces the connections to this amazing landscape / environment through active linkages”

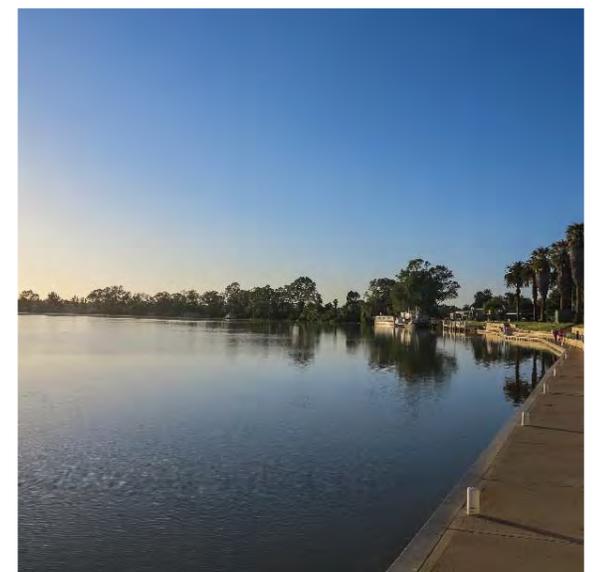
and a place that:

“attracts people through the unique opportunities and lifestyle”.

The project team considered that this encapsulated the ideas and themes previously discussed and was put forward as a basis to guide the design resolution of the Master Plan.

The following draft vision statement was adopted by Council at the meeting held on 9 February 2016:

“Renmark is recognised as the premier river boating destination of the state, where strong ties to the environment, recreation and education reinforce the links between waterscapes and landscapes to attract and retain residents and visitors through unique opportunities and lifestyle”.



the master plan - 7 preliminary concepts

This vision derived by the Community and Council's representatives was translated into a series of draft concept plans which spatially define the potential development of the Jane Eliza Master Plan.

The draft plans were presented to Council in January 2016 and included:

- Functional Areas Plan;
- Long Term Land Use Plan;
- Linkages Plan; and
- Draft Concept Enlargement.

These plans related to the potential land use relationships and future road and water links which helped to form the basis for the creation of the draft Master Plan for Council's further consideration.

Following the opportunities and constraints analysis the Functional Areas and Long Term Land Use Relationships Plan was prepared showing the existing and suggested potential new land uses and their desired or possible locations. An analysis of road and pedestrian linkages and existing and potential water circulation flows was prepared. This plan takes into consideration all aspects of connectivity to create an accessible precinct accounting for people across a range of transport mediums, as well as the connections required for water flow and circulation.

Based on these plans a Draft Master Plan was provided for Councils consideration and their comments are provided in the letter that follows.

Since that time, additional investigations were conducted to test some of the key ideas and to assess further inputs from staff to enhance, refine or modify some of the broad concepts identified.





15 February 2016

Dear Simon,

At a Special Council meeting held on Tuesday 9th February 2016, the following resolution was ratified by council:

That Council resolve to instruct MasterPlan Town and Country Planners to proceed to draft the Master Plan and Concept Report for the Jane Eliza Estate taking into consideration the following:

- Vision Statement
Renmark is recognised as the premier river boating destination in the state, where strong ties to the environment, recreation and education reinforce the links between waterscapes and landscapes to attract and retain residents and visitors through unique opportunities and lifestyle.
- Infrastructure
Council notes the initial difference between the cut and fill requirements for the development and the importance of the suitability of reusing fill from the site in terms of the viability of the project.
- Access
Council support formalising the alternative route to Jane Eliza Estate from Ral Ral Avenue to reduce the burden on access via Cowra Street.
- Provision of Gas
Council will investigate further the current arrangement for gas.
- Sustainability
Council supports incorporating sustainability principles into the development, with the exception of load controllable air conditioning for load shedding by authorities, and considers the preferred approach would be to mandate this via a land management agreement.
- Land use investigations
Council supports the incorporation of the following land uses into the draft master plan:
 - Commercial
 - Education
 - Recreation
 - Environment
 - Ski Park
 - Rowing
 - Eco Tourism



Noting the following points:

- That any education aspects should consider private providers.
- While supporting the inclusion of a ski park capable of hosting national slalom events council wishes to better understand the engineering required to ensure bank erosion does not become a problem in the future and operational consideration (number of boats at one time, boat integration etc).

• Land use detail

Small craft marina

Council supports the small craft marina being designed to cater for the Commercial Houseboat Industry, including a small area to cater for short term commercial boats (boats which offer cruises etc). The small craft marina should be designed for a commercial fleet of at least 100 houseboats, up to 120 houseboats can be incorporated into the design. The small craft marina should incorporate black & grey water compliance connection points, an adequate car parking compound, provision for offices and ideally has natural water flow to flush opposed to pumping.

Council does not support having a boat waste pump out facility due to the current facility adjacent to the Renmark Big 4 caravan park being in close enough proximity.

Shared use / Cycle path

Council supports the linking of the Matulick Riverfront walk via the current Tower Tavern site foot bridge in the event this can be incorporated into the subdivision plans for the Tower Tavern site.

Community Focus Park

Council supports further investigation into a water based recreational area being sited adjacent to the aquatic club (example – Aqua Park – Cables Wake Park Penrith NSW).

I look forward to receiving the draft, if you require any further clarification or information please contact me.

Yours faithfully

Tony Siviour
Chief Executive Officer

the master plan - further investigations



INFRASTRUCTURE

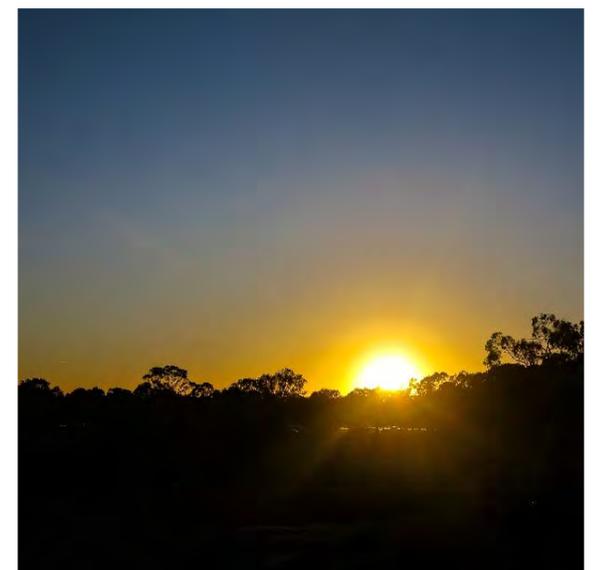
SITE LEVELS AND EARTHWORKS

Further infrastructure investigations were undertaken in the latter stages of the project to supplement the preliminary infrastructure analysis. This included bore log drilling and geotechnical testing undertaken in February 2016. Refer to the separate report titled Geotechnical Investigation Report dated February 2016. A summary of the findings include:

- the 1956 Flood level at that location is 19.9AHD;
- the subject land will need to be filled 2.5m - 3.0m in depth to ensure buildings are located above the 1956 Flood level;
- the following average levels will apply to new development: Allotments 20.1m and Roads 19.4 AHD;
- geotechnical testing indicated that while some acid sulphate soil was encountered to the north of the site, the majority of materials will be suitable to be reused as general engineered fill;
- further site characterisation will be required where excavation or dewatering will occur at depth as part of an environmental construction management plan;

- materials have medium to high plasticity and need to be protected with geo-fabric, rock or topsoil to minimise potential shrinkage and cracking;
- it has been estimated that 822,000 cubic metres of cut will be required to develop the water areas in the following stages:
 - Area 1 (Residential) 181,000m³;
 - Area 2 (Residential) 118,000m³;
 - Area 3 (Commercial Marina) 302,000m³; and
 - Area 4 (Future Development) 221,000m³.
- it is estimated that 1,201,000m³ of fill will be required to raise the following areas suitable for development (total for residential, road and reserve areas):
 - Area 1 (Residential) 606,000m³;
 - Area 2 (Residential) 135,000m³;
 - Area 3 (Commercial Marina) 345,000m³; and
 - Area 4 (Future Development) 115,000m³.

The cut and fill volumes are shown diagrammatically within the separate Tonkin Consulting Infrastructure Assessment Report.



ACCESS

- development will increase traffic on Jane Eliza Avenue and Cowra Street – the existing road network can accommodate this increase although traffic calming devices are recommended on Cowra Street to maintain existing residential amenity;
- provide a second access to the development which connects to Ral Ral Avenue, running parallel to Bookmark Creek to its north; and
- include the existing trails from the Tracks and Trails Strategy into the proposed Master Plan.

WATER

- mains water can be supplied via an extension to the existing main in accordance with SA Water requirements (note this does not account for fire);
- continued pumping of new lagoons will need to occur at a rate of 3 mega litres per day to maintain flow in lagoons, it is anticipated that this will occur as per the current arrangements for pumping on to the woodlot; and
- it is anticipated that more water flow will require additional woodlot or planted area to be set aside for irrigation purposes.

SEWER / WASTEWATER

- sewer to connect to existing CWMS with additional pump stations to be provided; and
- a dedicated rising main for effluent to be carried to the Waste Water Treatment Plant will need to be included.

GAS

- a private reticulated gas network has been placed in the first stage of the Jane Eliza. Council will need to enter into an agreement with the service provider to provide a gas supply in any future stages of development.

POWER

- there are power supplies provided including one overhead and one capped underground service in anticipation of further development. SA Power networks will need to test the existing supply system to ensure it is suitable for future development; and
- the existing network has sufficient capacity to serve the proposed development without significant upgrades – augmentation costs may apply.

STORMWATER MANAGEMENT:

- it is expected that stormwater runoff will be collected in pits and pumps and later discharged to the River and waterways; and
- it is recommended that collected run-off in future stages pass through grassed lined swales and gross pollutant traps prior to discharge to the river or waterways.



RENEWABLE POWER OPTIONS

The site is well positioned to include sustainability mechanisms including solar energy to power existing and/or proposed Council assets and into private development.

The inclusion of solar and other forms of Ecologically Sustainable Development mechanisms should be in two forms:

- mandated (incorporated into Land Management Agreement / Development Plan framework); and
- discretionary mechanisms.

This should extend to include all commercial areas, tourist accommodation and recreation uses.

EXAMPLES

- Any commercial development should have solar systems installed.
- LED street lighting and public areas to be solar/battery powered.
- Solar farm exceeding 30kW by investors as a licenced producer using residual land.
- Battery management technology to assist maximum demand management.
- Water pumps: Solar powered and/or at night operation on reduced tariff.

- Wind turbine powered water pumps with mains back-up.
- Reticulated LPG system.
- Conduits installed for council intranet and NBN.
- High thermal mass insulation for housing to reduce solar gains - design techniques in the Development Plan / Land Management Agreement / encumbrance.
- Metering and monitoring systems to measure and manage all power consumption to measure performance.

For further detail, reference is made to the separate final report prepared by Tonkin Consulting, titled Infrastructure Assessment – Residential Waterfront Estate – Jane Eliza April, 2016.





RECREATIONAL WATERBODY

A key element of the Master Plan vision was to encourage on-water recreation to create tourism opportunities for Renmark, creating;

“Renmark as a boating destination...as the houseboat / ski park capital of the state” and “Renmark as the HUB for tourism in the Riverland all year round”.

The Stakeholders suggested a number of possible on-water recreation pursuits that could be accommodated on a designated multi-user lake, inclusive of: a Ski/Wake Park, a Rowing Course, a Cable Wake Park or an inflatable Aqua Park. Each of these elements were investigated in detail and the findings as follows.

SKI / WAKE PARK

The inclusion of a skiing / wakeboarding park within a designated man-made lake sparked discussion amongst the stakeholders and Council as to whether a facility of this nature could be accommodated alongside other uses and if there was a ‘need’ given the proximity of the River Murray where water skiing and wakeboarding behind a boat is common practice.

A desktop analysis was therefore undertaken on three notable Ski Parks in Australia to determine the requirement of these facilities and to better understand their operation. These were:

- Bonney’s Ski Park, Perth, Western Australia – 100 metres wide x 800 metres long.
- Bushy Browns Adventure Ski Park, Woodford, Queensland – 65 metres x 670 metres long.
- Stoney Park Wake Park, Telegraph Point, New South Wales – 70 metres wide x 690 metres long.

With the exception of the Stoney Park Wake Park, the parks were not located in close proximity to rivers where water sports can occur. These two parks differ to Renmark in this way.

The Stoney Park Wake Park however provided a suitable example of similar conditions to Renmark and as such further investigation was undertaken.

Stoney Park, New South Wales is located on a very isolated cleared flat portion of land partially surrounded by vegetation. It contains two lakes: one north-south and one east-west to account for wind with each channel 690 metres long. This Park functions more as a caravan and tourist park in that it contains; unpowered and powered camping and caravan sites and self-contained cabins centred around the water sports complex. The scale of this facility is such that it attracts large groups of ski enthusiasts staying for short and long periods. In this way the facility functions independently of other uses or public access.

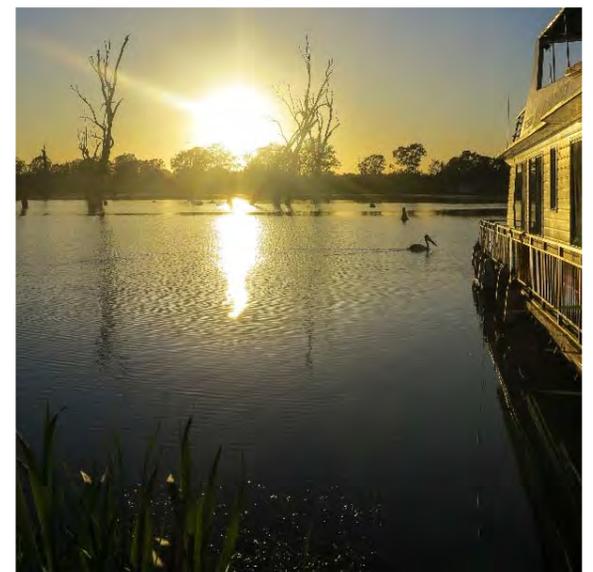
In order to create a standalone facility that draws people to the lake and away from the river, additional infrastructure in the form of holiday accommodation to promote longer stays would be required. This could be coupled with state and local events that draw tourists for recreation, such as skiing and wakeboarding competitions. Further investigations revealed that two lakes are required in order to host any formal events.

The lakes, approximately 690 – 800 metres long, can be accommodated within the site boundaries of the study area however it would extend beyond the current Commercial Marina zoning. This would require environmental impact studies and a Development Plan Amendment to allow further development to occur within the floodplain. This process can be lengthy and expensive.

A number of additional constraints are also noted:

- the proposed Ski Park course would be inconsistent with the scale of the existing and proposed lagoon development in the Jane Eliza;
- there is a high potential for conflict between boat users and existing residents in the estate in terms of noise; and
- maintenance and management responsibilities would be complex and onerous.

Given the siting of the land adjacent to the Murray River where skiing and wakeboarding occurs as common practice, it was proposed to investigate a more unique solution of a cable ski park which would address the noise and user conflict concerns whilst requiring a much smaller scaled lake which could be accommodated in the area already zoned appropriately.





CABLE WAKE PARK

On the 10th of March 2016, MasterPlan together with Tony Siviour undertook a site inspection of the Penrith Cables Wake Park to determine the scale, design requirements and daily operations of a success park.

Cable wakeboarding is simply wakeboarding while being pulled not by a boat, but by an overhead cable-ski system which is suspended in the air by a series of towers (or masts) surrounding a lake. The pursuit of this type of on-water recreation for the Master Plan was suggested because the cable operation itself is noticeably quiet in comparison to that of a motorised speed boat and the scale of the lake required is approximately half the length.

The Penrith facility is located approximately 73 kilometres west of Sydney and employs 35 staff in the low season and 50 in the high season. Penrith has a population of 178,000 people.

The Penrith Wake Park contains two water bodies each 360 metres long by 130 metres wide which have two separate cable systems operating independently of one another. The lakes range in depth from two to three metres and taper off towards the bank. The cable runs at 28 to 30 kilometres per hour pulling a skier from the designated platform around the waterbody. As a rider makes their way around the circuit, they must stay between the designated buoys in order to maintain tension in the line. If a rider falls off, they take their board off and swim or walk to the water's edge. The rider then walks on land around the perimeter of the lake and back to the start platform.

The Park also contains an inflatable aqua park, a kiosk, playground, board hire shop and BBQ facilities. The aqua park component offers itself as an interesting alternative to creating on-water activity without the requirement of permanent additional infrastructure.

A series of additional existing wake parks including Bli Bli (near the Gold Coast) and Cairns were also investigated in greater detail to determine the common critical mass and location requirements of successful parks. The common factor of each of these Parks, as with Penrith, was the proximity to a large City or reliance on a large influx of tourists each year.

In terms of critical mass, it was suggested that to open a park and run at a profit the required critical mass is in the order of 400,000 people. On this basis, it was suggested that Renmark will definitely not have the critical mass required to sustain a two lake park. A single lake park, with a single line operation, in conjunction with an aqua park and tourist accommodation was offered as a more feasible solution given the smaller critical mass of Renmark and the region.



ROWING COURSE

Also on 10 March 2016, MasterPlan, together with Tony Siviour, undertook a site inspection of the Sydney International Regatta Centre to determine the scale and the design requirements of this centre. The centre was originally established for the Sydney Olympics and it now boasts some 350 events annually, including on-water events such as rowing, swimming, canoeing, kayaking, dragon boat racing and model boat racing, together with land based events such as cycling, running, triathlons and the like. The facility also has a function centre for non-athletic events and an education centre, viewing pavilions, grandstands and associated event offices. The rowing / canoeing course is 2300 metres long and contains nine, 13.5-metre wide lanes and is 5 metres deep.

The centre, operating as part of a wider lake system is substantial in scale and also relies greatly on additional infrastructure in the form of roads, bridges and pumping stations. It was immediately apparent that a facility of this size and nature was not of a scale appropriate for incorporation into the Jane Eliza Master Plan.

The notion of including a Master's length course however was suggested by a key stakeholder who has interest in the Renmark Rowing Club. A Masters course caters for a race length of 1,000 metres and requires a minimum of 1,150 metres in length and 108 metres width.

After inspecting the site and discussing the operations of this facility it was evident that even a Masters length course would be greatly out of scale and prove not viable for inclusion into the Jane Eliza Master Plan, for the following reasons:

- the size of the lake required together with the ancillary infrastructure required for the lake to function;
- the proposed Master's course would be completely out of scale and not consistent in design with the existing Jane Eliza lagoons;
- the Renmark Rowing Club only has a small membership and as such would rely, in the majority, on external users being drawn to the course;
- Renmark already has a successful regatta hosted every two years – the Berri Renmark Regatta which is an open water course; and

- the scale of the lake required approximately 1,150 metres whilst capable of being accommodated within the site boundaries of the Jane Eliza, would need to extend beyond the current Commercial Marina zoning. This would require environmental impact studies and a Development Plan Amendment to allow further development to occur within the floodplain. This process can be lengthy and expensive.

The success of the Sydney facility relies on critical mass and most notably the extensive range of year round ancillary activities. Considering the relatively small population base of the Riverland, the presence of the already proven Berri Renmark Regatta open water race, the scale of the rowing channel required and the small number of members at the Renmark Rowing Club, this feature of the Master Plan does not appear viable. The inclusion of this feature as a 'dashed outline' has been incorporated into the Final Master Plan to demonstrate that it can be accommodated should funding and other critical drivers become suitable in the future. Further detailed investigations would be required at that time.



INFLATABLE AQUA PARK

An “Inflatable Aqua Park” was the subject of further investigation as it could provide a relatively low cost solution to providing on-water activity, which could be flexibly sited and packed away during the low season and is worthy of further consideration by Council.

During discussions with the operator of the Cables Wake Park, Penrith the following considerations were identified:

- the equipment must be inflated every day and requires extensive maintenance including cleaning of the plastic material and repairs due to sun damage;
- the equipment was imported from China with each of the larger pieces costing around \$40,000;
- the Australian Leisure Management Standard specifies the requirements for inflatable equipment which can be found online. It generally specifies that double the height of each piece compared to the depth of the water to be safest.

In any proposal for an Aqua Park the relevant due diligence should be conducted by Council to determine the cost of equipment, any maintenance and insurance requirements as well as compliance with the Australian Standard AS3533.4.5 which provides guidance on the installation of inflatable aqua equipment.

RESOLUTION

As a result of the investigations into water based activities, two Options, A and B have been prepared for a lake that can satisfy either a wake park, inflatable aqua park and if neither are pursued, then a residential lagoon consistent with that of the proposed residential sub division. These options are depicted in Chapter 9 – The Master Plan.

Having investigated a range of water based activities, and provided Council with an overview of these investigations the following resolution was ratified by Council at a Special Meeting of Council held on 6 April 2016;

“That Council instruct MasterPlan Town and Country Planners to proceed further with the incorporation of a lagoon/lake capable of incorporating a small scale single cable ski park concept, with the lagoons to be of a comparative scale to that of existing Jane Eliza main lagoon, and/or aqua park with associated facilities which if unsuccessful in attracting a commercial operator via a call for tender can accommodate waterfront residential development.”

EDUCATIONAL ASPECTS

The McCormick Centre for the Environment located on Ral Ral Avenue just outside and west of the Jane Eliza site was noted by the Councillors and Stakeholders as needing to be taken into consideration throughout the master planning process. The facility is intended to act as a regional hub for environmental education and eco-tourism and provides a unique opportunity to provide links and ancillary infrastructure for environmental education and tourism to the Jane Eliza.

The Jane Eliza is conveniently located adjacent to the Ral Ral Creek, a rich relatively untouched ecosystem with ample opportunities for camping, together with the exploration of land and water trails. Existing walking links defined in the Renmark Paringa Council's Tracks and Trails Strategy already provide designated walking trails around the Jane Eliza site.

In preparing this Master Plan, Council therefore sought additional investigations on the existing environmental / educational and tourism facilities in the region and liaison with a number of educational facilities to determine broad feasibility of including these components in the Master Plan.

In terms of existing operations in South Australia, the following is noted:

- the Murraylands Aquatic Centre at Swanport: location 220 kilometres from Renmark – this facility offers rowing, canoeing, skiing, windsurfing, small boat handling and sailing.
- the YMCA South Australia offers camping trips for children which change in program on a yearly basis – these camps offer bushwalking and kayaking trips in a range of locations on the Murray River – although the location of these camps is not defined.
- Ankara Youth Camp at Walker Flat: located 173 kilometres from Renmark – this facility offers the space for schools to run camps with dormitory style accommodation, a large hall and riverfront location for aquatic activities.
- Wilderness Escapes offers camping trips to schools but does not have a physical camp base from which to operate.

Additional liaison was sought from the Department of Education and Child Development, TAFE SA and the Adelaide University to determine what outdoor education programs broadly exist. The following section summarises their response.

DEPARTMENT OF EDUCATION AND CHILD DEVELOPMENT

The Department of Education provides the “Camps and Excursions Guidelines for Schools” which provide guidance to schools to run safe and effective camping programs. The guidelines list rowing, bushwalking, swimming, water-skiing, boating/sailing and kayaking/canoeing within the document which confirms support for these activities as part of the wider curriculum for outdoor education.

The Department of Education does not stipulate where camps should be run, rather each school can approach facilities as they wish. In this way the Department of Education does not advocate for any particular facility. It was suggested that once a final Master Plan is defined that consultation should take place with each of the schools in the Riverland so that they are aware that such a facility is being planned and call on them to make comment.

It is our recommendation that should such facilities be contemplated, more extensive investigations should be undertaken to determine the likely interest and use by schools throughout South Australia, and the western regions of Victoria and New South Wales.

This locality and region offers exceptional opportunities for environmental exploration and investigation that deserve further consideration.

**POTENTIAL FOR ADELAIDE UNIVERSITY -
ADELAIDE UNIVERSITY WATERSKI CLUB
(AUWSC) AND ADELAIDE UNIVERSITY BOAT
CLUB (AUBC)**

The Adelaide University has an extensive range of sporting clubs inclusive of rowing and water-skiing. These clubs are well established and have facilities out of which they operate.

The AUWSC specialises in teaching beginners to water ski and wakeboard at their two sites on the Murray River: Morgan and White Sands. At Morgan they have a riverfront block with a house equipped with all the basic amenities, jetty, fire pit, BBQ and camping space.

The Adelaide University Boat Club operates from two boathouses: the Torrens Boat Shed on War Memorial Drive and a large shed as part of the SA Rowing Association complex at West Lakes.

The Adelaide University website also details that in their education and teaching degrees, there is an element of outdoor education as part of the course.

There appears to be no apparent appetite for additional facilities located at Renmark for use by the Adelaide University.

TAFE SA

Tafe SA are currently running programs for students studying outdoor education / outdoor recreation and tourism. There is a practical component of these courses where students partner with an existing program run by schools and they practice their skills in a practical setting. The TAFE does not have a regional facility rather they use the respective school facilities. Additionally, they have some on-site equipment at their Regency Campus for rock climbing and the like.

In this way, whilst the TAFE is not an avenue in itself there is definitely a need to provide for additional facilities of this nature to the schools which offer these student placements to TAFE SA.

These facilities should combine the environment, outdoor recreation and education. The areas just west of the banks of the Ral Ral Creek could readily accommodate these types of activities and operate in conjunction with the McCormick Centre for the Environment and the long term plans for the Jane Eliza. This component of the Master Plan represents potential for a short term win as it is relatively low cost and can grow organically as interest increases.



SMALL CRAFT MARINA / HOUSEBOAT MARINA

A key strategy in the Renmark Paringa Community Plan is *“to promote our region as servicing a vibrant houseboat industry,”* and the adopted vision includes, *“Renmark is recognised as the premier river boating destination of the state, ...”*

The houseboat industry is very important to the area, but there are a number of issues regarding houseboat operation and management within the Council area and beyond.

Council records indicate that there are approximately 100 licenced and unlicensed houseboats located in the vicinity of Renmark and the Jane Eliza Landing. The houseboats are mainly located in the following areas:

- Jane Eliza Landing – Liba Liba leased area (within the leased area);
- entrance to Ral Ral Creek (licenced);
- Ral Ral Creek and isolated locations on the river (some unlicensed); and
- Adjacent Lock 5 (licenced).

There are a number of issues with the location of houseboats in the area, including:

- access for parking and facilities;
- a lack of grey and black water compliance;
- the use of prime river frontage;
- the use of the ecologically sensitive Ral Ral Creek;
- a proliferation of associated facilities for some permanent moorings including sheds, storage and parking of vehicles; and
- accessibility issues for the commercial fleet located adjacent to Lock 5 because of the restrictions associated with the Paringa Bridge.

It is Council’s desire to establish facilities to cater for the commercial and resident houseboat industry that relocates the houseboats off the River Murray and Ral Ral Creek banks, and provide facilities for grey and black water compliance in accordance with industry best practice.

There is also a lack of facilities for the servicing of houseboats and any large vessels in general. The existing dry dock and slip at the entrance to Ral Ral Creek is underutilised. It is understood the slip is not rated and only has a 14 tonne capacity. Most houseboats are approximately 20 tonnes and larger boats can be 30 to 35 tonne. Liba Liba have a slip for their own boats at the Jane Eliza Landing, but it is not always available for other users. Vessels therefore have to travel outside the area for servicing. An opportunity therefore exists at the current slip and dry dock for upgraded facilities to service the local houseboat industry and possibly the region. Opportunities may also exist for associated commercial and industrial operations and boat storage facilities to be developed adjacent to the dry dock area.

Post receipt of the Draft Master Plan, Council refined its expectations on the requirement for a houseboat marina that could accommodate 100 - 120 houseboats to satisfy a relocation/consolidation strategy.

Further information was then sought from the Boating Industry Association (Adelaide Branch) and the Houseboat Hirers Association South Australia to determine not only the size requirements of a houseboat marina but also the industry standards for operation.

These investigations revealed that:

- the 'EPA Code of Practice for Vessel and Facility Management (Marine and Inland Waters)', 2008 provides the key code of practice for marina operators, houseboat operators and slipway operators. Under the Code of Practice in Section 5.3 Vessel facility development (and re-development), clause 2:

a vessel facility developer must ensure the vessel facility includes the provision of waste and wastewater collection facilities and / or waste transfer (reception) stations for grey and black water reception;

- the DPLG (now DPTI) 'Guide to Marina and Mooring on the River Murray', 2011 provides guidance on the development application process and requirements for new marinas in proximity to the River Murray;
- Commercial houseboats are limited in size to 24 metres in length and 8.5 metres wide for commercial operators in South Australia;

- the minimum recommended distance between moored houseboats is 0.8 to 1.0 metre;
- the minimum turning area required to reverse a houseboat was recommended to be 0.5 times the length of the boat i.e. if a boat is 24 metres then 12 metres is required.

The above has been taken into consideration in the design and layout of the proposed Marina in order to meet Council's anticipated capacity of 100 – 120 houseboats, whilst additional space has also been allocated for 20 small craft.

A facility of this size is unlikely to be developed in one construction programme, therefore it is anticipated that a staged approach be employed should the detailed analysis prove such a project worthy.



the master plan

OVERVIEW

The Master Plan is represented on the following plans:

- Overall Scheme plan;
- Core Development Area plans:
 - Core Development Area Cable Wake Park Option A; and
 - Core Development Residential Lake Option B.
- Marina (Enlargement);
- Open Space and Linkages plan; and
- Staging plan.

The Overall Scheme shows all of the components proposed within the Master Plan for the full extent of the study area. This plan provides the overarching framework for the functional arrangement of the Study Area. The key elements of the Master Plan are reference by number (i.e. '1', '2', '3') on the Overall Scheme Plan. The more detailed elements of the Master Plan are referenced by letter (i.e. 'A', 'B', 'C'), on each of the subsequent detail plans including the Core Development plans, and Marina (Enlargement) plan.

EXISTING JANE ELIZA ESTATE (1), RESIDENTIAL - FUTURE MARINA ESTATE (2) AND TOURIST ACCOMMODATION ((3)

The Core Development plans contain a future area for residential development including a range of residential accommodation options including:

- Waterfront lagoon allotments;
- Non-waterfront allotments;
- Medium density canal frontage allotments; and
- Medium density tourist accommodation.

A portion of the Master Plan utilises the existing pattern of development originally planned in the Concept Plan for Jane Eliza including a road pattern and a similar size single lagoon north of the existing lagoon. This has been adapted at the eastern end to link in with an amended commercial and tourist area. The plan provides for approximately 250 residential allotments of which 70% / 175 allotments have a waterfront lagoon frontage.

Approximately 100 Tourist Accommodation units have been Incorporated into the Master Plan in close proximity to the marina and residential development. It is envisaged that these medium density accommodation options be utilised for either tourist accommodation or medium density living in accordance with market demand.

All of the proposed accommodation options are located within the existing Marina Zone and the residential stages will be located in the Residential Waterfront Policy Area.

The eastern section of the Policy Areas may in time need to be amended to correspond with the redesigned commercial and tourist area in a future Development Plan Amendment.

FUTURE DEVELOPMENT AREA (5)

The Core Development Plan Cable Wake Park Option A, provides a lagoon/lake capable of incorporating a small scale single cable ski park. The lagoons would be comparable in scale to that of the existing Jane Eliza main lagoon. If the Aqua / Wake Park Concept is unsuccessful in attracting a commercial operator the lake can be altered and could accommodate a future waterfront residential development such as that depicted in the Core Development Residential Lake Option B. This flexibility in the Master Plan means that pursuit of either Option A or B can be considered somewhat independently of other development components.

COMMERCIAL AND MARINA (4, 6 & 7)

The Master Plan provides for an extended commercial area centred around the existing canal, marina, dry dock and slip which includes the marina and ample space for a boatyard and associated activities including storage, servicing and refuelling.

The existing marina area is proposed to be extended in stages to cater for a commercial fleet of 100-120 houseboats. It also retains a capacity for small craft that could cater for approximately 20 boats. This will be contingent upon demand as any design should enable a degree of flexibility for craft types. The marina outlet to the River Murray is proposed to be widened at the same time.

It is proposed that all houseboat mooring sites will have internal service road connections and adequate car parking areas for residents, tourists and operators. There would be black and grey water compliance connection points and provision for office for commercial operators.

The commercial marina area can be expanded in stages as depicted on the Staging Plan. At this time, two primary stages have been identified that should be subject to more detailed implementation analysis that will be effected by a range of internal and external factors including houseboat licensing, policing of compliance, relocations and the like.

The existing Slip operated by Liba Liba Houseboats can be used and later upgraded as a possible boat ramp together with the existing boat ramp.

Further the existing Slip and Dry Dock contained in the commercial and industrial area should be assessed for its upgrade to service the wider boating community on the river.

BOAT RAMP AND CARPARK (8)

A boat ramp and parking area remains on the southern side of the marina outlet.

Allowance is made for the existing arrangement to continue until the area can be redeveloped with an upgraded boat ramp and formalised carpark.

GOOLWA STREET FRONTAGE (9)

The Overall Scheme shows the area with frontage to Goolwa Street in the north of the Study Area as a future rural living area. There is potential for this area to be filled to appropriate levels to comply with River Murray flood levels and to provide rural living frontages to the existing road which contains existing services and provides an appropriate transition of uses at the northern boundary of the subject area. This would be consistent with the pattern of division and general form of development in this locality. This however would require a future Development Plan Amendment to rezone the land located within the Flood Zone.

MCCORMICK CENTRE (10 & 11)

The McCormick Centre for the Environment is a regional hub for environmental education and tourism. Although its location is outside of the study area, it is important that any future development links the site with the rest of the Jane Eliza study area. It is an ideal location for the start of various trails linking the many places of environmental significance within the greater Renmark area and offers an opportunity to create a base for educational, environmental and recreational experiences.

ENVIRONMENTAL WETLANDS, JOHNSON'S WATERHOLE AND THE WOODLOT (12, 13, 16 & 18)

The majority of the study area that is located within the floodplain and zoned as the Flood Zone should be progressively rehabilitated and redeveloped as ephemeral wetlands in accordance with the recommendations of the previous environmental reports prepared for the area including the "Reviving the Ral Ral Floodplain – An Options Analysis Paper".

This would include the continued rehabilitation of Johnson's Waterhole to retain water within the floodplain. It is recommended that the existing woodlot remain with future revitalisation and maintenance, and opportunities for expansion to take further excess water from the additional lagoons that are proposed in the core development area.

The Master Plan also has the flexibility for long term expansion of a recreational water body within the flood plain area.

RENEWABLE ENERGY (19)

Immediately north east of Ral Ral Avenue is an area with potential for an early stage solar energy farm. This area is proximate to the local sub station on the opposite side of Ral Ral Avenue, thus enabling ready connection to the grid.

ECO-TOURISM/EDUCATION/WORKERS CAMP (14 & 15)

An area within the northern section of the floodplain adjacent to Ral Ral Creek has been identified as potential sites for walking trails and eco-tourism, i.e. "glamping", an educational camp site or worker's accommodation. Areas for development would need to be filled to appropriate levels within the floodplain and to integrate with the existing vegetated environment and eco-system.

LINKAGES (17)

The Master Plan includes connectivity for vehicles, pedestrians and watercraft.

A key finding of the study is the need to provide an alternative access route into the Jane Eliza estate. Formation of an appropriate link adjacent to Bookmark Creek with a connection from Ral Ral Avenue is shown on the Overall Scheme plan.

The pedestrian linkages proposed connect into the existing trails as defined in the Tracks and Trails Strategy as well as the Matulick Walk connecting the Jane Eliza waterfront to the Renmark Township.

Access to the enlarged Marina by houseboats and other watercraft is proposed to occur via a widened version of the existing channel to the river. Small personal craft such as kayaks and canoes will be able to pass into the first residential lagoon. All other lagoons will be connected via a culvert with watercraft access limited.

The plan also shows additional screen planting adjacent to Ral Ral Avenue to improve the outlook of the floodplain area from vantage points along Ral Ral Avenue.





- 1 Existing Jane Eliza Estate
 - 2 Future Marina Estate
 - 3 Tourist Accommodation
 - 4 Marina
 - 5 Cable Wake Park (Option)
 - 6 Commercial
 - 7 Commercial / Fuel Station
 - 8 Boat Ramp & Parking
 - 9 Future Rural Living
 - 10 McCormick Centre for the Environment
 - 11 Trail Entry & Information
 - 12 Ephemeral Wetlands & Vegetation
 - 13 Johnson's Waterhole
 - 14 Eco-tourism
 - 15 Eco Tourism / Education / Workers Camp
 - 16 Existing Woodlot
 - 17 Road Link to Ral Ral Avenue
 - 18 Master Plan has flexibility for long term expansion of recreational water body
 - 19 Renewable Energy - Solar Farm
- Zone Boundary
- Study Area

OVERALL SCHEME

jane eliza
 RENMARK PARINGA COUNCIL · MASTER PLAN





A Existing Jane Eliza Estate
 B Future Marina Estate
 C Tourist Accommodation
 D Marina - Houseboats
 E Marina - Small Craft
 F Cable Wake Park (Option)
 G Cable Wake Park Club / Kiosk

H Commercial / Industrial
 I Commercial / Fuel Station
 J Boat Ramp & Parking
 K River Park
 L Water Linkages / Flow
 M Wood Lot
 N Road Link to Ral Ral Avenue

O Eco Tourism
 P Screen & Park Planting
 Q Bridge
 R Slip
 S Slip & Dry Dock
 --- Existing Zone Boundary

CORE DEVELOPMENT
 CABLE WAKE PARK
 OPTION A

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 RENMARK PARINGA COUNCIL · MASTER PLAN





A Existing Jane Eliza Estate
 B Future Marina Estate
 C Tourist Accommodation
 D Marina - Houseboats
 E Marina - Small Craft
 F Residential Lake (Option)
 G Reserve

H Commercial / Industrial
 I Commercial / Fuel Station
 J Boat Ramp & Parking
 K River Park
 L Water Linkages / Flow
 M Wood Lot
 N Road Link to Ral Ral Avenue

O Eco Tourism
 P Screen & Park Planting
 Q Bridge
 R Slip
 S Slip & Dry Dock
 --- Existing Zone Boundary

CORE DEVELOPMENT
 RESIDENTIAL LAKE
 OPTION B

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A Tourist Accommodation
 B Small Craft Marina
 C Canal Link to Lake System
 D Park

E Boat Ramp
 F Marina Outlet to River
 G Fuel Outlet
 H Houseboat Marina

I Commercial
 J Cable Wake Park
 K Club / Office / Kiosk
 P Car Parking

MARINA (ENLARGEMENT)

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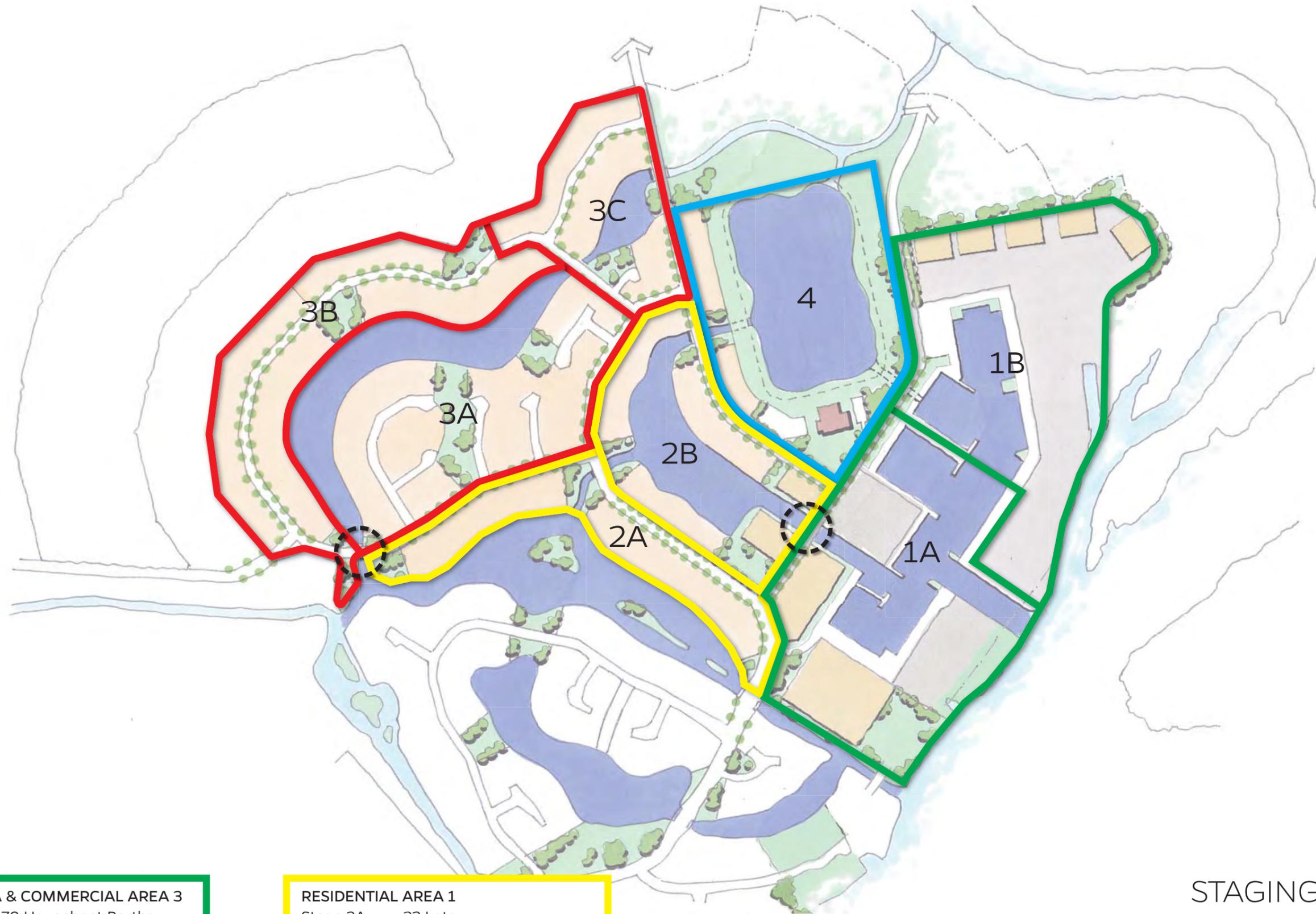


OPEN SPACE + LINKS

-  Proposed Open Space
-  Existing Open Space
-  Road Link
-  Pedestrian Link
-  Waterway Link

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NEW MARINA & COMMERCIAL AREA 3	
Stage 1A	70 Houseboat Berths
Stage 1B	50 Houseboat Berths

RESIDENTIAL AREA 2	
Stage 3A	72 Lots
Stage 3B	66 Lots
Stage 3C	30 Lots

RESIDENTIAL AREA 1	
Stage 2A	32 Lots
Stage 2B	40 Lots

FUTURE DEVELOPMENT AREA 4	
Wake Park or Residential	

TOTAL : 240 Residential Lots 120 Houseboat Berths	
	WATERWAY BRIDGE CROSSING

STAGING

jane eliza
REMARK PARINGA COUNCIL · MASTER PLAN



10 implementation

Overview

The Jane Eliza Master Plan project has delivered a broad concept of how the study area could be developed over the next 20-30 years.

The investigations which reviewed the entire study area determined that the most practical land use options should be contained within the existing marina zoned area. The Master Plan has therefore focussed on the containment of the primary functions of residential, commercial, industrial, tourist and recreation facilities within the existing marina zone.

There are also other components of the Master Plan which are outside of the existing marina zoned area within the River Murray Flood Zone. These components should be considered in the overall vision for the area including the linkages and the surrounding areas of ephemeral wetlands and vegetation. Potential sites for eco-education and eco-tourism opportunities have also been identified within this area.

The area designated at the northern boundary of the site to Goolwa Street may also provide an opportunity for future rural living development subject to a Development Plan Amendment process.

An opportunity exists for a solar farm adjacent to Ral Ral Avenue that can form part of a greater environmental experience for many of the links around the Jane Eliza site and to the McCormick Centre.

The functional areas shown on the Master Plan within the existing Marina Zone are presented in a series of plans including:

- the Core Development plans Options A and B;
- the Marina plan (Enlargement);
- the Open Space and Linkages plan; and
- the Staging plan.

Staging

STAGE 1

To meet the objective for Renmark to become “*the premier riverboat destination of the state,*” facilities need to be developed. The Master Plan provides a logical response to that need.

There are a range of commercial and private vessels that are poorly or inappropriately located that should be accommodated in a managed marina facility.

There is an existing connection to the River Murray and a marina that is underutilised. This existing basin can be improved and expanded together with the canal to accommodate vessels resident on the River Murray and Ral Ral Creek. The extent of additional marina basin space should be the subject of closer review together with design development of the concept.

The progressive development of the marina basin provides material for building sites in the commercial area and in future residential areas. For the purpose of this analysis, we have had regard to the existing marina basin and associated land and canal with improvements as Stage 1A.

Stage 1B completes the Commercial Marina Basin, however, this could also be modified with sub stages depending on demand.

FUTURE STAGES

The residential and the future stages will follow sequentially subject to the commercial viability.

Policy

While the majority of the proposals are located within the Marina Zone, there will need to be a policy review in the form of a Development Plan Amendment to facilitate the Master Plan. The policy review required can be separated into ‘short term’ and ‘long term’ elements, where the short term relates to that occurring within the existing zoning and the long term that which would occur outside the current Marina Zone and provide the investigations required to inform the Development Plan Amendment process.

SHORT TERM

- a review of the Residential Waterfront Policy Area boundary;
- preparation of an amended Concept Plan RePa/6;
- a review of residential waterfront policy to include tourist accommodation and eco-tourism (optional);
- a review of the commercial and industrial policy requirements relating to the commercial area and houseboat marina.

LONG TERM

- investigations to review the impacts of the inclusion of a rural living area adjacent to Goolwa Street;
- investigations to review the Flood Zone boundary and policy;
- investigations to review the inclusion of other uses in the Flood Zone i.e. extended water body, education and eco-tourism opportunities.

Further Analysis and Assessment

The Master Plan relating to each functional area is very broad and will need to be developed and designed to a higher level of planning detail.

This relates to the residential components, the commercial houseboat marina including the small craft marina, the commercial / industrial area, tourist accommodation sites and the areas of open space.

An open space plan could be developed in the form of an urban design framework to relate to all of the public domain areas (i.e. reserves, footpaths, linkages) which in turn provides a framework for future funding.

In order to refine the Master Plan and progress the development of the Study Area, further analysis and assessment is required given the needs identified by Council to:

- rationalise houseboat moorings in the area;
- improve servicing facilities and environmental management of houseboats;
- create a range of housing options for the district in accordance with demand for waterfront property;
- extended open space and trail links; and create on-water recreation and activity;

- maximise the unique characteristics of the surrounding environment and create opportunities to drive new demand from potential markets; and
- to maximise the business and investment opportunities for the Jane Eliza.

Accordingly, to progress these outcomes, further detailed investigations and refinement / development of components of the Master Plan are necessary based on demand and commercialisation of each component.

The scope of works for each component can then be prepared based on Council's determination of priorities.

11 *conclusions*

The future development of the Jane Eliza Waterfront development has a number of complexities due to its mix of uses and range of environmental conditions and opportunities which are not common to standard urban developments.

Accordingly, there are a range of considerations that need to be taken into account to ensure the interests of all relevant parties, the key land use components and the desired outcomes can be achieved.

The Master Plan provides the basis for the Township of Renmark to collaborate with Local, State and Federal Government and the private sector to maximise the business and investment opportunities for the subject area, whilst planning for steady residential and business growth of the Township for the next 30 years.

The proposed design, drawing on the needs and aspirations of the community spatially defines the growth of residential, commercial and recreational space within the Jane Eliza which, together with the findings of this report have defined a 30-year vision. It is with this vision that pursuit of a defined pathway for funding can be determined and the planned development of the Jane Eliza can occur.