



This project is funded in partnership through the State Government's Planning for Tomorrow Program and Swan Hill Rural City Council.

Acknowledgements

The Project Team acknowledge the technical input and generous assistance of the following people:

Swan Hill Rural City Councillors

- Councillor Les McPhee Mayor
- Councillor Greg Cruickshank Deputy Mayor
- Councillor Jim Crowe

Regional Development Victoria members

Robert Jardine

Swan Hill Rural City Council member

- **Dean Miller** CEO
- Fiona Gormann Project Manager
- Amanda Young Administration
- David Leahy
- David Lenton
- Steve Matthews
- Mazen Aldaghstani
- Vige Satkunarajah
- Ken Symons
- Janelle Earle
- Tony Jenkins

Aboriginal Liaison

Verna Eade

Media

- Felicia Chalmers
- Makayla Rust
- Claire Leunig





Report Name	Masterplan Report
Reference	UDR01
Revision	04
Prepared By	Danielle Griffin
Reviewed By	Orlando Harrison
Date of Issue	1/10/2013

© Tract Consultants

In collaboration with

- Local Logic Place
- Urban Enterprise

This publication is subject to copyright. Except as permitted under the Copyright Act 1968, no part of this document may in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) may be reproduced, stored in a retrieval system or transmitted without the prior written permission of Tract Consultants

www.tract.net.au

Figures

igure 1: Study Area	10	Figure 29: Masterplan - Section 2 of 4
igure 2: Strategic Context	13	Figure 30: Masterplan - Section 3 of 4
igure 3: Current Zoning	15	Figure 31: Masterplan - Section 4 of 4
igure 4: Existing Overlays	19	Figure 32: Vignette - Rotary Park and E
igure 5: Swan Hill Bridge Planning Study, Preliminary Concept Drawing	25	Figure 33: Vignette - Short Stay Accom Future Development
, 1	40	Figure 34: Cross Section B - B'- Murray
igure 6: Stage 12 - Concept Plan (Pioneer Settlement Concept)	26	Cultural Centre
igure 7: Stage 22 - Concept Plan	40	Figure 35: Vignette - 'Heart' of the Mun
(Pioneer Settlement Concept)	27	Figure 36: Cross Section C - C'- River Pl
	4/	Figure 37: Vignette - River Plaza
igure 8: Stage 32 - Concept Plan (Diametr Settlement Concept)	27	Figure 38: Cross Section D - D'- Cadell V
(Pioneer Settlement Concept)		Figure 39: Vignette - Riverside Park
igure 9: Swan Hill River Precinct Master Plan (1997)	28	Figure 40: Vignette - Swan Hill Beach 2
igure 10: Swan Hill Regional Art Gallery	20	Figure 41: Cross Section E - E'- Sculptur
- Proposed Site Plan	29	Figure 42: Vignette - Sculpture Park / T
igure 11: CBD Streetscape Master Plan 2009	31	Figure 43: Vignette - Art Gallery and H
igure 12: Liveable Streetscapes Principle Diagram	31	Bend Park
igure 13: Summary Results - Children aged 5-11 years	38	Figure 44: Cross Section F - F'- Eco Loc
igure 14: Summary Results - Residents aged 20	20	Figure 45: Vignette - Eco Lodges Acco
years plus	39	Figure 46: Vignette - Bryan Street Rese
igure 15: Summary Results - Youth aged 10 - 20 years	40	Figure 47: Cross Section - Riverwalk N
igure 16: Summary Results - Youth aged 10 - 20 years	41	Figure 48: Cross Section - Riverwalk So
igure 17: Precincts	43	Figure 49: Cross Section - Monash Dri
igure 18: Regional Context Plan	45	Caravan Park)
igure 19: Local Context Plan	45	Figure 50: Cross Section - Monash Dri
igure 20 Overall Riverfront Analysis	49	Pioneer Settlement)
igure 21: Overall Riverfront Land Ownership	50	
igure 22: Riverfront - North Analysis	54	
igure 23: Riverfront - CBD Riverside Analysis	60	
igure 24: Riverfront - Arts, Culture and		
Accommodation Precinct Analysis	68	
igure 25: Riverfront - South Analysis	72	
igure 26: Framework Plan	86	
igure 27: Precinct Plan	89	
igure 28: Masterplan - Section 1 of 4	98	

Figure 30: Masterplan - Section 3 of 4	100
Figure 31: Masterplan - Section 4 of 4	10
Figure 32: Vignette - Rotary Park and Boat Ramp	10
Figure 33: Vignette - Short Stay Accommodation and Future Development	103
Figure 34: Cross Section B - B'- Murray River	
Cultural Centre	104
Figure 35: Vignette - Heart' of the Murray	104
Figure 36: Cross Section C - C'- River Plaza	105
Figure 37: Vignette - River Plaza	105
Figure 38: Cross Section D - D'- Cadell Wharf	106
Figure 39: Vignette - Riverside Park	106
Figure 40: Vignette - Swan Hill Beach Zone	107
Figure 41: Cross Section E - E'- Sculpture Park	108
Figure 42: Vignette - Sculpture Park / Turntable	108
Figure 43: Vignette - Art Gallery and Horseshoe	
Bend Park	109
Figure 44: Cross Section F - F'- Eco Lodges	110
Figure 45: Vignette - Eco Lodges Accommodation	110
Figure 46: Vignette - Bryan Street Reserve	11
Figure 47: Cross Section - Riverwalk North	112
Figure 48: Cross Section - Riverwalk South	112
Figure 49: Cross Section - Monash Drive (Adjacent the Caravan Park)	113
Figure 50: Cross Section - Monash Drive (Adjacent the Pioneer Settlement)	113

99

Contents

EXECUTIVE SUMMARY

1.	Executive Summary	<u>7</u>
1.1	Executive Summary	7
1.2	Acknowledgement to Country	7
1.3	Messgae from the Mayor	8
1.4	Messgae from the CEO	8

INTRODUCTION

2.	Introduction	9
2.1	Project Overview	9
2.2	Purpose of this report	9
2.3	Structure of this report	9
2.4	Study Area	10
2.5	Aims of the Riverfront Masterplan	11
2.6	Objectives of the Riverfront Masterplan	11
2.7	Methodology	11

BACKGROUND

<u>3. </u>	Strategic Planning Context	<u>13</u>
3.1	Overview	13
3.2	Swan Hill Planning Scheme	14
3.3	Regional Plans and Strategies	20
3.4	Local Plans and Strategies	21
3.5	Swan Hill Bridge Replacement Studies	23
3.6	Masterplans / Feasibility	26
		22
<u>4.</u>	Economic Market Analysis	33
4. 4.1	Economic Market Analysis Overview	33
4.1	Overview	33
4.1 4.2	Overview Swan Hill Economic Profile	33 33

<u>5.</u>	Consultation Stage 2b Summary	3
5.1	Purpose of consultation	3!
5.2	Previous Community Consultation	3!
5.3	Consultation Events	3!
5.4	Who was consulted?	36
5.5	Snapshot of Consultation Feedback and Responses	36

SITE DESCRIPTION

<u>6.</u>	Analysis, Issues and Opportunities	<u>43</u>
6.1	Overview	43
6.2	Structure of this Chapter	43
6.3	Swan Hill Context	44
6.4	Swan Hill Riverfront	44
6.5	History of Swan Hill and the River	47
6.6	The Overall Riverfront	48
6.7	Riverfront - North	52
6.8	Riverfront - CBD Riverside	56
6.9	Riverfront - Arts, Culture and Accommodation Precinct	64
6.10	Riverfront-South	70

MASTERPLAN

7. I	The Vision, Guiding Principles and Strategic Aims	7
7.1	The Vision	7
7.2	The Guiding Principles	7
7.3	The Riverwalk Principles	8
7.4	Strategic Aims	8
<u>8. T</u>	The Framework Plan	8
8.1	The Framework Plan	8
8.2	The Precinct Plan	8
<u>9</u> . C	Community Stage 4b Consultation	9
9.1	Purpose of consultation	9
9.2	Consultation Events	g
9.3	Snapshot of Consultation Feedback and Responses	9
<u>10. T</u>	The Masterplan	9
10.1	Overview	9
10.2	Key components of the masterplan	9
10.3	Illustrative Masterplan	9
10.4	Masterplan Vignettes	10
10.5	Cross Sections	11

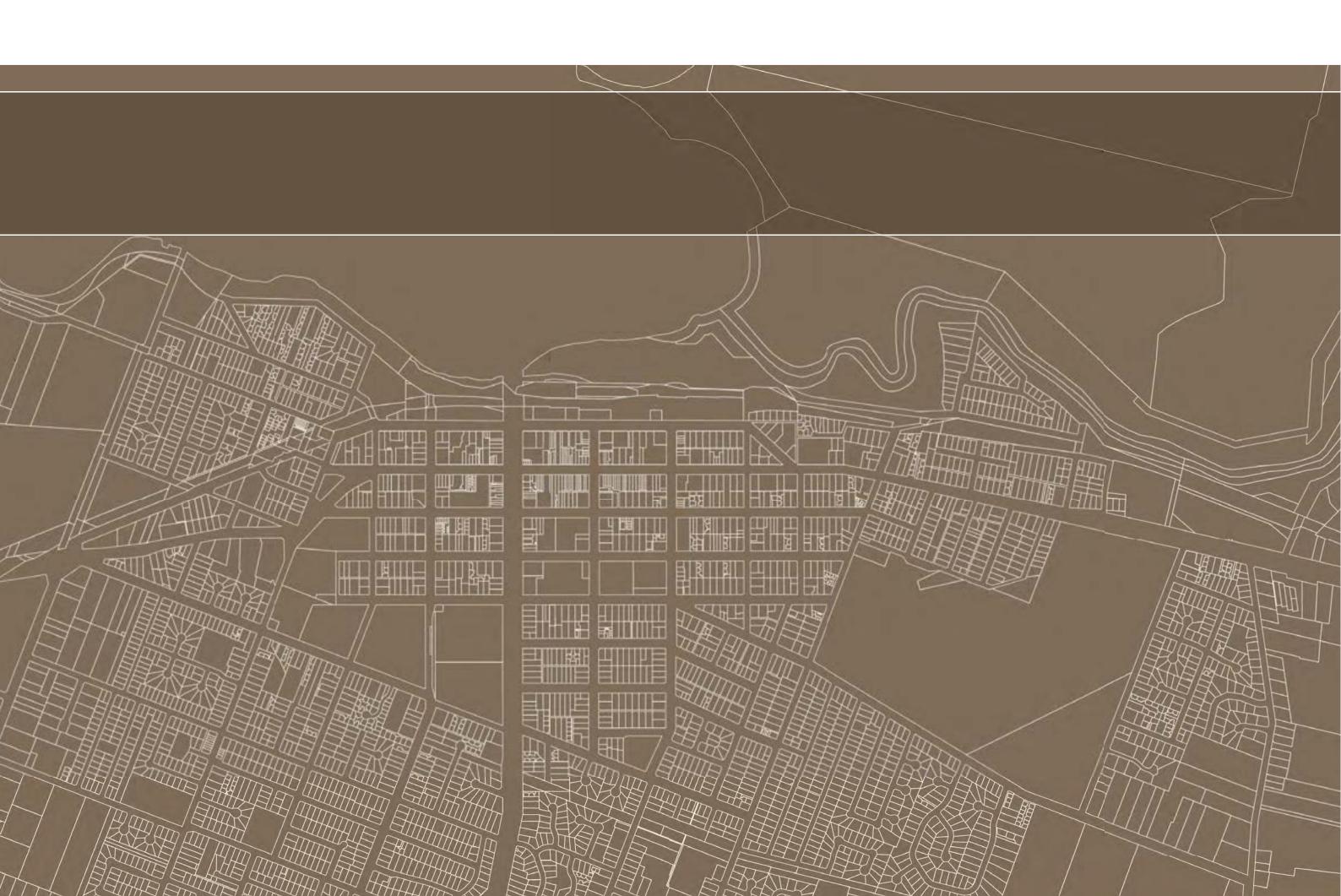
IMAGE AND CHARACTER IDEAS			
11. I	mage and Character Idea	115	
11.1	Overview	115	
11.2	Building and Structures	116	
11.3	Technology	117	
11.4	Riverwalk	117	
11.5	Rivers Edge	117	
11.6	Park Lighting	118	
11.7	Water Sensitive Urban Design	118	
11.8	Materials	118	
11.9	Interpretive / Information Signage	119	
11.10	Directional / Wayfinding Signage	119	
11.11	Park Furniture	119	
11.12	Public Art / Interpretation	120	
11.13	Planting	121	
11.14	Play, Activity and Fitness Equipment	121	
ECONOMIC ASSESSMENT			
12. E	Conomic Impact Assessment	123	
12.1	Overview	123	
122	Construction and Operations Impacts	122	

<u>12. I</u>	Economic Impact Assessment	123
12.1	Overview	12:
12.2	Construction and Operations Impacts	12:

IMPLEMENTATION

<u>13. 1</u>	implementation	<u>125</u>
13.1	Overview	125
13.2	Monitoring and Review	125
13.3	Priority Projects and Staging	125
13.4	Strategic Implementation	126
13.5	Implementation Matrix	140
<u>14</u> . (Conclusion	147
14.1	Conclusion	147

Appendix	149	
Appendix A: Benchmarking	150	
Appendix B: Community Consultation Fin	B : Community Consultation Findings	
Appendix C: Economic Assessment		
Appendix D: Desktop Cultural Heritage Assessment		
Appendix E: The Dreaming		



Executive Summary

1.1 Executive Summary

There is something magical about a place that captures the imagination and essence of a whole community, a place where many stories are shared and many more will be told. It is a place that has the ability to define a city and to enhance a community's sense of pride and belonging.

It is a place that respects its history, while considering the needs of its current and future community and visitors. It is a place where everyone feels welcome and can enjoy and engage with its

This place is the Swan Hill Riverfront.

The Swan Hill Riverfront Masterplan has been a whole-of-community experience with more than 2000 people providing feedback and information at various stages during its development. This has shaped a Masterplan that incorporates a balance of private and public investment, and will boost tourism and our economy through new experiences and business development, such as the Heart Beat of features will complement the uses of the park as a the Murray which is designed to promote our region community space and encourage increased activity and Ports of the Murray. It will create employment that will assist Council towards meeting its regional population target of 30,000 by 2030 and in retaining and attracting essential services such as health, railway infrastructure and tertiary education. There will also be opportunities to diversify the local economy and make us less vulnerable to seasonal fluctuations, international demand and exchange rates. The Masterplan will also aid in attracting external funding to provide a range of new or improved recreational facilities.

The Masterplan provides a strategic plan for future improvements along the riverfront to reinvigorate this public space and enhance its social, environmental, cultural and economic values. A key feature of the Masterplan is the family fun and activity precinct. Located between Riverside Park and the existing Caravan Park, it provides a focus for families and includes a regional adventure playground with a water play park and a family friendly skate park with shade and sheltered areas.

The Heart of the Murray Precinct is focused around Curlewis Street and has a number of features including the Swan Hill lift bridge and pedestrian underpass and the existing heritage water tower. This area will provide a physical connection to the CBD and will frame the entry into Swan Hill from New South Wales.

Riverside Park Precinct will build on the highly valued community space of Riverside Park, highlighting its sound shelter, large expanses of green space, the river trail, barbecues and amenities. These during the day and at night. Other key precincts within the Masterplan include the tourism, transport and rail, nightlife, food and beverage, art and culture, eco-accommodation and the natural riverfront and biodiversity.

One of the most exciting elements of the Masterplan is the creation of a direct connection from the CBD near McCrae Street to the riverfront. This connection would bring people into Riverside Park; the focus of passive open space and activity within the riverfront. A plaza would bookend this connection and commercial and community uses either side would activate the space both during the day and at night.

A Murray River Culture Centre will allow people to experience the history through our traditional land owners. This facility is envisaged to include interpretation of the Murray River pre and post European settlement, an aquarium to provide education about the river's native fish, information on the paddle steamer era, European settlements such as irrigation and dry-land farming and the role the Murray River played in the early transport (both freight and passenger).

The Masterplan for Swan Hill Riverfront is an important step towards the rejuvenation and development of the riverfront. It aims to create an attractive and inclusive public space along the river where the local community and visitors can meet, shop, play and relax for generations to come.

1.2 Acknowledgement to Country

The Swan Hill Rural City Council acknowledges the elders both past and present and the peoples of the Wamba Wamba, Barapa Barapa, Wadi Wadi, Tati Tati and the Latji Latji clans whose traditional lands form the Swan Hill Rural City Council municipality.

1.3 Message from the Mayor

It gives me great pleasure to present the Swan Hill Riverfront Masterplan.

This plan is a guide to the redevelopment of our riverfront over the next 30 years and highlights possible development opportunities for the riverfront and the need for connectivity to our shopping precinct.

From the beginning Council recognised the importance of involving the community during the development of the masterplan. It is this involvement that has made the plan unique and representative of what our community wants.

The plan not only highlights the amazing transformation our riverfront could take but also the many benefits this redevelopment will bring. We can look forward to an increase in tourism, the creation of jobs and a major boost to our economy.

The Swan Hill Riverfront Masterplan was seen as an integral project for the future of Swan Hill and was highlighted as an initiative in the Swan Hill Rural City Council Plan. This will be the first of many major projects from the Council Plan that will work towards the continued growth of the Swan Hill municipality.

In conclusion the Swan Hill Riverfront Masterplan is a living document that will guide the development and connectivity of our picturesque river.

1.4 Message from the CEO

It is an exciting time to live in the rural city of Swan Hill and I view the Riverfront Masterplan as one of the major catalysts that will further cement the municipality as a great place to visit, invest, work and live.

I commend the tremendous efforts of everyone involved in the creation of the Masterplan. Council now looks forward to implementing the Masterplan with each of the Council's directives playing a major role.

The Masterplan will play a vital role in the future of Swan Hill. It will see the creation of new assets, new business opportunities, new jobs and a wide range of community activities being undertaken.

Swan Hill Rural City Council looks forward to continuing to work with the community on this project and celebrating the many successful outcomes along the way.

Dean Miller - CEO, Swan Hill Rural City Council

Cr Les McPhee - Mayor, Swan Hill Rural City Council

2. Introduction

2.1 Project Overview

The Swan Hill Riverfront project is a masterplanning process to identify and explore the possibilities and potential of the riverfront in Swan Hill, in order to deliver an innovative, sustainable and appropriate design solution for its long term use, that responds to the valued character elements and community aspirations for the site.

The Swan Hill Riverfront Masterplan is the second stage of a two stage process. The process will consider and build on previous planning and work undertaken, as part of Stage 1 Masterplan for the Swan Hill CBD.

Key objectives of the Swan Hill Riverfront Masterplan are to:

- Produce a Riverfront Masterplan framed in a place-making approach, to create a great river precinct for locals and visitors.
- Undertake community and stakeholder engagement that is underpinned by a comprehensive engagement strategy and utilises techniques to inform, consult, involve, collaborate and empower the community and key stakeholders throughout the project process.
- Produce an achievable implementation plan which outlines priority projects which can be funded, documented and constructed in the short term as catalysts for future elements of the masterplan.
- Deliver sustainable and well considered public realm design and materials which create a durable public precinct for the City of Swan Hill, and allows the riverfront to adapt, change and evolve over time.

 Deliver a cohesive, innovative and creative public realm and open space outcome that reinforces the riverfront as the environmental and cultural heart of Swan Hill and sets the standard for future stages of its revitalisation.

2.2 Purpose of this report.

The purpose of this masterplan report is to outline a vision for the future renewal of the Riverfront Precinct in Swan Hill. It identifies underlying characteristics and design parameters which are important to the identity of the site and guides future use and development to enhance social, environmental, cultural and economic values.

The masterplan is informed by a vision, guiding principles and strategic aims, as identified in this report. These aim to ensure the precinct develops in a way that is consistent with community and stakeholder aspirations.

The masterplan has been informed by background research, site visits, community consultation, Swan Hill Rural City Council (Council) and Regional Development Victoria (RDV) feedback.

The key components of this masterplan report include:

- A vision for the precinct
- Guiding principles for the precinct
- Strategic aims for the precinct
- A framework plan
- A draft masterplan identifying future use and development of the site
- An implementation plan outlining priority
 'catalyst' projects which can be funded,
 document and constructed in the short term, as
 well as clear steps and responsibilities for future
 investment / funding.

2.3 Structure of this report

This masterplan report consists of the following key sections:

- Executive Summary
- Introduction Introduction to this report and the masterplanning process
- Background Information gathered from initial research including consultation, economic assessments and strategic planning context
- Site Description Analysis of the existing issues and challenges of the riverfront
- Masterplan A vision for the future use and development of the riverfront including a vision, guiding principles, strategic aims, framework plan, precinct plan, masterplan, vignettes and cross sections
- Character and Image Ideas Photo examples to guide the look and feel of the riverfront in the future
- Implementation Outlines an appropriate funding model, staging of proposed work and priority projects

2.4 Study Area

The Swan Hill Riverfront is located along the Murray / Marraboor River in Swan Hill and encompasses the Riverside access provided along Monash Drive and the Riverwalk Trail. Park, Milloo Wetlands, Swan Hill Riverside Caravan Park, the Pioneer Settlement, the Richards Swimming Centre, a skate park and the Swan Hill Regional Art Gallery.

The site is located adjacent the Swan Hill CBD, with primary

Figure 1: Study Area



2.5 Aims of the Riverfront Masterplan

From the outset of the project, a number of key aims were identified for the riverfront masterplan. These aims (as identified in the project brief) included:

- A structural change to the physical appearance of the Riverfront
- Improves the liveability, functionality and access to and along the Riverfront.
- Consider short term actions in addition to long term development aspects.
- Consider the needs of all stakeholders including existing and potential new businesses, all abilities access, cultural heritage issues and the community generally.
- Consider ongoing Asset Management of the Council assets within the Riverfront.
- Maximises the use of land access to the Murray River.
- Have regard to the water as an integral component of the masterplan.

These aims provided a guide for the riverfront masterplan and assisted in identifying improvements that would be integral to its future development. These aims were also considered in conjunction with feedback from community consultation and the social, economic and environmental objectives identified for the project (see opposite).

2.6 Objectives of the Riverfront Masterplan

The project brief for the riverfront identified objectives for the staged development and upgrade of existing and installation of new public infrastructure. These objectives were categorised under three broad headings; economic, social and environmental; and included:

Economic objectives:

- An improvement in the economic performance of the Riverfront as a result of increased local and tourist activity;
- Provide appropriate opportunities for Private Sector investment and use of various sections of the Riverfront;
- Flow on effects of increases in employment and tourist development;
- Provide active support for local businesses by recommending goods and services to be used during the implementation phase, where possible and in accordance with Council's Purchasing Policy, made or supplied locally.

Social objectives:

- Provision of interesting, comfortable and safe meeting places for a wide range of users;
- An increase in community well being brought about by pride and a sense of belonging, ownership and use;
- A recognition of the Aboriginal and European cultural heritage of the area and the elements that make Swan Hill different;
- An opportunity to showcase the talents and skills of local residents;
- The opportunity to utilise public space to display public art that reflects Swan Hill's identity;
- Inclusive access to the Riverfront to enable people of All Abilities to enjoy elements of the Riverfront;
- Link the Riverfront to each of its discreet elements including along the Riverfront from the southern to northern ends and to the Swan Hill CBD.

Environmental objectives:

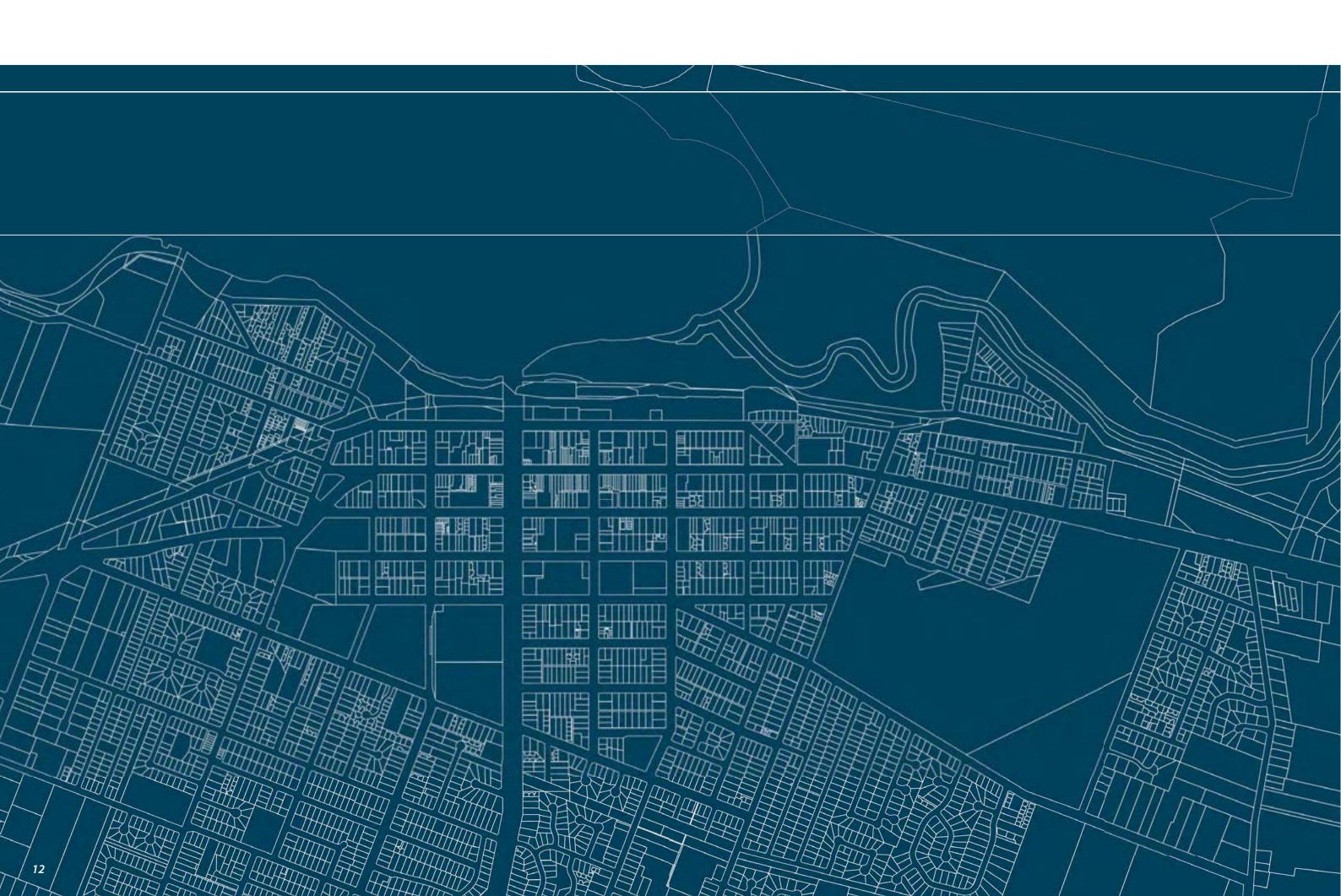
- Key sustainable design concepts to reduce impacts on the environment;
- Reduction in water use through the adoption of water saving and reuse ideas, where appropriate;
- Enhanced appreciation of the natural environment;
- Protection and appropriate presentation of Aboriginal and European cultural heritage.

These objectives were considered in the development of the riverfront masterplan.

2.7 Methodology

The masterplan process is illustrated in the diagram below.

Stage	Description	Time
1a	Project scoping phase	Nov. 2012- Dec. 2012
2b	Project research phase (analysis of existing site conditions, issues and opportunities, review of previous reports, etc)	Dec. 2012 - Jan. 2013
2b	Community and stakeholder engagement to discuss issues and opportunities and initial ideas for the Riverfront Precinct	Dec. 2012 - Feb. 2013
3a	Consideration of feedback and development of a vision, guiding principles and ideas plans	Feb. 2012 - Mar. 2013
3b	Consultation on the vision, guiding principles and ideas plan with key stakeholders and councillors	Mar. 2012 - Mar. 2013
4a	Consideration of feedback and development of the draft plan	Mar. 2012 - Apr. 2013
4b	Consultation on the draft masterplan for the Riverfront precinct	Apr. 2013 May 2013
5	Consideration of feedback and development of the final masterplan and implementation plan	May. 2013 - June. 2013
6	Approval process for the final masterplan WEAREHERE	June. 2013 - June 2013
7	Design development of priority projects	July 2013 - Onwards







3.2 Swan Hill Planning Scheme

3.2.1 Local Planning Policy Framework: Clause 21.05 **Environment**

Key objectives relevant to the Swan Hill Riverfront

 Objective 1 - To manage the Murray River corridor's environmental values and resource capacity.

Key strategies relevant to the Swan Hill Riverfront

- Strategy 1.1 Provide opportunities for better use and physical and visual integration of the River within river towns and promote the establishment of riverside urban precincts.
- Strategy 1.2 Ensure that land use activities and development adjacent to the Murray River Reserve protects environmental, visual and landscape values of the river and environs.
- Strategy 1.3 Develop the Murray River as a primary recreation, tourism and cultural focus for Swan Hill by implementation of the Swan Hill Riverside Precinct concept (1997).
- Strategy 1.4 Prevent conflict arising from agricultural, urban, tourism, recreational, and other uses and developments along the Murray River and on adjoining and nearby land.

3.2.2 Local Planning Policy Framework: Clause 21.10 -1 Local Areas - Swan Hill

Key messages for the Swan Hill Riverfront

- Longer term expansion of the CBD will occur to the north of McCallum Street. Development opportunities in Curlewis Street need to be placed within a broader framework of the Swan Hill Riverside Precinct and the traffic status of Curlewis Street.
- Encourage development proposals and the design of public space within the CBD that improve the physical and visual links to Riverside Park.
- Progressively develop the riverside precinct as a primary tourism, recreation and cultural focus with strong links to the CBD edge at Curlewis Street.
- Encourage the development of Curlewis Street as a Tourism Precinct by supporting proposed uses and developments that can potentially benefit from a river location.
- Continue to promote Riverside Park as a primary focus for leisure, heritage and nature appreciation, and tourism.

 Dwelling (other than bed and breakfast) New development/redevelopment within Riverside Park is to be guided by the design principles of the Swan Hill Riverside Precinct concept (1997).

3.2.3 Clause 32.01: Residential 1 Zone

A small portion of the riverfront, along the southern boundary, is located within Residential 1 Zone. The purpose of this zone is to:

- To provide for residential development at a range of densities with a variety of dwellings to meet the housing needs of all households.
- To encourage residential development that respects the neighbourhood character.
- In appropriate locations, to allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs.

A permit is NOT required for:

- Animal keeping (other than Animal boarding)
- Bed and breakfast
- Dependent person's unit
- Home occupation
- Informal outdoor recreation
- Minor utility installation
- Place of worship
- Railway
- Residential aged care facility
- Tramway

A permit IS required to:

- Subdivide land
- Construct or extend one dwelling on a lot of less than 300 square metres.
- To construct or extend a front fence within 3 metres of a street if the fence is associated with one dwelling on a lot of less than 300 square metres.
- Construct a dwelling if there is at least one dwelling existing on the lot.
- Construct two or more dwellings on a lot.
- Extend a dwelling if there are two or more dwellings on
- Construct or extend a dwelling if it is on common
- Construct or extend a residential building.
- Construct or extend a front fence within 3 metres of a street if the fence is associated with 2 or more dwellings on a lot or a residential building, and the fence exceeds a maximum height of 2m adjacent Road Zone, category 1 or 1.5m adjacent to all other streets.

Figure 3: Current Zoning





3.2.4 Clause 36.01: Public Use Zone

A small portion of the riverfront is located within the Public Use Zone (PUZ). The purpose of this zone is to:

To recognise public land use for public utility and community services and facilities.

To provide for associated uses that are consistent with the intent of the public land reservation or purpose.

A permit is NOT required for:

- Railway
- Railway Station
- Tramway
- Open sports ground
- Other uses to be carried out by or on behalf of a public land manager under the provisions of the Crown Land (Reserves) Act, 1978

A permit IS required to:

- Construct a building or construct or carry out works
- Subdivide land

3.2.5 Clause 36.02: Public Park and Recreation Zone

The majority of the riverfront is located within the Public Park and Recreation Zone (PPRZ). The purpose of this zone is to:

- To recognise areas for public recreation and open space
- To protect and conserve areas of significance where appropriate
- To provide for commercial uses where appropriate A permit is NOT required for:
- Informal outdoor recreation
- Open sports ground
- Contractor's depot, heliport, office, retail premises or store as long as the use is by or on behalf of a public land manager under the provisions of the Crown Land (Reserves) Act, 1978

A permit IS required to:

- Construct a building or construct or carry out works
- Subdivide land

3.2.6 Clause 36.03: Public Conservation and Resource Zone

A portion of the riverfront located to the south is within the Public Conservation and Resource Zone (PCRZ). The purpose of this zone is to:

- To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.
- To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.
- To provide for appropriate resource based uses.
 A permit is NOT required for:
- Boat launching facility
- Camping and caravan park
- Caretaker's house
- Car park
- Informal outdoor recreation
- Interpretation centre
- Jetty
- Kiosk
- Marine dredging
- Mooring pole
- Open sports ground
- Pier
- Pontoon
- Road
- Utility installation (other than Telecommunications facility)

A use conducted by or on behalf of a public land manager or Parks Victoria under the relevant provisions of the Local Government Act 1989, the Reference Areas Act 1978, the National Parks Act 1975, the Fisheries Act 1995, the Wildlife Act 1975, the Forest Act 1958, the Water Industry Act 1994, the Water Act 1989, the Marine Act 1988, the Port of Melbourne Authority Act 1958 or the Crown Land (Reserves) Act 1978.

A permit IS required to:

- Construct a building or construct or carry out works
- Subdivide land

3.2.7 Clause 42.01: Environmental Significance Overlay

Environmental Significance Overlay 1 (ESO1) - Waterway, Wetlands and Lakes Environs applies along the edge of the riverfront, adjacent the Murray River.

The purpose of this overlay is to:

- To identify areas where the development of land may be affected by environmental constraints.
- To ensure that development is compatible with identified environmental values.

A permit IS required to:

- Construct a building or construct or carry out works.
- Construct a fence
- Construct bicycle pathways and trails.
- Subdivide land.
- Remove, destroy or lop any vegetation, including dead vegetation.

The environmental objectives of ESO1 include:

- To protect and enhance the natural environment and cultural heritage qualities of the Murray River and its branches as a major waterway of local, regional, state, national and international significance
- To maintain the quality and availability of water within waterways and water bodies
- To ensure that any use, development or works in the environs of waterways, wetlands and lakes are of a scale, character and form that is compatible with the high environment quality of these systems
- To promote tourist and recreational activities in the vicinity of watercourses, wetlands and lakes subject to the design, siting and landscaping of development to protect the values of these environments
- To protect and enhance the biodiversity, ecological, and cultural values of waterway, wetland and lake environments
- To protect the visual and environmental qualities of waterways, wetlands and lakes, restricting the use and development of land in these areas to maintain these qualities
- To maintain the ability of waterways to carry natural flows
- To prevent the erosion and siltation of waterways and adjoining land
- To provide for the use and development of land adjacent to Lake Boga for tourist and recreational purposes, while protecting the natural beauty and amenity of the area

3.2.8 Clause 43.01: Heritage Overlay

Heritage overlays apply to a number of sites along the riverfront. The purpose of this overlay is to:

- To conserve and enhance heritage places of natural or cultural significance.
- To conserve and enhance those elements which contribute to the significance of heritage places.
- To ensure that development does not adversely affect the significance of heritage places.
- To conserve specifically identified heritage places by allowing a use that would otherwise be prohibited if this will demonstrably assist with the conservation of the significance of the heritage place.

A permit IS required to:

- Subdivide land.
- Demolish or remove a building.
- Construct a building or construct or carry out works
- Externally alter a building by structural work, rendering, sandblasting or in any other way.
- Construct or display a sign.
- Externally paint a building if the schedule to this overlay identifies the heritage place as one where external paint controls apply.
- Externally paint an unpainted surface.
- Externally paint a building if the painting constitutes an advertisement.
- Internally alter a building if the schedule to this overlay identifies the heritage place as one where internal alteration controls apply.

- Carry out works, repairs and routine maintenance which change the appearance of a heritage place or which are not undertaken to the same details, specifications and materials.
- Remove, destroy or lop a tree if the schedule to this overlay identifies the heritage place as one where tree controls apply.

Heritage Places and associated land located within the Swan Hill Riverfront study area include:

Victorian Heritage Register

- HO151 Paddle Steamer Gem, Swan Hill Pioneer Settlement, Monash Drive Swan Hill
- HO214 Swan Hill Bridge, Swan Hill Road, Swan Hill

Local Significance

- HO138 Water Tower, McCallum Street (cnr Monash Drive), Swan Hill
- HO139 Wharf site, McCallum Street (James Belsar Reserve), Swan Hill
- HO148 Customs House Site and Bluestone Well, Monash Drive (near bridge), Swan Hill
- HO149 Lower Murray Water Pumping Station No. 1, Monash Drive (opposite swimming pool), Swan Hill
- HO150 Railway Turntable, Monash Drive (opposite caravan park), Swan Hill

3.2.9 Clause 43.02: Design and Development Overlay

Design Development Overlay 2 (DDO2) – Swan Hill River Precinct applies to the majority of the riverfront, including adjacent to Swan Hill CBD. The purpose of this overlay is to:

• To identify areas which are affected by specific requirements relating to the design and built form of new development.

A permit IS required to:

- Construct a building or construct or carry out works.
- Construct a fence;
- Construct or carry out works associated with a Minor utility installation
- Construct an open structure associated with Passive recreation;
- Construct an amenities block; or
- Construct or carry out buildings and works to the minimum extent necessary for actions undertaken by or on behalf of the Roads Corporation in the construction of the Swan Hill Bridge replacement project and associated works.

The design objectives of DDO2 include:

- To establish Swan Hill River Precinct as the primary public space for Swan Hill regional centre.
- To establish Swan Hill River Precinct as a focus for leisure , Subdivide land cultural and tourism opportunities.
- To reinstate the natural landscape of the Murray River.
- To protect heritage assets and provide for interpretation of Swan Hill's cultural heritage.
- To have regard to those elements that significantly contribute to the special landscape character of the area.
- To progressively provide for uninterrupted access to the Murray River.
- To develop stronger physical and visual links between the River reserve and the edge of the Swan Hill Central Business Area.
- To develop Curlewis Street as Swan Hill's premier tourist precinct by encouraging tourism retailing and facilities, continuous street frontages and active uses at street level.

3.2.10 Clause 44.04: Land Subject to Inundation Overlav

Land Subject to Inundation Overlay applies to waterways adjacent the riverfront, including both the Murray River(part) and the Marraboor River. The purpose of this overlay is to:

- To identify land in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority.
- To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise

 A permit IS required to: in flood level or flow velocity.
- To reflect any declaration under Division 4 of Part 10 of the Water Act, 1989 where a declaration has been made.
- To protect water quality in accordance with the provisions of relevant State Environment Protection Policies, particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).
- To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health

A permit IS required to:

- Construct a building or to construct or carry out works

3.2.11 Clause 45.01: Public Acquisition Overlay

Public Acquisition Overlay 3 (PAO3) – Swan Hill Bridge replacement project and associated works applies to a portion of the riverfront, located to the south of McCallum Street. The purpose of this overlay is to:

- To identify land which is proposed to be acquired by an authority.
- To reserve land for a public purpose and to ensure that changes to the use or development of the land do not prejudice the purpose for which the land is to be acquired.

- Construct a building or construct or carry out works
- Damage, demolish or remove a building or works.
- Damage, remove, destroy or lop any vegetation.
- Subdivide land.

Figure 4: Existing Overlays



3.3 Regional Plans and Strategies

3.3.1 Loddon Mallee Regional Strategic Plan, Northern Region

The Regional Strategic Plan provides a framework for planning to support the region to maximise opportunities and manage future growth and change in a way that strengthen the economy, helps people to thrive and protects the natural and cultural environment. It aims to improve the way projects are identified, prioritised, supported and delivered in the region in the future. In order to focus how challenges are addressed and opportunities are embraced, seven strategic directions for the region were identified. These include:

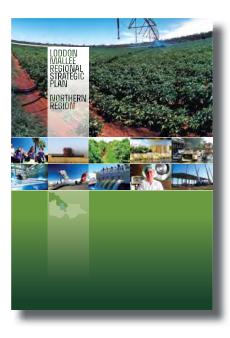
- Balance our irrigation, amenity and environmental water needs
- Strengthen our settlement and communities, especially our small towns
- Strengthen and diversify our economy
- Improve our infrastructure
- Improve education and training outcomes
- Protect and enhance our natural environment
- Resolve our cross-border issues

Key messages for the Swan Hill Riverfront Masterplan

Based on the seven strategic directions identified in the document, a series of priority actions and key initiatives have also been developed. Those relevant to Swan Hill Riverfront include:

- Invest in and advocate for place-based community planning; strengthening community leadership models; improving transport connections; encouraging joined up government service delivery; and investing in urban renewal (including community hubs, recreation facilities and streetscape enhancement) to improve the liveability of small towns and their ability to manage change.
- Invest in public infrastructure that will encourage more private investment in tourism. Key areas of focus include the Murray River and lake systems, key regional walking trails as outlined in the Loddon Mallee Regionally Significant Trails Strategy, National Parks and other significant/ iconic trails, touring trails and natural or cultural assets.

- Through regional planning processes (including Regional Catchment Strategies) assess the risks to the region's natural environments and agricultural systems from climate change to identify priorities and invest in further research and on ground activities to maintain or build resilience of natural ecosystems and dryland and irrigation farming systems.
- Develop cultural heritage and other tourism opportunities around our unique natural heritage features.



3.3.2 Loddon Mallee Regionally Significant Trails Strategy, August 2010

The Loddon Mallee Regionally Significant Trails Strategy identifies seven proposed or regional significant trails. These trails have the potential to:

- Attract domestic and regional visitors to the area
- Showcase the unique landscape and cultural features
- Invigorate local communities
- Enhance the regions reputation as a key competitive and recreational cycling centre
- Provide recreational opportunities for local residents.

The Murray River Experience Trail , which passes through the subject site, is considered one of these seven regionally significant trails.

The strategy also identifies principles for significant trails within the Loddon Mallee Region which include:

- Sustainability trail is designed and constructed sustainably, with minimal impact on the environment
- Ongoing Support ongoing commitment by land managers and the communities in which the trails are located to mange and develop the trails cooperatively
- Diversity provide a broad range of different experiences and meet the needs of a diversity of trail users, eg walkers, cyclists, horse riders, canoeists / kayakers of all abilities
- Quality Experience trail provides users with a quality experience through appropriate trail standards, interpretive information, safety, supporting infrastructure, etc.
- Access and Equity trail is accessible from towns and major roads, trails are dispersed throughout the region
- Provides Benefits trail provides a range of physical, social, environmental and economic benefits to the communities in which they are located and to users of the trail

Key messages for the Swan Hill Riverfront Masterplan

The strategy provides a detailed description of the Murray River Experience Trail, including an overview of opportunities and challenges. Relevant notes for the trail between Swan Hill and Nyah – 50km are:

- Users
 - Touring cyclists on hybrid or mountain bikes
 - Walkers for shorter sections
- Key Features and Attractions
 - The river environment, River-Red gum country
 - Rural country side
 - Horticulture development
 - Early settler history
 - Places of significance for Aboriginal communities.



3.4 Local Plans and Strategies

3.4.1 Swan Hill Rural City's Council Plan, 2009-13

The Swan Hill Rural City's Council Plan, 2009-13 is a key strategic document that establishes a vision, key directions, strategic objectives and initiatives that Council will pursue to

The vision for Swan Hill is:

'A vibrant community that displays growth and sustainability with a strong identity and confidence in a prosperous future by working together'

The key directions are:

- 1. Sustainable Communities.
- 2. Economic Growth.
- 3. Environmental Management.
- 4. Governance and Leadership.

Key messages for the Swan Hill Riverfront Masterplan

Key objectives and initiatives relevant to the site include:

1. Sustainable Communities.

- Objective 3 Developing a safer community
 - Provision of Public Lighting
 - Provision, maintenance and upgrading of Footpaths & Bicycle Paths in accordance with endorsed Asset Management Plans and Programs
 - Control of vehicle parking
 - Participate in the development of the Loddon Mallee Iconic Trails Strategic Plan
- Objective 4 Facilitate and provide services for health and wellbeing
 - Implement actions identified in the Swan Hill Reserves Masterplan, Swan Hill Riverfront Masterplan, Playgrounds Strategy, Water Management Strategy, and Drainage Strategy
- Objective 5 Celebrating our identity
 - Providing a range of diverse cultural and Arts experiences e.g. festivals, regional arts development, Swan Hill Regional Art Gallery, Performing Arts
 - Preserving important heritage e.g. Pioneer Settlement, community museums, Library Local History Collection
 - Using Public Art for as an expression of identity and culture

- Implementation of the Pioneer Settlement
- Complete redevelopment plan for the Swan Hill Art Gallery
- 2. Economic Growth.
- Objective 2 Housing
 - Identify additional areas suitable for development within commuter distance of Swan Hill
 - Investigate areas suitable for river front housing
- Objective 5 Attracting new business
 - Finalise development and begin implementation of the Central Business District Masterplans for Swan Hill including links to riverfronts
- Objective 7 Infrastructure
 - Operation of caravan parks at Swan Hill
 - Lobby for replacement of the Swan Hill Bridge
 - Operate the Pioneer Settlement
 - Complete riverfront plans for Swan Hill
 - Commence implementation of Swan Hill Riverfront Plans
 - Develop and commence implementation of Central Business District plans for Swan Hill that link to the riverfronts
 - Review caravan park lease arrangement of Swan Hill Riverside Caravan Park
 - Investigate the potential for new municipal offices in Swan Hill as part of mixed use development
- 3. Environmental Management.
- Objective 1 Contributing to good environmental outcomes for the Murray River, its environs and the lake
 - Services that contribute to good environmental outcomes for the Murray River, its environs and the lake systems
- Objective 2 Contributing to good environmental outcomes for the Mallee and bushland reserves
 - Protection of roadside vegetation
 - Pest plant and weed control on Council owned land.

3.4.2 The City of Swan Hill Community Plan, 2011-

The Swan Hill Community Plan aims to provide information to the wider community and to engage people who live, work, rest, visit and play in Swan Hill in the community planning process. The community plan has been developed through a collaborative process undertaken between Council and the community.

Key messages for the Swan Hill Riverfront Masterplan

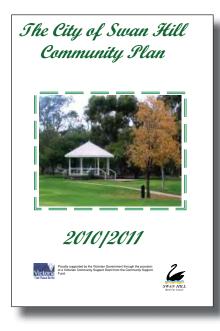
Through the community planning process a number of community statements and projects where identified. Those relevant to the Swan Hill Riverfront include:

Project Three: Strengthen And Build On Current Infrastructure The Public Health and Wellbeing plan identifies a number - Initiative One: River Precinct

Key Achievements/Actions for 2010/2011

- Invite Council representatives to discuss the River Precinct with the community.
- Identify actions and create a plan for progress.
- To provide information on progress to the community at Community Plan Meetings.

Special Note: Supporting documentation 'The Swan Hill River Precinct Masterplan'



3.4.3 Public Health and Wellbeing Plan 2009-2012

The Public Health and Wellbeing Plan provides a guide for strategic and integrated local public health planning. It aims to protect and improve public health and wellbeing of all communities in Swan Hill. The plan consists of two key documents:

- A Background Paper, which collates relevant information in relation to health and wellbeing in Swan Hill
- A Strategic Plan, which integrates the Community Plan and provides strategies initiatives for creating a sustainable community.

Key messages for the Swan Hill Riverfront Masterplan

of strategies arising from the public health and well-being process. The strategy relevant to the Swan Hill Riverfront is:

Provide facilities, develop and maintain infrastructure to encourage physical, recreational and social activities.

3.4.4 Swan Hill Rural City Council. Economic **Development Strategy 2011-2016**

The Economic Development Strategy is a key strategic document that will guide Swan Hill Rural City Council through the implementation of economic development activities to 2016. The document identifies 5 strategic themes identified through the Swan Hill Rural City Council, Council Plan as critical to the economic prosperity of the shire. These include:

- Attracting new business investment
- Supporting existing businesses to grow
- Marketing the region
- Addressing infrastructure needs
- Education and skills development

Key messages for the Swan Hill Riverfront Masterplan

The documents outlines a number of large projects considered critical to the economic development process within the shire. Those relevant to Swan Hill Riverfront include:

- The Swan Hill Bridge Development
- Swan Hill Riverfront Masterplan
- Pioneer Settlement Redevelopment

3.4.5 Swan Hill Rural City Council, Youth Strategy 2009-2013 Summary Document

The Swan Hill Rural City Council Youth Strategy provides a framework for the future direction of youth within Swan Hill and represents Council's commitment to working with, listening to and valuing young people's contribution to the future. Developed through extensive community consultation, the strategy highlights issues of concern for youth across the municipality and identifies strategies/key areas, actions and outcomes in response.

Key messages for the Swan Hill Riverfront Masterplan

Key areas identified within the Youth Strategy include:

- Young people want to participate in and influence the future of their communities
- Young people want things to do and places to hang out
- Young people want a range of education, employment and career opportunities
- Young people want supportive relationships with family, their peers and other adults in the community
- Young people want to be healthy and safe
- Young people want to be able to get around and have suitable places to live

Key actions for the Swan Hill Riverfront Masterplan include:

- Young people want to participate in and influence the future of their communities
 - Ensure all relevant community consultation information is shared with key stakeholders, above all young people
 - Consult broadly and effectively with young people on matters that relate to them
 - Develop a consultation resource to assist Service Providers and Council to undertake inclusive and effective consultation with youth
- Young people want things to do and places to hang out
 - Build partnerships to facilitate a variety of entertainment and recreation options
 - Ensure youth input across the municipality into:
 - CBD redevelopment projects
 - Riverfront development projects
 - Parks and recreation facility planning projects
 - Public art/performing arts projects
 - Upgrade/install seating, shade and drinking fountains in youth spaces

3.4.6 Child and Youth Friendly Charter

The Swan Hill Child and Youth Friendly Charter provides a vision and recommendations to guide current practice and planned infrastructure and program development within Swan Hill. It was developed through comprehensive community consultation and guided by Swan Hill Rural City Council's commitment to community involvement in and ownership of community projects.

Key messages for the Swan Hill Riverfront Masterplan

The Child and Youth Friendly Charter outlines a number of recommendations in relation to the following community groups:

- Children
- Youth
- Families
- General Service
- Business.

Recommendations relevant to the Swan Hill Riverfront include:

- Children 'Interesting and safe places to play offering a variety of entertainment options for different ages, interests and needs'.
- 'A clean, safe and beautiful environment to live in without rubbish, pollution and graffiti and a safe and happy home.
- Youth 'Family friendly places where families can spend time together and a youth centre as a central meeting place for youth.'
- Families 'Family friendly infrastructure.'
- Business 'Family friendly infrastructure.'

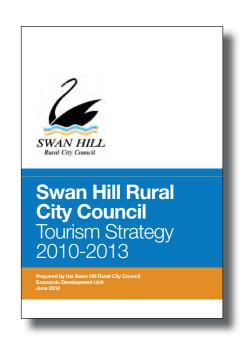
3.4.7 Swan Hill Tourism Strategy, 2010-2013

The tourism strategy provides a framework for the marketing and development of Swan Hill Rural City as a tourism destination. It provides objectives and strategies in the pursuit of increasing visitor numbers, yield, visitor nights and expenditure in the region. The objectives identified include:

- Objective One: Community Awareness
- Objective Two: Partnerships
- Objective Three: Tourism Excellence
- Objective Four: Investment & Infrastructure
- Objective Five: Marketing

Key messages for the Point Grey Precinct Plan

The document notes Pioneer Settlement and the Murray River as key attractions within the shire



3.5 Swan Hill Bridge Replacement Studies

3.5.1 Swan Hill Replacement Bridge Planning Study, Social Impact Assessment, March 2009

The Social Impact Assessment Study aims to determine a suitable location for the Swan Hill Replacement Bridge. The document provides an assessment of the six alignment options and the potential impact on residents, community facilities and services, recreation areas and local attractions, including impacts on community access and social values and considers measures to mitigate any identified social impacts.

The following objectives were used to help analysis the most appropriate bridge location:

- To improve safety and meet the long term future traffic needs of Swan Hill and the wider region including the provision of freight
- To meet current road design standards while maintain existing navigation clearances for boats, access to properties and provisions for rail
- To provide a viable level of economic performance for the local and regional economy of Swan Hill
- To protect existing land uses and the character of landscapes, open space and recreation values to the extent practicable
- To protect residents amenity and well-being by minimising dislocation and severance of residents to the extent practicable
- To minimise impacts on indigenous cultural heritage and negotiate appropriate mitigation measures to the extent practicable
- To minimise impacts on post settlement cultural heritage and provide appropriate mitigation measures to the extent practicable
- To minimise impacts on biodiversity and provide appropriate mitigation measure to the extent practicable
- To minimise impacts on surface water quality, flood risks and groundwater.

Key messages for the Swan Hill Riverfront Masterplan

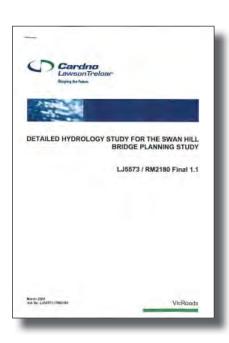
The assessment of the social impacts against the project objectives identified that Option 9a has the least social impact of the options assessed and the negative social options are generally capable of being mitigated either through design or future development activities.

3.5.2 Detailed Hydrology Study for the Swan Hill Bridge Planning Study, Cardno Lawson Treloar, March 2009

The detailed hydrology study investigates six potential bridge alignment options for the Swan Hill bridge over the Murray River. As part of this investigation, each option was assessed in regards to the required mitigation works and material costs, with recommendation for further work also included.

Key messages for the Swan Hill Riverfront Masterplan

- The existing bridge is included on the New South Wales State Heritage Register and the register of National Estate and by the National Trust of Australia (Victoria).
- All six options would impact the Swan Hill Riverfront study area.
- All six alignment options were considered comparable in terms of minimising impacts on flood risk, water quality and groundwater.
- Option 9a alignment (extends from Curlewis Street, between McCallum Street and McCrae Street, through Riverside Park) was considered to perform the best in regards to the required mitigation works and associated costs. See plan opposite for indicative alignment of Option 9a.
- Social and cultural implications of the six alignment options were not considered as part of this study.

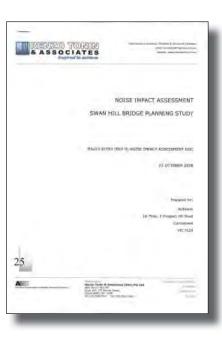


3.5.3 Noise Impact Assessment, Swan Hill Bridge Planning Study, Renzo Tonin & Associates, October 2008

The Noise Impact Assessment was undertaken by VicRoads to determine a suitable location for the replacement of the Swan Hill bridge. The document outlines the results of a noise impact assessment for six replacement bridge alignments across the Murray River. As part of this assessment, noise mitigation measures were also considered in terms of at road noise control treatments and at dwelling noise controls.

Key messages for the Swan Hill Riverfront Masterplan

- For the year 2026, bridge alignments Option 4b high, Option 4b intermediate and Option 9a were the ones that least exceed the applicable noise level objectives and include the least number of potentially affected residential properties.
- For the year 2026, bridge alignment Option 9a (extending from Curlewis Street, between McCallum Street and McCrae Street, through Riverside Park) obtained the best result of 'well' in terms of relative predicted traffic noise changes attributable to proposed bridge option.

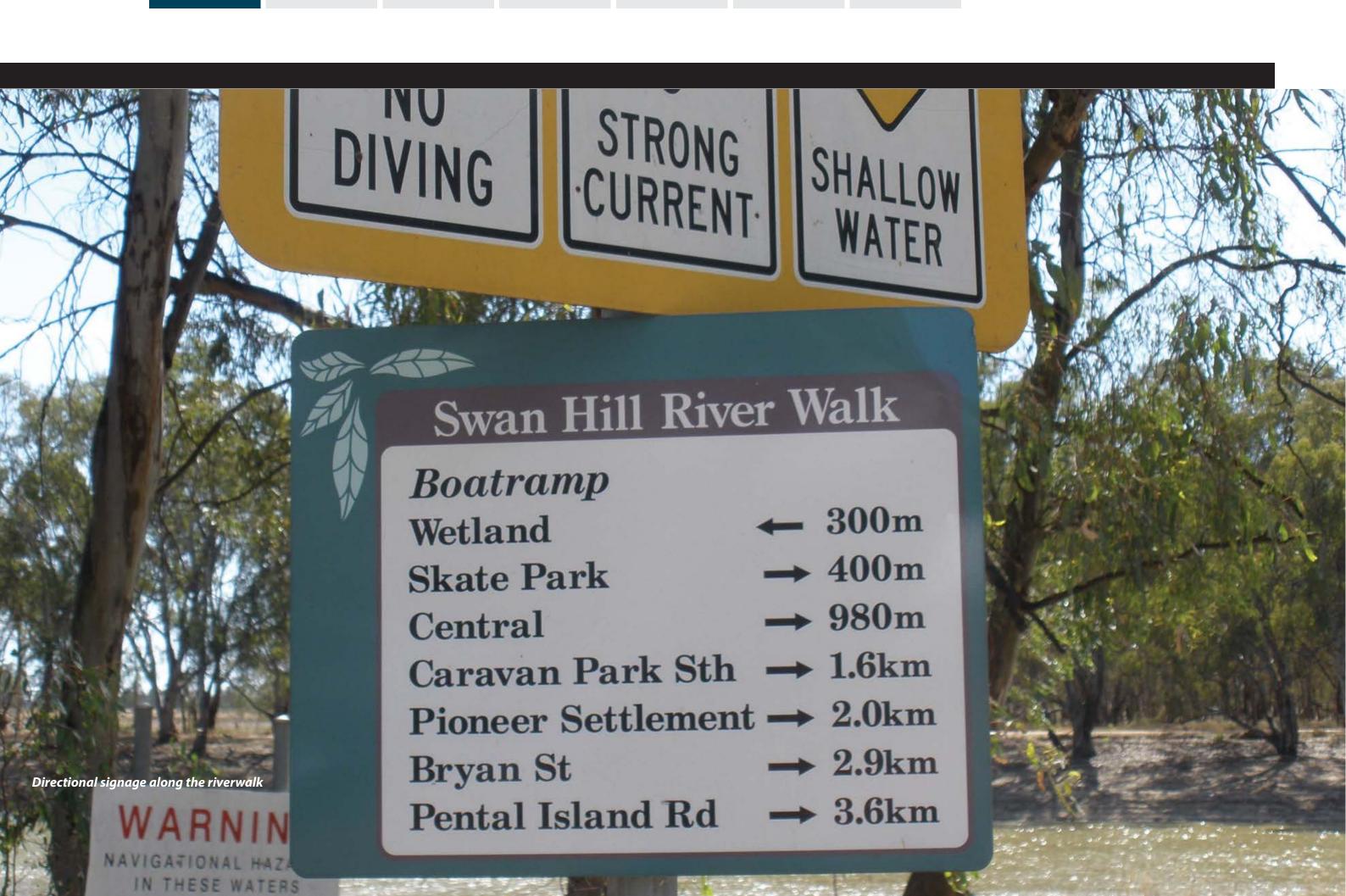


3.5.4 Detailed Flora and Fauna Assessment, Options Analysis and Impact Assessment

The Brett Lane report provides a detailed assessment of flora and fauna values for six alignment options of the proposed Swan Hill bridge crossing of the Murray River. The assessment aimed to identify the implications of the six alignment options relevant to Victorian and New South Wales legislation and policy.

Key messages for the Swan Hill Riverfront Masterplan

- While an existing wildlife corridor extends along the Murray River and its banks, a high percentage of weeds and exotics grasses meant this habitat was considered only moderate quality for fauna.
- Aquatic habitat was considered to be moderate quality for fauna and urban and cleared areas were considered low quality for fauna.
- No flora and fauna species listed as rare or threatened under state or federal legislation were recorded in the study area encompassing the six alignment options.
 No threatened fauna species were considered likely to regularly occur here.
- All six alignment options would require the removal of Riverine Grassy Woodlands (EVC 295) and a high number of large trees adjacent to the Murray River. Offsets for this vegetation removal (within Victorian jurisdiction) would be required based on DSE guidelines.
- All six alignments were considered to have low to moderate potential impact on native fauna and aquatic habitats.
- All six alignment options were rated against the objective to 'minimise impacts on biodiversity'. Based on this rating option 9a intermediate was considered the only options to 'meet objective well'. Alignment of Option 9a indicatively extends from Curlewis Street, between McCallum Street and McCrae Street, through Riverside Park and across the Murray River to Moulamein Road (New South Wales).



3.5.5 Swan Hill Bridge Planning Study, Information Day, VicRoads September 2009

The package provides information on the Swan Hill Bridge Planning Study at that particular point in time (September 2009). The package provides a summary of the Phase 1 process in which 6 alignment options for the Swan Hill Bridge were identified. It also indicates that Phase 2 will assess the options and provide recommendations for a preferred bridge alignment. As part of the assessment of the options, analysis regarding road and bridge design, noise impacts, flora and fauna, hydrology, aboriginal cultural heritage, non indigenous cultural heritage, traffic, existing bridge heritage issues, social impact assessment, lane use and landscape assessment has been undertaken. The package provides a summary of this analysis.

Key messages for the Swan Hill Riverfront Masterplan

Key messages for the Swan Hill Riverfront masterplan include:

- All bridge options would include a 2.5m pedestrian and bicycle path on bridge
- No flora or fauna species of State or National significance were recorded in the study area
- No flora or fauna species of State or National significance are likely to occur within the study area
- Habitat is considered to be of low to moderate quality
- There is a burial / mound site (archealogical potential site) on site
- Low level archaeological sensitivity zone adjacent to river bank. Areas further from riverbank have moderate level sensitivity.
- There are heritage sites listed by the Swan Hill Rural City Council as locally significant on site
- An unidentified ship wreck of national significance is located approximately south of Goat Island
- Due to the existing Swan Hill Lift Bridge's heritage listings (in both New South Wales and Victoria), consent cannot be given for the bridge to be demolished or relocated.
- Heritage Authorities preference for the future use of the lift bridge is that:
 - It will be maintained in a useable condition
 - 'Valued' views will be retained to the bridge
 - Future role of the bridge subject to agreement between key stakeholders
 - Note 'The site' in this instance relates to land impacted by the six bridge alignment options and not the riverfront masterplan site.

Figure 5: Swan Hill Bridge Planning Study, Preliminary Concept Drawing



3.6 Masterplans / Feasibility

3.6.1 Interpretive Centre and Large Object Conservation Facility, Architectural Report and Concept Drawings, August 2010

The report provides schematic concept plans for a new Interpretive Centre and Large Object Conservation Facility at the Swan Hill Pioneer Settlement. The report responds to previous planning and design work, including extensive analysis and consultation, which concluded the settlement currently lacks of suitable storage, exhibit and interpretation faculties. The redevelopment work proposed within the report aim to address a decline in visitor numbers and assist the Settlement in repositioning itself within the tourism market. The concept plan was prepared in consultation with a range of key stakeholders and is intended to be implemented over a number of stages, allowing the settlement to remain open during the proposed redevelopment.

Key messages for the Swan Hill Riverfront Masterplan

Key design principles which form the basis of the concept plan include:

- Enhance the visitor experience through reinforcing & supporting the current elements of the settlement Main street, Pioneer Village, Tractor & Machinery display
- Reinforce the story of "Living on the Mallee" through the themes of earth, wood & water
- Create a sense of 'entry' to the Settlement; a strong & welcoming 'front door' that provides a transition from Monash Drive to the activated Settlement
- Develop activation along Monash Drive by locating new buildings & activities to address the street

- Open up the Settlement to Monash Drive & Swan Hill generally. Improve on views within & through the Settlement to the river front & mallee
- Build on the Settlement's relationship with the existing river front public spaces & establish it as a key part of the 'Riverfront Cultural Precinct'
- Improve the Settlement approach & experience from Monash Drive thru signage, traffic calming, better pedestrian amenity & improved parking & drop off zones
- New building works to represent modern experiences & interpretation of the mallee environment; continuation of the story of adaptation to the mallee environment
- Works to be environmentally sustainable & utilise local & recycled materials to reflect the mallee & local region
- Implementation of Crime Prevention through Environmental Design (CPTED) strategies to public spaces along Monash Drive & within the site

The report also adopts the plans included in the Swan Hill Art Gallery Feasibility Report including the removal of car parking between the gallery and PS GEM and the formalisation of car parking.

Other opportunities identified include

- The opportunity to relocate the PS Gem and reclaim this space for community events.
- Provide an additional vehicular entry point into the settlement (adjacent the existing rotunda) to cater for wedding functions
- Replace the existing wharf, which is in poor condition.
- Further develop the relationship between Spoons and the Settlement through upgrades and expansions to the restaurant outdoor dining area.
- Develop an Indigenous Keeping Place (potentially located on Pental Island) to acknowledge the indigenous history of the settlement site and the region.

Stage 1 of the proposed works are currently underway.

Figure 6: Stage 1.2 - Concept Plan



Figure 7: Stage 2.2 - Concept Plan



Figure 8: Stage 3 - Concept Plan



3.6.2 Swan Hill River Precinct Project, Concept Plan and Report, March 1997

The Swan Hill River Precinct Project provides a 'cultural vision' for the future development of the river precinct within Swan Hill. The concept plan, released in 1997, was developed through extensive analysis and consultation with the Swan Hill community and key stakeholders. The report provides a vision, principles and goals for the future of the River Precinct.

Key messages for the Swan Hill Riverfront Masterplan Masterplan Vision

The vision developed for the river precinct in 1997 was

■ 'The Swan Hill River Precinct will develop its identity as the focal point for the social and cultural life of Swan Hill, by reflecting the richness of the heritage of the region and providing opportunities for the growth of local people and the local economy.

Masterplan Principles

The vision was underpinned by the following principles which were established from community consultation and research processes.

- The river should be the primary public space for the Swan Hill community
- The river environs should be a focus for cultural and leisure opportunities
- The integrity of the natural environment should be respected and enhanced
- The heritage of the diverse community within the Swan Hill region should be recognised and celebrated in the precinct
- The presentation and design of the precinct are central to the identity and image of Swan Hill
- The tourism potential of the river can only be realised if the river environs are an important focus for the local community
- The development of economic and tourism opportunities should be in sympathy with the cultural heritage and natural environment of the area
- The planning, management and programming of all facilities in the precinct require an integrated approach to maximise their potential

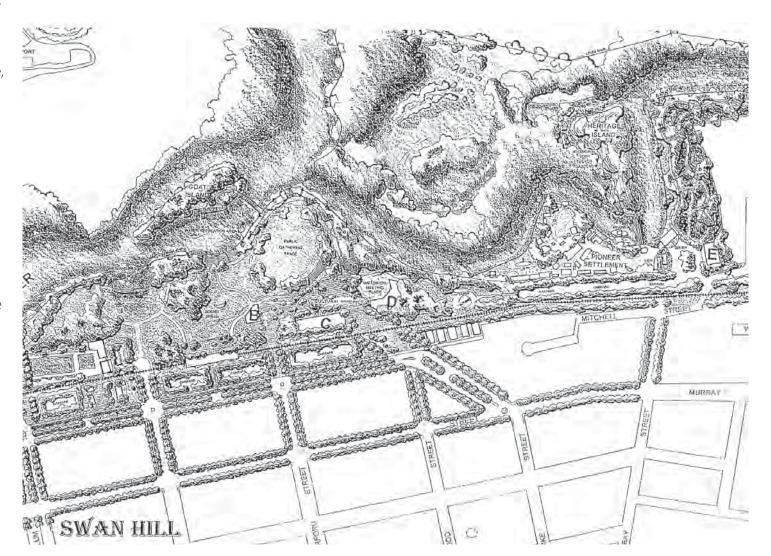
Masterplan Goals

Based on this vision and principles the following goals were developed for the future role and development of the precinct:

- To achieve uninterrupted public access to the riverfront
- To provide a diverse range of formal and informal leisure, education and cultural opportunities in the precinct
- To enhance the present and appreciation of the river as part of the lifestyle of Swan Hill
- To enhance the profile and understanding of Koorie culture in the Swan Hill region
- To enhance community ownership and usage of the precincts major facilities
- To support heritage initiatives which expand the scope and quality of heritage information and interpretation
- The presentation and design of the precinct are central to the identity and image of Swan Hill
- To ensure an integrated approach to the planning of the built and natural environment.

These goals are supported by strategies within the report.

Figure 9: Swan Hill River Precinct Master Plan 1997 (part)



3.6.3 Swan Hill Reserves Master Plans, October 2007

In 2006, the Swan Hill Rural City Council commissioned a study to prepare masterplans for the four main recreation reserves in Swan Hill. These reserves included:

- Swan Hill Showground's and Recreation Reserve
- Alan Garden Memorial Reserve
- North Park Reserve
- Ken Harrison Sporting Complex

The purpose of this masterplans process was to provide a framework for the future use and development of each reserve. Developed through an extensive community consultation process, research and analysis, the plans consider current recreational opportunities available, future opportunities and the broader recreational needs of the community.

Key messages for the Swan Hill Riverfront Masterplan

The four main recreation reserves in Swan Hill (and the subject of this study) are all located outside the Swan Hill Riverfront study area. This being said, the masterplans does have implications for the Swan Hill Riverfront which include:

- Alan Memorial Garden Reserve
 - The current preferred site for the future relocation of the Swan Hill Outdoor Pool is adjacent to the Swan Hill Leisure Centre to create an integrated aquatic and health& fitness facility, and to support the City's long-term aim to better connect the Murray River to Town Centre (by removing the outdoor pool from Riverside Park).

3.6.4 Swan Hill Art Gallery, Feasibility Report, 2009

The feasibility report aims to determine the future and upgrade potential of the Regional Art Gallery in Swan Hill. The report presents a concept option for the site as the basis for cost plan and feasibility analysis.

$\label{thm:continuous} \textbf{Key messages for the Swan Hill Riverfront Masterplan}$

Key features of the Regional Art Gallery concept include:

- Bus parking relocated to remove bus circulation from between buildings
- Improved access and circulation by relocating access into the site.
- Bus drop off point provided along Monash Drive with clear access provided to the site and Spoons.
- Landscaping in front of the gallery, providing for passive enjoyment but also suitable for functions external of the gallery. This incorporates a shared zone.
- Clear access between the east side car park and the gallery via a defined pathway.
- All residential traffic removed from the site. Option to provide long term access for residents via a laneway behind the gallery building.
- Upgrades to lighting
- Encourage a complementary and active use of the cottages site to reinforce the role and function of the prominence of the site.

Figure 10: Swan Hill Regional Art Gallery - Proposed Site Plan





3.6.5 CBD Streetscape Master Plan 'An Oasis by the River', November 2009

The CBD masterplan aims to guide the future development of public spaces and streetscapes within the Swan Hill CBD, to enhance social, cultural and environmental visions.

The masterplanning process included council, community and stakeholder consultation and identified objectives, concepts, plans and ideas for the revitalisation of the CBD. Some projects identified within the report have already been completed.

Key messages for the Swan Hill Riverfront Masterplan

Key outcomes identified as part of the masterplanning process relevant to Swan Hill Riverfront include:

- To develop a stronger physical and visual connection to the Murray River
- To increase street vegetation (trees and low cover garden beds)
- A greater focus on sustainability with the introduction of Water Sensitive Urban Design
- Shade structure interventions in key pedestrian locations to create a strong identifiable character in the CBD
- To improve way finding treatments and key attraction signage for residents and visitors
- Gateways which give a sense of arrival into Swan Hill and the CBD

These outcomes were derived from Council, community and stakeholder consultation and should be considered as part of this new process.



Part Two: Liveable Streetscapes is of most relevance to the riverfront masterplan and provides a concept for reconnecting the CBD with the Murray River. In order to do this, four key principles were proposed, which include:

- Physical linkages
- Vegetation
- Shade
- Signage

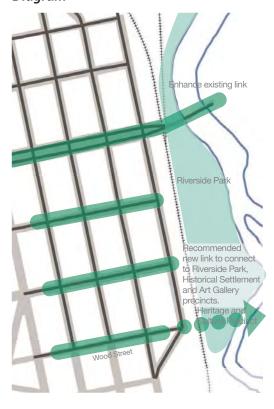
Other elements / suggestions relevant to the riverfront include:

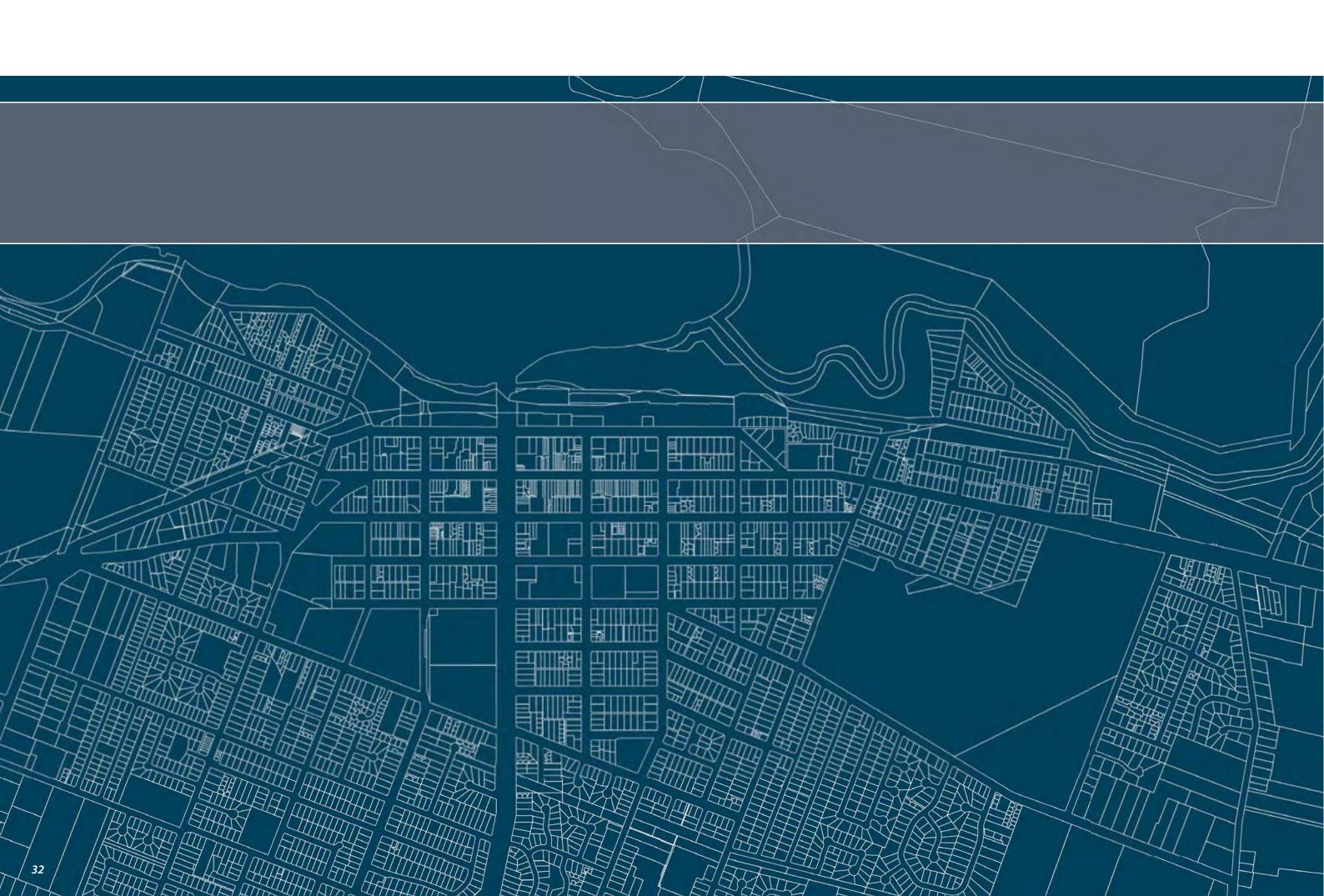
- Opportunities to retrofit WSUD between the riverfront and the CBD, as well as in adjacent streetscapes
- Bike connections from the CBD area into the site (along McCallum Street)
- Opportunities to use signage as way finding and art
- A public art trail from the CBD into the site and along Monash Drive.

Figure 11: CBD Streetscape Master Plan 2009



Figure 12: Liveable Streetscapes Principle Diagram





4. Economic and **Market Analysis**

4.1 Overview

This section is summarised from the 'Swan Hill Riverfront Masterplan - Economic Assessment' prepared by Urban Enterprise in January 2013.

This report provided a demographic analysis of Swan Hill and the region and identified industry and tourism gaps, needs and opportunities. This information was considered—and the adequate supply of residential land, the precinct in the preparation of the masterplan for the Swan Hill Riverfront.

4.2 Swan Hill Economic Profile

- The population of the Swan Hill urban centre has grown over the past decade, as the region Surrounding Swan Hill, based on Victorian Government population estimates.
- Based on State Government population projections, the Swan Hill Region is expected to increase population by more than 6% between 2011 and 2031.
- The ageing of the population that occurred between 2001 and 2011 is expected to continue in the 20 years
- Agriculture, forestry and fishing, Health care and social assistance and Retail trade are the main industries in the region, based on the number of residents employed.
- Households in Swan Hill are more likely to be lower in income than Regional Victoria in general;
- Increases in median rents and mortgage repayments in Swan Hill have been greater than both household income and the Consumer Price Index, indicating that it has become more expensive to live in the region in real terms.
- More Swan Hill residents have post-secondary qualifications in 2011 than in either 2001 or 2006. In particular, there has been a marked increase in TAFE qualifications.

4.3 Residential

The residential assessment indicates that most of the demand for additional housing in Swan Hill the next 15 years can be fulfilled by the existing development sites to the west of the city centre.

Given the prime location of the Riverfront Precinct site, should focus on niche, high yield residential housing markets, including:

- Empty nesters and retirees: high wealth households downgrading from larger dwellings and rural properties, and,
- Rental investors.

Demand from these target markets may be met through the development of high-end apartments and townhouses with rivers and parkland views, and within walking distance of the town centre.

The provision of apartments, particularly with the inclusion of serviced apartments, may appeal to midrange markets, such as young couples without children, visiting medical staff and business visitors.

4.4 Tourism

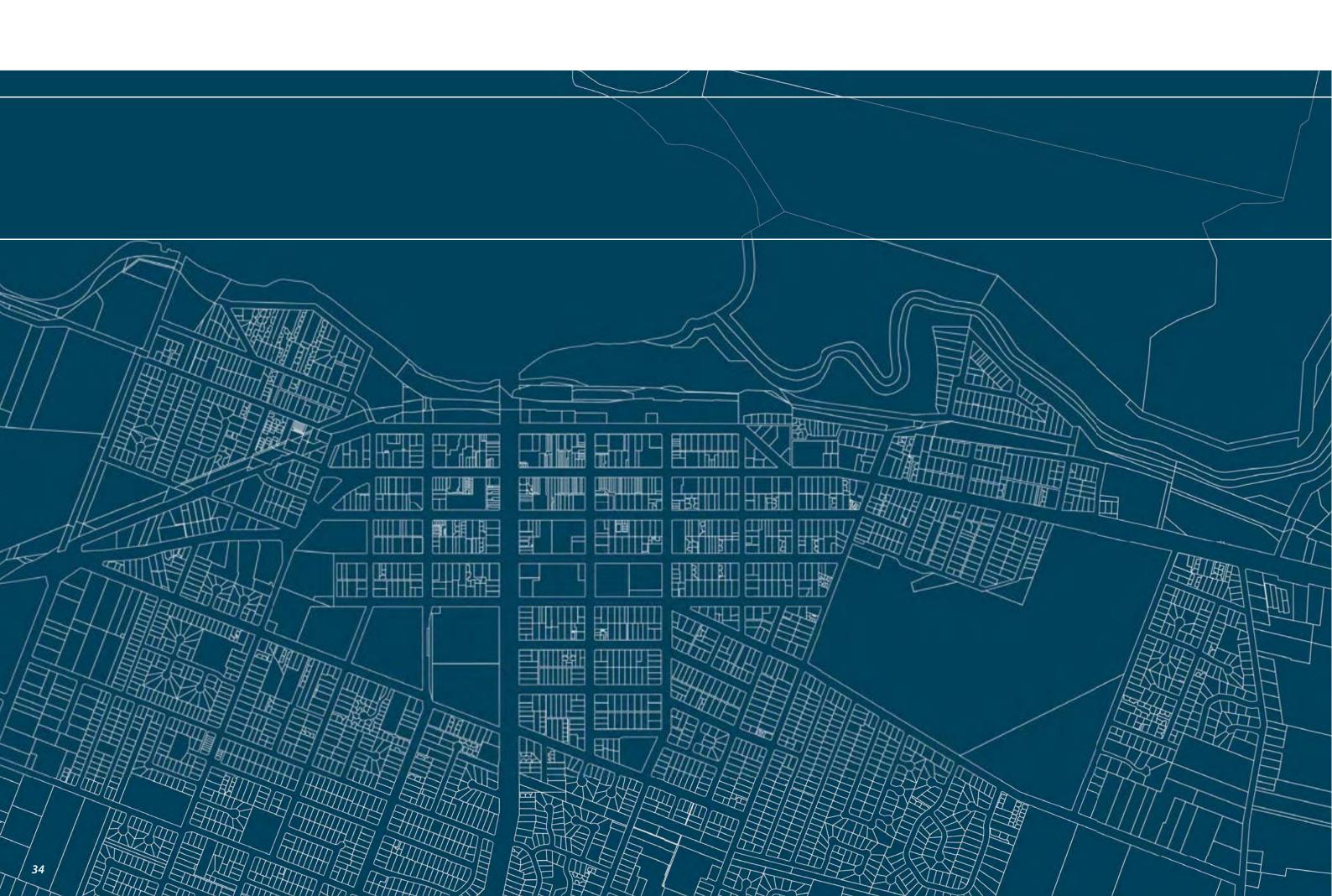
Based on the assessment of tourism in Swan Hill and the surrounding region, the following development opportunities should be considered for the Swan Hill Riverfront:

- Serviced apartments, to provide accommodation for the growing Business market. Serviced apartments also appeal to the family, as they enable the preparation of meals. It is also expected that the motorsport complex may attract racing teams for extended periods for trials: this would also provide a market for serviced apartments.
- A 200 to 250 capacity conference and function space, developed in conjunction with the serviced apartments. This will provide a venue for larger functions in the Swan Hill community, and also serve to attract business events to the city.
- A backpackers in town, to service itinerate workers and also visitors using the train service.
- Dining and restaurants, possibly in conjunction with a
- A shopping precinct, open during weekends to service
- A provedore, highlighting the local food and wine production.
- Links to a nature-based tourism precinct on Pental
- There may be future demand for a Cinema as part of a tourism precinct within the riverfront study area.

4.5 Retail

- The development of Swan Hill as a regional retail centre could be supported by the development of a discount department store of approximately 7,000m2.
- The development of smaller stores within a tourism shopping precinct may attract additional national brands to Swan Hill.

Please refer to the 'Swan Hill Riverfront Masterplan -Economic Assessment' prepared by Urban Enterprise in January 2013, for further details.



5.1 Purpose of consultation

Community consultation was a key component in developing a masterplan for the Swan Hill Riverfront. Swan Hill Rural City Council

The objective of the Stage 2b Consultation was to:

• Gain insight and input from key stakeholders and the wider community to better understand their ideas, aspirations and requirements for the future use of the riverfront.

The feedback from this stage of consultation was used to guide the development of initial ideas plans and a draft masterplan for further community consultation.

5.2 Previous Community Engagement

5.2.1 Swan Hill River Precinct Project (1997)

As part of the Swan Hill River Precinct Project, a research and consultation process was undertaken to understand the opinions and needs of local residents and organisations. Consultation took place over a 9 month period and sought input from over 800 individuals and organisations. Consultation as part of this project included:

- Public forums to discuss current use and future potential for the river precinct, as well as priorities for Council activities.
- Community Open Day at the Pioneer Settlement. Those that attended were asked to complete a short
- Key Informant Interviews and Site Visits
- **Public Submissions**
- Presentation of a draft plan to a Project Reference
- Public comment on the draft plan (following the Project Reference Group review), including a community event at the Art Gallery

The culmination of this extensive consultation process was the release of the final concept plan. Some items outlined in this final concept plan have since been implemented / constructed.

While it was appreciated that this consultation process was extensive and captured the views of a broad range of the community members, it was also understood that this process was conducted in 1997 (over 15 years ago) and the Swan Hill community has experienced a great deal of change in that time. Stage 2b community consultation would enable ideas, opinions and views of the 2013 Swan Hill community to be captured to form a progressive, forward looking vision for the future development of the riverfront.

5. Consultation Stage 2b Summary

5.3 Consultation Events

A range of opportunities were offered to the community to participate in this stage of engagement. These included:

- Australia Day Consultation
- Open House Community Consultation held on the 25th February 2013, in Swan Hill
- Heartbeat Consultation Process (as part of the Open
- Small Discussion Group with Novo Youth Council
- Roaming Interviews at the FREEZA Pool Party
- Children's 'Drawing Activity' Consultation: SHRCC Vacation Program
- Indigenous Community Consultation
- **CALD Community Consultation**
- Small Discussion Group with Local Artists
- Small Discussion Group with Swan Hill Specialist School
- Small Discussion Group with Murray Human Services' Day Program members
- Small Discussion Group with Health Professionals
- Small Discussion Group with Swan Hill Canoe Club
- Sustainable Living in the Mallee
- Rotary Club of Swan Hill
- **Visitors Survey Consultation**
- Workshop with key stakeholders and Council representatives

5.4 Who was consulted?

Conscious of enabling all community members to share their ideas for the development of the Swan Hill Riverfront research consultants, Local Logic Place, enacted a range of strategies aimed at 'hearing' the community voice including visual, written and conversational techniques. In all a total of 1,690 Swan Hill community members provided feedback which has, in turn, guided the development of the Swan Hill Riverfront Masterplan.

5.5 Snapshot of Consultation Feedback and Responses

The following section is a summary of community and stakeholder engagement undertaken as Consultation Stage 2b, held between January 2013 and February 2013. For the full results of this consultation stage, please refer to Appendix B: Swan Hill Riverfront Masterplan 2013, Stage 2b, Community Consultation Summary.

Exploring the development of the Swan Hill Riverfront meant understanding not only what the community valued now, but also what they would value and utilise into the future. With this in mind the following questions were asked of community members:

- If you do spend time along the riverfront, what are you mostly doing?
- What elements of the riverfront area do you most enjoy?
- What sorts of activities / events / facilities would you like to see developed along the riverfront that are not there now?
- How could the town centre of Swan Hill better connect to the riverfront area?
- What new businesses do you think would be viable within the riverfront and nearby area?
- What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

Analysis of the responses to these questions revealed considerable universality across the Swan Hill community both in terms of elements and aspects of the Riverfront that are currently valued and for where development efforts should focus over the short and long term. A summary of these responses are noted below. For detail the reader should refer to the consultation reports recorded for each community cohort.

The Swan Hill community demonstrated a resounding affinity with the Riverfront and an enduring connection to the Riverside Park area and surrounding walking tracks. A culture of respect for and preservation of the area was obvious, and whilst the potential for greater enhancement and utilisation of the area was clearly indicated by all a strong undercurrent of preserving existing green space and the framework of Riverside Park was also made very clear. Respondents were universal in expressing their current enjoyment of the river itself, the walking and cycling tracks, the natural environment, green space and those facilities that enabled time with family and friends such as picnic areas and playgrounds. Public space was highly valued in all response and the themes of 'access for all' and elements that supported the coming together of families and communities was a clear consensus.

Reflecting the elements of the Riverfront that the Swan Hill community currently enjoy were the areas they would like to see enhanced – demonstrating an enduring commitment to long term use of these elements. For example almost universally the walking and cycling tracks were most mentioned as the 'facility' for further development. Respondents mentioned widening paths, making them 'all ability', increasing safety where they come close to the river's edge and enhancing their use through the installation of signage, seating, lighting, rubbish bins, dog bins, water bubblers and in some areas board walks. At the same time the natural and 'undeveloped' beauty of these areas was also highly valued – indicating that all development should be in keeping with the natural environment and a reflection of this beauty.

Respondents saw the walking tracks as the frame of the Riverfront, Tract acknowledged this in referring to walking tracks as the 'spine' from which the Riverfront development could grow. Great emphasis by the community was placed on these walking tracks 'linking' the various Riverfront zones stretching from the Milloo St wetlands to the Pental Island bridge. Applying a universal 'theme' to the development of the walking tracks was considered critical in identifying and framing the 'precinct' and in the development appearing organised and strategic. For example, whilst there was agreement that some areas remain 'undeveloped' emphasis was placed on signage, seating and other facilities being uniform across all areas.

The other facilities that were broadly agreed as requiring further development (in order of interest) included:

- Seating: including additional seating along the river's edge (supporting time to relax and reflect) and more seating throughout Riverside park for people who are coming together.
- Shade: particularly around picnic and playground facilities and also incorporated into parking spaces.
- Public art.
- Green space: community members expressed an overwhelming desire to not forgo green space throughout the consultation process.
- More BBQs along the Riverfront including the northern end
- More toilets particularly along the northern end of the Riverfront and specifically to service the boat ramp and wetland areas.
- Exercise equipment placed along the walking tracks to support variations in physical activity.
- Picnic tables.
- Bubblers / drinking fountains.
- Community kitchen / kiosk: to support community fundraising activities. Community members were supportive of the development of a community kitchen that could be 'rented' by community groups over weekends / peak periods to service families enjoying the Riverfront.
- Increased car parking spaces.
- Lighting along the walking tracks and throughout Riverside Park.

events would you like to see developed along the riverfront that are not there now?" Once again there was general agreement in the responses. In order of popularity the following responses were recorded:

- Music / Concerts.
- Activities / events for children and youth. This reflects the level of care held by the broader community for children and youth in Swan Hill and demonstrates receptiveness to developments that prioritise the well-being and active support and engagement of children and youth.
- Markets and particularly markets that sell local produce and arts and craft.
- Water based activities and events (with many members of the community expressing a desire to interact more closely and safely with the river though opportunities such as the hire of water equipment for example).
- Activities which bring together the community and families.
- Festivals.
- Fishing based activities and events.
- Sports based activities and events.

All respondents were also asked "What sorts of activities and The Swan Hill community was asked "How could the town centre of Swan Hill better connect to the riverfront area?" Responses included:

- Signage and maps particularly to increase visitor awareness of the area. Many respondents commented that unless you know the Riverfront is there driving through town along the Murray Valley Highway / Campbell St or even Curlewis St would give you no
- Footbridge over railway was an extremely popular response and reflects an interest also noted in the CBD upgrade consultations. However a considerable number of respondents prefaced this as an option after acknowledging the 'railway would not be moved'.
- Upgrade of existing footpaths particularly to be more pram, scooter and wheelchair friendly.
- Move industrial sites (including silos and water treatment plants) to open up line of 'sight' into the Riverfront for passing traffic.
- Riverfront area needs to 'flow' along the length of the precinct.
- Move railway (both freight and passenger or freight only out of the CBD)
- Truck by pass away from Curlewis Street to enhance community access to the Riverfront by easing pedestrian movement across the area.
- Public transport.

Through the consultation process responses which reflected businesses the community were either indicating they would use (for example by children through the drawing exercises) or they thought would be "viable within the riverfront and nearby area?" (as asked in the Residents survey) included:

- Cafes: specifically the community asked for Riverfront dining opportunities which were child, youth and family friendly and allowed an interaction with the river and immediate area.
- Shops: including souvenirs, supplies relevant to the Riverfront such as sunscreen, insect repellents and fishing supplies, local arts and craft / produce, water based equipment hire and bike hire.
- Food vans: setting up in the area over lunch breaks and particularly during peak periods with a clear preference for coffee and ice creams.
- Water equipment rental.
- Cinema.
- Function centre / hotel.
- Fishing supplies.

Photos from consultation events









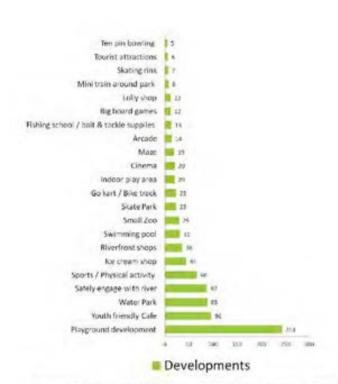
What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

- Arts / Cultural centre including an interest in the development of an Indigenous cultural hub which incorporates local artists.
- Wharf / Jetty / boardwalk most community members were seeking opportunities to safely interact with the river including to fish, swim, dine and relax.
- Playgrounds all age and all ability facilities which included specific activities or features such as a flying fox, rock climbing wall, maze, mini golf, sandpits and such.
- Wildlife park / fresh water aquarium.
- Water park / splash park development within the Riverfront (which could be incorporated into a swimming pool complex) and included simple opportunities for all ages to cool off. Affordability and accessibility were key components of this.
- Skate park redevelopment to incorporate structures for older and young users, shade, toilet facilities and drinking fountain.
- Development of the Northern end of the Riverfront (including boat ramp, wetlands area and skate park).
- Accommodation options from 'high end' to eco cabins.
- Lock / weir to support a constant river height.
- Open up Pioneer Settlement to enable free access by the community and visitors and create additional business within this area.
- Houseboat moorings.
- History centre.

Figure 13: Summary Results - Children aged 5-11 years

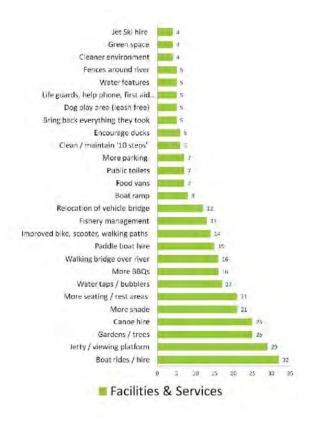
CHILDREN AGED 5-11 YEARS WERE ASKED TO DRAW "3 THINGS THEY WOULD LIKE TO DO OR SEE ON THE RIVERFRONT"

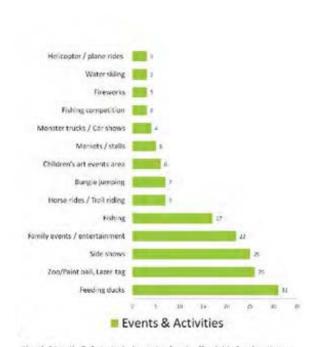
All Swan Hill Primary Schools took part in this exercise including Swan Hill Primary, Swan Hill North Primary, St Mary's Catholic Primary, the Swan Hill Specialist and the Swan Hill Christian Schools. Children attending in the Swan Hill Vacation Program also participated. In total 503 children completed the drawing exercise. Children's responses were categorised into the 3 areas -'Developments', 'Events & Activities' and 'Services & Facilities' - graphed below.



Playground development to include: areas for the different age groups, flying fox, rock climbing, in ground trampoline, bridges, tree houses, sand pit, rope dome, wheelchair access.







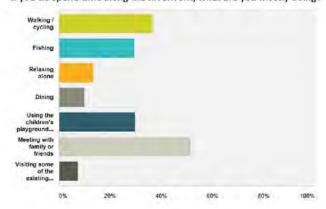
Youth friendly Cafe to include: water front, affordable food options, games / gaming, internet, music, free cold water, table tennis, books.

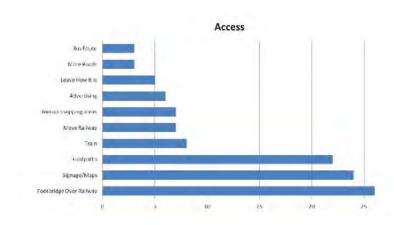


Figure 14: Summary Results - Residents aged 20 years plus

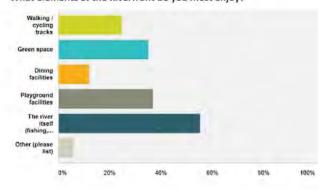
YOUNG PEOPLE AGED 10-20 YEARS informed the Riverfront Masterplan in several ways. Researchers met with Novo Youth Council and attended the FREEZA Pool Party. Swan Hill College grade 7 General Studies students hosted a consultation session and later acted as 'youth researchers' interviewing senior students at Swan Hill College. In addition to these methods 308 young people completed the 'Residents Survey'. Approximately half of all respondents were aged 10-15yrs with the remainder aged 16-20yrs. Almost all were from Swan Hill.

If you do spend time along the Riverfront, what are you mostly doing?

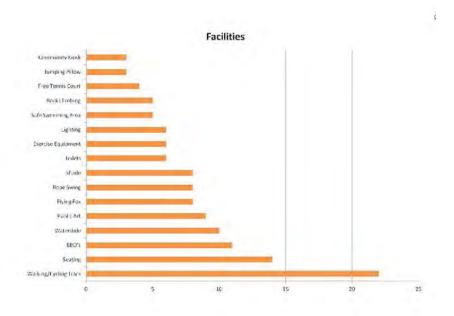




What elements of the Riverfront do you most enjoy?







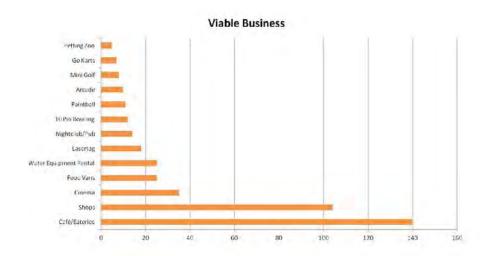
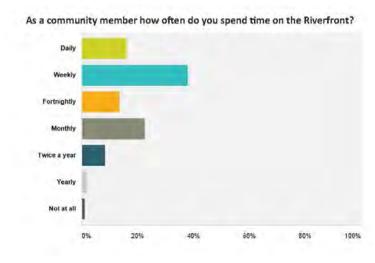
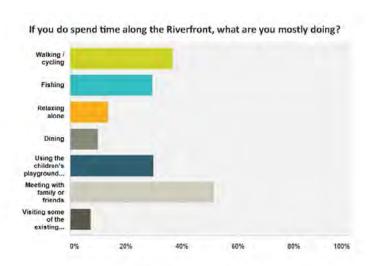
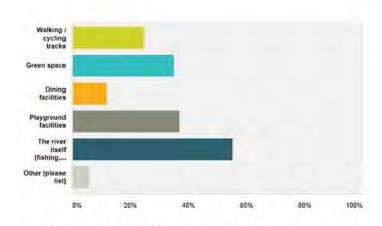


Figure 15: Summary Results - Youth aged 10 - 20 years

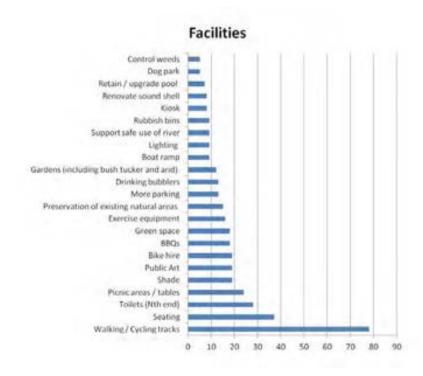
SWAN HILL RESIDENTS aged 21 years and over informed the Riverfront Masterplan in several ways. Researchers attended the Swan Hill Australia Day Breakfast, interviewing 279 community members. Numerous community groups also informed the process. In addition to these methods 251 residents aged 21+yrs completed the 'Residents Survey'. Almost all were from Swan Hill.











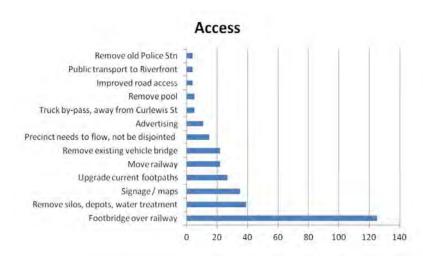
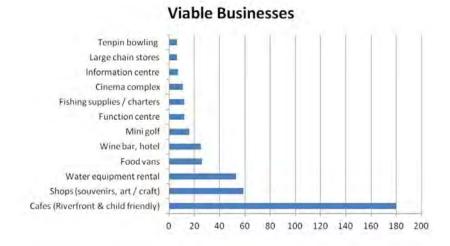
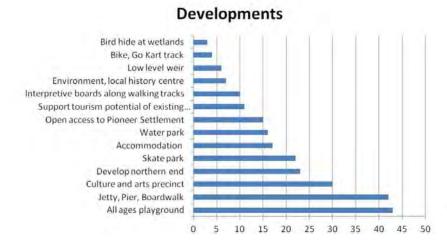


Figure 16: Summary Results - Youth aged 10 - 20 years







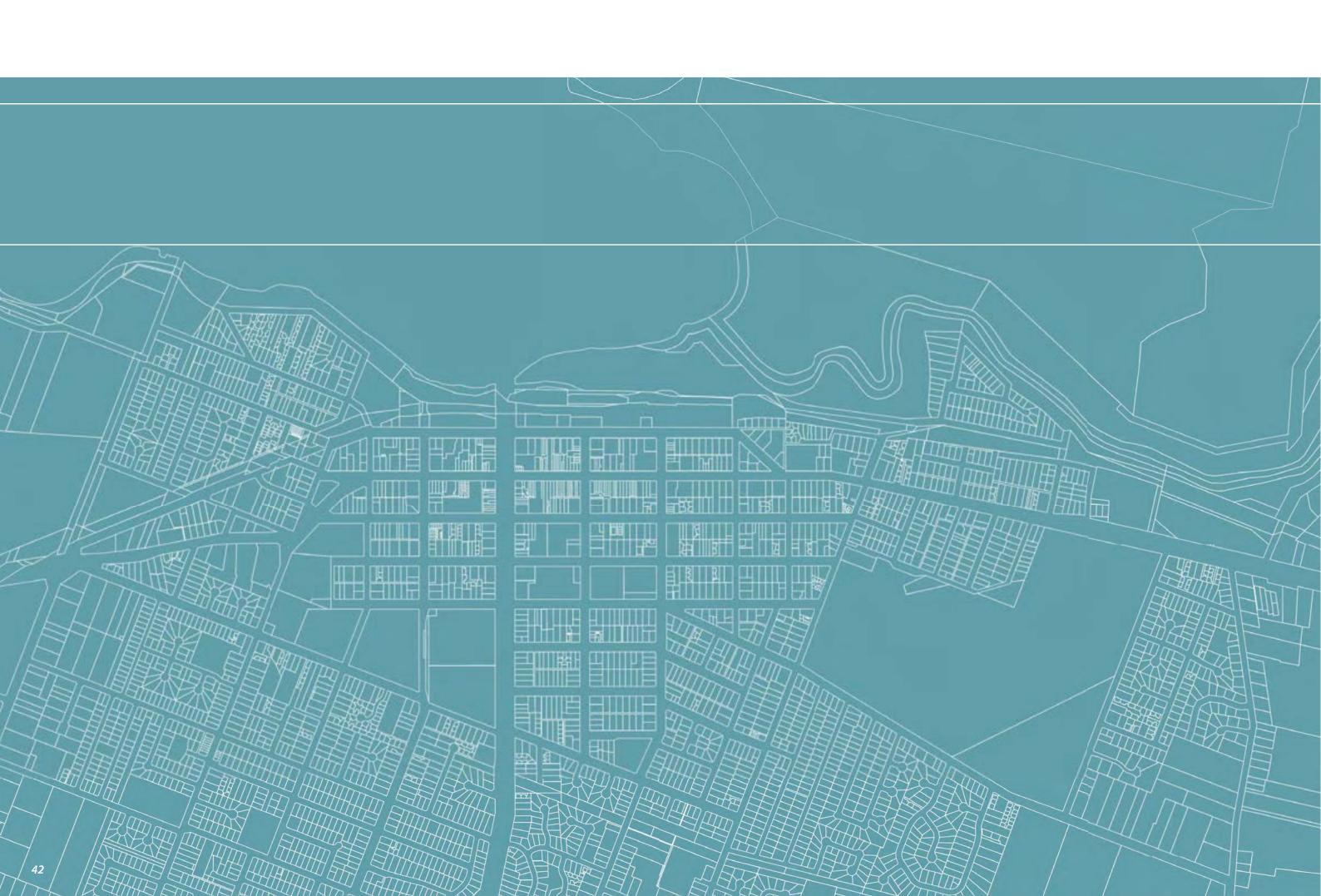


Figure 17: Precincts NOT TO SCALE Riverfront-North Riverfront - Arts, Culture and Accommodation Precinct Riverfront-CBD Riverside Riverfront-

6. Analysis, Issues & Opportunities

6.1 Overview

This section provides an overview of key issues and opportunities that were considered in the preparation of a masterplan for the Swan Hill Riverfront.

For the overall study area and the four precinct identified, a summary of analysis, strengths, weaknesses, opportunities and issues is provided. The analysis of each precinct is accompanied by a map identifying existing site elements.

The material in this section has largely been sourced from the background documents and desktop assessments. Additional information has been added through further site analysis.

6.2 Structure of this Chapter

The Swan Hill Riverfront is a complex area and provides for a diverse number of uses, elements and activities, at a range of scales. To understand these elements and activities, the following analysis has been undertake at two scales. These scales include:

- Overall riverfront scale and interface with the Swan Hill CBD
- Precinct scale

The overall riverfront considers the entire riverfront subject site and those elements and activities that contribute to this area as a whole, and as part of the town.

The precincts are based on existing land uses, activities and character areas within the overall riverfront. The precinct scale analysis aim to understand and identify the diverse and varied experiences that are provided along the riverfront. The precincts which will form the basis of this analysis are illustrated opposite.

6.3 Swan Hill Context

Swan Hill is situated on the Murray Valley Highway and the south bank of the Murray River, between Robinvale and Kerang. Located approximately 338km from Melbourne, Swan Hill is a regional centre that services populations from the Shire of Wakool and Balranald (New South Wales) and the Shire of Buloke (Victoria). It provides a wide range of retail, educational, commercial, industrial and community services and is the main commercial centre for Swan Hill Rural City Council. Swan Hill is also regarded as one of Australia's most diverse and productive rural areas.

Swan Hill is well connected to other regional centres via good quality road and transport links. The Murray Valley Highway provides links to Bendigo on the south (and ultimately to Melbourne) and to Mildura in the north-west (via the Sturt Highway). Rail connections provide for both freight and public transport links. V-Line operates passenger rail services between Swan Hill and Melbourne (via Bendigo), with Swan Hill Station being the current terminus for this line.

Located at the junction of the Murray River and the Marraboor River, activities within Swan Hill are heavily influenced by its watercourses and generally comprise agriculture, horticulture, viticulture and tourism. The Murray River is also fundamental to the way of life of the community, with its banks providing the location for a number of parks and recreational and community activities.

It is anticipated that the region of Swan Hill and the city itself will undergo an increase in population and economic growth, in the future.

The climate in Swan Hill is semi arid, with the town experiencing typically hot summers and cold winters. The Giant Murray Cod,, Curlewis Street



Aerial Context Map of Swan Hill



Swan Hill CBD



6.4 Swan Hill Riverfront

The Swan Hill Riverfront Masterplan focuses on a 4.5km stretch of riverfront situated between the rail corridor and the Murray River with limited access points into the CBD.

The site encompasses the Riverside Park, Milloo Wetlands, Swan Hill Riverside Caravan Park, Pioneer Settlement, the Richards Swimming Centre, a skate park, the Swan Hill Regional Art Gallery and general riverbank parkland.

A 4.5km riverwalk notionally links these facilities by means of an interpretive riverfront trail.

Monash Drive provides primary access to both the river front activities and grain storage and rail infrastructure located along the rail corridor.

The Murray and Marraboor rivers provide a focus for tourist and leisure activities and events, with adjacent land uses supporting this function.

The historical, environmental and cultural aspects of this setting contribute the distinctive character and identity of Swan Hill.

Riverwalk along the edge of the Murray River



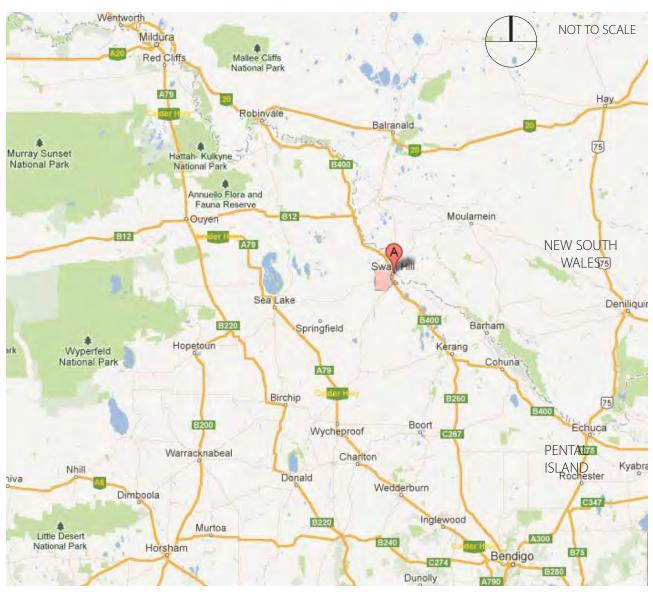
Swan Hill Lift Bridge



10 Steps located within Riverside Parl

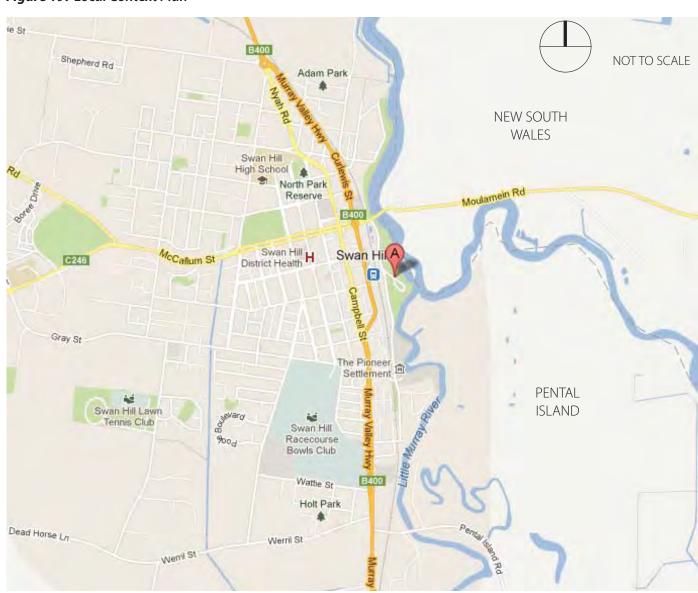


Figure 18: Regional Context Plan

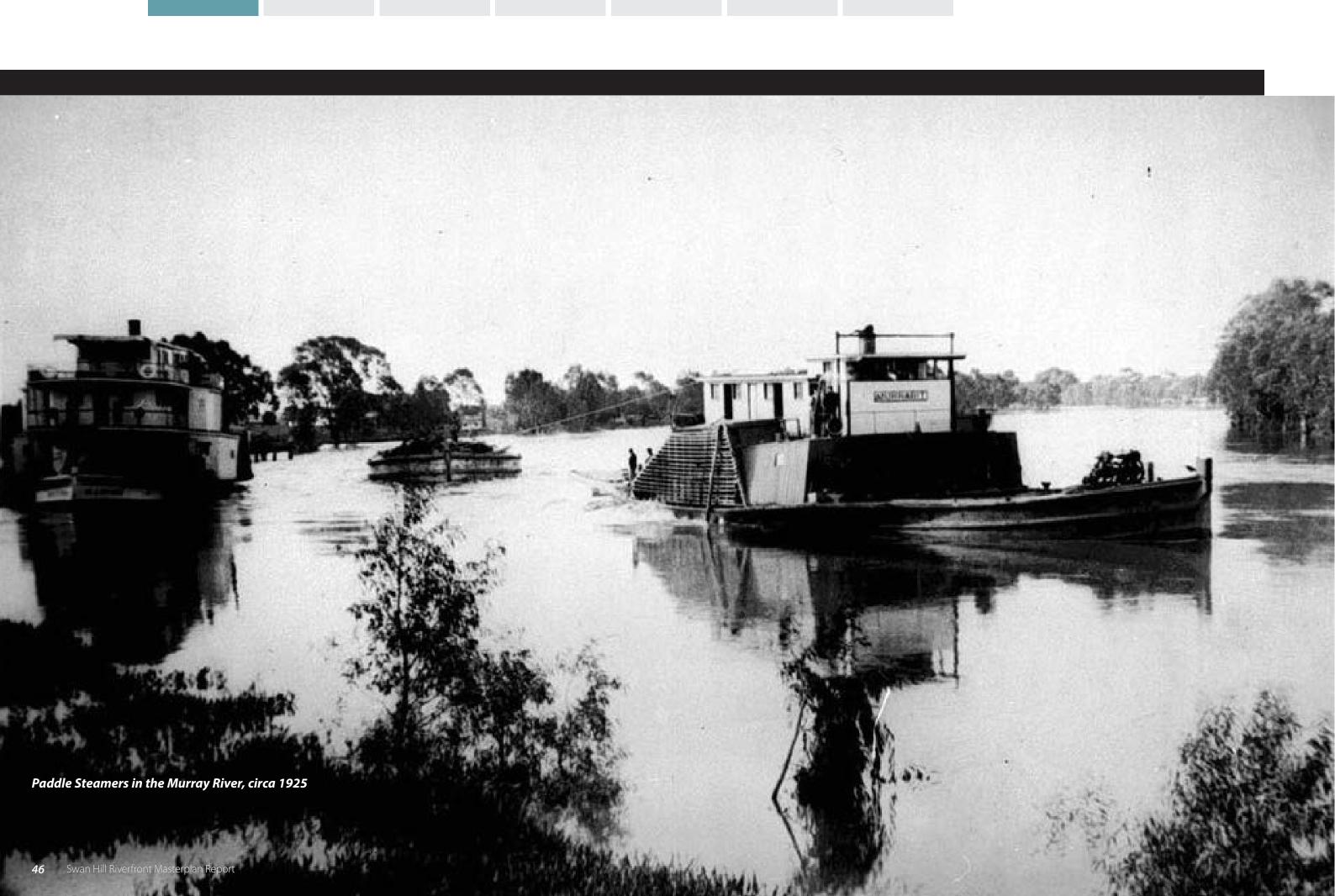


Source: Googlemaps http://maps.google.com.au

Figure 19: Local Context Plan



Source: Googlemaps http://maps.google.com.au



6.5 History of Swan Hill and the River

The history of Swan Hill is entwined with the history of its riverfront, and in the history of the Murray River itself. The Murray River is the longest navigable river in Australia, and the third longest in the world.

In the Dreamtime, Totyerguil (from the area now known as Swan Hill) ran out of spears while chasing Otchtout the cod. This chase forms part of the extensive mythology of the creation of the Murray River and its environs.

Thomas Mitchell founded and named the area of Swan Hill in 1836:

"Among the reeds on the point of ground between the two rivers was a shallow lagoon where swans and other wild fowl so abounded that, although half a mile from our camp, their noise disturbed us through the night. I therefore named this somewhat remarkable and isolated feature Swan Hill, a point which may probably be found to mark the junction of two fine streams."

— Thomas Mitchell

In 1853 Francis Cadell in his paddle steamer Lady Augusta navigated the Murray from its mouth in South Australia reaching Swan Hill, his farthest point upstream. The ties between the town of Swan Hill and paddle steamer's were born, which remain to this day along the riverfront, and the town grew up around the punt crossing, and the paddle steamers plying the river.



View of Water Tower and Lift Bridge in distance



Crossing the Murray River into Swan Hill



Spanning three states (New South Wales, Victoria and South Australia), the Murray River supported commercial trade during the pioneering days, using paddle steamers to travel between various ports. Swan Hill was one of these ports and in the 1850s became one of the region's major inland trading ports.

The Murray River is critical to the prosperity and character of both the region of Swan Hill, and also a much wider catchment of regional Australia. Products of the Murray irrigations are consumed by Australians every day, and support many of the river towns along its length. As well as its economic importance to agriculture and industry, the Murray is a resource of immense environmental and social value. It is a unique aquatic and riparian environment which has evolved over thousands of years, and a major source of domestic water. Increasingly the Murray Valley is popular for recreation and tourism.

The riverfront precinct of Swan Hill represents the essence of the character of Swan Hill and surrounds. It continues to be the heart of public activity and tourist visitation for the town, and incorporates a diverse range of historic and interpretive elements that tell the stories and histories of both the river and the town.

It is essential that the Swan Hill Riverfront Masterplan embraces and integrates this rich history and storytelling in its future vision for the riverfront precinct. Artworks along the riverfront



The PS Gem Paddle Steamer



Locomotive near Pioneer Settlement



6.6 The Overall Riverfront

The subject of this masterplanning process is a 4.5km linear riverfront space located between the Murray / Marraboor Rivers and a rail corridor. It comprises both private and publicly owned and leased land parcels that are used or provide for a range of activities and elements. These activities/elements, while generally relating to their adjacencies to the water and railway line, are diverse and contribute to a varied riverfront experience.

The diversity and changing experience of the riverfront is discussed and investigated as part of the precinct scale analysis (refer to sections 5.7-5.10). This overall riverfront analysis concentrates on those elements and activities within the riverfront that are relatively consistent /constant throughout. The key elements of the overall riverfront include:

- Railway Corridor
- The River Interface
- Riverwalk Trail
- The Red Gum Character
- Indigenous Heritage
- Views from the site
- The levee bank
- Contribution to the Swan Hill identity These elements are discussed opposite.

6.6.1 Analysis

Railway Corridor

The railway corridor incorporates the railway line, the station buildings, rail infrastructure and grain storage silos. It provides for passenger travel between Melbourne and Swan Hill and for freight train services. The rail corridor and rail infrastructure/associated activities provide a physical and visual barrier between the riverfront and adjacent residential and civic uses and more significantly the Swan Hill CBD. There are currently limited opportunities for connection between the CBD and riverfront. The two key vehicular crossing are at McCallum Street to the north, and Mitchell Street much further to the south.

Railway corridor and adjacent rail uses



Gran silo's located along rail corridor



Interpretive signage located along riverwalk

Riverwalk Trail

The 'Riverwalk Trail" is a pathway that provides an almost

continuous link between Pental Island Road through to

Milloo Street Wetlands and connects with regional walking

trails beyond. This pathway exists as many forms, materials

and widths, as it meanders its way along the riverfront. One

consistent element of the path is the use of interpretive

interpretive and directional signage is used to provide

information regarding the history and environment of

the riverfront and Swan Hill and to help people navigate

through the site. This interpretation is part of a suite of

signage used along the riverwalk

Riverwalk adjacent to Murray River

and directional signage. At key points along the riverwalk,



River Interface

The Murray and Marraboor Rivers provide a natural barrier to the east of the town centre, and forms the border between Victoria and New South Wales. The river is still the focus of activity today and offers opportunities for river cruises, canoeing, swimming, fishing and boating etc. The Marraboor River, also referred to as Little Murray River is an anabranch of the Murray River.

Weirs, Locks, Dams and Barrages are located along the length of the Murray and Marraboor Rivers. These help ensure there is a constant pool level to facilitate pumping for irrigation and supply, allows water to be diverted to Lake Victoria and enables permanent navigation between the Murray mouth (in South Australia) and Wentworth (New South Wales). Swan Hill itself does not have a weir located downstream and water levels adjacent to the site fluctuate throughout the year. The banks along the riverfront are relatively steep, and there are limited opportunities to engage actively with the water.

The Murray and Marraboor rivers provide an important habitat for a diverse range of plant and animal species.





LEGEND

- SUBJECT STREAMENT TO PURISH

SAMAY STATION

- SUBJECT STREAMENT TO PURISH

- SUBJECT STREAM

Figure 20: Overall Riverfront Analysis

River Gum Aesthetic

The riverbank of the Murray River and Marraboor River generally has a naturalistic character with red gums situated along its edge. Generally associated with the Murray River, the river red gum (eucalyptus camaldulensis) required periods of partial flooding to help it germinate and grow. The river red gums also provide an important habitat for birds and animal species. One of the risks of associated with red gums, is they characteristically drop limbs, without warning. This can be a concern for trees located in public spaces or where activities are located beneath.





Indigenous heritage

Being adjacent to the Murray and Marraboor Rivers, the site is considered almost entirely to contain 'areas of cultural heritage sensitivity'

Views

Views of the Murray and Marraboor rivers are an important feature of the site and can be obtained throughout. These views are however filtered views, with riverbank trees and planting partially obscuring the river. Connections across the river at Pental Island Road and the Swan Hill Lift Bridge and the 10 Steps in Riverside Park, provide the only unobstructed views of the Murray and Marraboor Rivers from within or adjacent to the site.

The levee bank

The levee bank provides flood protection for adjacent uses and the Swan Hill CBD from the fluctuating waters of the Murray and Marraboor Rivers. The levee bank is generally a grassed mound that extends along the length of the site, in some form. The levee bank is generally located within close proximity to the river, however deviates at Riverside Park to encompass this space. While the levee bank provides an elevated position from which to view the river, in many cases it also obscures views.

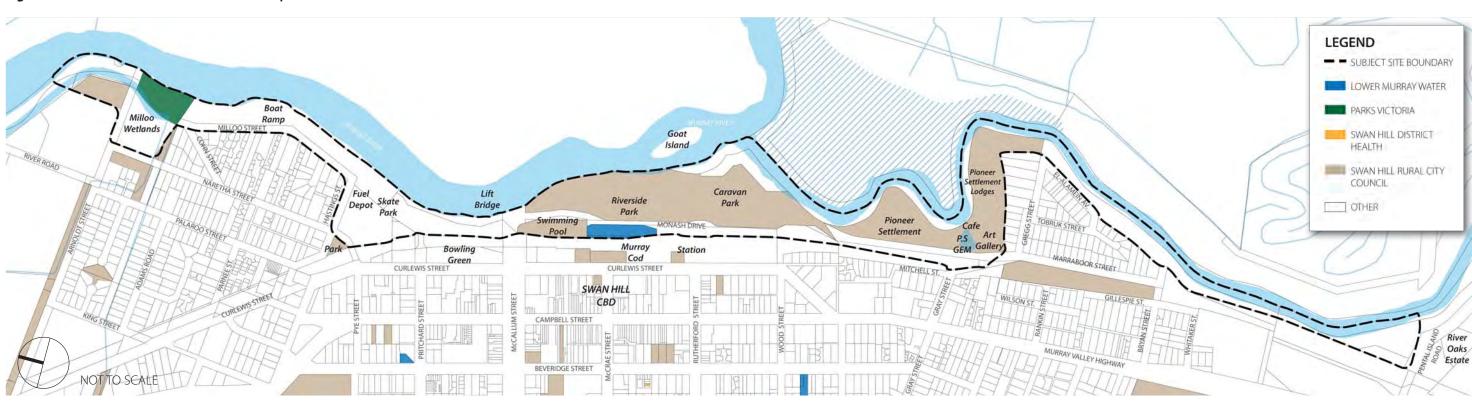


Figure 21: Overall Riverfront Land Ownership

Land Ownership

Public land within the precinct is focused around Riverside Park, the Caravan Park, the Pioneer Settlement, Pioneer Settlement Lodges, Spoons Café and the Art Gallery. The delineation between public space and private space within the riverfront precinct is in many instances unclear. There appears to also have been some private appropriation of public space along the riverfront, specifically towards Pental Island Road. Continuous public access to the riverfront should be provided throughout in consideration with environmental values, public safety and residential privacy.

Land Management

The management of land and facilities along the riverfront is currently unclear and act as a deterrent to development, due to the uncertainty about the security of tenure. The masterplan for Swan Hill Riverfront should aim to clarify this ownership, occupancy and the roles associated with the management of public assets along the riverfront.

6.6.2 Strengths / Weaknesses / Opportunities / Issues

The table opposite provides a summary of the key strengths, weaknesses, opportunities and issues for the riverfront in general.

Location	Strengths	Weaknesses	Opportunities	Issues
Riverfront - General	 River Gum character throughout Generally well-shaded Generally well maintained, although the south is less developed Good historic, cultural and environmental interpretation. Indigenous interpretation could be stronger Good views to the river along most sections 	 The walk is currently inconsistent in width materials and priority Well interpreted and sign posted, but could be better. There are several sections where new users would be unsure as to whether the path continued (eg. adjacent to Caravan park and near Pioneer Settlement Lodges While the trail can be navigated on bicycle, this is difficult in part and is not accessible to all cyclists No defined loop back to the CBD Use of furniture is not cohesive Facilities are concentrated around Riverside Reserve and the Arts precinct, with no real termination at southern end 	 To create a more uniform treatment along the length of the trail To promote stronger linkages to the Riverfront from adjacent areas via Pental Island Road, Bryan Street, Gray Street and Hastings St. To create a Shared Path (Bicycle and Pedestrian) treatment along part or all of the 'Riverfront', to provide greater accessibility To build upon the current signage and interpretation To integrate art, sculpture and further indigenous cultural interpretation along the Riverfront, to encourage greater activation and use of the trail. Riverfront 'App', that locates users and maps all activities and events (Map your walk, track your distance, play and listen and view footage or stories Develop a series of fitness stations to encourage greater activity and use 	
River Edge	 Natural in appearance, characterised by the Murray River and red gums Open space and public access provide along most of the Riverfront precinct 	 Many sections of river bank are steep and eroded There a number of weed species along the banks The water's edge is accessible at only a few locations 	 Continued enhancement of environmental values Bank stabilisation Ongoing removal of weed species and revegetation Provision of safe and accessible access to the water's edge in key locations 	
Rail and rural infrastructure corridor	Several current land uses may become available in the future for redevelopment, which may assist in creating a better connection between the CBD and the Riverfront	Is the greatest barrier between the CBD and the river front	 Investigate any plans for relocation of the grain and water treatment facilities, to make available future developable land and better connection between the CBD and riverfront Investigate opportunities for building reuse and the creation of a link over the rail corridor 	The need for ongoing use as rural, rail infrastructure

6.7 Riverfront - North

Riverfront - north extends for approximately 1km from Milloo Wetlands, in the north, to the Hastings and Milloo Street intersection. A quiet, attractive and more 'naturalistic' section of the riverfront, it is bounded by Milloo Street to the south and the Murray River to the north. Access to this section of the riverfront is provided from Milloo Street and the riverwalk trail. This section of the riverfront is predominately public. Key elements of Riverfront - North include:

- Milloo St. Wetlands
- Rotary Park and Boat Ramp
- The River Edge
- The actual constructed 'Walk'

6.7.1 Analysis

Land Use and Site Activation

Existing uses

- Milloo Wetlands The Milloo Wetlands form part of the Swan Hill Main Drain System. As part of this system, they mitigate the impact of floods, absorb pollutants, filter urban runoff and improve water quality. They also provide an important habitat for a diverse range of plant and animal species. The wetlands provide opportunities for passive recreation and include a walking circuit and visual amenity. They also are a good anchor / destination to book end the riverwalk
- Rotary Park and Boat Ramp Rotary Park includes a shelter, BBQ, a gravel car park (for car, boat and trailer parking) and a boat ramp. Located in a quieter section of the Murray River, the boat ramp is the only one provided within the study area and enables safe launching and retrieval
- Constructed 'Walk' A formed pathway that meanders through the riverfront trees. Irrigated grass, views to the river and canopy trees make this section of the riverwalk appealing
- River edge A tree lined riverbank providing views up and down the Murray River This is steep and eroded in parts, with some weed invasion.

Surrounding Uses

 Residential Uses – Residential land uses are located to the south of this precinct. These uses overlook the site, providing limited passive surveillance benefits (views restricted by existing levy bank)

Recreational Activities

- Fishing The boat ramp is a key location for fishing and provides access to the water for boats to fish. The Murray River provides the ideal habitat for the Murray Cod as well as Yellowbelly and Redfin although European Carp is currently proliferate
- BBQ and Picnic Areas Rotary Park provides a number of facilities for such activities including a BBQ, shelter and bin. Picnic tables are also located along the riverwalk
- Boating Boat launching facilities are located at Rotary Park, including trailer parking opportunities

Milloo Street Wetlands



Boat Ramp near Rotary Park



Buildings and Site Infrastructure

There are limited buildings and structures within Riverfront - North. Those located here include:

- Picnic Shelter low scale, single storey brick and timber shelter with BBQ and seating underneath
- A pumping station located near the retarding basin at Hastings Street
- A number of picnic tables and chairs along the river front and Milloo Wetlands. There are inconsistencies in the appearance of these elements
- Public Art Metal bird sculptures in trees along the riverfront that can be seen from the riverwalk

No buildings or structures within Riverfront - North are heritage listed or have heritage significance.

Picnic shelter in Rotary Park



Metal bird sculptures placed in trees along the riverwalk



Landscape Character

 Naturalistic landscape character with river red gums, irrigated grass to bank of Murray River and levee bank.
 Some sections of the riverbank are steep and degraded, with weed species such as Salix sp. (Willows) present

Typical landscape character of the Riverfont - North



Steep degraded riverbank



Views and Vistas

 The local street network provides views into the site, including along Hastings Street and Cohn Street. Views can also be obtained from the eastern bank of the Murray River or from the river itself

Heritage and Interpretation

- Aboriginal heritage Riverfront North is considered almost entirely to contain 'areas of cultural heritage sensitivity', based on its location adjacent the Murray River
- Monument A plaque is located nearby Milloo Wetlands and commemorates the launch or the Swan Hill Rural City Council Stormwater Treatment wetlands in 2009
- Interpretation A number of interpretive signs are located within Riverfront - North. They provide information about the Milloo Street Wetlands, the Murray Cod, River Red Gums and the naming of Swan Hill. The interpretation signage is part of a suite of signage used along the riverfront

Signage and plaque located at Milloo Street Wetlands



Circulation

- Vehicle access from the west is via Milloo Street. Milloo Street is a two way asphalted local residential street with tree planting and a footpath located along the front of residential properties. Milloo Street can be accessed from Hastings and Cohn Streets
- Informal access for authorised vehicles is provided around the edge of Milloo Wetlands. This access can be entered from Milloo Street, Naretha Street and River Road. Maintenance access is also permitted to the retarding basin located opposite Hastings Street and along the levy bank
- Car parking is informal and is provided in Rotary Park, near the boat ramp. A gravel car park, it can provide for car, boat and trailer parking, although the capacity to meet demand during peak periods requires further investigation. A semi formalised gravel car park is also located adjacent the Milloo Street Wetlands and provides for limited car numbers. Access to both car parks is provided from Milloo Street
- Boat launching access is provided via the formal concrete boat ramp located at Rotary Park. While there is no dedicated boat trailer parking, the nearby car park area can accommodate this use
- Pedestrian access through this section is provided via an unformed pedestrian path under the red gums. This pathway provides an almost complete link between Pental Island Road and the Milloo Street Wetlands, as well as to the CBD

Existing and Planned Projects

There are no planned and existing projects within Riverfront - North.

Car parking and access to boat ramp at Rotary Park



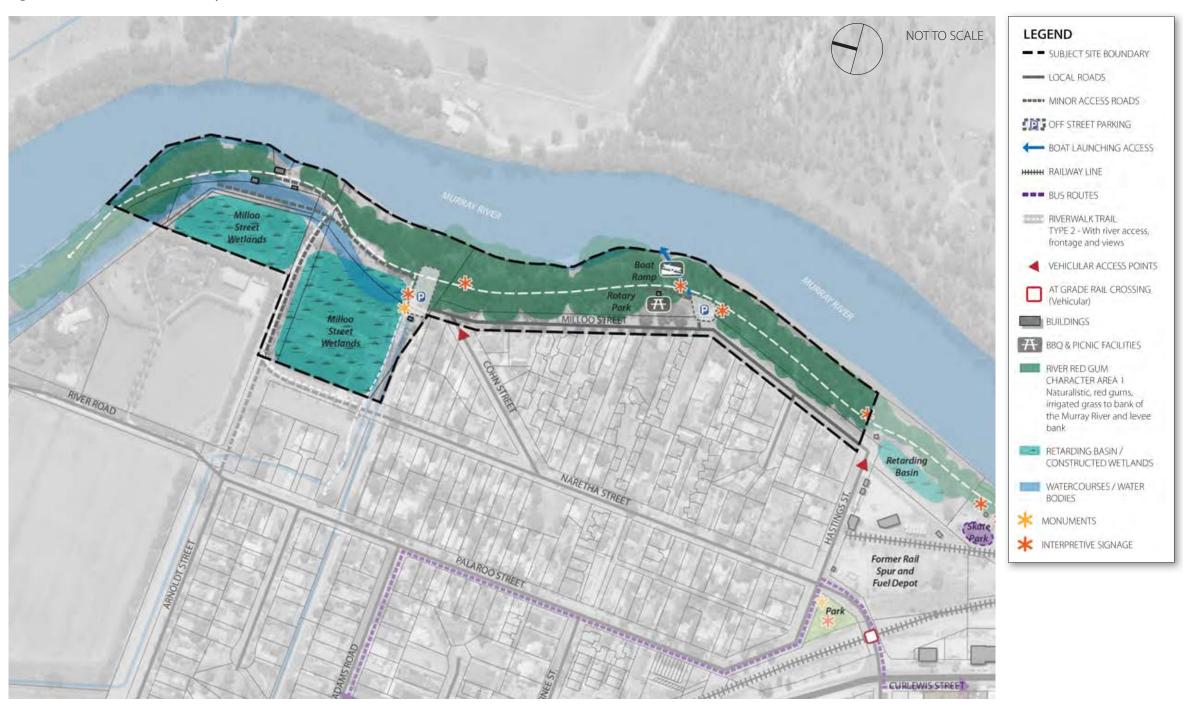
Boat launching access



Unformed pedestrian path under the River Red Gums



Figure 22: Riverfront - North Analysis



6.7.2 Strengths / Weaknesses / Opportunities / Issues

The table opposite provides a summary of the key strengths, weaknesses, opportunities and issues for Riverfront - North.

Location	Strengths	Weaknesses	Opportunities	Issues
Milloo Street Wetlands	 Environmental and WSUD asset Passive recreation Good anchor/destination to bookend the Riverfront 	 Poor vehicle management-(Improved circulation bollarding and signage) Lack of facilities Could be better mapped- (Include a Swan Hill Wayfinding map in this location) 		 Possible poor ongoing management Lack of water or water quality Damage by unauthorised vehicles
Rotary Park and Boat Ramp	Good location of the boat ramp, away from other activities and Riverside Park	 Poor facilities for users in this area. Only 1 shelters and no toilet facilities Vehicle and trailer congestion on peak days? 	Develop a secure toilet facility in this location to cater for boat, park and skate users	Damage by unauthorised vehicles
Constructed 'Walk'	 Informal character of the path, views to the river large shady, red gum canopy and irrigated grass, make this an attractive section of the walk Well interpreted Good legibility- Users know they are in a public area Irrigated grass gives the walk an attractive verdant appearance, in contrast with the southern section Existing artwork in trees 	 Path is not formed, posing issues for Disability Discrimination Act (DDA) compliance and general accessibility when it is wet Users of the path prefer walking under the gums, instead of on top of the levee bank as intended Inconsistent park furniture and elements 	 To develop a formed shared path on top of the levee bank, while maintaining the informal path Revegetation of bare or degraded areas and conversion of some grass areas to native species Extend the existing art/sculpture theming 	 Falling limbs on red gums Management of weed species to the riverfront
River Edge	 Attractive and tree lined Excellent views up and down the Murray River 	 Steep and degraded in some sections Weed species such as Salix sp. (Willows) are present Limited access to water's edge 	Stabilisation and revegetation of river bank	Further erosion and damage to riverbank

6.8 Riverfront - CBD Riverside

The CBD Riverside precinct extends for approximately 1km from Hastings Street / Milloo Street intersection, though to the Riverside Caravan Park. It is bounded to the east by the Murray River and to the west by Monash Drive, the railway corridor and associated uses and civic uses. This section of the riverfront is the most-highly used. It is attractive and supports many varied activities, appealing to locals and visitors alike. Key elements of Riverfront - CBD Riverside include:

- Skate Park
- Retarding basin
- Former rail spur and Fuel Depot
- Riverside Park
- Swimming Pool
- Water Treatment Plant
- Rural Industrial and rail corridor
- Monash Drive
- The constructed 'Walk'
- River Edge
- Swan Hill Lift Bridge

6.8.1 Analysis

Land Use and Site Activation

Existing uses.

- Skate Park The skate park is a metal and concrete street course comprising a mix of rails, flat banks and mini ramp with vert wall at the back. The skate park includes a shelter / rotunda and is located adjacent industrial uses.
- Retarding basin A grassed depression with access track and pumping station nearby. The retarding basin provides for retardation of stormwater, prior to pumpingout and discharge into the Murray River.
- Former rail spur and Fuel Depot This site is the location of an agribusiness retailer, a fuel former depot and the former rail spur. All are industrial type activities and as such have numerous buildings, hard stand and storage areas. This site is likely to have contamination issues which will need to be further investigated.
- Swimming Pool The Richards Swimming Pool and Leisure Centre is an outdoor swimming centre comprising a 50m pool, a 25m pool, a diving pool, a kids pool, a water slide and a kiosk. The pool is open seasonally during the warmer months and is very popular.

- Riverside Park Riverside Park is a manicured local park which includes a sound shelter, a number of shelters/ rotundas, large expanses of lawn, tree planting, the riverwalk trail, public toilets, playground areas, BBQ and picnic facilities, car parking, remnants of the Swan Hill wharf, a pumping station, Swan Hill Canoe Club, artwork, directional and interpretive signage, a water fountain, lighting, 10 Steps leading into the Murray River and artwork. It is the focal point of many community activities.
- Water Treatment Plant Located adjacent the Swimming Pool is the a water treatment plant. It includes a large water tank, a two storey building and a long low treatment facility. Hardstand and grassed storage and parking areas area also located within the site.

Playground in Riverside Park



and facilities along the riverfront. The street has a local streetscape character, with eucalypt planting, bollards along the eastern edge and scattered on street parking. Monash Drive is access from McCallum Street and Mitchell Street (in the Riverfront – Arts, Culture and Accommodation precinct).

■ *Monash Drive* – A broad street that connects activities

• Swan Hill Grain Corp. - The Swan Hill Grain Corp. provides

grain storage and haulage. It benefits from its location

adjacent the rail corridor and includes silo's, a tower, large

shed, weigh bridge and hardstand areas for storage and

circulation. It seasonally generates heavy vehicle activity.

Swan Hill Grain Corp silo's



Skate park



Large areas of lawn within Riverside Park



Monash Drive and views to Grain Corp silos / shed



- The constructed 'Walk' –Through this section, the riverfront Surrounding Uses narrows and the riverwalk deviates closer to the river bank. It meanders past the skate park before branching off to either connect the CBD or continuing under the Swan Hill Lift Bridge to Riverside Park. The path uses a variety of materials along its path and in some areas becomes guite narrow.
- River Edge River Red Gum character with views to the Murray River. A key feature along the rivers edge is the 10 Steps that lead into the water. The steps are currently in need of renovation.

Gravel path along riverbank in Riverside Park







- Railway Corridor Forming a barrier between Monash Drive and nearby CBD is the rail corridor. The corridor is generally bare earth with little planting along its edges. Towards McCallum Drive the railway corridor is fenced and a number of civic uses and buildings 'back onto' this space. The rail corridor has an rural-industrial character. The corridor also includes the railway station.
- Swan Hill CBD The Swan Hill CBD is the focus of commercial, civic and retail facilities and activity within the municipality and the township of Swan Hill. The CBD is separated from the site by the rail corridor and associated uses and infrastructure located along its edge.

Recreational activities

- Swimming Access is provided to the river at Riverside Park via 10 Steps. Other swimming opportunities along the river are less formalised, via small sandy beaches.
- BBQ and Picnic Areas Riverside Park provides a number of key facilities for such activities including BBQ's, shelters, bins and seating.
- Playgrounds Public playgrounds providing for structured
- Skateboarding The skate park provides a street course for a range of bike, scooter and skateboard riders, with various abilities.

Buildings and Site Infrastructure

There are a number of buildings and structures located within the CBD Riverside precinct. These include:

- Picnic Shelter (skate park) low scale, timber rotunda with corrugated roof and seating underneath
- Skate ramps a mix of rails, flat banks and mini ramp with vert wall at the back defined by a concrete area and forming part of the skate park.
- Playgrounds Riverside Park includes a number of public playgrounds. These include a range of play opportunities and are located close to picnic and BBQ facilities. One playground also includes a shade structure.
- Former rail spur Railway line terminating at Hastings
- Fuel Depot Contains numerous industrial buildings, hard stand and storage areas. Most are 1-2 storey and utilise corrugated and metal building products.
- Swan Hill Canoe Club a single storey orange brick building with pitched roof and roller doors and window fittings. This building does not actively engage with park activities.
- Public Toilets A single storey orange brick building fronting Monash Drive. To the back of the building is the Swan Hill Canoe Club.

- Sound Shell A 1-2 storey high brick performance space that is accessible to the public. It includes a 'back door', stage area and steps leading to the stage from both sides. This sound shell faces onto a large expanse of lawn just east of Monash Drive and the levee bank that encompasses Riverside Park. Lighting and sound equipment are also provided in association with this facility.
- Picnic Shelters (Riverside Park) Riverside park includes 3 shelters. The first one closest to McCallum Street sits adjacent a small car parking area and is a simple corrugated roof shelter with timber supports. Underneath this shelter are picnic tables, a BBQ and bins. Closer to the riverbank are two other rotunda style structures. They include an elevated timber, stone and metal shelter with corrugated roof and a brick shelter with corrugated roof. The brick shelter also includes seating and BBQ facilities.

Sound shelter in Riverside Park



Canoe Club / Public Toilets in Riverside Park



Picnic shelters in Riverside Park



- A pumping station located along the riverbank in Riverside Park
- A number of picnic tables, chairs and bins are located along the river front and Riverside Park. There are inconsistencies in the appearance of these elements
- 10 Steps located on the edge of the river bank, these steps provide safe access to the water for a range of activities. As the 10 Steps become submerged as the water levels of the Murray River rises and falls, there are safety issues regarding people diving off this platform.
- Public Art A number of large timber bollards, carved to depict past identities are located within the precinct. These include a bollard of Captain Francis Cadell and Captain William Randell located near the 10 Steps within Riverside Park.
- Wayfinding signage An upright directional sign including a location map of Swan Hill. This sign is located near the 10 Steps and forms part of a suite of directional signage used throughout Swan Hill.

Large timber bollards depicting past identities in Riverside Park



The following buildings and structures within Riverfront - CBD Riverside is heritage listed and has heritage significance:

- Swan Hill Wharf The Swan Hill Wharf was originally used for both freight and passenger services and was an important interchange between 1892 and the 1930's. The wharf was demolished in 1947. A cluster of roughly dressed timber log posts are the only physical evidence of its existence today.
- Swan Hill Lift Bridge Provides one lane vehicular access between Victoria and New South Wales, across the Murray River. A narrow footpath on both sides of the bridgé also provides pedestrian access across. The bridge, a timber and steel lift span bridge, was opened in 1896 and was able to cater for paddle steamers using the river for trade. It was the first of many bridges of this type constructed with New South Wales and the only bridge with the one-man lifting mechanism fitted along the Murray. The bridge is still used today, but formative investigation has been undertaken to replace the bridge.
- Pumping Station No.1 Built in 1914 the pumping station is a small, one storey roughcast rendered masonry building, comprising a square section (facing Monash Drive) and a round section (towards the riverfront). The building is access from Monash Drive and was used to improve the towns existing water supply and conserve water for to be used in an emergency, such as a fire.
- Water Tower Part of the first water reticulation scheme in Swan Hill, the water tower was built in 1886. A cylindrical four storey red brick structure, each level contains arched blind windows and tapering buttresses. Due to its height and its prominent location, the water tower is a landmark within Swan Hill. The heritage review of the tower however notes that the adjacent water slide is 'intrusive and detracts from the aesthetics of the tower'.
- Customs House and Well Bluestone well and tree planting provide the only remains of the former court house that once stood on the banks of the Murray. The court house was used to impose tariffs between New South Wales and Victoria. The bluestone well is circular and set flush with the ground. It has been filled in and a tree has been planted in the centre.

Pumping Station No.1 in Riverside Park



Landscape Character

- Along the riverbanks there is a naturalistic landscape character with river red gums. Adjacent to the river bank many grass areas are irrigated, providing a verdant landscape. The levee bank is a prominent feature and in parts, the riverwalk trail have been designed on top of this. Some sections of the riverbank are steep and degraded, with weed species such as Salix sp. (Willows) present
- Riverside Park has a manicured / maintained character with irrigated lawns and canopy trees.

Swan Hill Lift Bridge



Riverwalk with irrigated grass banks and River Red Gums



Swan Hill Water Tower



Manicured lawns and canopy trees within Riverside Park



Views and Vistas

The local street network provides views into the site, including along Monash Drive and from McCallum Street. Obstructed views across the railway corridor to the site can also be obtained from Swan Hill Train Station and Curlewis Street. Views can also be obtained from the eastern bank of the Murray River, Goat Island or from the river itself

Heritage and Interpretation

- Aboriginal heritage This precinct is considered almost entirely to contain 'areas of cultural heritage sensitivity', based on its location adjacent the Murray River
- Monument There are a number of historic markers located within this section of the river front. They include:
 - A stone seat and plaque in recognition of James Belsar and his heroic deed of rescuing a young man from the Murray River in 1913.
 - A plaque located near McCallum Street honoring Charles Gray, who is recognised alongside Burke, Wills and king as being the first explorers to cross the Australian continent from south to north.
 - A stone wall, bench seating with inset plaque commemorating the 125th anniversary of the paddle steamer. This wall is located in Riverside Park.
 - A historic engineering marker near the Lift Bridge
- Interpretation A number of interpretive signs are located within the precinct, generally along the riverwalk. They provide information about the riverwalk and Lift Bridge (near the skate park), the Swan Hill Wharf (near the Swan Hill Wharf remnants) Customs House. The interpretation signage is part of a suite of signage used along the riverfront.

Stone seat and plaque



Interpretive signage near Lift Bridge



Historic engineering marker near Lift Bridge



Circulation

- Vehicle access into the precinct is provided along Monash Drive. Monash Drive is accessible from Mitchell Street (within the Arts, Culture and Accommodation precinct) and from McCallum Street. Monash Drive provides for two way traffic and some on street parking (located near the Swimming Pool). While Monash Drive generally caters for tourist and local car traffic, trucks also use the road to access to agricultural / industrial uses within the rail corridor.
- A smaller internal road leads from Monash Drive into Riverside Park, providing access to the riverfront, car parking areas, the playground and 10 Steps. The internal road includes on street parking and a turnaround loop to enable cars to exit the site.
- Car parking within this precinct is generally located on Monash Drive or the internal street within Riverside Park.
 A small asphalt car park is also located near Pumping Station No. 1 and provides designated parking bays.
- Pedestrian/bike access through this section of the river is inconsistent, with a number of materials and path widths provided. From the retarding basin, the gravel riverwalk path meander through the red gums, past the skate park to McCallum Street where it branches off into two paths. One path continues towards the water tower and Swan Hill CBD, while a bare earth path meanders under the Swan Hill Lift bridge and into Riverside Park. From Riverside Park the path heads along the riverbank and the edge of the internal road network to the caravan park. At the caravan park, this path then deviates and heads away from the river bank and along Monash Drive, past the caravan park and Pioneer Settlement.
- Safe connections across the rail corridor between the CBD and the riverfront are limited to McCallum Street (and Hastings Street) only. There are other less formalised crossing points but these exist merely as goat tracks formed by pedestrian usage, across the tracks.
- Bus services operate along Monash Drive.
- The Swan Hill Train Station is located between the river front and the CBD. The station provides both freight and commuter connections into Swan Hill. Connections from the station to the riverfront are visual only and commuters are required to walk to McCallum Street to access and enjoy the riverfront.

Existing and Planned Projects

There are no planned or existing projects within Riverfront – CBD Riverside precinct.

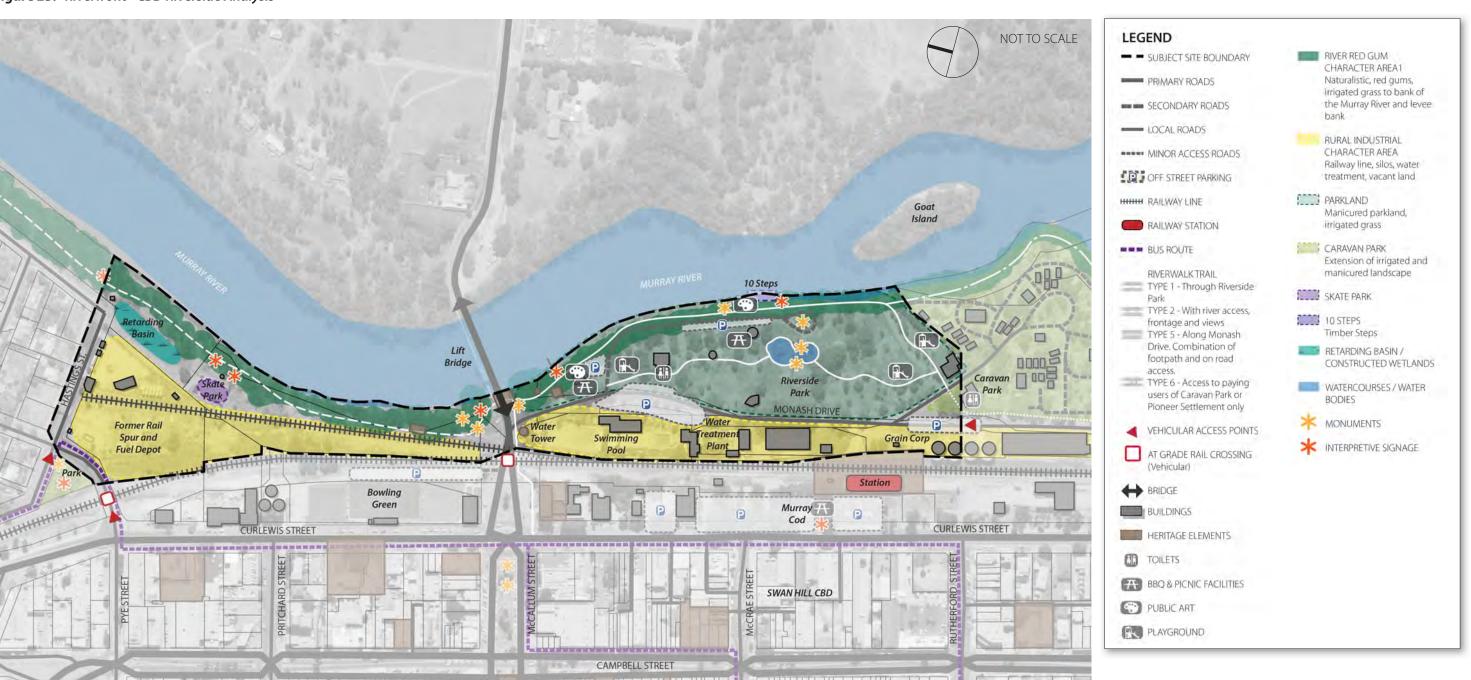
Internal access road to parking within Riverside Park



Riverwalk deviating from riverfront near Caravan Park



Figure 23: Riverfront - CBD Riverside Analysis



6.8.2 Strengths / Weaknesses / Opportunities / Issues

The table opposite provides a summary of the key strengths, weaknesses, opportunities and issues for Riverfront - CBD Riverside.

Location	Strengths	Weaknesses	Opportunities	Issues
Skate Park	 Functional skate park The location is good (but access from CBD is poor and it is not adjacent to other youth facilities such as the pool) 	 Poor access for emergency vehicles Users informally cross the rail line to gain access Surveillance could be better Lack of shade and shelter Rotunda is out of context for a skate facility No toilets 	 Short-Term Determine what skate users want and in conjunction with them implement upgrades to the facility. Possible opportunities include: Tree planting and landscaping in association with youth group/skate users A new shelter (relocate the existing rotunda) Toilet facility in conjunction with Boat Ramp Long-term Relocate and collocate with other youth facilities, such as the aquatic centre 	
Retarding Basin	Part of an existing stormwater treatment system	Generally poor appearance, under utilised space	Develop a bio-filtration or wetland system and revegetate with indigenous species. Provide interpretation, as part of the broader strategy (Milloo Wetlands) of stormwater treatment system prior to discharge into the Murray.	
Riverside Park	 Focal point for community activity Well-maintained, verdant, shaded oasis for Swan Hill Good access to the river and views of the Murray River 	 The park has a rural charm, but is somewhat ad hoc Inconsistent use of furniture and shelters 	 Upgrade to the existing steps Relocation of the canoe club to a waterfront location in conjunction with a retail outlet (Canoe/bike hire, food and beverage outlet) Construction of a new accessible dock for PS Pyap and other boats Provide an all-access playground 	Possible privatisation of the public space, in order to provide activation and surveillance
Swimming Pool	Located centrally and adjacent to Riverside Park		Future collocation with the existing aquatic centre	Ageing facilityIn the path of one of the potential future Bridge alignments
Rural-Industrial and Rail Corridor	The location of the rail station	 The corridor (rail line fencing, silos etc.) is a physical and visual barrier, between the CBD and the river There are no rail -crossings between McCallum Street and the Gray Street 	Investigate relocation of the grain and water treatment facilities, to make available future developable land and better connection between the CBD and riverfront	Potential conflict between grain operations and current and future Riverfront activity
Monash Drive	Broad roadway connecting riverfront activities	Seasonally heavy traffic by vehicles accessing Grain Corp.	Street tree planting to provide cohesiveness and shade to riverwalk	



Location	Strengths	Weaknesses	Opportunities	Issues
Constructed 'Walk'	Provides access to numerous activities through this section	 Inconsistent materials width etc. through the area Some areas are narrow and walking through the carpark is preferred Diverges from the river's edge at the caravan park to run along Monash Drive 	Rationalise the path material, width and signage, to provide consistency and accessibility	Conflicts with vehicles
River Edge	Provides access to the water's edge	 In need of upgrade and repair Bank is unstable and eroded in parts Weeds species such as Salix (Willows) 	 Stabilisation and revegetation of the river bank Improvements to the steps 	Further erosion and weedy species invasion

6.9 Riverfront - Arts, Culture and Accommodation Precinct

The Arts, Culture and Accommodation Precinct extends for approximately 1km from the southern edge of Riverside Park, though to Pioneer Settlement. It is bounded to the east by the Murray and Marraboor Rivers and to the west by Monash Drive. Within this precinct, the riverwalk deviates from the river and runs along Monash Drive adjacent to the Caravan Park and Pioneer Settlement, before re-joining the river south of the Pioneer Settlement Lodge. Key elements of the Arts, Culture and Accommodation precinct include:

- Caravan Park
- Pioneer Settlement
- Horseshoe Bend Dock and PS Gem
- Horseshoe Bend Park
- Spoons Café and restaurant
- Arts Centre
- Pioneer Settlement Lodge
- Monash Drive
- The constructed 'Walk'
- River Edge

Land Use and Site Activation Existing uses

- Caravan Park The caravan park provides a range of accommodation options including, cabins and caravan and camping sites. Facilities within the Caravan Park include a reception and cafe, basketball court, playground, BBQ, swimming pool, games room and amenities. The caravan site is owned by Council and leased to the caravan park operators. The caravan park has direct frontage to the riverfront and public access is restricted.
- Pioneer Settlement The Pioneer Settlement provides the opportunity to relive the Mallee's pioneering history and allows visitors to experience life as an early settler from the early 1800s to the 1930s. The Pioneer Settlement was Australia's first outdoor museum and heritage park. It attracts a large number of tourists to Swan Hill. Recent analysis of the Settlement has indicated that it is lacking storage, exhibit and interpretation facilities and is facing a decline in visitors. In response to these concerns and, to coincide with the 50th anniversary of the Settlements establishment (2016), Council is working to renew, revitalise and redevelop the site, to enhance its assets and experiences. Pioneer Settlement is owned operated by Swan Hill Rural City Council. The Pioneer Settlement has direct frontage to the riverfront and public access is restricted.

Pioneer Settlement



- Horseshoe Bend Dock Cruises aboard the PS Pyap depart daily from Horseshoe Bend Dock. The cruise travels upstream past the historic Murray Downs homestead. The Dock itself is considered in poor condition and parts of it have been closed off from public access. There are safety concerns regarding its continued use.
- PS Gem The PS Gem was once one of many paddle steamers that delivered goods along the Murray River. Built in 1876, the paddle steamer was sunk twice and has since retired to its current location adjacent the Pioneer Settlement. It has been used for community uses, an art space / gallery and restaurant. It is currently unoccupied and awaits a new use.
- Horseshoe Bend Park Located behind the PS Gem and between the Pioneer Settlement and Art Gallery is a small park. The park includes picnic seats and bins, as well as large areas of lawn shaded by canopy trees. This small little park provides opportunities for picnicing ad passive activities.
- Spoons Café and restaurant Spoons Riverside is a restaurant and function venue providing local and seasonal produce. It is a popular location and an attractor of activity and directly overlooks the Marraboor River. It has good vistas of the river and back to Horseshoe Bend.
- Arts Centre Originally located on the paddle steamer 'PS Gem', the Regional Art Gallery outgrew this location and was moved to its current location in 1987. The Art Gallery is well recognised as having one of Australia's most comprehensive collections of naive art, as well as a growing collection of paper, prints and drawings. A popular attraction within the region, the gallery offers changing exhibitions as well as displayed works from their permanent collections. The gallery is owned by the Swan Hill Rural City Council. There are plans to redevelop the gallery and provide increased space, improve circulation and improve the appearance of the building.
- Pioneer Settlement Lodge The Pioneer Settlement Lodge are two cabins used for student accommodation and school camps. Located at a picturesque section of the river, they are currently under utilised and in need of refurbishment.

PS Gem Paddle Steamer



Spoon's Cafe and outdoor decking



Pioneer Settlement Lodges



- Monash Drive A broad street that connects activities and facilities along the riverfront. The street has a local streetscape character, with eucalypt planting, footpath along the eastern edge and on street parking. Monash Drive is accessed from McCallum Street (in the Riverfront – CBD Riverside precinct) and Mitchell Street (west of this precinct).
- Swan Hill Grain Corp. The Swan Hill Grain Corp. provides grain storage and haulage. It benefits from its location adjacent the rail corridor and includes silo's, a tower, large shed, weigh bridge and hardstand areas for storage and circulation.
- The constructed 'Walk' Through this section, the riverwalk takes on many forms. From the caravan park the walk deviates from the river and runs along Monash Drive adjacent to the Caravan Park and Pioneer Settlement, before rejoining the river south of the Pioneer Settlement Lodge. This path is not well defined and lacks consistency.
- River Edge River Red Gum character, with views to the Murray and Marraboor Rivers

Surrounding Uses

- Railway Corridor Forming a barrier between Monash Drive and nearby residential uses is the rail corridor. The corridor is generally grassed with large canopy trees scattered along the edges. Towards the caravan park, the railway corridor expands to include a railway turn table and associated rail infrastructure. This section of the rail corridor has a rural industrial character, with trees and lawn making way for buildings, silos and vehicular access.
- Residential Uses Residential uses provide an interface to the Pioneer Settlement Lodges and the Art Gallery. These lots generally address the riverfront and provide passive surveillance. There appears to have been some private appropriation of public open space and the boundary line between private and public land in many instances is unclear (i.e. Haig Court).

Recreational Activities

- BBQ and Picnic Areas Horseshoe Bend Park provides key facilities for such activities, including picnic tables and bins.
- Murray River Cruises Cruises depart daily from Pioneer Settlement's wharf.
- Tourism / Cultural Interpretation- The Art Gallery and Pioneer Settlement provide activities and events for tourists and visitors within Swan Hill and are key attractors of activity.
- Dining Spoons and its restaurant provide dining opportunities with views of the Murray / Marraboor river.
- Camping / Accommodation Both the Pioneer Settlement Lodges (school groups) and the Caravan Park provide opportunities for accommodation within close proximity of a range of tourist attractions and the Murray River.

Riverwalk along Monash Drive



Buildings and Site Infrastructure

There are a number of buildings and structures located within the Arts, Culture and Accommodation precinct. These include:

- Silos and Tower Large industrial scale steel silo's that connect to a tower almost twice the height. Due to the height of these structures they are prominent within the site and when viewed from the CBD. These structures form part of the Swan Hill Grain Corp. and are used to store grain.
- Swan Hill Grain Corp. sheds A large corrugated shed associated with the Grains Corp. and adjacent silos. The shed has a pitched roof and outdoor hardstand and storage areas. While the shed appears from the outside to be only single storey, its steep pitched roof result in a built form that is approximately 3 storey's high (10-12m).
- Caravan Park The caravan park includes a number of structure and buildings. These include cabins, amenity buildings, and a reception / café. The newly completed reception and café building is a single storey timber and glass structure with slanted corrugated roof. The building actively engages with the adjacent Riverside Park and caravan park. Its entrance faces Monash Drive and includes public toilets. Other features within the caravan park are the swimming pool, a basketball court and a playground. All facilities (except for the café / reception, basketball court and playground) are for caravan patron use only.
- Pioneer Settlement Buildings The Pioneer Settlement contains a range of buildings that aim to capture the character and aesthetic of the Mallee in the pioneering days. Most buildings within the settlement are 1-2 storeys and include a range of material reminiscent of this by gone era. A number of the buildings within the settlement, back onto Monash Drive and do not actively engage or activate this interface. This is being address through the current masterplan for the site.
- Spoons Café and restaurant A single storey glass and corrugated iron building with domed corrugated roof. Spoons also features a wooden deck that overlooks the Marraboor River and vegetation that soften the appearance of the building from the nearby Art Gallery and PS Gem.
- PS Gem A permanently docked paddle steamer

Swan Hill Grains Corp sheds



Recently constructed Caravan Reception, cafe and public toilets



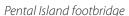
Spoons Cafe and restaurant



- Art Gallery A timber and glass building that appears to be approximately 3 storeys in height. The gallery entrance is located off its access drive (located between the gallery and the PS Gem). 'Back of house' facilities are visible from Monash Drive.
- Accommodation Lodges Simple corrugated and timber structures set below the levee bank.
- Footbridge to Pental Island A timber footbridge with timber bollard and wire balustrade, connecting Pental Island to Swan Hill. The bridge was recently damaged by flood waters and requires repairs. The bridge provides a barrier that restricts large boats (such as paddle steamers) going up Marraboor River.
- A rotunda located near the PS Gem. A single storey timber log structure with corrugated iron roof, it includes seating, a BBQ and bins.
- Seating and picnic tables located around the PS Gem / Horseshoe Bend Park and in front of the Art Gallery.
- Public Art A number of large timber bollards, carved to depict past identities are located within the precinct. These include a bollard of Captain King near the PS Gem and a bollard depicting 'Aboriginal King' located along the river bank within the Pioneer Settlement. Another art installation is the 'Circle of Stones' located opposite the Art Gallery. As its name implies it is a circle of stones.

The following structure within the Arts, Culture and Accommodation Precinct is heritage listed and has heritage significance:

Railway Turntable – Located opposite the caravan park, the railway turntable is a revolving section of track set into a circular depression. Approximately 1m deep the depression is created by a stone rubble retaining wall. The turntable is considered of local historic significance, and although believed to be from the 1930's has only been located in its present position since the mid 1980's.





Large timber bollards depicting past identities



Railwav turntable



• The caravan park has a manicured / maintained character with irrigated lawns and canopy trees.

reconstructed heritage character.

Landscape Character



Opposite the caravan park and the Pioneer Settlement,

this riverbank has a naturalistic landscape character with

riverbank has a naturalistic landscape character with river

river red gums, irrigated grass to bank of Murray River

and levee bank. South of the Pioneer Settlement, the

red gums and unirrigated, dry / natural earth.

The Pioneer Settlement and Arts Centre has a



Views and Vistas

The local street network provides views into the site, including along Monash Drive and Mitchell Street. Views across the railway corridor to the site can also be obtained from Gray Street and Mitchell Street. Views can also be obtained from the eastern bank of the Marraboor River, Pental Island or from the river itself

Heritage and Interpretation

- Aboriginal heritage This precinct is considered almost entirely to contain 'areas of cultural heritage sensitivity', based on its location adjacent the Marraboor and Murray Rivers
- Interpretation A number of interpretive signs are located within the precinct, generally along the riverwalk. They provide information about the Pioneers (near the turntable), the PS Gem, Pioneer Settlement and the Art Gallery (all located near the PS Gem). The interpretation signage is part of a suite of signage used along the riverfront. An interpretive sign located opposite the Art Gallery (outside the site, within the Michael J. Holmes Park) is not consistent with the suite of interpretive signage used along the riverwalk. This sign provides information on Michael J. Holmes.





Circulation

- Vehicle access into the precinct is provided along Monash Drive. Monash Drive is accessible from Mitchell Street (near the Art Gallery) and from McCallum Street (within the Riverfront – CBD Riverside precinct). Monash Drive provides for two way traffic and some on street parking (located near Pioneer Settlement / Art Gallery and adjacent the new caravan park reception and café. The broad street with informal street tree planting also benefits spatially from its location opposite the railway corridor. While Monash Drive generally caters for tourist and local car traffic, trucks also use the road to access to agricultural / industrial uses within the rail corridor. The caravan park, Pioneer Settlement and Art Gallery are all accessed from Monash Drive.
- An internal circuit of roads provides access to camp sites and cabins within the caravan park.
- Maintenance vehicular access is provided along Monash Drive into both the Pioneer Settlement and the Arts Gallery. These entrances appear unmaintained and usually contain 'back of house' operations.
- There are a number of car parks located within this precinct. On street car parking as mentioned above is located along Monash Drive. Off street parking areas are located between the PS Gem and the Art Gallery. This parking are is divided into two and included a formalised asphalt parking area for the Pioneer Settlement, and an informal gravel parking area (with no line marking) for the Art Gallery. Access to this parking area is located off Monash Drive, near the intersection of Monash and Mitchell Streets. No formal bus parking is provided on site for either facility, however can be accommodated within the gravel Art Gallery car park.
- Informal car parking was also observed within grassed areas along the rail corridor, while private vehicle parking utilises the gravel car park behind the art gallery.

Monash Drive winding past Pioneer Settlement





Parking area behind Art Gallery



- Pedestrian/bike access through this section of the riverfront is convoluted and not well signed. From the caravan park, a formal concrete path leads pedestrians away from the river and towards Monash Drive. Pedestrians then walk along a variety of different footpaths including a gravel path and an asphalt path, along the edge of Monash Drive before reaching the Art Gallery. From here the path becomes less defined as it meanders through car park areas and reconnects with a gravel path near the Pioneer Settlement Lodges. This path then continues along the top of the levee bank into the Riverfront – South precinct.
- Safe connections across the rail corridor to the riverwalk are limited to road crossings only.
- Both the Pioneer Settlement and caravan park have internal pedestrian path networks, however these are only accessible to patrons, privatising this section of the riverfront.
- Bus services operate along Monash Drive.

Existing and Planned Projects

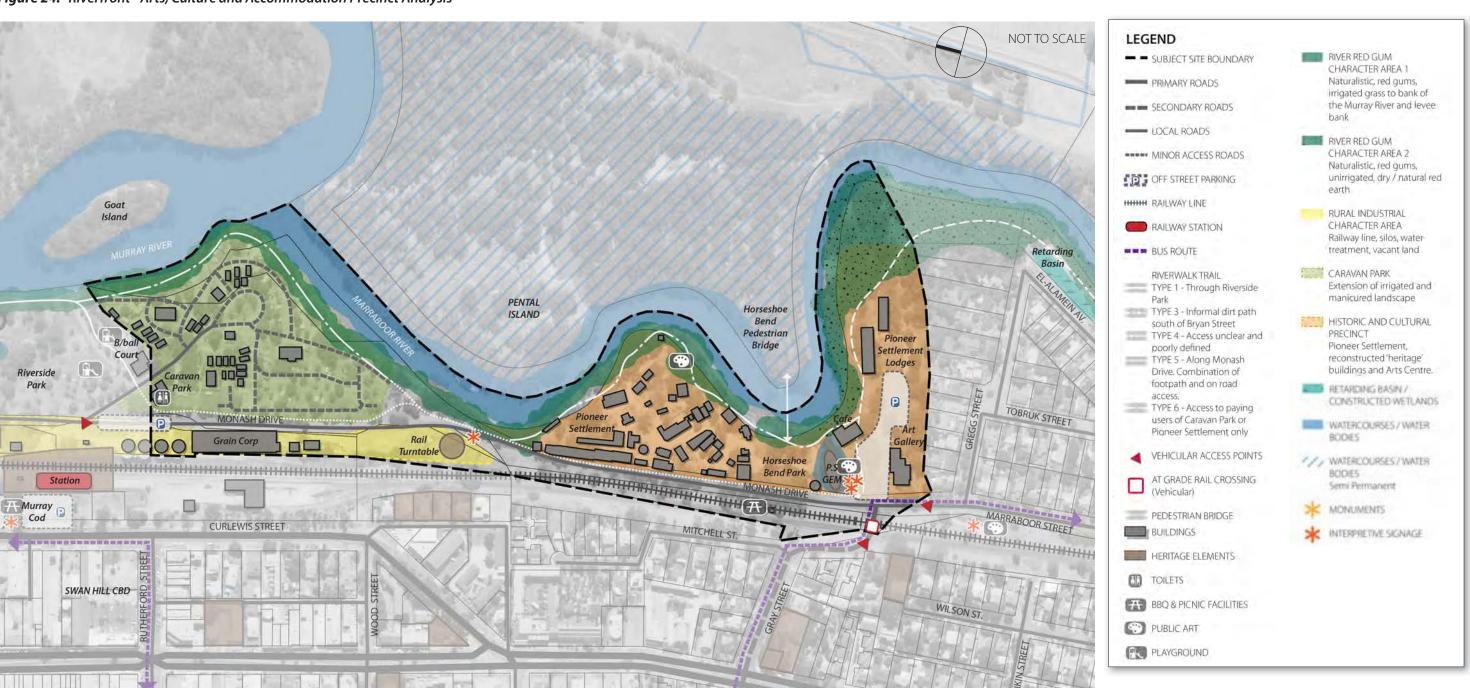
There are currently a number of projects planned for within the precinct. These include:

- Art Gallery Extension and redevelopment of the Swan Hill Regional Art Gallery. Concept plans for the redevelopment are already and will be used to lobby for state funding.
- Pioneer Settlement To renew, revitalise and redevelop the site in preparation for the Settlements 50th anniversary.
- Caravan Park A new café and entrance building have recently been constructed and include new public toilets. A new car park has also been built and the old public toilets near the entry, demolished. The work is part of a 21-year lease agreement with the new caravan park operators. Other improvements proposed at the park include a conference centre and new park pool.

On street parking along Monash Drive Gravel path along levee bank past Pioneer Settlement lodges



Figure 24: Riverfront - Arts, Culture and Accommodation Precinct Analysis



6.9.1 Strengths / Weaknesses / Opportunities / Issues

The table opposite provides a summary of the key strengths, weaknesses, opportunities and issues for Riverfront - Arts, Culture and Accommodation Precinct.

Location	Strengths	Weaknesses	Opportunities	Issues
Caravan Park	 Central location Recently upgraded facilities 	Has privatised a large section of the river frontage resulting in the riverwalk deviating on to Monash Drive	 Short-Term Improvements to the pedestrian path along Monash Drive to improve legibility of the 'Walk and an attractive connection to the Arts Precinct Long-Term A long-term strategy may be to provide public access to the river front 	
Pioneer Settlement	 Major tourist attractor Strong vision and masterplan for its future 	Occupies a section of the river frontage resulting in the riverwalk deviating on to Monash Drive	Possible public access to Horseshoe Bend Wharf and surrounds, to provide access to the waterfront and better accessibility for the PS Pyap	
Spoons Café and restaurant	Major attractor to this precinctWaterfront views		Future expansion	
Arts Centre	Location adjacent to the tourism precinct		 To ensure that the riverwalk is integrated into proposed plans for the arts Centre expansion and rationalisation of the carpark To consolidate the centre as the 'Arts' hub of Swan Hill and starting point for Arts/ sculpture/heritage walk along the river Outdoor sculpture and installations, temporary and permanent 	
Pioneer Settlement Lodge	Prime location	Ageing facility	Possible redevelopment site as accommodation or affiliated arts / tourism facility	Adjacent residents opposed to redevelopment of the site
Constructed 'Walk'	Links several nodes of activity	 Poor legibility and orientation through this precinct Lacks consistency in form, construction material and width, with the path deviating to Monash Drive and numerous treatments 	To improve the path along Monash Drive, to provide a better connection between Riverside park and the Arts/ Heritage Precinct	
River edge	Red Gum character	Private access only at the caravan park or Pioneer Settlement	Provide future public access where possible at Horse Shoe Bend and Spoons	 Further erosion and damage to riverbank Management of weed species to the riverfront

6.10 Riverfront - South

Riverfront - South extends for approximately 1.5km from the Pioneer Settlement Lodges, along the Marraboor River, to the Pental Island Road Bridge. Between the Lodges and Bryan St., the riverwalk trail is formed and runs along the top of the levee bank. South of Bryan Street, the path is narrow trail and tightly confined between the river and the rail line. The 'Walk' is dry, natural in character and is unirrigated, contrasting with the northern and central section of the walk. Key elements of Riverfront - South include:

- El-Alamein Avenue interface
- Park (Bryan Street)
- River Oaks interface
- River edge
- The constructed 'Walk'

6.10.1 Analysis

Land Use and Site Activation

Existing uses

- Park (Bryan Street) A small reserve that includes indigenous planting and aims to highlight the natural character of the region
- Constructed 'Walk' A bare earth pathway that is in keeping with the natural character of its setting
- River edge A tree lined riverbank providing views to the Marraboor River
- Residential Uses A residential home is located at the intersection of Pental Island Road and the railway line. Agricultural uses associated with the home encroach upon adjacent public space and the river front

Park (Bryan Street)



Riverwalk / bare earth pathway



Rivers edge with timber steps to water



Riverwalk with residential uses adjacent

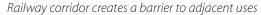


Surrounding Uses

- Residential Uses Residential uses include homes along El Alamein Avenue and Whittaker Street which front onto the riverfront, and Haig Court and Marraboor Street, which back onto it. A residential estate, the River Oaks Estate, is also located to the south of Pental Island Road. This estate is currently being developed.
- Civic / Educational Uses A police station and Koorie School are located along the south west boundary of the site. The railway line separates these uses from the site.
- Railway Corridor Provides a barrier between civic / educational uses to the south. The corridor is generally grassed with large canopy trees scattered along the edges.

Recreational Activities

- Hiking / Walking The precinct includes the riverwalk that meanders alongside the Marraboor River. Interpretive facilities are provided to enhance this experience.
- Cycle Access unformed path





Buildings and Site Infrastructure

There are limited buildings and structures within Riverfront -South. Those located here include:

- Residential home and associated out buildings low scale, single storey brick home with outbuildings set amongst established tree and shrub planting.
- A pumping station located near the retarding basin along El Alamein Street.
- A number of chairs along the river front No buildings within Riverfront - South are heritage listed or have heritage significance.

A chair located on the river bank



Landscape Character

Naturalistic landscape character with river red gums, unirrigated, dry / natural earth. Some sections of the riverbank are steep and eroded.

Views and Vistas

• The local street network provides views into the site, including along Pental Island Road, Bryan Street, El-Alamein Avenue and Gregg Street. These views are obstructed however by the levee bank and vegetation. Views can also be obtained from the eastern bank of the Marraboor River or from the river itself.

Heritage and Interpretation

- Aboriginal heritage Riverfront South is considered to contain 'areas of cultural heritage sensitivity', based on its location along the Marraboor River.
- Interpretation A number of interpretive signs are located within this section of the riverfront. They provide information about the Native Fish of Lower Murray, Aboriginal Occupation, Sandhill Vegetation Community, Aboriginal Food Sources and River Cooba or Eumong. The interpretation signage is part of a suite of signage used along the riverfront.

Dry / natural landscape character



Circulation

- Vehicle access into the precinct is limited to residential streets that surround it. This includes access from El Alamein Avenue and Bryan Street. Both streets have a residential streetscape character with canopy tree planting, footpath and lawn. Pental Island Road forms the southern boundary of the site. While it allows people to 'see' the site when passing by, access from this road made difficult by road side vegetation and the Pental Island Road bridge.
- Informal vehicular access is provided at either end of El Alamein Street via a gravel track. These points enable access to the pumping station and levee bank.
- An informal car parking area is provided at the end of Bryan Street, adjacent the Bryan Street park. The bare earth parking area, with space to turn around does not define parking spaces. The wide verge along El Alamein Street allows for on street parking.
- Pedestrian access through the precinct is provided via the riverwalk. This section of the riverwalk is remote and has poor surveillance. Currently the path deviates off the levee bank 300metres short of the Pental Island Road and does not link to River Oaks Estate. Access along the path is difficult for both pedestrians and bikes.
- Public transport bus services run past the site. No stops are provided within Riverfront - South however.

Existing and Planned Projects

There are no planned or existing projects within Riverfront -South.

Informal car park at the end of El Alamein Street



Pedestrian path along levee bank



A more remote section of the riverwalk, where the path narrows



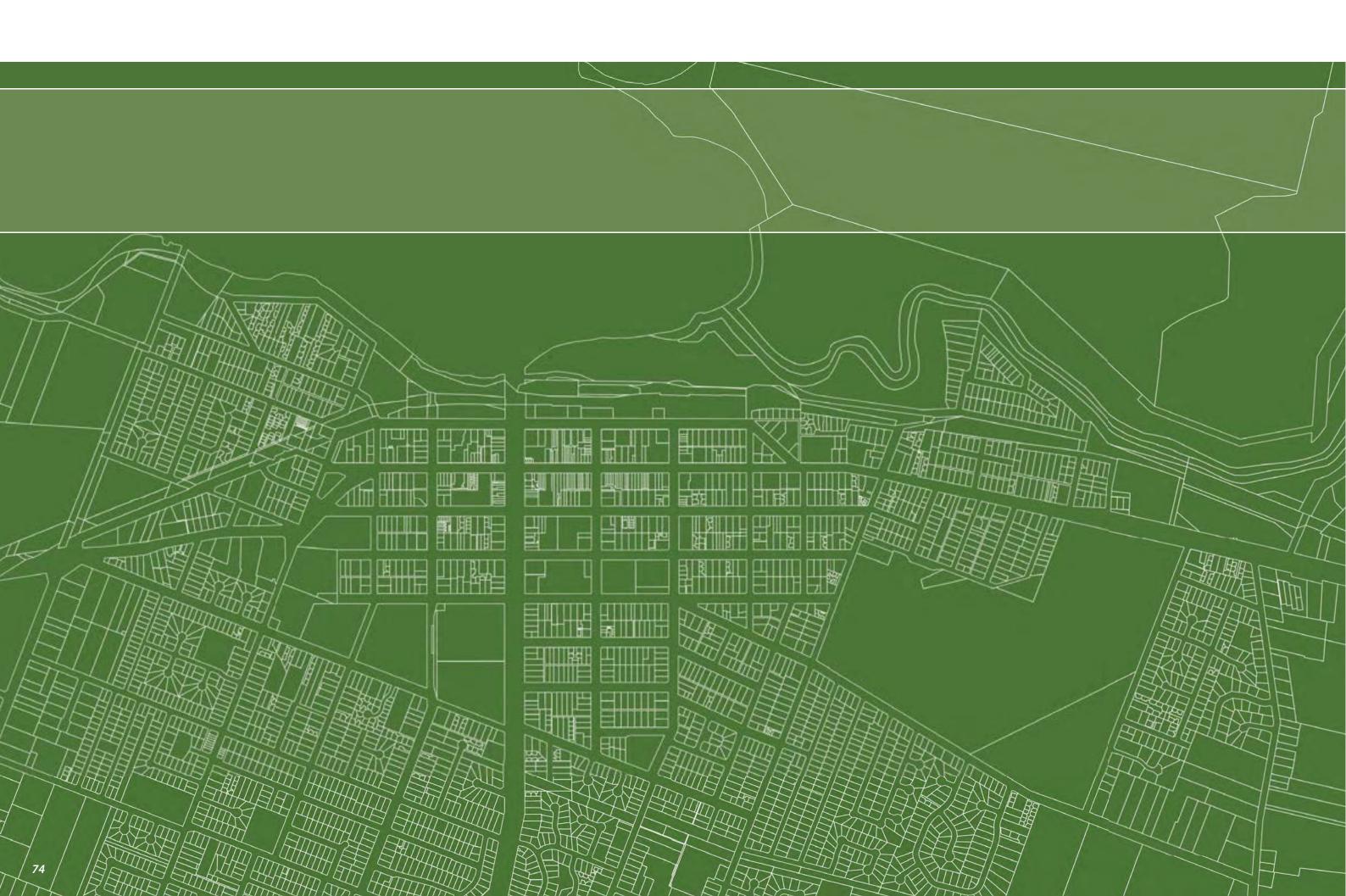
Figure 25: Riverfront - South Analysis



6.10.2 Strengths / Weaknesses / Opportunities / Issues

The table opposite provides a summary of the key strengths, weaknesses, opportunities and issues for Riverfront - South.

Location	Strengths	Weaknesses	Opportunities	Issues
El-Alamein Avenue interface	River gum characterWidth of trail along levee back and elevated position	Encroachment of private space on to public reserve	Environmental upgrade to adjacent retarding basinFurther revegetation	Encroachment of private space on to public reserve
Park (Bryan Street)	 Indigenous planting, highlighting the natural character of the region Good access via Bryan Street Informal car parking available 	The park is not well-know or interpreted	 Future enhancement through 'Friends groups Interpretation of local environment and plant material 	Location may mean that this area is overlooked in on-going management
Constructed 'Walk'	 Bare earth, natural in character Offers a different river front experience 	 In sections, the path is narrow and generally single person width Access for all is difficult This section is remote and has poor surveillance. Users may feel unsafe Currently deviates off the levee bank 300metres short of Pental Island Road Difficult to navigate on a standard bicycle 	 To upgrade this section, but generally retain its current form, as an alternate experience To upgrade the path to provide shared access 	Location may mean that this area is overlooked in on-going management
River Edge	Natural in characterGood views for users	Steep and eroded in sections	Ongoing rehabilitation	 Further erosion and damage to riverbank Management of weed species to the riverfront
River Oaks	Future residential development at this estate may assist in activating the southern section of the 'Walk'	Area is currently under-developed	 Commuter link to the CBD To create river loop crossing at the Pental Island vehicular bridge, back to the Marraboor River crossing at Horse Shoe Bend 	



7. The Vision, Guiding Principles and Strategic Aims

7.1 The Vision

The vision provides a statement of the preferred long term future for the Swan Hill Riverfront. It is an aspirational statement that conveys a sense of how the precinct will look, function and feel in the future.

The statement opposite is based community consultation feedback (undertaken January 2013 and May 2013) and analysis of key opportunities and challenges for the riverfront. The vision contained within the Swan Hill River Precinct Project Concept Plan and Report, March 1997, was also considered.

The vision is supported by 13 guiding principles and riverwalk principles, which provide more on the ground outcomes to be achieved in the riverfront.

The vision, along with the guiding principles, has been used to guide the development of the masterplan and will be used to direct and assess all future planning and design outcomes within the riverfront to ensure that future development is consistent with these aspirations.

II The Swan Hill Riverfront in 2030 is...

a vibrant and enjoyable place, a place for families, a place where everyone feels welcome and where people come to together to meet, greet, play and explore.

The riverfront focuses on the Murray and Marraboor Rivers and offers a range of interesting and diverse opportunities for people to interact and engage with the water, while respecting and interpreting the cultural and environmental qualities of the site that make it so unique.

Safe, clear and accessible links provide strong connections between Swan Hill CBD and the revitalised riverfront and highlight its importance and contribution to the identity and character of Swan Hill.

The lifestyle qualities of Swan Hill are enriched by an integrated network of high quality public open spaces along the riverfront. Catering for a diverse a range of activities and experiences, these are safe, lively, interesting and inclusive spaces for all members of the community, at all hours of the day, all year round.

Riverside Park is the focus of this network and provides a hub for community activity and social interaction. It has a 'strong sense of place' and demonstrates community pride and identity.

The riverfront and its open space network are supported by a mix of thriving and viable commercial uses and local businesses. These complement and work with the distinctive qualities of this natural setting, while generating substantial economic and social benefits for Swan Hill.

Riverwalk forms the 'spine' of the riverfront. A fully formed pedestrian path, it provides a continuous connection from Milloo Street Wetlands to Pental Island Road and links the uses and community facilities located along its course.

The history of Swan Hill and its people are reflected and celebrated throughout the riverfront. Technology and innovative techniques tell the story of Swan Hill and provide a visually memorable experience of the riverfront that distinguishes it from other riverfront towns.

The Swan Hill Riverfront is a community place, a family place, a cultural space, a natural asset and a visually memorable location. It is the heart of Swan Hill and the heart of the Swan Hill community.

7.2 Guiding Principles

The Swan Hill Riverfront Masterplan has been guided by a set of principles. These principles have been developed through community and stakeholder consultation and analysis of the key opportunities and challenges for the riverfront.

The principles have been used to guide the development of the framework plan and the masterplan for the riverfront and will be used later in detailed planning and design for the riverfront.

Social and Cultural

PRINCIPLE 1

The rail corridor interface should be managed to protect the amenity of the riverfront and enhance visual and physical connections between the riverfront and the CBD

What does this mean for the Swan Hill Riverfront Masterplan?

- The riverfront should be easily and safely accessed from the Swan Hill Railway Station and the CBD
- Improve the visibility of the riverfront from the CBD
- Improve the public realm to each side of the rail corridor
- Investigate opportunities to relocate rail assets, where possible





PRINCIPLE 2

The riverfront must be publicly accessible and enjoyable

What does this mean for the Swan Hill Riverfront Masterplan?

- Provide a continuous and legible riverwalk path / trail from Milloo Street Wetlands to Pental Island Bridge, with connections to the CBD
- Ensure that future development gives priority to public access along the riverfront
- Maximise inclusive access and opportunities to the riverfront to enable people of all abilities to engage with the Murray River, both visually and physically
- Improve the appearance of the riverfront to ensure it is visually appealing and encourages visitation
- Provide opportunities to engage with water, both visually and physically
- Reduce erosion at key locations along the riverbank





PRINCIPLE 3

The riverfront should be active, interesting, able to provide enjoyable, accessible and safe public spaces (for all people at all hours of the day) along its length

- The 'character' of Riverside Park as a 'green space' should be preserved and enhanced
- Provide flexible gathering spaces that encourage a wide-range of uses and activities
- Provide safe and enjoyable ways to get around the precinct on foot and bicycle to encourage people into and through the site
- Surrounding buildings should engage with the riverfront and contribute to the riverfront experience
- Incorporate areas of more active engagement and recreation and more private / contemplative areas
- Activities should complement the role of the riverfront, provide for a variety of users and be of a size that is appropriate and sustainable
- Minimise built form in key parts of the riverfront



Social and Cultural

PRINCIPLE 4

The riverfront should provide flexible, adaptive and affordable spaces that allow for events and activities of varying scales

What does this mean for the Swan Hill Riverfront Masterplan?

- Include facilities for the staging and on site storage of event equipment. These facilities should also support the programming of events including access, car parking, toilet facilities etc.
- The riverfront should have areas of interest and activity by day and night
- Investigate opportunities for the adaptive reuse of existing infrastructure within the riverfront





PRINCIPLE 5

The riverfront should be of high quality, enhancing a strong 'sense of place', demonstrating community pride and identity

What does this mean for the Swan Hill Riverfront Masterplan?

- Ensure the riverfront caters for the local community and visitors to Swan Hill
- Emphasise the Murray River as an integral part of Swan Hill and its story
- Materials should reflect the local character and history of the riverfront and contribute to the identity of the riverfront
- Incorporate public art that reflects the culture of Swan Hill and its community
- All future riverfront buildings, structures and spaces should demonstrate high quality design and construction with simple, contemporary forms that sensitively respond to its context





PRINCIPLE 6

The development of the riverfront should include cultural references

- Interpretive material should be provided along the riverfront to create an awareness and appreciation of the cultural history of the site
- Indigenous culture should be celebrated and respected along the riverfront and reflected in the outcomes of the riverfront precinct





Environmental

PRINCIPLE 7

The environmental and natural qualities of the riverfront should be maintained and enhanced

What does this mean for the Swan Hill Riverfront Masterplan?

- Sensitive environmental areas should be protected
- Significant vegetation should be retained and enhanced where possible
- Revegetation should occur where possible whilst considering impacts on views, safety and surveillance
- Bank stabilisation and river health should be a key consideration at key locations along the riverfront
- WSUD opportunities should be evaluated for inclusion in all riverfront projects

PRINCIPLE 8

The riverfront should recognise and interpret the historical and cultural values of the precinct

What does this mean for the Swan Hill Riverfront Masterplan?

- Interpretative material / spaces should be provided along the riverfront to tell its story
- The existing historical and archaeological features should be protected and enhanced
- Materials and the design of buildings and spaces should celebrate the role and character of the riverfront

PRINCIPLE 9

Future development should demonstrate sustainable use of resources and ensure an integrated approach to the social, environmental and economic performance of the precinct

What does this mean for the Swan Hill Riverfront Masterplan?

- Optimise water and energy conservation
- Development should be flexible and adaptable to foster evolution and long term sustainability
- Create a riverfront precinct that is a sustainable and manageable asset for Council
- Provide an exemplar to the community of how sustainability brings benefits to all

PRINCIPLE 10

Car parking and vehicle access should be flexible and convenient but not dominate the public realm. It should be sensitively located and detailed

- Car parking should not dominate key public spaces along the riverfront
- The provision of RV and bus parking should be considered and included in design at the riverfront
- Service access to future buildings and facilities will need to be provided

















Economic

PRINCIPLE 11

Future development of the riverfront should provide facilities that attract and sustain prosperous, viable and complementary commercial opportunities within Swan Hill

What does this mean for the Swan Hill Riverfront Masterplan?

- Provide opportunities for increased employment and tourism development within the riverfront
- Support and enhance existing riverfront businesses that complement the riverfront
- Build on existing key assets within the riverfront including Pioneer Settlement and the Art Gallery

PRINCIPLE 12

The riverfront should provide opportunities for private sector investment to enhance the economic performance of the precinct

What does this mean for the Swan Hill Riverfront Masterplan?

 Identity opportunities for appropriate public sector investment that complement the character, function and use of the riverfront

PRINCIPLE 13

The development of the riverfront should support local businesses and the skilled workforce within Swan Hill

- Promote the use of local goods and services, where possible
- Provide opportunities for local residents to showcase their skills and talents













7.3 Riverwalk Principles

During community consultation and analysis of the key opportunities and challenges for the riverfront the importance of riverwalk became apparent. Riverwalk provides a key role in linking all part of the riverfront and besides the Murray and Marraboor Rivers, is the single most consistent element within the precinct.

To reinforce this link along the riverfront, the following riverwalk principles were developed. They aim to ensure that the treatment and design of riverwalk is considered in a holistic and integrated manner and that this spine throughout the riverfront is strengthened as part of the masterplan.

1. PATH

- Provide a legible path from Milloo Street wetlands to Pental Island Bridge
- Upgrade the path to shared-path status from Milloo street wetlands to Bryan Street to encourage greater use by pedestrians and cyclists
- Upgrade the path from Bryan Street to Pental Island Bridge, but retain natural character, for different experience
- Provide a consistent suite of Furniture materials to provide a cohesive theme for riverwalk

2. RIVERBANK AND ENVIRONMENT

- Improve the condition of the river banks
- Identify priority areas for bank stabilisation
- Identify locations for safe access to the water's edge or top of riverbank
- Prevent access to dangerous sections of riverbank
- Identify priority areas for revegetation
- Remove weed species from the riverfront and revegetate.
- Upgrade where possible stormwater outlets, so that water is treated via WSUD, prior to discharge into the river

3. INTERPRETATION

- Build upon current interpretations of the riverfront, expanding upon Indigenous culture and reflecting Indigenous culture in built outcomes
- Develop a riverfront 'App' providing detailed interpretation and commentary on the Swan Hill riverfront













4. ARTS

- Develop Arts and Sculpture as an overlay to the riverwalk using the Arts Precinct as a focal point
- Consider the future use of light and sound in 'Arts' installations as an extension of the Pioneer Settlement

5. FITNESS

Develop a series of sensitively located fitness stations along Riverside Walk to encourage further use and activity

6. MATERIALS AND FURNITURE

- Identify locations for priority upgrade in conjunction with a new shared-path and associated projects
- Develop/Adopt a flexible suite of furniture and materials for consistent use along the riverfront. i.e. the design may change but the use of materials such as redgum and galvanised steel finish would remain consistent











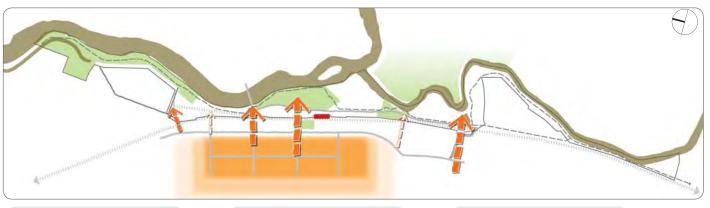


7.4 Strategic Aims

The strategic aims identify the priorities for improvements to the riverfront. These aims have been developed through community and stakeholder consultation and analysis of the key opportunities and challenges for the riverfront.

The strategic aims have been used to guide the development of the framework plan and the masterplan for the riverfront.

1 Reconnect the CBD to the riverfront and its origins on the Murray River



"They (town centre and riverfront) need to be connected with some kind of overpass or walking tunnel for pedestrians"

[Comment from January 2013 consultation]

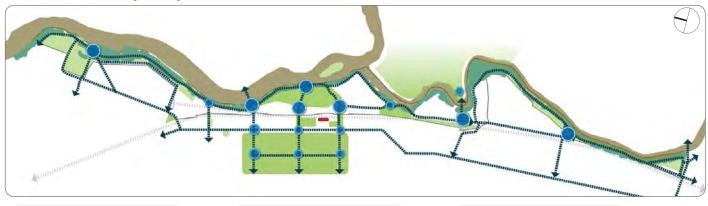
"We need a walkway from McCrae St over the railway line"

[Comment from January 2013 consultation]

"It's not people user friendly to get from the centre of town to the riverfront".

[Comment from January 2013 consultation]

Provide an integrated network of high quality public open spaces along the riverfront open space network, with Riverside Park as the focus of this network



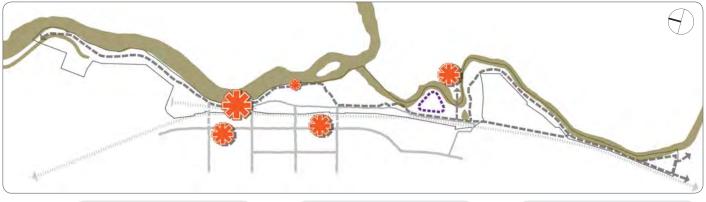
"Put the skate park in the middle of the action where families of all ages can be supervised, play, eat and toilet facilities close by."

[Comment from January 2013 consultation]

"More shaded areas to sit and to eat. Shaded playground areas". [Comment from January 2013 consultation]

"Ensure there is access for all abilities"
[Comment from January 2013
consultation]

2 Celebrate and interpret the unique heritage and history of the riverfront and river



"for whole of community to gather around and understand why the Riverfront has so much Aboriginal history"

[Comment from January 2013 consultation]

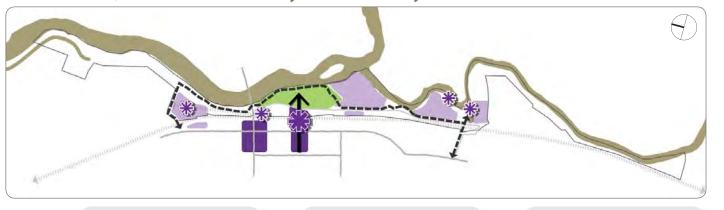
"We need to have Indigenous story telling"

[Comment from January 2013 consultation]

"The riverfront needs more Indigenous cultural activities".

[Comment from January 2013 consultation]

4 Accommodate a range of activities and experiences for families that activate the riverfront, at all hours of the day and seasonally



"A better set up for live music / bands and performances - possibly an area with a roof but no walls and tiered seating".

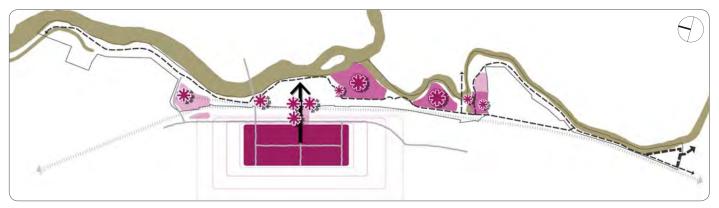
[Comment from January 2013 consultation]

"Have an activity day for families every Sunday"

[Comment from January 2013 consultation]

"Summer activities". [Comment from January 2013 consultation]

5 Support and build existing business, while encouraging complementary commercial investment



"Tourists come to Swan Hill and they don't know where to buy art" [Comment from January 2013 consultation] "We really miss our kiosk".

[Comment from January 2013 consultation]

"More eating areas, with good use of outside eating."

[Comment from January 2013 consultation]

6 Provide opportunities for people to engage with and encounter water in interesting and exciting ways



A jetty with seating and shade and fishing facilities, even a kiosk - have it floating so you don't have to worry about floods!!!!!.

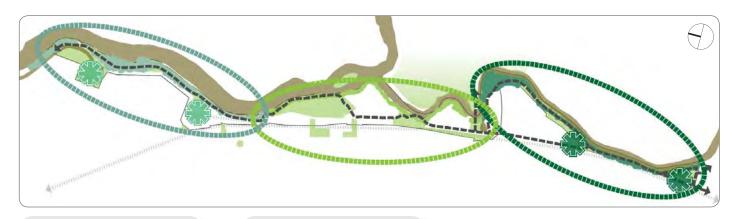
[Comment from January 2013 consultation]

"A bubbler fountain for the kids... The water spurts up intermittently and kids run in and out"

[Comment from January 2013 consultation]

"Build a free waterpark"
[Comment from January 2013 consultation]

7 Respond to and celebrate the unique environmental qualities of the riverfront



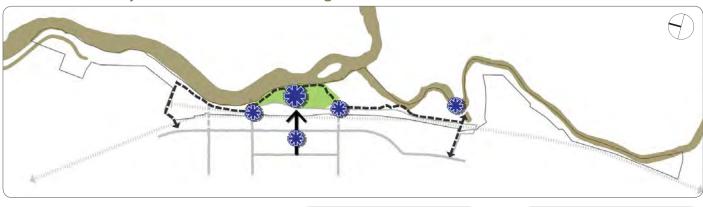
"The riverfront is beautiful, we are very proud of it".

[Comment from January 2013]

[Comment from January 2013 consultation]

"I love the differences along the riverfront, keep some things environmental) the same"
[Comment from January 2013 consultation]

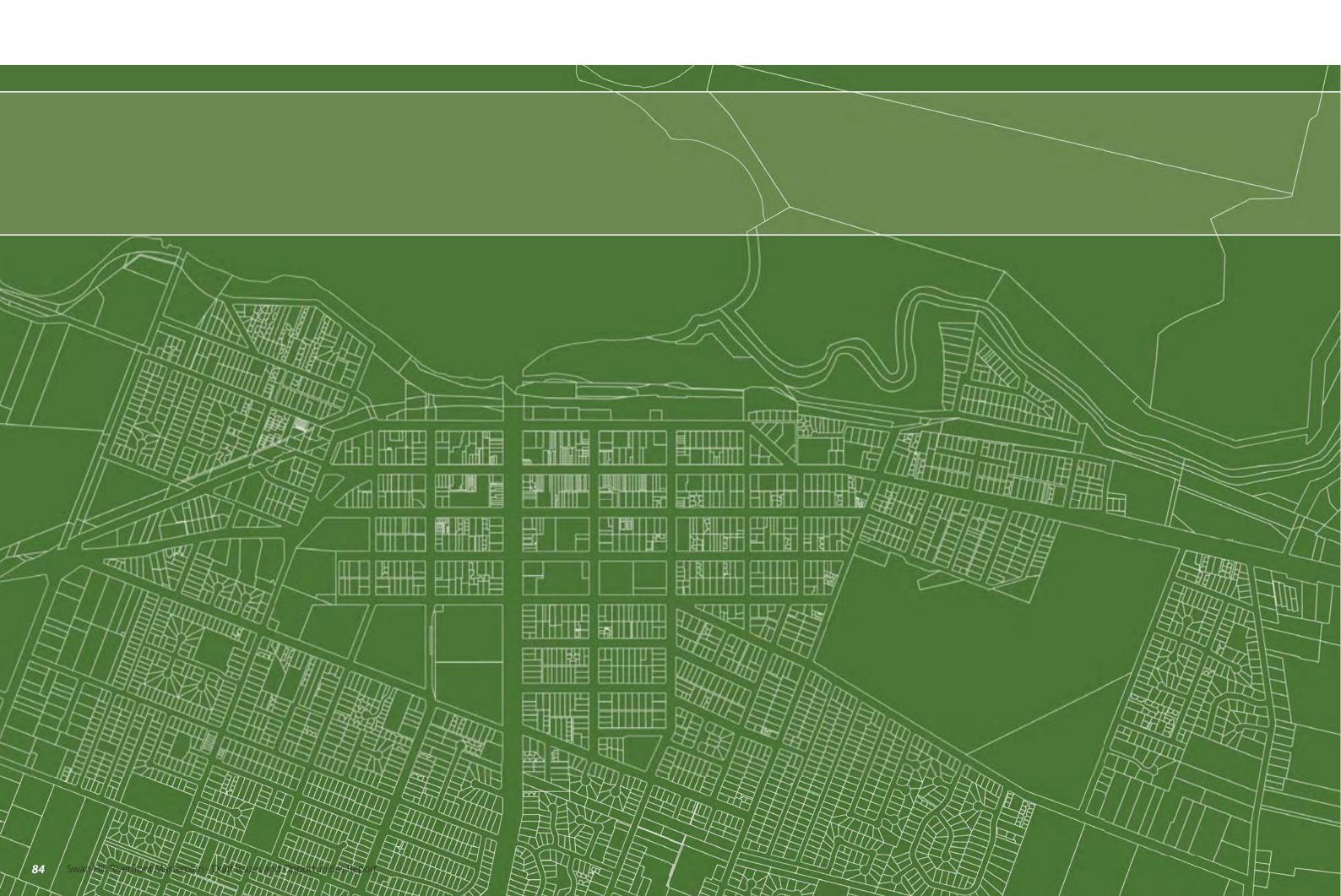
A contemporary riverfront that utilises technology and innovative techniques to tell the story of Swan Hill and distinguish it from other riverfront towns

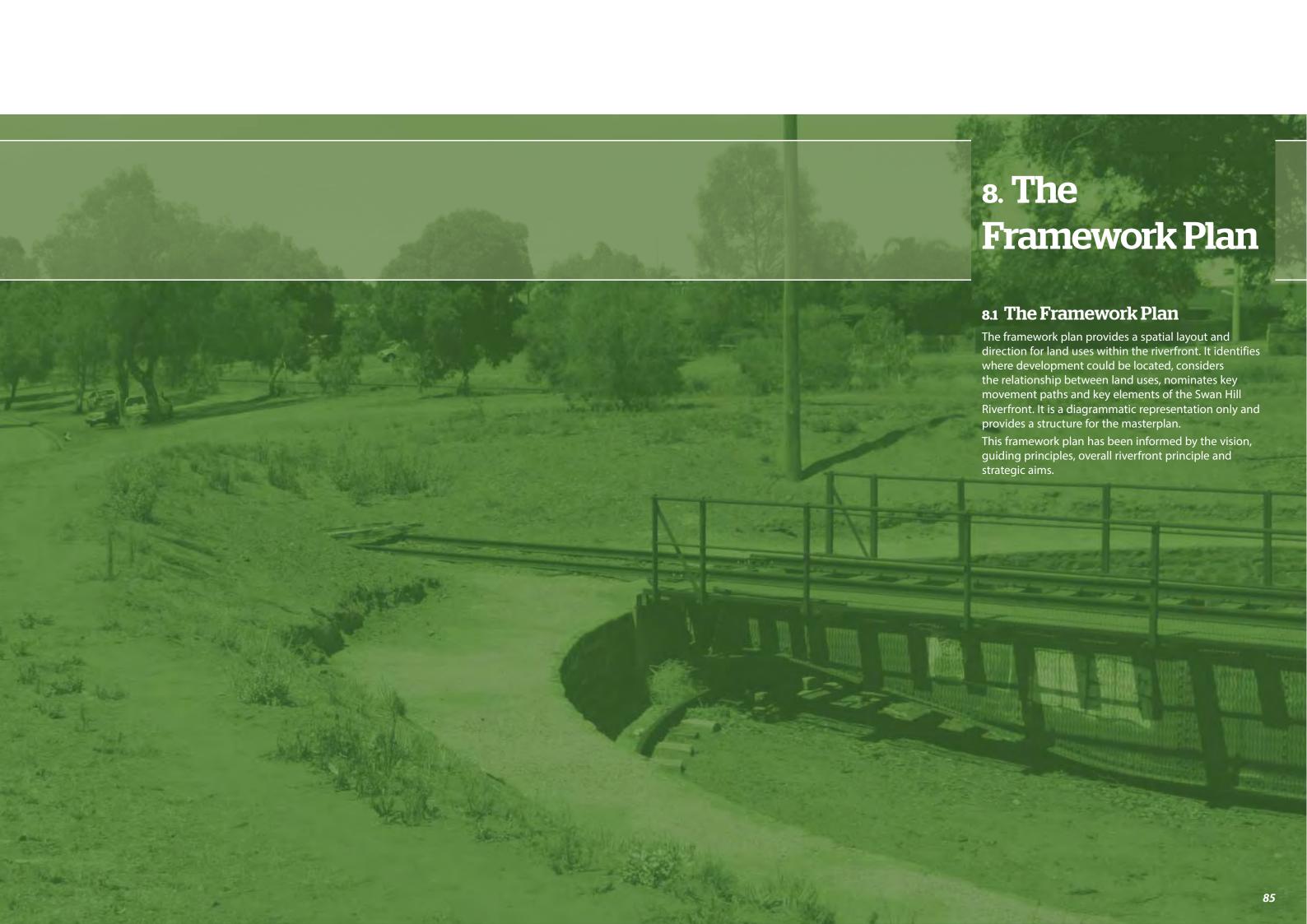


"The riverfront is a bit old school and datey at the minute".

[Comment from January 2013 consultation]

"We need something that makes people remember Swan Hill". [Comment from January 2013 consultation]







8.2 The Precinct Plan

The precinct plan identifies areas where certain uses and activities could be located. Collocating similar uses and activities allows synergies between land uses to be captured and developed.

The precinct plan responds to the existing landscape character and land uses of the riverfront, as identified though community and stakeholder consultation and analysis of the key opportunities and challenges for the riverfront. It allows for existing features and qualities of the site to be celebrated and provides variety within the landscape.

From a strategic sense the precinct plans has been used to inform the arrangement of uses within the riverfront masterplan. In more detail and on the ground, the precinct plan will influence material and plant selection and planting arrangements.

"More shaded areas to sit and to eat. Shaded playground areas". [Comment from January 2013 consultation]

"We need to have Indigenous story telling" [Comment from January 2013 consultation]

8.2.1 The Precincts

'Heart Of The Riverfront'

This precinct is characterised by McCallum Street, the CBD interface, Swan Hill Lift Bridge and pedestrian underpass, the Murray River, Riverside Park, the railway corridor, the existing water tower and forms the gateway into Swan Hill from NSW.

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

- Provide information and interpretive features which utilise technology
- Enhance connections across the railway corridor and McCallum Street (under the lift bridge)
- Provide visual and physical link between the CBD and the riverfront
- Enhance views to existing key features including the water tower and the Swan Hill Lift Bridge
- Frame entry into Swan Hill from NSW

Riverside Park

This precinct is characterised by the sound shelter, a number of shelters/rotundas, large expanses of lawn, tree planting, the riverwalk trail, public toilets, playground areas, BBQ and picnic facilities, car parking, a pumping station, Swan Hill Canoe Club, directional and interpretive signage, a water fountain, lighting, 10 Steps leading into the Murray River and artwork.

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

- Retain the open lawn and canopy tree character that is much loved by the community
- Enhance riverwalk to provide a safe and logical connection through Riverside Park
- Provide complementary uses around the park to increase activity, both during the day and at night
- Provide a diverse range of opportunities for people to interact with the water

Family Fun and Activity Precinct

This precinct is characterised by two small playgrounds, a basketball court, Goat Island and Grain Corp.

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

- Consolidate separate playgrounds into a single adventure playground that caters for a range of age groups and abilities
- Provision of a water play park that allows children to safely interact with the water, while being able to see the Murray River.
- Enhance riverwalk to provide a safe and logical connection through Riverside Park
- Relocate skate park and enhance to provide improved shade and shelter facilities, connections to other youth facilities, surveillance and access.

Night Life / Food And Beverage Precinct

is precinct is characterised by Curlewis Street, connections to the CBD, car parking and the adjacent Riverside Park.

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

- Create a visual and physical link between the CBD and riverside park
- Improve the interface between the station and the CBD
- Provide uses adjacent to the station and Riverside Park to activate the space both during the day and at night

"I would like to see a link between district produce and art on the riverfront". [Comment from January 2013 consultation]

Transport Hub and Station Precinct

This precinct is characterised by Curlewis Street, the CBD interface, car parking, the Murray Cod sculpture and open space and railway associated uses (including the station and platform).

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

- Create a visual and physical link between the station and Riverside Park
- Improve the interface between the station and the CBD
- Ensure the station provides a great first impression of Swan Hill for visitors

Tourism Precinct

This precinct has a mixed character and includes Pioneer Settlement's reconstructed heritage character, the Caravan Park's maintained character and a more naturalistic open space character near the railway turntable.

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

- Upgrades to Pioneer Settlement generally in accordance with the 'Interpretive Centre and Large Object Conservation Facility, Architectural Report and Concept Drawings, August 2010'
- Enhance Riverwalk to provide a safe and logical connection between the Caravan Park and Pioneer Settlement
- Enhance passive open space between the Caravan Park and Pioneer Settlement
- Improve interface to Caravan Park along Monash Drive

"We need something that makes people remember Swan Hill". [Comment from January 2013 consultation]

Arts And Culture Precinct

This precinct has a reconstructed heritage character, with heritage items, interpretive signage, a footbridge to Pental Island and elements associated with the riverfronts heritage.

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

- Upgrades to the Art Gallery generally in accordance with the 'Swan Hill Art Gallery, Feasibility Report, 2009'
- Provide a formal access way for residential lots abutting the riverfront
- Create a public open space node between the Art Gallery, Spoons and the Pioneer Settlement that enables access across to Pental Island
- Enhance riverwalk to provide a safe and logical connection between the Art Gallery, Pioneer Settlement and riverwalk south

"Make Lower Murray Inn into a Pub" [Comment from January 2013 consultation]

Eco - Accommodation Precinct

This precinct is characterised by a gravel pathway, a levee bank, informal access for residential lots, canopy trees, grassed areas, flood plain and Pental Island. Currently there is little clarity between the private and public realm and built form does not sensitively respond to the character of the space. Pental Island is used by the local Indigenous community for corroborees and access from the riverfront is only possible via a footbridge located within Pioneer Settlement.

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

- Provide a formal access way for residential lots abutting the riverfront
- Provide built form that is sympathetic to the natural character of the precinct.
- Create clear delineation between public and private uses
- Enhance riverwalk to provide a safe and logical connection through the precinct
- Provide opportunities for people to experience Pental Island and its natural features
- Provide public access between Pental Island and the riverfront

"The riverfront is beautiful, we are very proud of it".

[Comment from January 2013 consultation]

Natural Riverfront And Biodiversity Precinct 1

This precinct is characterised by Milloo Street Wetlands, the Murray River, the Rotary Park and boat ramp, the skate park, the levee bank, generally steep riverbank and riverwalk. Riverwalk comprises a formal path along the levee bank and a less formal path that meanders through the canopy trees and irrigated lawn.

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

- Celebrate and enhance 'natural character'
- Provide canopy trees and grass
- Revegetate riverbanks
- Revegetate levee bank
- Provide formal 'all weather access' along the levee bank
- Provide informal (granitic gravel) path allowing people to meander under the canopy trees

Natural Riverfront And Biodiversity Precinct 2

This precinct is characterised by a naturalistic landscape with river red gums, unirrigated / dry / natural earth path and steep eroded riverbank.

Drawing on its existing character, the aspiration for this precinct is based on the following themes / design elements:

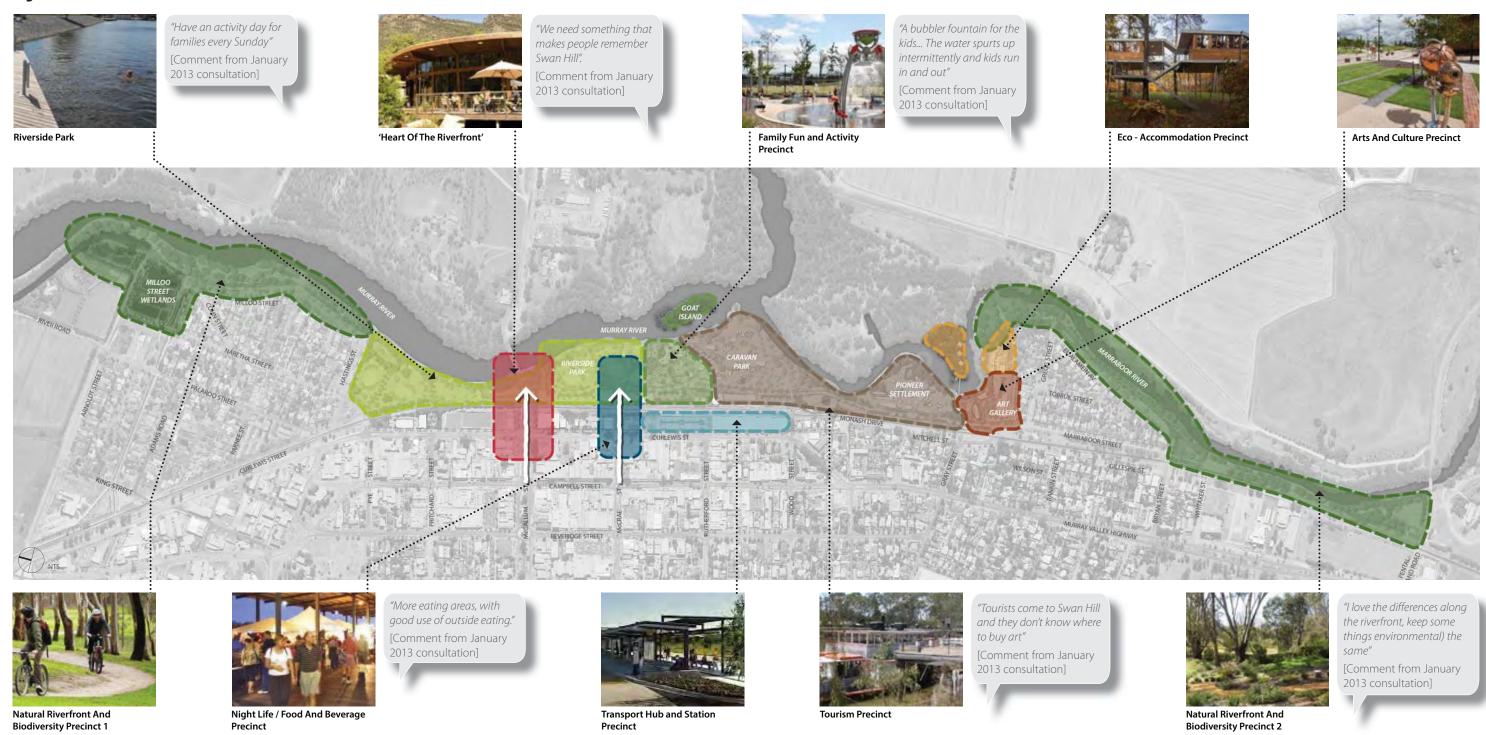
- Celebrate and enhance 'natural character'
- Revegetate riverbanks
- Enhance riverwalk to provide a safe and logical connection along riverfront
- Provide a pedestrian node / feature at the intersection of Bryan Street and the riverfront
- Enhance the Bryan Street nature reserve to highlight indigenous species

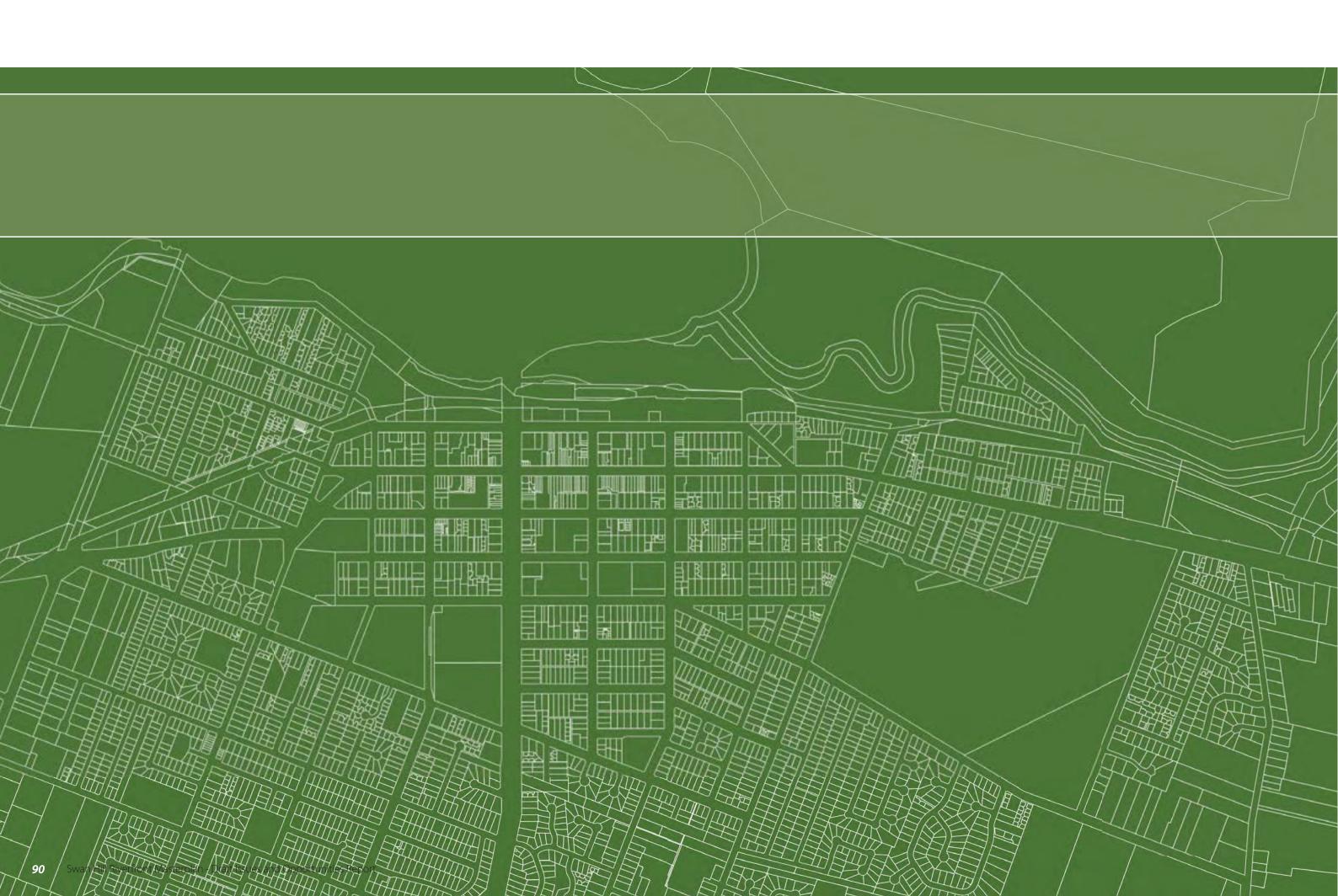
"Track surfacing is an issue currently" [Comment from January 2013 consultation]

Riverwalk along the edge of the Murray River



Figure 27: Precinct Plan





9. ConsultationStage 4bSummary

9.1 Purpose of consultation

The objectives of the Stage 4b Consultation process were to:

- Inform community on content of Draft Masterplan through summary display boards;
- Inviting feedback from the community on the Draft Masterplan.

The feedback from this stage of consultation was used to guide the development of this report and final masterplan.

9.2 Consultation Events

Three main opportunities were offered to the community to participate in this stage of engagement. These were

Open House

'Open Houses' were held on Monday the 6th and Tuesday the 7th May 2013, in the Visitors Information Centre at Swan Hill, from 10am - 7pm on Monday and 9am - 12pm on Tuesday. Information and posters for the Swan Hill Masterplan including vision, guiding principles, riverwalk principles, riverwalk ideas, strategic aims, framework plan, precinct plan, image and character ideas, the draft masterplan and vignettes were laid out around a room with hard copy surveys made available for people to provide comments. Over 100 people attended the Open House across both days. Hard copy surveys included the following questions as prompts for people to respond to:

- What do you see as the most significant part of the framework plan?
- Where would you like to see the delivery of the masterplan begin and what should the priority actions or projects be?
- Are there any other comments / thoughts you would like to share?

In total, 32 hard copy surveys were submitted, however most comments were verbally communicated to consultants present at the Open House.

Online Survey

An online survey was also made available on the Swan Hill Rural City Council webite. The online survey included the same questions as the hard copy versions handed out during the Open House events held as part of this stage of consultation. The online survey was made available between the 8th May and 5pm the 14th May 2013 and in total, approx. 7 surveys were submitted.

Target Discussion Group Feedback

Targeted discussion groups were held on Monday the 6th and Tuesday the 7th May 2013, with key groups identified as part of stage 2b consultation. Discussions were sought with these groups in order to communicate ideas and gain feedback on the draft masterplan. Groups who paricipated in targeted group discussions included:

- Swan Hill Canoe Club
- Swan Hill Rural City Council Youth Council
- Murray Human Services
- Swan Hill Specialist School
- Swan Hill Health

9.3 Snapshot of Consultation Feedback and Responses

9.3.1 Open House

In total, over 100 members of the community attended the Open House and 32 submitted a hard copy survey during the event.

During the Open House, consultants engaged with community members to walk them through the draft masterplan, respond to any queries they may have, listen to any comments made and ask the community three key questions (which were also reiterated on the hard copy survey).

The first question was:

"What do you see as the most significant part of the framework plan?"

A strong theme to come from discussions regarding this question was that a link between the town centre and the riverfront was greatly desired by the community. Respondents identified connectivity and connection between the town centre and the riverfront as the most significant part of the framework plan. This connection was also a strong theme during initial earlier consultation.

Other key significant parts of the framework plan identified by respondents included the addition of water play, riverwalk upgrades, environmental / revegetation works, family focus / friendly, scope of plan, while others indicated they liked it all.

Interestingly, many of the significant parts identified were relatively easily items to implement in the short term.

The second question was:

"Where would you like to see the delivery of the masterplan begin and what should the priority actions or projects be?" Responses to this question indicated a strong desire for

a connection / linkages between the town centre and riverfront to be improved / provided. This was a strong theme in previous consultation events around Swan Hill and continues to be the biggest issue for people to access and use the riverfront precinct.

Other key priority actions identified included riverwalk upgrades, the water play and adventure park, provision of appropriate seating and drinking bubblers, improved accessibility, the plaza (again indicating support for a connection between the town centre and riverfront) and the relocation of the skate park.

Riverfront plan featured in local paper



The third question was:

"Are there any other comments / thoughts you would like to share?"

An open question, this allowed people to get any ideas they had off their chest and any other comments. Response to this questions were as a result varied. Some responses were quite specific and detailed while others more general. Most comments indicated support for the draft masterplan however the following comments were provided as improvements:

- Remove train station
- Provedore / Train Station could be elevated
- 2050 too far away (as indicated in vision)
- Incorporate 'Weed Warrior' Program to encourage community ownership
- Leave Gem as part of Pioneer Settlement
- Silos as accommodation like Bunbury W.A.
- Make Swan Hill a more memorable city
- Japanese theme garden to recognise 30 year sister city relationship in 2015. Provide in sculpture garden or clock tower area (Swan Hill / Yanagata Club)
- Provide an aviary
- Don't cut down trees
- Boat jetties
- Upgrade rail crossing in Feltman Park
- Beach too dangerous
- Leave Skate Park where it is (provide smaller one at Adventure Park for little children)
- Provide a link to Tower Hill (Pental Island Road to Dead Horse Lane)
- Make Riverwalk a shared path for cyclists and pedestrians
- Like water play and moving Skate Park
- Keep idea of night markets on the lift bridge
- Concern about loss of recreational facilities (pool and bowls)
- Not happy with car park plan south of turntable as view will be destroyed by glinting car windows

- Combine more community facilities with the library
- Deliver water to the town for activities and waterway health
- Concern over need for another conference centre (suggestion to potentially relocate to old police station)
- Leave river frontage as a natural environment (in context of using the fuel depot site for the conference centre)
- Get rid of pool and replace with open space
- Boardwalk for a regular market
- Activate the PS Gem (relocate to the Murray River in a moored position) Use gem for market days of hire out for functions (2)
- More communication and discussion about the masterplan
- Provide more BBO's
- Provide more drink bubblers
- Shop top apartments not appropriate should be tourist accommodation
- Provide parking for RV's and caravans
- Don't move sound shell
- Provide eateries on the riverfront
- Multiuse of Canoe Club Facility
- Consider plan without freight line (remove)
- Create a 'tourist drive' by providing a new road connection from Curlewis Street (crossing from Wood Street)
- Use local native plants but also plants that grow well in the area
- Provide a Weir
- Need function centre
- Involve local community groups in implementation of works (i.e. revegetation by volunteer groups)
- Provide a Botanic garden
- Provide a seating area at Milloo Street Wetlands (also mention of playground)

These detailed comments were considered in updating the masterplan.

Online Survey

An online survey (via Survey Monkey) commenced the 8th May 2013 and concluded at 5pm the 14th May 2013. The survey asked respondents the same series of questions as the hard copy survey that was provided at the Open House, with the information package / posters provided for download. Only a hand full of online surveys were submitted with comments received being consistent with responses received during the Open House.

9.3.2 Targeted discussion with the Swan Hill Canoe Club

Local Logic Place met with two representatives of the Canoe Club on the 7th May 2013. Representatives were invited to provide comment on the draft masterplan including where they felt delivery of the masterplan should begin.

Generally representatives of the Canoe Club were in support of the draft masterplan and offered the following comments:

- The new bridge (9A) view will take away from the historical bridge view
- Members are hesitant to move the canoe club too far away from the water
- The canoe club could be placed closer to the 10 steps (if it were relocated)
- Members are amenable to a shared 'multi-use facility' as long as the security of the boats is considered and showers are available for members.
- A ramp near the existing canoe club would be useful (if it were to stay in this location)
- More advertising re: paddling the length of the river and where the canoe club is located is desired

The representatives noted the walking trails, water park / adventure park and exercise equipment along the trails as a starting point for the delivery of the masterplan.

9.3.3 Targeted discussion with the Swan Hill Rural City Council Youth Council

Local Logic Place met with twenty representatives of the SHRCC on the 7th May 2013. Representatives were invited to provide comment on the draft masterplan including where they felt delivery of the masterplan should begin.

Comments received indicated support for the draft masterplan. A few desired changes were also suggested and included:

- More beach space
- Make the turn table a tourist attraction A range of opportunities were suggested for where the delivery of the masterplan could begin, including:
- Walkway from CBD
- Moving the Skate Park
- Moving the Pool
- Jetty's/Beach Space/Seating
- Toilet block near boat ramp
- Adventure Playground area at Riverside Park
- More events in Soundshell

9.3.4 Targeted discussion with Murray Human Services

Local Logic Place met with eight representatives of the Murray Human Services on the 7th May 2013. Representatives were invited to provide comment on the draft masterplan including where they felt delivery of the masterplan should begin.

Comments received indicated support for the draft masterplan. One change to the masterplan was suggested. This was to fence off waterpark area so that young children and children with special needs can be better supervised.

A range of opportunities were suggested for where the delivery of the masterplan could begin, including:

- Walkway from CBD
- Walking paths
- Seating
- Drinking taps
- Lighting

9.3.5 Targeted discussion with Swan Hill Specialist School

The Swan Hill Specialist School attended the Open House on the 6th of May 2013. Following a brief tour of the Open House display, the group participated in a small discussion led by Local Logic Place. Students were invited to provide comment on the draft masterplan including what they liked best about the plan and where they felt delivery of the masterplan should begin.

The water park / adventure park received the most amount of support with 3 and 2 participants in the group indicating this was their favorite part of the draft masterplan Other elements noted included the walkway, the pool, all of it, access to the PS Gem and the McCrae Street link.

The adventure park was also suggested as a place where the delivery of the masterplan could begin. Other priority actions included the walkway, walkway (plaza), the skate park, exercise and the sculpture park.

Participants also suggested that more BBQ's and drink bubblers should be provided.

9.3.6 Targeted discussion with Swan Hill Health

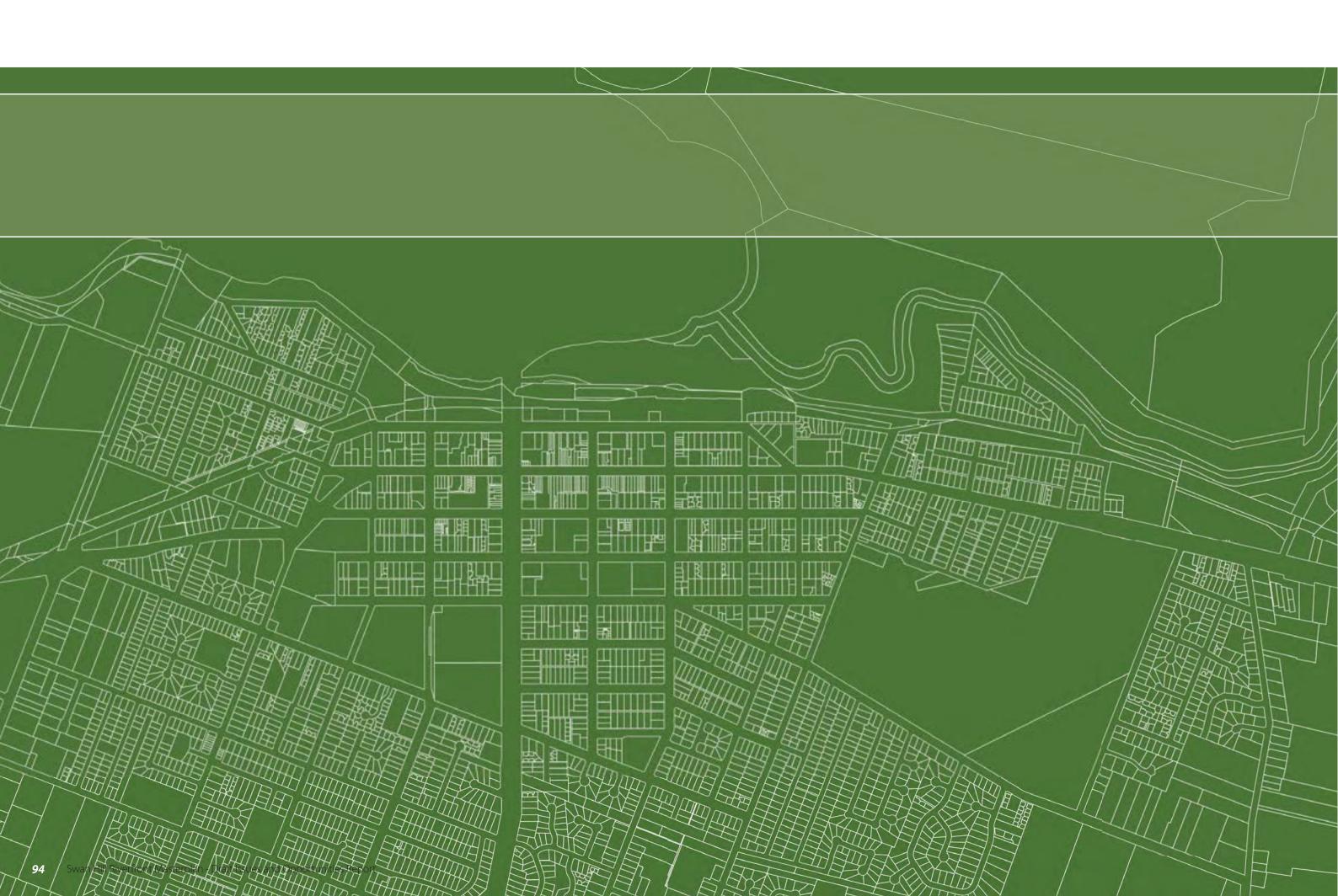
Members of Swan Hill Health attended the Open House on the 6th of May 2013. The group was invited to walk around the Open House display and provide comment on the draft masterplan including what they felt was the most significant part of the framework plan and where they felt delivery of the masterplan should begin.

As a group the most common themes that emerged with regards to the most significant part of the framework included:

- Open spaces
- Water play
- Connectivity; and
- Consistent walking path (would like walking path to be all the way around)

Suggestions for where the group would like to see the delivery of the masterplan begin / priority actions included:

- Pathways
- Good wifi
- Water bubblers
- Lighting
- Access from CBD
- Signage from both ends
- Signage that reflects the river is there
- Promote using activities
- Appropriate seating
- Connection to people is important
- Important that when you walk you can get somewhere
- Like 'App' (application) concept
- Accessibility





10.2 Key components of the masterplan

10.2.1 Improved connection to the CBD

The most important issue to emerge from community consultation and analysis of the riverfront was the issue of providing a visual and physical connection between the CBD and the riverfront and improving existing connections. Establishing logical, safe and attractive links from the CBD to the riverfront therefore became the number one priority to be addressed by the masterplan. The masterplan responds to this issue in a variety of ways including:

- Improvements to Riverwalk Trail to ensure safe and logical connections throughout the site and to proposed links across the railway corridor
- Upgrades to the existing level crossing along Naretha Street including provision for a new at-grade pedestrian crossing
- Provision for a future at-grade pedestrian crossing on the Pritchard Street alignment
- Consideration that potential future relocation of existing rail services north of Swan Hill Station may allow for future uses within the rail corridor to be relocated and may enhance connections here. (NB: This is subject to a future rail study)
- Upgrades to at-grade pedestrian crossing on McCallum Street
- Provision of a new at-grade pedestrian crossing on the McCrae Street alignment. This link would bring people into Riverside Park; the focus of passive open space and activity within the riverfront. River plaza would bookend this crossing and provide a covered public space between the town centre and the riverfront. Commercial and community uses either side of this plaza would activate the space at all hours of the day and enhance the experience of this connection.
- Potential overpass along the Wood Street alignment, with the overpass landing adjacent the railway turntable and a sculpture park

10.2.2 Greater interaction with the Murray and Marraboor Rivers

A desire for increased access and interaction with the Murray / Marraboor Rivers was highlighted during community consultation and discussions with key stakeholders. The masterplan provides diverse, interesting and interactive ways that people can interact with and understand the Murray and Marraboor River. These include:

- Provision for a future beach that would allow people to get up close and touch the water. (NB: This beach is subject to future investigations and would require engineering treatments and potential tree removal)
- Improved facilities and additional amenities provided at the Rotary Park and the boat ramp
- Upgrade of the riverwalk trail to a fully formed 3m shared path, allowing access for all users. A key of this upgrade is improving legibility of the trail particularly along Monash Drive and from the Art Gallery north. Upgrades to the trail itself would also be reinforced by the provision of fitness stations and drinking bubblers, bins and dog bag dispensers, appropriately located seating and the integration of cultural themes, art lighting and interpretation along the extent of the trail
- Extension of the riverwalk trail from Bryan Street to Pental Island Road along the riverfront to provide more opportunities for people to view the river.
- Improvements to the riverfront environment including removal of weeds, revegetation with indigenous species and stabilisation of the riverbank
- Improvements to existing retarding basins and lakes to include water sensitive urban design treatments and enhanced views to these features
- Retention of an outdoor swimming pool in the riverfront precinct to provide a safe ways for people to swim, while in close proximity to the river
- The Dreamtime Promenade. A hard engineered edge along the Murray River next to the floating pontoon. The edge allows for sitting and viewing opportunities along the river bank and creates a small beach for people to enjoy
- A floating jetty / pontoon in generally the location of the 'original wharf' from which much of Swan Hill's industrial activities in the pioneering days took place and adjacent the Murray River Cultural Centre. The jetty would provide opportunities for fishing and viewing of the water

- Cadell Wharf in Riverside Park as a lookout for people to view and experience the river environment. If appropriate, it may also allow for Paddle Steamers (including the Pyap) to dock at Riverside Park
- The Murray Promenade. A hard engineered edge along the Murray River between Cadell Wharf and the Caravan Park boundary. The edge allows for sitting and viewing opportunities along the river bank
- Upgrade of the 10 steps
- A boardwalk and viewing desk over river bank at the Sculpture Park providing views along the Marraboor River
- The Murray River Cultural Centre. The centre could provide information regarding the entire Murray River, it history and importance within Australia. This would reinforce Swan Hill as the 'Heart of the Murray' and allow the 'naturalistic water flow' to be celebrated.
- Themes of the Murray and Marraboor River represented in the use lighting, interpretation and public art throughout the riverfront, enhancing its amenity and identity.
- A Water Play (adjacent the Adventure Park) in Riverside Park Water provides a safe way for children and families to interact with the water. The water play would incorporate elements such as soft fall areas, bubblers, dumpers, spreaders and shallow play areas arranged around a 'beach zone'. Sculptural elements would also be included and would interpret the role of water within the park and in Swan Hill
- Aerial adventure play elements that allow older children, youth and families an opportunity to 'get up high' and enjoy a unique view of the surrounding riverfront
- Nature play elements that encourage children to 'discover' and learn from the riverfront environment
- Repairing the footbridge that connects Pental Island and Horseshoe Bend Park
- Potential second footbridge connection to Pental Island to create loop and improve access. Location of footbridge subject to detail design
- Providing Horseshoe Bend as a semi public space. This
 not only increases the length of riverfront that is publicly
 accessible but also opens up access to Pental Island from
 the riverfront precinct.

Kids playing at the 10 Steps



10.2.3 Focusing 'clustering' new development

A key consideration of the masterplan was to provide appropriate opportunities for development within the riverfront. Feedback received during community consultation indicated that respondents were keen to see new development such as a cafe, kiosk or restaurant within the riverfront. However it was also identified that there may be sensitivities due to a perceived loss of local of open space and commercialisation of the riverfront. The masterplan therefore collocates similar uses and activities to allow synergies between land uses to be captured, while increasing and enhancing areas of public open space along the riverfront. Other ideas include:

- Focusing commercial development on sites currently used for commercial or private operations or where they would greatly enhance the riverfront environment
- Focusing commercial development along two key connections between the CBD and the riverfront (McCallum and McCrae Streets)
- Providing additional tourism product (the Murray River Cultural Centre, function centre, tavern and provedore) that emphasise Swan Hill's location on the river
- Providing eco-cabin accommodation on the old school lodges site as a sensitive approach to the residential interface and the environment in this location
- Providing future commercial development (a function and conference centre) on the former depot site. This use responds to the sensitive residential and riverfront interface, while providing surveillance opportunities along the riverfront. Utilising this site for commercial uses aims to enhance this interface and create activity along the riverfront. This location also acknowledges synergies with the outdoor swimming pool and opportunities for its future management
- Locating commercial development around the periphery of Riverside Park so not to reduce open space areas but still provide opportunities for development that are sympathetic and enhance experiences with Riverside Park
- A large scale adventure playground and water play within Riverside Park. This facility would be a key attractor for local and families to the riverfront, activate the riverfront, assist with the viability additional nearby commercial development and strengthen the role and function of the park as a 'family friendly' space.
- Integrating the skate park within Riverside Park to improve passive surveillance and acknowledge synergies between users of this facility and other 'play' areas

10.2.4 Retention of the Riverside Park character while accommodating new uses, events and activities

During community consultation it emerged that the existing nature and character of Riverside Park was highly valued by the local community. The need to balance the valued character with new events, development and activities was a key consideration of the masterplan. The masterplan responds to this issue by:

- Providing a consistent and holistic design to the riverfront so that all elements feel as though they belong to the one riverfront and provide it with a strong sense of character and identity
- Emphasising Riverside Park as a family friendly space through the inclusion of uses and activities that were in line with this role i.e. the adventure park, water play, skate park etc
- Realigning Monash Drive to create larger and more usable areas of open space i.e a kick about space
- Locating commercial development around the periphery of Riverside Park so not to reduce open space areas but still provide opportunities for development that are sympathetic and enhance experiences with Riverside Park
- Relocating car parking to the west of Monash Drive to reduce the potential for vehicular and pedestrian conflict and to make Riverside Park a safer place for families and children
- Consolidation of playgrounds into a large Adventure Play area that provides play opportunities for various ages and abilities
- Provision of improved and additional ways to safely interact with the Murray River including Cadell Wharf, the Murray Promenade and upgrades to the 10 steps

10.2.5 Swan Hill Replacement Bridge Alignment

Public Acquisition Overlay 3 (PAO3) – Swan Hill Bridge replacement project and associated works applies to a portion of the riverfront, located to the south of McCallum Street. The purpose of this overlay is to:

- To identify land which is proposed to be acquired by an authority.
- To reserve land for a public purpose and to ensure that changes to the use or development of the land do not prejudice the purpose for which the land is to be acquired.

While adopted into the planning scheme, the final bridge alignment is still currently under debate within Council and the community. Without a definitive position on the bridge alignment, the masterplan has responded by allowing for a number of different potential bridge alignments. This approach ensures the masterplan can proceed and is flexible in relation to accommodating the bridge alignment in the future.

10.2.6 Rail

During the masterplanning process, the issue of rail through Swan Hill and the implications this had on access between the CBD and the riverfront generated much discussion. Generally strategies to better connect the CBD and riverfront were linked to key decisions in regards to the rail corridor, rail operations and services.

One opportunity that came to light during discussions with the community and Council was the opportunity to relocate freight rail outside of town. The intent of this proposal was to improve access between the CBD and the riverfront, an objective consistent with this masterplan. A long term aspiration for the town centre, such a proposal however would need to be negotiated with key stakeholders and a significant amount of investigation and detail would need to be undertaken. This was beyond the scope of this project. The masterplan however acknowledges this as a long term strategic position for Swan Hill and facilitates further investigations to be undertaken.

10.2.7 Outdoor Swimming Pool

During community consultation the majority of respondents considered the retention the swimming pool within the riverfront as a key consideration of the masterplan. The current location of the swimming pool is along the 9A bridge alignment. While this bridge alignment is still under debate (see section 3.2.5) the masterplan needed to consider the potential of this alignment being adopted and where the most appropriate location to relocate the pool might be. A number of potential locations were considered based on the ability to spatial accommodate the pool and its synergies with adjacent uses. These locations included:

- Partly on the former fuel depot site and partly within the riverfront, close to residential uses and retaining its presence within the riverfront.
- Co-located with the existing indoor pool at the Recreation Reserve.
- Within Riverside Park to maintain the current mix of uses in the park.

Relocation the outdoor pool within Riverside Park was considered an undesirable option due to the size requirement for the facility and that it may reduce the area of public open space within Riverside Park. The annual operation of the pool (being closed during winter months) was another consideration and would mean it would be an inactive feature within the park during winter months.

The former depot site was also considered less desirable as it would position the pool on another potential bridge alignment. This being said, if the bridge alignment in this location was not to go through, the masterplan provides flexibility for the swimming pool to be relocated here and therefore retained within the riverfront (subject to further investigations).

While the recreation reserve was considered the most suitable location for the relocation of the swimming pool, a detailed study is required to determine its feasibility and if there is another more suitable location for the outdoor swimming pool within the riverfront.

10.3 Illustrative Masterplan MILLOO STREET WETLANDS MURRAY RIVER

Figure 28: Masterplan - Section 1 of 4

NEW SOUTH WALES







10.4 Masterplan Vignettes

10.4.1 Rotary Park and Boat Ramp



Public BBQ Facilities

Public BBQ facilities located on the Riverwalk Trail and adjacent the parking areas. Looking out over the river, with shade from sun and



Potential Sandy Beach

Investigate potential to create a 'sandy beach' through engineering treatments and removal of willows



Riverwalk Fitness Stations

A network of Riverwalk Fitness Stations for public use, of all ages. This encourages locals and visitors to get out and use the Riverwalk Trails and the riverfront in a variety of ways.



Public Toilets

New public toilets, located with easy access to boat ramp, BBQ areas and carparking. Potential to include solar panels for off-grid sufficiency, fish cleaning facilities etc as required.



Riverwalk Trail Landscaping

Increased low level planting to the edges of the Riverwalk Trail to better define the trail and reduce maintenance to cut-grass zones.



Figure 32: Vignette - Rotary Park and Boat Ramp

10.4.2 Short Stay Accommodation And Future Development



Figure 33: Vignette - Short Stay Accommodation and Future Development

10.4.3 'Heart' Of The Murray



Murray River Cultural Centre

Nominated as the preferred location for a Cultural Centre by the local Indigenous group, this prominent site is highly visible and accessible. Associated with the Cultural Centre would be a 'Bush Tucker' garden.

The site could also provide the location for the Murray River Information Centre. The centre would provide information regarding the entire Murray River, its history and importance within Australia. This would reinforce Swan Hill as the 'Heart of the Murray' and allow the 'naturalistic water flow' to be celebrated.



Floating Jetty

Timber jetty provides opportunities for fishing and viewing of water. Location is generally in the location of the 'original wharf' from which much of Swan Hill's industrial activities in the pioneering days took place.



Boardwalk

Boardwalk provides access to jetty and rivers edge and allows for views of the water. It links the Murray River Cultural Centre to the Riverwalk, and the river frontage via the jetty/ pontoon.



Water Tower Reuse

Opportunity to revitalise the water tower as part of the development of the new restaurant or food and beverage attraction, on the key corner of Monash Drive and McCallum St.



Restaurant

Landmark restaurant or cafe for the town of Swan Hill, capitalising on the water town and the views to the river as iconic elements of the Riverside Park. Built form utilising timbers and materials reminiscent of riverfronts industrial history, and along with the Cultural Centre, establishing a major hub of activity at the end of McCallum Street.



Figure 35: Vignette - 'Heart' of the Murray

10.4.4 River Plaza



Shop-Top Apartments

New apartment development above the river plaza shops, fronting the plaza, riverside park and looking onto the railway station.



Restaurant and Providore

North facing retail space fronting River Plaza and with views across Riverside park provide opportunities for restaurant, cafe and Providore uses.



Town Square Lawn / Passive Open Space

Expanse of lawn with canopy trees provides green connection between riverfront and station. The proximity of the space to the CBD and parking and its prominence on Curlewis Street provides the ideal opportunity to utilise the space for markets and feetball.



Town Square Big Screen

A 'live' video screen on the corner of the Town Square and Curlewis Street, above the awning and visible from nearby streets, the square and the train station. Screen live events, 'Heartbeat of the Murray' promos, River Murray interpretive information and 'live' webcams from various River Murray sister



River Plaza

Hardscaped space with canopy trees and shelter for shade, as well as public art., Creates visual and physical link to the Swan Hill CBD and provides the opportunity for cafes and shops to spill out into the public realm



Riverside Tavern

Development of an iconic Riverside Tavern, food and beverage venue to service riverside park, and act as a night-time destination.



New Railway Crossing

New at-grade pedestrian crossing provides an additional link between the Swan Hill CBD and the riverfront. This link brings people right into Riverside Park, the focus of passive open space and activity within the riverfront



Swan Hill Library Hub

Expanse of lawn with canopy trees provides green connection between riverfront and station. The proximity of the space to the CBD and parking and its prominence on Curlewis Street provides the ideal opportunity to utilise the space for markets and festivals.



River Plaza

An outdoor shaded and covered public space transitioning between the town centre, and the riverside, and between the Town Square green space and the new Swan Hill Library. Can host the local markets or events and act as the 'gateway' into the riverfront precinct from the town centre



Figure 37: Vignette - River Plaza

10.4.5 Riverside Park



Retained Riverbank

Investigate reinforcing the riverbank with a retained edge that enables easier and safer public access to the river's edge, allows for the river level to rise and fall, and enables visitors to engage with the Murray River.



Murray River Lookout

Dedicated Murray River lookout, hanging out over the river with great views north and south along the river. Lookout is located on the axis of McCrae Street, and the new pedestrian crossing into Riverside Park. Integrated Murray River interpretation linked to the Murray River Cultural Centre.



Cadell Wharf

Timber wharf linked to the lookout that enables the PS Pyap and other paddle steamers to dock at Riverside Park (as appropriate). Also serves as an extension of the lookout for an experience of the river environment in the heart of Riverside Park.



River Hub #2

Kiosk-style shaded hub that incorporates public toilet facilities, potentially canoe club and facilities, bike hire linked to River Hub #1, wifi hot-spot, BBQ and other associated amenities.



Swan Hill Sound Shell

Retain and refurbish the existing Sound Shell, with architectural works to the rear of the structure. This will be particularly visible from the new River Plaza, and is an opportunity to provide a great view of the Sound Shell as you enter Riverside Park from the town centre.



Figure 39: Vignette - Riverside Park

10.4.6 Active Play - 'Swan Hill Beach Zone'

including slopes, rock walls, all-access play areas, beach areas and soft fall family areas.



subject to a future rail study.

Riverwalk Trail

Continuous shared Riverwalk trail path around the edge of the water park and adventure play park to link to the caravan park and south to Pioneer Settlement.



Bike Hire

Bike hire included into River Hub #1. Potential to also include other hire - skateboards, music etc for the skate park area.



Active Play + Skate Park

Relocated skate park integrated into an active play and 'youth zone' including seating, shaded rec zones, ipod inter activity, projection art, free wifi and other active play elements.



Re-Use of the Silo's

Potential re-use of the grain silo's for projection art, night-time lighting, rock climbing or other appropriate youth-based active and interactive uses.

THE PERSON OF TH

10.4.7 Sculpture Park / Turntable



Boardwalk

Boardwalk enables safe and logical access along Monash Drive where the road reserve and existing footpath narrows. This will create public views to the water right on the bend of the Marraboor River.



Seating Node

A seating node along the boardwalk enables people to stop and take in the views along Marraboor River and across to Pental Island



Sculpture in the landscape

Create a sculpture park within the landscape to this section of Monash Drive, as a form of relief for the Riverwalk Trail and a transition between Pioneer Settlement and Caravan Park. Potential to integrate with arts/ cultural uses in the Graincorp shed and



Lighting Installations

Artistic lighting installations that help to create a visually safe and interesting environment at night for residents and tourists. This will help this stretch of Monash Drive which could be dark and uninviting at night.



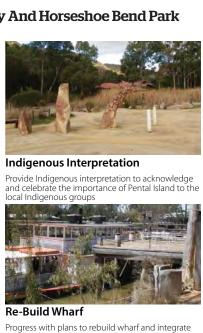
Potential New Transport Hub

Potential to provide new transport hub including the realigned train station platforms



Figure 42: Vignette - Sculpture Park / Turntable

10.4.8 Art Gallery And Horseshoe Bend Park



Progress with plans to rebuild wharf and integrate seamlessly with the new public park and access at Horseshoe Bend Park.



Landscaped Right of Way

Landscape right of way to the rear of the Art Gallery precinct, where public uses abut residential properties. This will create a visual and acoustic buffer between uses, and allow a logical right of way for delivery and maintenance access.



Art Gallery Extension

Extension works to the Swan Hill Regional Art Gallery, including a new public forecourt to the northern side. This will incorporate the Riverwalk trail in a landscaped setting, allowing vehicle access into the carpark, and pedestrian access between the art gallery, cafe, lodges and the Horseshoe Bend



Horseshoe Bend Park

Opening up of Horseshoe Bend Park to the public, to create a public space between Spoons Cafe and the Pioneer Settlement. This will include public access to the Pental Island footbridge (and trails beyond on Pental Island lootoridge (and trails beyond on Pental Island) and to the wharf and PS Pyap. This park will also provide an entry point for visitors to the Pioneer Settlement and the 'Heartbeat of the Murray' show.



Figure 43: Vignette - Art Gallery and Horseshoe Bend Park

10.4.9 Eco Lodges Accommodation



Riverbank Environment

Retain and enhance the secluded riverbank environment so that Riverwalk trail users, and river users can enjoy a pristine and quiet river environment close to the riverfront precinct.



Pental Island Eco Cabins

Potential for the creation of self-sufficient, off-thegrid, elevated (for flood plain) eco cabins within the Pental Island natural environment. These could be managed by, and linked to the Eco Lodges by a footbridge.



Six Star Eco Lodges

Development of niche, six star eco lodges for premium accommodation within the river environment, and with close association to Art Gallery precinct.



Riverwalk Trail

Retention and enhancement of the Riverwalk Trail on the levee bank, in front of the Eco Lodges. This shared path will connect directly through the Art Gallery precinct to the Pioneer Settlement.



Indigenous Interpretation

Potential elements of local Indigenous interpretation of corroboree grounds or sacred sites, linked by trails and the footbridge. Potential to link this interpretation to the 'Heartbeat of the Murray' concept and the Murray River Cultural Centre.



Figure 45: Vignette - Eco Lodges Accommodation

10.4.10 Bryan Street Reserve



Figure 46: Vignette - Bryan Street Reserve

10.5 Cross Sections

Figure 47: Cross Section - Riverwalk North

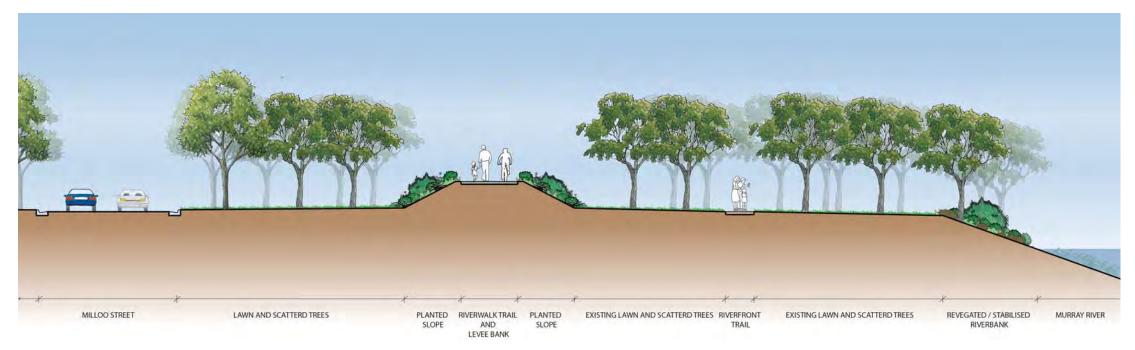


Figure 48: Cross Section - Riverwalk South

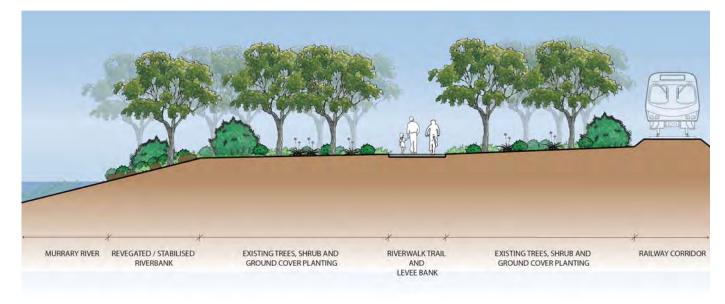


Figure 49: Cross Section - Monash Drive (Adjacent the Caravan Park)

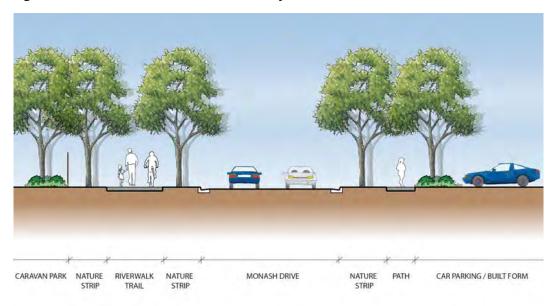
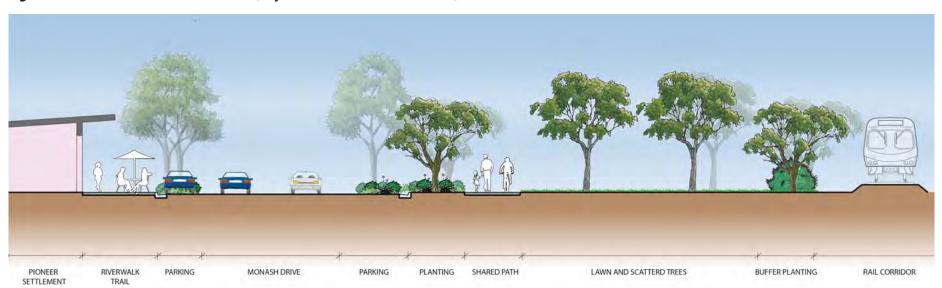
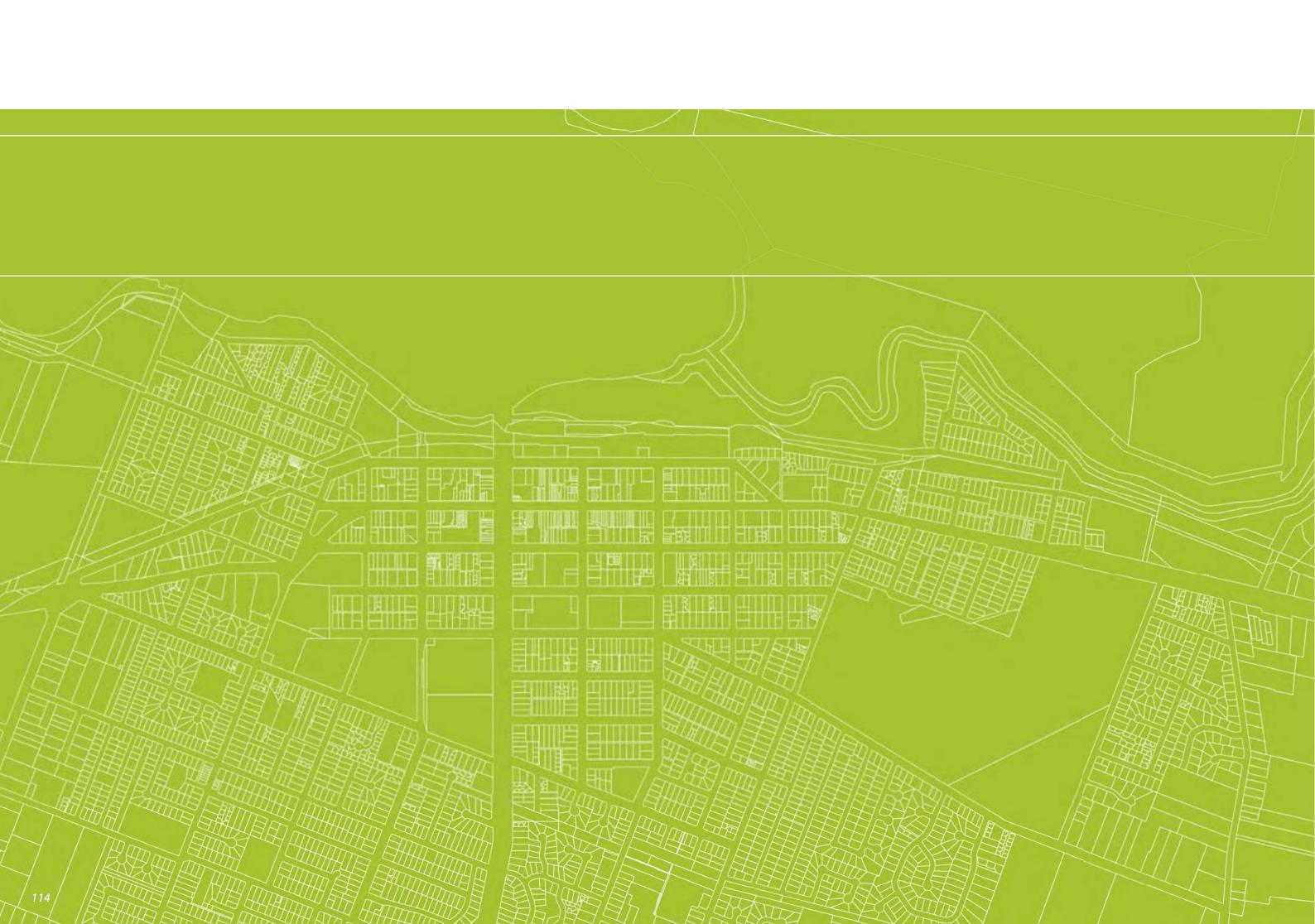
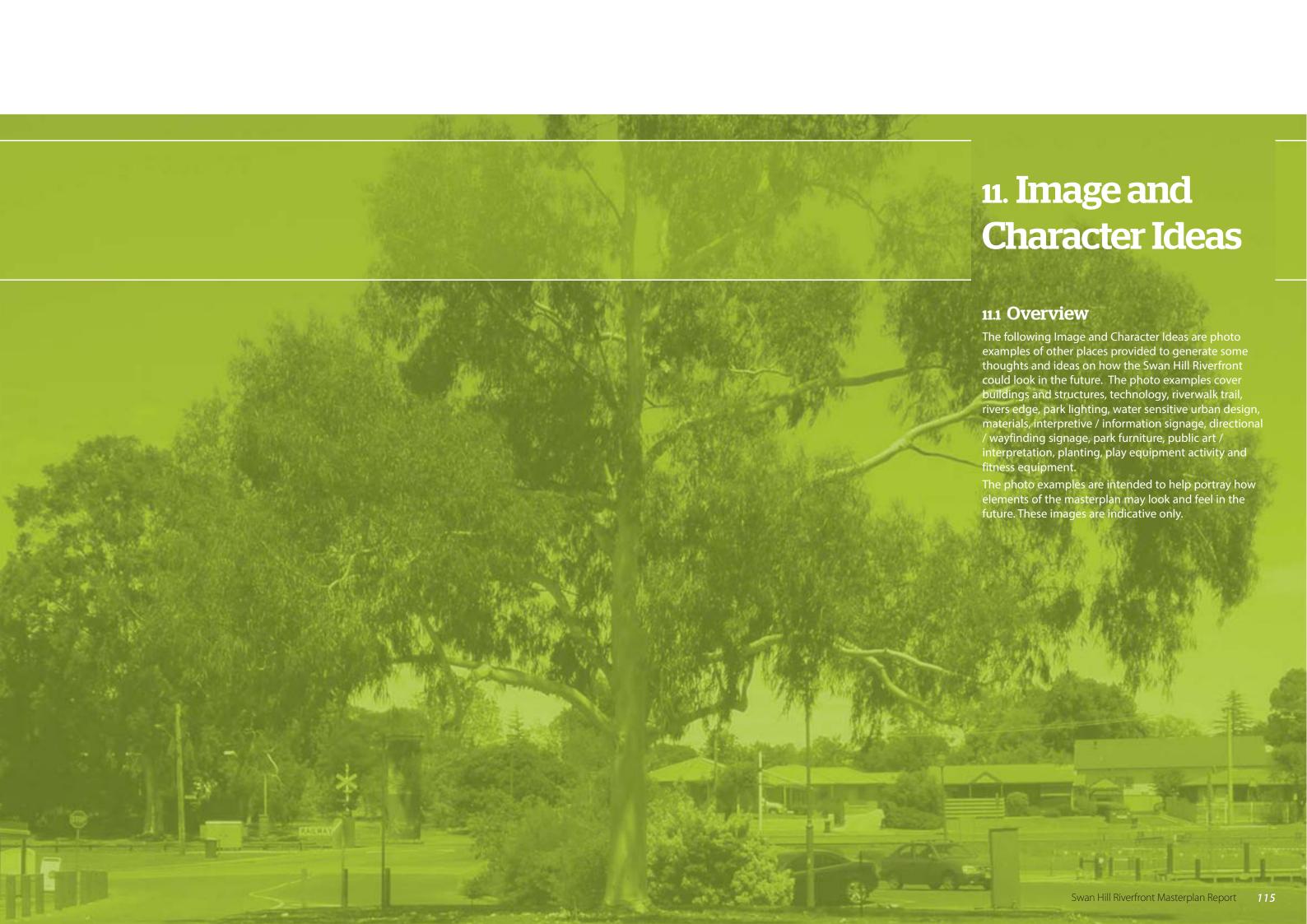


Figure 50: Cross Section - Monash Drive (Adjacent the Pioneer Settlement)







11.2 Building and Structures



Built form responds sensitively to the surrounding landscape



A.2 Shelter providing shade protection but still allowing for views



A.3 Environmentally sustainable building practices



A.4 Built form that is innovative and uses recycling materials



A.5 Existing structure, opened up for reuse as a public space



Form responds to surrounding landscape



A.7 Adaptive reuse of existing building



Built form provides seating area orientated towards key views



A.9 Natural and light weight construction materials



Simple form that permits views to surrounding landscape



A.11 Built form framing views to water



Built form orientated to maximise views to water



A.14 Built form integrated as park of the skate park



A.15 Built form orientated towards key views



A.16 Shop top housing



A.17 Active built form edges provide interest and passive surveillance opportunities

11.3 Technology







B.2 Touch screen information stations to provide people with a range of information about Swan Hill, including the riverfront



B.3 Silos utilised as a canvas for projection art/movie screenings B.4 Providing wifi access within the riverfront for visitors and the



community may encourage more people to use the space





Ride Detail

B.5 Tap into applications that may encourage people to use the riverfront i.e. Strava

11.4 Riverwalk



C.1 Existing riverfront path (gravel)



Board walk to navigate areas, where a path might not be appropriate



C3 Timber boardwalk following form of embankment



C.A Gravel path with irrigated grass and trees



Hardscape paving for all weather access



C.6 Existing riverfront path (bare earth)

11.5 Rivers Edge



Feature engineered embankment providing opportunities to engage with water



Feature engineered embankment providing opportunities to engage with water



Rock stabilised embankment, revegetated D.4 Wharf/Jetty where possible





D.5 Timber boardwalk/jetty



D.6 Formed edge and grassing

11.6 Park Lighting



Public art with an environmental message (this blue band represents water level predicted as a result of climate change



E.2 Lighting along bridge / boardwalk features



E.3 Lighting used to highlight WSUD features



Projection art / lighting maybe used E.5 Lighting as art work elevated structures to provide images / information





E.6 Feature lighting

11.7 Water Sensitive Urban Design



F.1 Wetlands / bio filtration



Water sensitive urban design within car park areas



F.3 Drought tolerant planting to reduce the need for irrigation



F.4 Dry creek bed that may temporary become inundated during peak flows



Daylight stormwater systems to demonstrate the path of water

11.8 Materials



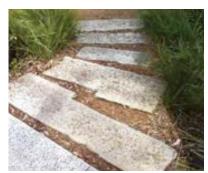
G.1 Timbers and recycled concrete



G.2 Natural timbers



G.3 Timber decking / boardwalk



G.4 Recycled and robust materials



G.6 Solid and robust timbers reminiscent **G.6** Gravel and uncoloured concrete working pier



11.9 Interpretive / Information Signage







Interpretive signage combined with wayfinding (H.3) Interpretive signage orientated towards key views signage





H.4 Interpretive wall allows for key views through

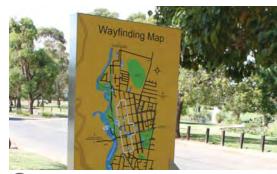


H.5 Signage bollards to provide information succinctly

11.10 Directional / Wayfinding Signage



Existing directional signage used throughout riverfront. Community comments indicated this signage isn't always apparent



Existing wayfinding maps within riverfront. These are not consistent with the aesthetics of the directional signs



Symbols may be used to provide information to visitors who are not fluent in English





i.5 Wayfinding signage with directions and return times

11.11 Park Furniture



J.1 BBQ facilities



Consistent and matching set of furniture utilising timber



Solid and robust timbers reminiscent of industrial history of riverfront





J.5 Litter bins with lid



A range of seating opportunities for various users of the site

11.12 Public Art / Interpretation

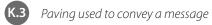






Interactive feature allowing people to control water











K.5 Water gauge / public art







Using public art to highlight natural processes



K.8 Public art to highlight climate change



K.9 Paving used to provide interpretation



K.10 Highlighting past uses of the site



Steps to demonstrate water level changes and to reveal a message



(K.12) Paving and rockwork provides a map of the waterway network



K.13 Using public art to highlight natural processes



K.14 Art used to reveal a natural process i.e stormwater



Using colour to 'knit' the space together

11.13 Planting







Rain garden and WSUD planting



L.3 Robust and drought tolerant planting



L.4 Arid planting



Mixes of colour and texture used to hightlight planting species



L.6 Naturalistic planting 'bush experience'

11.14 Play, Activity and Fitness Equipment



M.1 Nature based play encouraging children to discover the foreshore environment



M.2 Formal play spaces and structures using solid timbers



M.3 Flying fox



M.4 Water play with bubblers



M.5 Water play for all abilities



M.6 Opportunities for all access play



Nature based play encouraging children to discover and play with





M.3 Multipurpose built form can be used as a shelter and a skate ramp

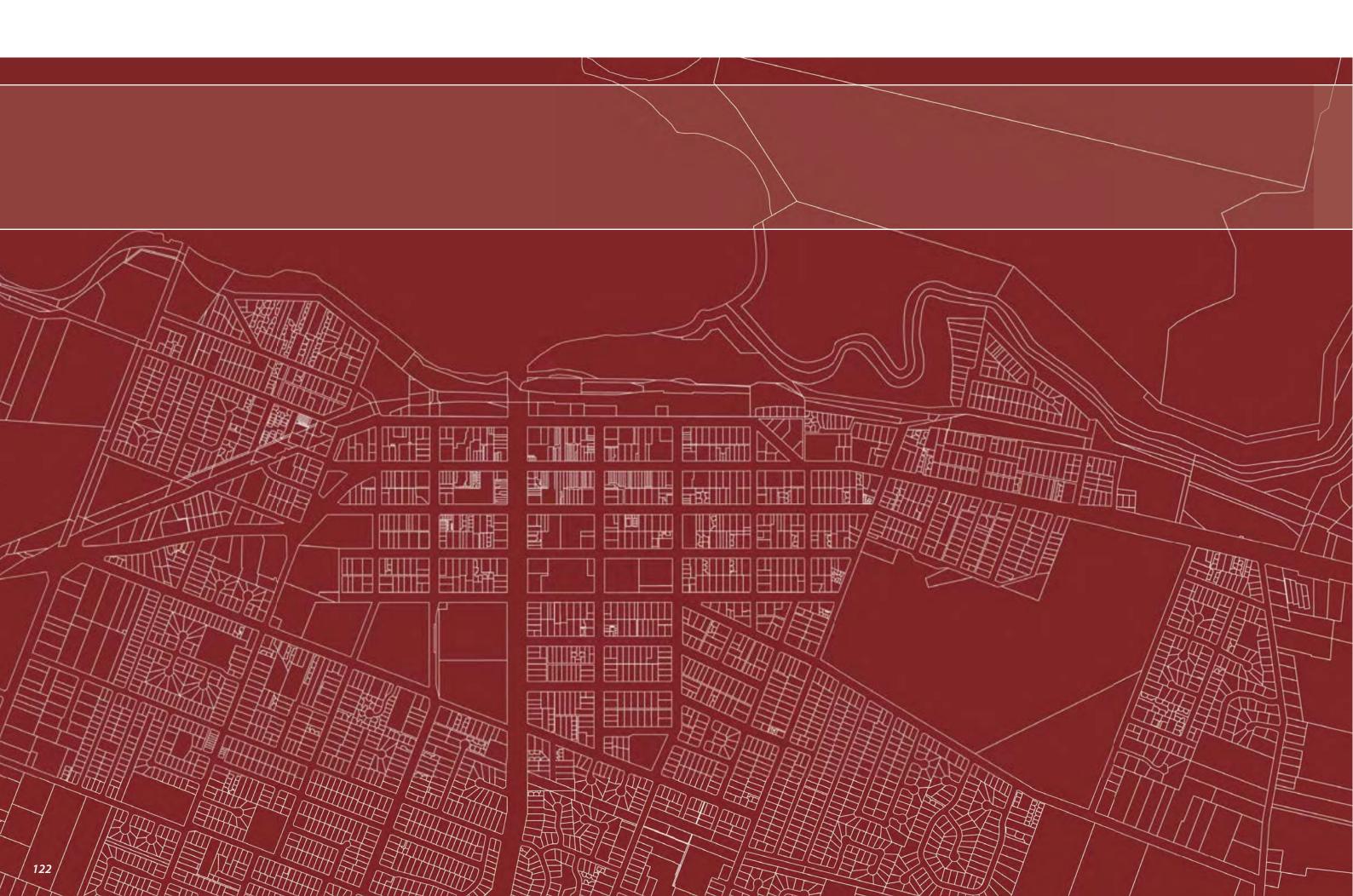
Playground with beach and sloped edges. Reminiscent of a swimming pool



M.10 11.13 Providing opportunities for kids to get up high and view the site and rivers



M.1) Skate park with shelter and parking



12.1 Overview

This section examines the projected economic impact of the Swan Hill Riverfront recommended development on Swan Hill Rural City's economy. The identified recommended uses include the following:

Short Term Project (0-15 Years)

- Serviced apartments;
- Pioneer Settlement upgrade including Heartbeat of the Murray Laser show;
- Eco Lodges;
- Residential apartments and provedore;

The short term projects are estimated to include over \$20 to \$25 million in capital expenditure investment.

Long Term Projects (15+ Years)

- Large function, conference and accommodation precinct;
- Tavern; and
- Heart of the Murray Restaurant.

The long term projects are estimated to include over \$15 to \$20 million in capital expenditure investment.

12. EconomicImpactAssessment

12.2 Construction and Operations Impact

Utilising a Regional Input-Output Model methodology an economic impact assessment has been prepared for the recommended uses. Urban Enterprise has based the assessment on a mean base-case scenario of \$40 million in capital investment. The following outlines the findings of the economic impact assessment:

Construction Phase

The key economic impacts for Swan Hill Rural City during the construction phase of the projects are estimated to include:

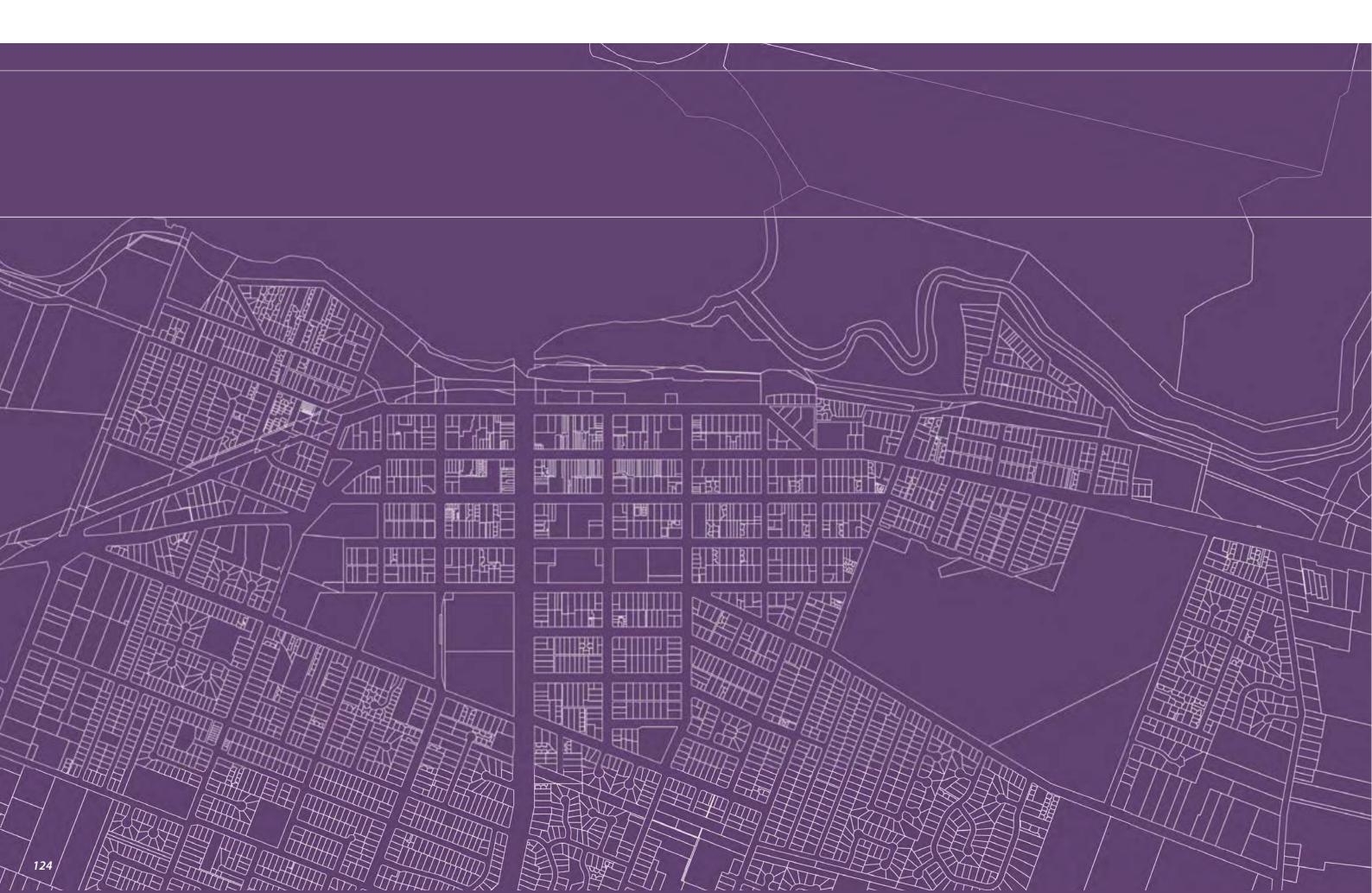
- The creation of 159 direct and indirect FTE jobs; and
- Over \$54 million in total economic impact to Swan Hill Rural City's gross regional output.

Operational Phase

The key economic impacts for Swan Hill Rural City during the operational phase of the projects are estimated to include:

- The creation of 212 direct and indirect FTE jobs; and
- Over \$46 million in total economic impact to Swan Hill Rural City's gross regional output.

Please refer to the 'Swan Hill Riverfront Masterplan -Economic Assessment' prepared by Urban Enterprise in January 2013, for further details.



13. Implementation

13.1 Overview

The following section identifies strategic actions for the Swan Hill Riverfront as guided by the masterplan. It outlines the steps required to implement identified actions including implementation responsibilities, priorities and timing. This will ensure that the aspirations of the masterplan are realised through projects on the ground.

13.2 Monitoring and review

As part of the implementation process, Swan Hill Rural City Council will provide a progress report on the implementation of the Master Plan. The Master Plan review process will occur every five years. This will identify and analyse:

- The appropriateness of the masterplan vision
- The actions and projects that have been undertaken or underway
- The success of key actions or projects
- Consistency of all projects with the masterplan vision
- Any blockages preventing successful implementation
- Commercial market trends and whether proposed land uses are relevant

This process will allow Council to measure the success of the implementation program, allocate future resources as necessary and allow for the implementation program to be adjusted ensuring the masterplan vision is being achieved.

13.3 Priority projects and staging

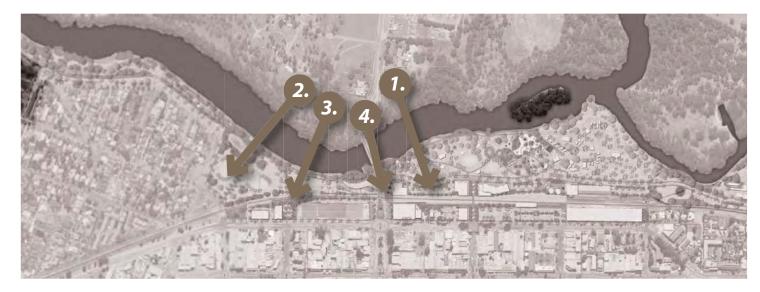
The masterplan contains a number of priority projects, initiatives and programs that will be a focus for implementation. These projects will most effectively deliver renewal of the Swan Hill Riverfront over the short, medium and long term.

A staged approach to implementation of these initiatives is required so that project funding and resources can be managed, and so that development can respond to changing market conditions and community needs.

An implementation matrix provides detail on the timing, responsibilities, and funding opportunities for these projects as well as other actions identified in the masterplan.

13.4 Strategic Implementation

13.4.1 The Former Depot Site



Proposal

The provision of a new bridge crossing the River Murray from the New South Wales side (east) to Swan Hill is a currently under debate within the Swan Hill community, and within Council. As such, and without a single, approved bridge option of alignment, the overall design of the Masterplan includes provision for a number of different potential bridge alignments.

This gives the Masterplan maximum flexibility in relation to the bridge alignment into the future, and ensures that as much as possible, the components of the Masterplan can proceed while the decision making for the future bridge alignment takes its course.

Potential Bridge Alignments

The Masterplan design includes four potential future alignments of the bridge.

These are outlined below:

1. The '9a' alignment

- The current 9a alignment, which has been adopted in principle into the SHRCC planning scheme, locates the new bridge south of the existing Lift Bridge.
- The new bridge alignment lands within Riverside Park, and meets Curlewis Street approximately halfway between McCallum Street and McCrae Street.
- The Masterplan allocates green open space to this area where the bridge would land, and keeps all new structures or buildings out of this curtilage.

2. The 4b alignment

- The 4b alignment locates the new bridge to the north of the existing Lift Bridge.
- The new bridge alignment lands within the existing Former Fuel Depot sites, just south of Hastings St. and connects into Naretha Street.
- The Former Fuel Depot sites have been indicated as green open space in order to preserve this alignment as an option.
- Should the new bridge alignment be confirmed as being elsewhere, the Former Fuel Depot sites my be investigated for other uses and/ or development (refer 'Former Fuel Depot Sites' page within this report - page

3. The Pritchard Street alignment

- This potential bridge alignment locates the new bridge north of the existing Lift Bridge, landing and connecting into the current alignment of Pritchard Street.
- This area within the Masterplan has been indicated as green open space in order to preserve this alignment as an option.

4. The existing Lift Bridge alignment

- In the future there is potential for the new bridge alignment to be in the same location of the existing Lift Bridge.
- This would mean partial removal/ relocation of the existing Lift Bridge, subject to detailed heritage restrictions and proposals.
- This potential future bridge alignment would integrate with, and complement all components of the Masterplan

Key Issues

It is not the intention of this report, or of the Riverfront Masterplan to resolve the complex issues relating to the future new bridge within Swan Hill. There are a number of components to be taken into account, not the least heritage, land-use, traffic, bridge engineering, river boats and operation, cultural/indigenous heritage and cross-state jurisdictions.

What the Masterplan has sought to do is to achieve maximum certainty for the important components of the Riverfront and its development, and retain maximum flexibility for the bridge alignment issues to be resolved into the future.

- Given the broader, strategic discussions and negotiations in relation to the future bridge alignment, there are no Implementation actions arising from the Masterplan.
- All future components of the Masterplan that are to be developed, should be done so with regards to the details on this page.

13.4.2 Riverfront Public Open Space



Proposal

The Masterplan provides additional public open space, uses and facilities within the riverfront while ensuring that there is no net loss in open space. The masterplan aims to achieve this through:

- Relocation of the swimming pool to increase open space areas within Riverside Park
- Re-aligning Monash Drive to create larger and more usable areas of open space, and the creation of a new kick-about space
- Focusing the development of new commercial sites around the perimeter of the public open space where they would greatly enhance the riverfront environment. The extent to which new commercial uses encroach on the riverside public open space has been limited within the masterplan
- Relocating car parking west of Monash Drive, closer to proposed uses and to the edge of the main areas of Riverside Park. This not only reduces the potential for conflict between park users and motorists but frees up additional space for passive recreational activities
- Consolidation of playgrounds into a large Adventure Play zone that provides play opportunities for various ages and abilities and focuses play into a key area of the park

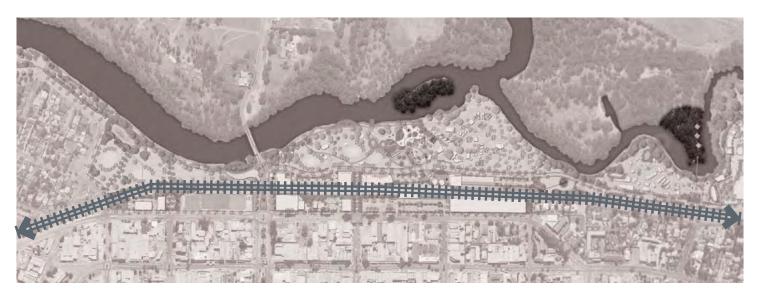
- Enhancing open spaces areas that were previously considered unusable and providing access to areas that were previously restricted such as near the sculpture park, the railway turntable and the former fuel depot site
- Linking the varied riverfront public open spaces together through the improvements and works to the Riverwalk trail

Key Issues

- The masterplan needs to provide maximum flexibility in relation to the bridge alignment into the future. In doing so the approach was taken to avoid locating key pieces of infrastructure within potential bridge alignments. These spaces have therefore been indicated as areas of public open space in the masterplan but maybe utilised for provision of the bridge pending agreement on its ultimate location.
- One of the key aims of the Masterplan is to create improved links along the riverfront between, through and around the public open spaces. The Riverwalk trail network achieves this, and establishes a network of paths that enable people to move seamlessly and easily to and through the public riverside areas.
- One of the critical issues for the local community, and its use of the riverside public spaces, was the ability and facilitation of the public interacting with the river, and the riverbank. In many places along the riverfront, the bank is either steep, unstable or relatively difficult to access and view the river. The Masterplan incorporates a number of public open space areas that feature improved views to the water, that maximise and celebrate the experience of the Murray River. (Refer 1.10 Murray River Edge)

- Refer the Implementation Matrix for detailed actions and priorities relating to Public Open Space.
- These actions should be cross-reference with the details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.

13.4.3 Strategic Rail Strategy



The issues and opportunities relating to the rail corridor within the centre of Swan Hill are at the heart of the Masterplan. The extent to which Council and the Swan Hill community can negotiate these rail issues, will largely determine the long-term success of the Masterplan, and the riverfront itself.

Proposal

The Riverfront Masterplan includes urban design strategies to connect the Swan Hill town centre in an east-west direction with the Riverside Park area via an at-grade pedestrian crossing. Underpinning this is the key strategic aim of better connecting people to the riverfront, and the Murray River itself.

In conjunction with the proposed at-grade pedestrian crossing, there are a number of key components of the Masterplan that are linked to key decisions with the rail corridor, operations and services.

The Masterplan acknowledges that while the proposed designs and layouts are strategic in nature, there is a

significant amount of investigation and detail to be undertaken in relation to the rail corridor to allow the Masterplan components to succeed.

The Masterplan acknowledges the current statutory policy barriers to creating a 'new' at-grade pedestrian crossing, but believes the strategic case for change for the town and the community, in the location identified on the plan, justifies the proposal.

Implementation of Proposal

The implementation of the Masterplan should incorporate a • 'strategic rail study' that investigates, plans for and resolves the future role of rail (both freight and passenger) in Swan Hill, including (but not limited to);

- Potential re-alignment of freight services into the future to terminated or be diverted south of the centre of Swan
- Potential future reclamation of the rail corridor north of the relocated Railway Station / Transport Hub for 'green' public open space uses,
- Potential retention of the rail corridor north of McCallum Street in a statutory and land titles sense should the reinstatement of rail services be strategically preferred (for future proofing and flexibility)

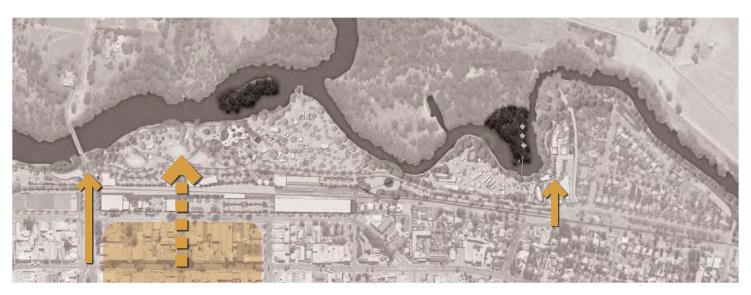
- Creation of a new at-grade pedestrian crossing of the rail on the alignment of McCrae Street (as indicated in the Masterplan) in order to create an east-west pedestrian connection to the riverfront,
- Potential re-alignment and revisions to current rail locations and shunting lines south of McCallum Street in order to achieve the pedestrian level crossing,
- Potential closure of level crossings (outside of Swan Hill) and as identified by Council, in order to strategically justify the new McCrae Street crossing point,
- Potential revisions or limited re-location of the Swan Hill Station to the south in order to accommodate the rail line, services and operational requirements to achieve the McCrae Street crossing point,
- Investigation of potential long-term reclamation of the rail corridor for green public open spaces between the relocated Railway Station / Transport Hub and the new McCrae Street crossing point (subject to all rail investigations).

Key Issues

- Current statutory policy provides a barrier to creating a 'new' at-grade pedestrian crossing
- Potential to realign freight services to be terminated or diverted south of the centre of Swan Hill requires investigation

- Refer the Implementation Matrix for detailed actions and priorities relating to Public Open Space.
- These actions should be cross-reference with the details outlined on this page, to inform detailed discussions with Dept of Transport, VicTrack and rail service operators based on the proposals of the Masterplan.

13.4.4 McCrae Street Extension



The potential future crossing of the railway line between the Swan Hill CBD and the riverfront is a key community desire, and one of the core components of the Masterplan.

Proposal

The Masterplan features a pedestrian connection from McCrae Street (the CBD) to the riverfront (Riverside Park). This proposal includes:

- The creation of a new River Plaza as the extension of McCrae Street, to facilitate pedestrian connections
- A new at-grade railway crossing (pedestrian)
- Increased opportunity for views between Riverside Park and CBD
- Active uses provided adjacent to River Plaza to enhance passive surveillance and generate activity at all hours of the day
- A road threshold treatment along Monash Drive to visually and physically connect River Plaza and Riverside Park

- A threshold treatment, pedestrian crossing and removal of limited parking at intersection of McCrae and Curlewis Street to visually and physically connect River Plaza and CBD
- The inclusion of public art, seating and shelters to enhance public amenity and wayfinding
- The creation of a new Town Square to provide the link between the Train Station and the McCrae Street extension
- The potential future relocation of the Swan Hill Library to address the corner of the McCrae Street extension and Curlewis Street,
- The incorporation of multi-media 'live' screens fronting the new Town Square and Curlewis Street, to broadcast live events, screenings, movies, telecasts or visitor information or Murray River interpretation media.



Short Term Implementation of Proposal

- Council to submit proposal to Vic Track and the Department of Transport for at-grade pedestrian crossing
- Council to discuss temporary access point to pedestrian crossing through Lower Murray Water (and the safety / other implications of this temporary access)
- Council to discuss development of River Plaza and Town Square with Vic Track. Development west of the rail corridor will provide a leverage for creation of the link in its entirety
- Council to submit proposal to Vic Roads for pedestrian crossing and threshold treatment at the intersection of McCrae and Curlewis Streets
- Council to have discussions with Lower Murray Water to identify opportunities to exit the riverfront earlier than currently forecast
- Council to undertake feasibility assessment for the relocation of the Library



Key Issues

- Lower Murray Water infrastructure provides barrier to McCrae Street extension east of the rail corridor
- Existing station car park provides barrier to McCrae Street extension west of the rail corridor (and the creation of the Town Square). This car park is well used and removed parking will need to be offset elsewhere
- New pedestrian crossing of rail corridor to be discussed with the Department of Transport and Vic Track
- Threshold treatment and pedestrian crossing along Curlewis Street to be discussed with Vic Roads
- Requirements for trains coming into Swan Hill Railway Station including overshoot, pulling up space etc

- Refer the Implementation Matrix for detailed actions and priorities relating to McCrae Street Extension.
- These actions should be cross-reference with the details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.

13.4.5 Riverwalk Trail



The linking of the length of the riverfront with the Riverwalk trail is a one of the most important components of the Masterplan. It provides riverside users with a seamless path to walk along the river, and links key public space, facilities and uses.

Proposal

Riverwalk Trail upgrades to ensure a continuous path between Milloo Street Wetlands and Pental Island Road for all. This includes:

- Installation of a 3m wide concrete shared path from Milloo Street to Bryan Street with the potential to extend this to Pental Island Road. Including
 - Milloo Street to Retarding Basin
 - Retarding Basin to Lift Bridge
 - Lift Bridge to Caravan Park (through Riverside Park)
 - Path upgrade along Monash Drive (adjacent Caravan Park)
 - Path within Sculpture Park (including provision

of boardwalk and viewing desk over river)

- Sculpture Park to Arts Centre (including adjacent Pioneer Settlement)
- Arts Centre to Spoons Cafe and Lodges
- Lodges to Bryan Street
- Upgrade gravel path from Bryan Street to Pental Island Road
- Upgrade interpretive signage
- Installation of Fitness Stations
- Installation of drinking bubblers
- Incorporation of art, sculpture, lighting and indigenous heritage along the Riverwalk Trail
- Development of a Riverwalk Smart Application



Cross Section - Riverwalk Trail North

Key Issues

- Ensuring Riverwalk Trail provides access for all abilities and is Disability Discrimination Act (DDA) compliant
- Future connections to Lake Boga Bike Path and Nyah Bike Path as well as the Tower Hill Development
- Coordination of Riverwalk Trail upgrades with likely upgrades within Riverside Park
- Coordination of Riverwalk Trail upgrades with upgrades to Pioneer Settlement
- Coordination of Riverwalk Trail upgrades with upgrades to Art Gallery
- Riverwalk Trail to be located on top of levee adjacent the Lodges site to avoid future works at Lodges site
- Ensuring a coordinated and holistic approach to the provision of interpretation, signage, fitness stations, drinking bubblers, art, sculpture, lighting and furniture along the extent of Riverwalk Trail
- Provision of a new path from Bryan Street to Pental Island Road, with limited tree removal, where appropriate



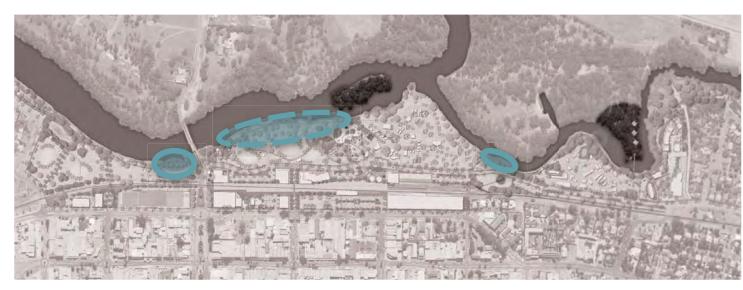
Cross Section - Riverwalk Trail North

Implementation of Proposal

Council to develop a detailed masterplan for the entire Riverwalk Trail including a furniture and materials palette, a planting palette, suitable locations for interpretation, signage, fitness stations, drinking bubblers and furniture. This masterplan should be referenced in the Arts and Sculpture Strategy and Lighting Strategy

- Refer the Implementation Matrix for detailed actions and priorities relating to the Riverwalk trail.
- These actions should be cross-referenced with the details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.

13.4.6 Engaging with the Murray River



Cross Section - Murray River Cultural Centre - Jetty / Pontoon

The ability to which locals and visitors can engage with the rivers edge, the water and the riverbank is one of the key strategic aims of the Masterplan.

Proposal

Provide increased opportunities to interact with the Murray / Marraboor River in safe and sensitive ways, focused around key areas of activity within the riverfront. This includes:

- A floating pontoon / jetty located near the Murray River Cultural Centre provides opportunities for fishing and viewing of the water and Swan Hill Lift Bridge
- Cadell Wharf in Riverside Park provides a lookout for people to view and experience the river environment.
 If appropriate, it may also allow for Paddle Steamers (including the Pyap) to dock at Riverside Park
- The Murray Promenade provides a hard engineered edge along the Murray River between Cadell Wharf and the Caravan Park boundary. The edge allows for sitting and viewing opportunities along the river bank
- Upgrade of the 10 steps
- A boardwalk and viewing desk over river bank at the Sculpture Park provides views along the Marraboor River

Key Issues

- Ensuring the wharf and floating pontoon / jetty are Disability Discrimination Act (DDA) compliant
- The New South Wales governance boundary and implications of the 3 chain rule
- Funding
- Coordination with other works within Riverside Park and the Murray River Cultural Centre

Implementation of Proposal

- Undertake design development for the Murray River Cultural Centre including Jetty / Pontoon design and location. Design should limit tree removal, where appropriate
- Council to discuss opportunities for Paddle Steamer docking at proposed Cadell Wharf to determine if this service can be provided
- Undertake design development for the Murray Promenade including realignment of Riverside Drive
- Council to investigate funding opportunities for 10 steps upgrade
- Undertake design development for the Sculpture Park including boardwalk design and location. Design should limit tree removal, where appropriate



Cross Section - Cadell Wharf



Cross Section - Sculpture Park Boardwalk

- Refer the Implementation Matrix for detailed actions and priorities relating to Engaging with the Murray River
- These actions should be cross-reference with the details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.

13.4.7 Fitness Stations







Masterplan - Fitness Station Example

It is important for the success of the Masterplan, that some components can be delivered 'on-the-ground' quickly. These provide impetus to further development, and evidence of change and 'small wins' for the community.

Proposal

Provide fitness stations (and drinking bubblers) along Riverwalk Trail. This proposal includes:

 Nominally 10 fitness stations to be provided along Riverwalk Trail. Fitness stations to include typically 2 pieces of fitness equipment, drinking bubblers and a soft fall surface. Seating and shade may also be provided in selected locations

Key Issues

- Ensure the coordination of Fitness Stations with Riverwalk Trail upgrades
- Ensure the Fitness Stations are logically located to best benefit users of the Riverwalk, and with access to views of public open space and the river.
- Ensure the construction of the Fitness Stations is from robust and resilient materials, that are weatherproof and vandal proof, and that will stand the test of time.
- Detail the Fitness Stations to be consistent with other elements of Riverside Park and the Riverwalk in terms of materials, colours, finishes, and scale.

Implementation of Proposal

- Undertake design development of a typical fitness station, drinking bubblers and arrangement of furniture
- Council to investigate opportunities for funding of fitness stations (based on Riverwalk Trail Masterplan)
- Installation of fitness stations along Riverwalk Trail

- Refer the Implementation Matrix for detailed actions and priorities relating to the Fitness Stations.
- details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.

13.4.8 Public Art, Lighting and Interpretation



Milloo Street Wetlands
Lighting of water feature / fountain



Form
Facade lighting to provide visual interest and highlight key civic / community buildings



Swan Hill Bridge Lighting along bridge to emphasis this key feature at night



Lighting to provide security and passive surveillance around river hub and public toilets



Feature lighting to create visual interest and allow for water plan during those hot summer nights



Sculpture Park/ Turntable

Public art and lighting elements to ensure sculpture park and railway turntable are interesting both during the day and at night



Heartbeat of the Murray
Light show using water, lasers and
projections at the Pioneer Settlement



Footbridge / Boardwalk Enable people to safely cross the boardwalk / footbridge at night





Retarding basinFeature lighting to provide visual interest at night



RiverwalkFeature lighting within the pavement at key sections to provide visual interest and assist in wayfinding



Plaza lighting to provide visual interest, passive surveillance and promote the use of the space at all hours

Plaza



Town Square Big Screen

A 'live' video screen on the corner of the
Town Square and Curlewis Street, above
the awning and visible from nearby streets,
the square and the train station. Screen live
events, 'Heartbeat of the Murray' promos,
River Murray interpretive information and
'live' webcams from various River Murray
sister towns.



Transport Hub Lighting provides a good first impression of Swan Hill for people coming by train and improves passive surveillance



Projection lighting of silos provides opportunity to display local community updates (i.e. date, weather, local news), information for visitors (promote Pioneer Settlement and Art Gallery), artwork (local community / students) or screen movies / short films etc



Lighting of Gem enhances this features and emphasises views to it



Feature / Tree up lighting
Feature lighting in key locations to improve the aesthetics and appearance of the riverfront at night

Proposal

Use lighting, interpretation and public art to enhance the amenity and identity of the riverfront. It should integrate and draw on the character of the Murray River, the theme of technology and indigenous culture and the 'Heartbeat of the Murray'.

Key Issues

- Funding
- Coordination with Riverwalk Trail upgrades, Riverside Park upgrades and other projects along the riverfront

Implementation of Proposal

Undertake a detailed Arts and Sculpture Strategy

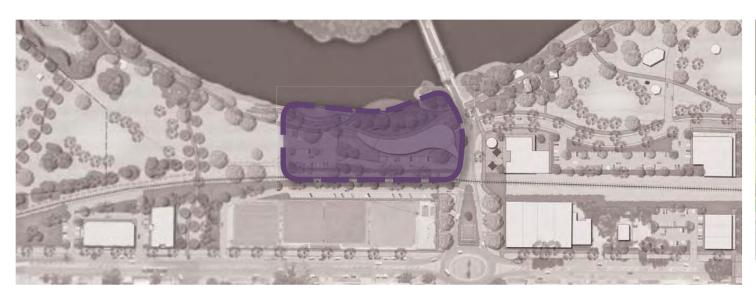
Silos

Undertake a detailed Lighting Strategy including 'Swan Hill Lights'

ACTIONS

• Refer the Implementation Matrix for detailed actions and priorities relating to Public Open Space.

13.4.9 Murray River Cultural Centre



Proposal

To provide a Murray River Cultural Centre that allows for interpretation of the local indigenous community and of the Murray River. This includes:

- An Indigenous Cultural Centre in the location nominated by the local indigenous group
- A Bush Tucker Garden associated the Indigenous Cultural Centre
- A Murray River Information Centre (within same building as Cultural Centre) that provides information on the entire Murray River, its history and importance within Australia. The opportunity to provide a native aquarium for educational purposes could also be considered
- Upgrades to the Lift Bridge Underpass to facilitate safe and legible connections to Riverside Park
- A floating pontoon / jetty to provide opportunities for fishing and viewing of the water
- Potential for rail corridor to be reclaimed for rail trail, if existing rail services north of Swan Hill Station are relocated / terminated
- Car parking for Murray River Cultural Centre visitors and
- A plaza space with indigenous planting and seating

Key Issues

- Re-alignment of the existing levee bank and how this may effect the location of new buildings within the area,
- Ensuring the floating pontoon / jetty is Disability Discrimination Act (DDA) compliant,
- Providing safe and legible access under the existing Lift Bridge for pedestrians and cyclists,
- Ensuring built form is sensitive to its prominent and highly visible location, and is of the highest quality design, materiality and construction,
- Vehicular access from McCallum Street to the proposed car park
- Incorporation of the dreaming stories cohesively into the Cultural Centre and throughout the riverfront
- Funding
- Zoning



Figure 51: Masterplan - Murray River Cultural Centre

Implementation of Proposal

- Council to undertake a study to determine the feasibility of the proposed Murray Rivér Cultural Centre in conjunction with the local indigenous group including:
 - Built form design development
 - Landscape design of surrounding area including floating pontoon / jetty, Riverwalk Trail, the plaza and 'bush tucker' garden (in accordance with material and furniture palette for overall riverfront)
 - Car parking design including traffic / access assessment
 - Identification of potential funding opportunities
- Council to investigate zoning required to allow for proposed future uses



Cross Section - Murray River Cultural Centre - Jetty / Pontoon

'The Kangaroo

Hopping and Leaping

Over the Red Sand

Go our big Kangaroo

Right across our land

Out and About

Over grasses green always to be Seen

Resting a while "neath

A tall gum tree

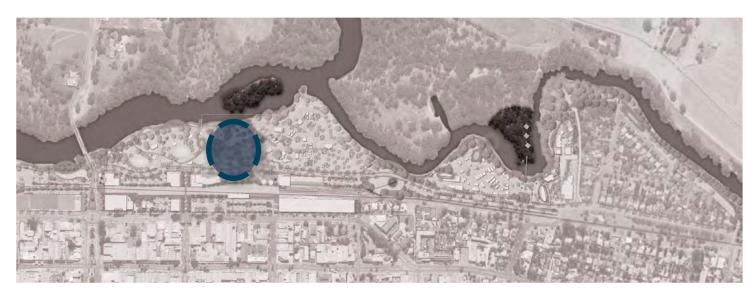
Roaming our Country

Forever free'

Extract from draft dreaming story

- Refer the Implementation Matrix for detailed actions and priorities relating to the Murray River Cultural
- These actions should be cross-referenced with the details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.

13.4.10Adventure Play / Water Play



One of the most exciting future developments for the Swan **Key Issues** Hill community is the implementation of the Adventure Park and Waterplay areas within Riverside Park.

Proposal

Consolidate existing playground into a large Adventure Play and Water Play space. This includes:

- Water play elements such as soft fall areas, bubblers, dumpers, spreaders and shallow play areas arranged around a 'beach zone'
- Sculptural elements that interpret the role of water
- Aerial adventure play elements that allow older children, youth and families an opportunity to 'get up high' and enjoy a unique view of the surrounding riverfront
- Nature play elements that encourage children to 'discover' and learn from the riverfront environment
- A flying fox or zipline,
- Seating, picnic and BBQ facilities
- A ball game zone
- A kiosk style hub that includes toilets, change facilities and potential chair, umbrella and bike hire. This hub (River Hub #1) may also include a wifi hot spot and potential ice cream sales etc

- Removal of existing levee bank. This could be incorporated onto the active play area as a feature to play on. Sections could also be removed to improve access
- Implications of 1:100 flood levels for playground
- Funding
- Coordination with other works within Riverside Park
- Realignment of paths and Riverwalk Trail connections
- Opportunity to link 'water' to lake within Riverside Park
- Provision of services
- Ensuring adventure play and water play areas consider access for all needs
- Providing a difference between offerings at the Caravan Park Cafe and at River Hub #1



Masterplan - Riverwalk Trail North

Implementation of Proposal

- Undertake a detailed masterplan for Riverside Park including the Water Play / Adventure Park. Design should limit tree removal, where appropriate
- Council to investigate the reuse of existing playground equipment elsewhere within the municipality
- Council to investigate funding opportunities for Water Play / Adventure Play
- Undertake a IT Communications Strategy for open spaces within Swan Hill

- Refer the Implementation Matrix for detailed actions and priorities relating to the Adventure Play zone.
- These actions should be cross-reference with the details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.

13.4.11 The Former Depot Site



Proposal

To provide future commercial development on the former depot site that responds to the sensitive residential and riverfront interface. This includes:

- A Function / Conference Centre and Accommodation located on the former depot sire with access from Naretha Street
- Relocated Swimming Pool, partly located within the former depot site and partly the riverfront (where the skate park is)
- Potential for rail corridor to be reclaimed for rail trail and car parking, if existing rail services north of Swan Hill Station are relocated / terminated
- Streetscape upgrades adjacent to the site including an improved at-grade crossing of the railway along Naretha Street (including pedestrian crossing)

Key Issues

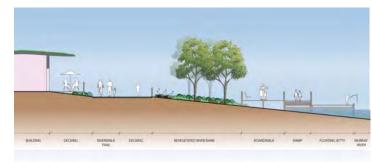
- Decontamination of site and the expected completion of
- Future uses address to the riverfront / retarding basin
- Potential opportunities provided if freight line north of Swan Hill Railway Station is relocated
- Feasibility of relocating Swimming Pool (including
- Opportunities for future uses to manage proposed Swimming Pool
- Upgrades to Naretha Street level crossing to be discussed with Vic Track and the Department of Transport



Masterplan - Former Fuel Depot Site

Implementation of Proposal

- Council to undertake a rail study to determine the feasibility for freight rail north of the Swan Hill Station to be relocated
- Council to undertake study to determine the feasibility of relocating the Swimming Pool and identify sources for funding and opportunities for commercial management
- Council to submit proposal to Vic Track and the Department of Transport for upgrades to Naretha Street level crossing (including pedestrian crossing)
- Council to prepare EOI for the development of the Former Depot Site
- Undertake design development for Naretha Street and Hastings Street in conjunction with plans for the development of the Former Depot Site
- Council to identify zoning of Former Depot Site and rezone in accordance with proposed future uses



Cross Section - Function Centre / Retarding Basin

- Refer the Implementation Matrix for detailed actions and priorities relating to the Riverwalk trail.
- These actions should be cross-referenced with the details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.

13.4.12 Short-Stay and Medium Density Accommodation



An important component of the economic development of the Swan Hill riverfront is the strategic development of increased forms of accommodation in proximity to the riverside areas. Economic demand drivers indicate development of short-stay accommodation, as well as apartment or medium density dwellings can be well supported.

Proposal

The Riverfront Masterplan allows for the future potential provision of short stay accommodation fronting Curlewis Street. There is an identified opportunity to provide serviced apartments / accommodation for the growing business market. This includes:

- Provision of short-stay accommodation complementing the development of public space and facilities within the Riverside Park by attracting families to the area.
- Accommodation uses which take advantage of this location as it: is a highly accessible site with access to the riverfront and the CBD
- Provision of an appropriate transition between CBD uses and the riverfront to the south and the residential uses to the north.

The potential future provision of serviced apartments includes:

- Buildings and reception fronting Curlewis Street and the Prichard Street pedestrian link
- At-grade car parking with the opportunity for further parking below buildings (subject to further investigation and feasibility assessment)
- Streetscape upgrades adjacent to the site including an improved at-grade crossing of the railway along Naretha Street (including pedestrian crossing)
- Landscape buffer to screen the rail corridor in the short term



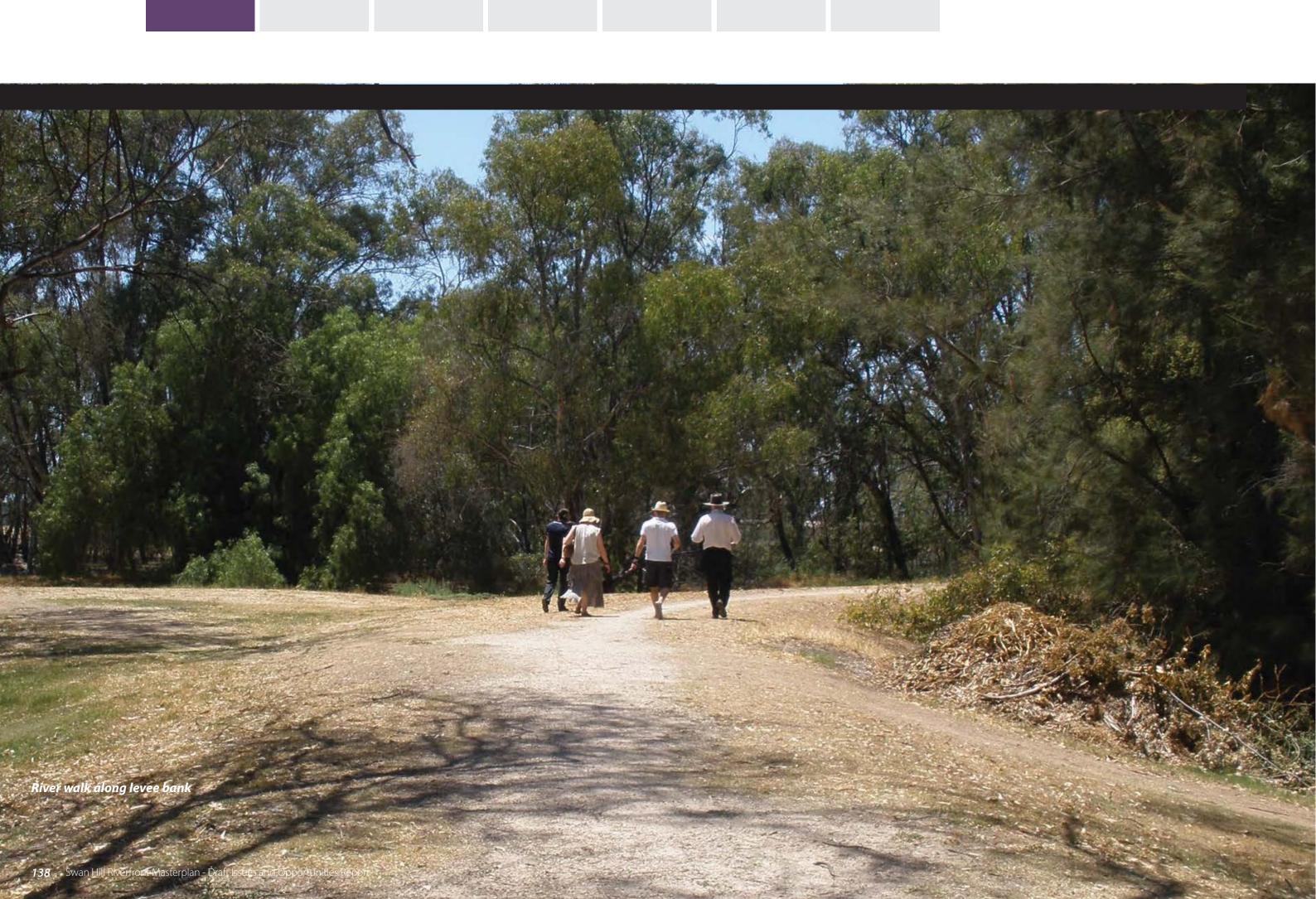
Masterplan - Short Stay Accommodation

Key Issues

- Future uses address to the riverfront / Pritchard Street pedestrian link
- Potential opportunities provided if freight line north of Swan Hill Railway Station is relocated
- Nominated site is privately owned with existing commercial uses operating from its site.

Implementation of Proposal

- Refer the Implementation Matrix for detailed actions and priorities relating to the development of Accommodation.
- These actions should be cross-reference with the details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.



13.4.13 Statutory Town Planning



Summary

The interpretation of the Riverfront Masterplan into the Swan Hill Rural City Council Planning Scheme is a crucial process to the success and implementation of each component of the masterplan.

The Riverfront Masterplan scope does not include detailed planning recommendations or town planning guidance, however it has been designed and compiled with the local planning scheme, zones and planning restrictions in mind. It is anticipated that as a result of the adoption of the Masterplan a series of statutory planning steps will need to be undertaken in order to commence efficient and comprehensive implementation of the strategies.

Key Issues

• Current zoning in areas of the masterplan identified as

Key Recommendations

- The planning instruments and policies developed as a result of the Masterplan implementation should support the Masterplan concepts of increased density and activity within the riverfront areas, increased forms of short-stat accommodation within the riverfront areas, and increased food and beverage facilities.
- The planning instruments and policies developed as a result of the Masterplan implementation should support a 'no net loss' of public open space within the Riverfront precinct, in accordance with the Masterplan.
- The planning instruments and policies developed as a result of the Masterplan implementation should support sustainable design principles at all levels of development, including water sensitive urban design, Safer Design Principles (CPTED) and Healthy by Design principles.
- All relevant components of the Masterplan should be referred to within the appropriate sections of the SHRCC MSS and other appropriate provisions of the Swan Hill Planning Scheme.
- The Swan Hill Planning Scheme develop a local policy to provide strategic direction for the Riverfront precinct and surrounding areas.

- That subject to planning detail, a Design and Development Overlay be established for the Riverfront precinct and the surrounding areas on Curlewis Street, Hastings St, Gregg Street and other appropriate areas.
- That a detailed land-use planning strategy be developed by SHRCC to ascertain the required planning scheme amendments and any other changes to the planning scheme required to enact and support the Swan Hill Riverfront Masterplan.
- Capture some of the flow-on benefits of the Masterplan on adjoining and surrounding areas of Swan Hill within the MSS or similar local strategic policies. This would support complementary land uses and developments in proximity to the Masterplan area.
- That a detailed strategy of potential sites, titles and precincts for rezoning be developed by SHRCC in accordance with the recommendations of the Masterplan.

Implementation of Proposal

- SHRCC to develop local planning policies that support the key components indicated in the Masterplan.
- SHRCC to develop local planning policies that support the key strategic aims, and guiding principles of the Masterplan, including sustainable, safe, accessible, and socially inclusive design.
- SHRCC to develop plans for the Riverfront precinct to be included in the local MSS, and other local policies as appropriate.
- SHRCC to develop as list of potential sites and titles for rezoning to align zoning and land-use with the recommendations of the Masterplan.

- Refer the Implementation Matrix for detailed actions and priorities relating to Statutory Town Planning processes.
- These actions should be cross-reference with the details outlined on this page, to form a brief for further detailed improvements, works or studies within the Masterplan area.

13.5 Implementation Matrix

The following implementation matrix outlines the key

Refer 'Swan Hill Riverfront Masterplan - July 2013'. This matrix actions required to implement the draft plan, responsibilities to be read in conjunction with the aims and outcomes of the masterplan and the full masterplan report.

Stra	tegy	Location	Summary	Priority	Timing	Impact	Responsibility	Indicative Cost Range	Funding Opportunities	Notes
1	Preparation of an Expression of Interest prospectus for the existing Lodges site (Eco-Lodges Accommodation)	Eco- Accommodation Precinct	Design scoping and brief to inform an Expression of Interest for the development of the precinct into eco lodges or eco accommodation as per the masterplan.	High	SHORT TERM	Medium	Swan Hill Rural City Council in conjunction with Pioneer Settlement		Private Investment	Opportunity to look at potential relocation of the Pental Island footbridge. Need to look for alternative location for schools groups once lodges are no longer available.
2	Design and scoping exercise for McCallum St between Curlewis Street and the Lift Bridge	Heart of the Riverfront Precinct	Design and scoping of initial public upgrade works including footpath, verge, trail and associated landscape works	Medium	SHORT TERM	Medium	Swan Hill Rural City Council and consultants		Regional Development Victoria	To be co-ordinated with current drainage project, between McCallum Street and Murray River (under railway line)
3	Landscape works to the existing Riverwalk section underneath the Lift Bridge	Heart of the Riverfront Precinct	Design and scoping of initial public upgrade works including footpath, verge, trail and associated landscape works	High	SHORT TERM	High	Swan Hill Rural City Council and consultants		Potential funding opportunity through Heritage (NSW)	
4	Design and scoping exercise for the River Plaza and at-grade crossing at McCrae St, passing through LMW	Night Life / Food and Beverage Precinct	Design and scoping of initial works needed to establish a temporary pedestrian rail level crossing on the McCrae Street alignment (as per masterplan)	High	SHORT TERM	Significant	Swan Hill Rural City Council, Department of Transport and VicTrack			Prepare temporary solution with Lower Murray Water (LMW)for discussions with Department of Transport and VicTrack
5	Rail Study- rail services, operations and infrastructure around Station	(multiple)	Undertake a strategic study of rail operations within Swan Hill in order to justify and establish the McCrae Street pedestrian level crossing (as per masterplan)	High	SHORT TERM	Significant	Swan Hill Rural City Council, rail consultants, Department of Transport and VicTrack		Potential funding through small scale rail grants	
6	Fuel Depot Sites - continuing remediation works	Hastings Street / Fuel Depot Site	Continuing discussions with EPA, Mobil and Shell	Medium	MEDIUM TERM	Medium	Swan Hill Rural City Council and Environment Protection Authority			VicTrack are the land owners
7	Fuel Depot Sites - feasibility studies for development	Fuel Depot Site	Feasibility study to evaluate future uses and highest and best use principles for fuel depot site.	Medium	LONG TERM	Medium	Swan Hill Rural City Council		Private Investment	Difficult to implement until Swan Hill replacement bridge alignment agreed to

^{*} All indicative cost ranges are provided as preliminary estimates only.

Stra	tegy	Location	Summary	Priority	Timing	Impact	Responsibility	Indicative Cost Range	Funding Opportunities	Notes
8	Future relocation plans for existing landholders within Riverfront	(multiple)	Continuing discussions with GrainCorp, Lower Murray Water and swimming pool in order to facilitate an exit from the land as soon as is practicable	High	SHORT TERM	Significant	Swan Hill Rural City Council		Regional Development Victoria	Riverfront masterplan working group with responsibilities allocated
9	Swimming Pool Feasibility Study	N/A	Undertake a feasibility study to guide future location, use and operations of the Swan Hill Swimming Pool	High	SHORT TERM	Low	Swan Hill Rural City Council		Council's Major Projects - Feasibility Study and Sports and Recreation Victoria for works	If future location of swimming pool is to be within the riverfront, Council to undertake design and scoping to identify appropriate location, in consultation with key stakeholders
10	Library Relocation	CBD Connection Precinct	Investigate feasibility of a new Swan Hill Library presence on Curlewis Street fronting the River Plaza. (as per masterplan)	Low	LONG TERM	Medium	Swan Hill Rural City Council			
11	Design and scoping exercise for the Operation and Funding for the Murray River Cultural Interpretation Centre	Heart of the Riverfront Precinct	Design and scoping of the facility and operations of the Cultural Centre in order to inform funding applications for the facility.	Low	MEDIUM TERM	Significant	Swan Hill Rural City Council, Wamba Wamba Local Indigenous Land Council, Swan Hill Aboriginal Services and Swan Hill Local Indigenous Network		Murray Lower Darling Rivers Indigenous Nations (MLDRIN), Regional Development Victoria, Family Housing Community Services and Indigenous Affairs, Indigenous Land Corporation, Indigenous Business Australia	The Living Murray Indigenous Partnerships Program
12	Review Pioneer Settlement Masterplan for further opportunities and quick wins	Tourism Precinct	Ensure opportunities for works within the Pioneer Settlement Masterplan are included within the delivery of the Riverside Masterplan	Medium	SHORT TERM	Medium	Swan Hill Rural City Council in conjunction with Pioneer Settlement		Tourism Victoria, Regional Development Victoria and Regional Development Australia	Council has significantly invested in underground infrastructure to support future development.
NOTE	Heartbeat of the Murray Concept	Tourism Precinct vestimates only.	Continue lobbying and funding applications for based on the existing funding application	High	SHORT TERM	Significant	Swan Hill Rural City Council, Pioneer Settlement and Regional Development Victoria	Some funding already budgeted	Regional Development Australia and Regional Development Victoria	This project will significantly support the Ports of the Murray Strategy

Stra	tegy	Location	Summary	Priority	Timing	Impact	Responsibility	Indicative Cost Range	Funding Opportunities	Notes
14	Scoping and design Brief - Cadell Wharf- Pontoon structure	Riverside Park Precinct	Design and scoping of initial brief for uses, form, design and materials for the Cadell Wharf and river's edge as per the Masterplan	High	SHORT TERM	Significant	Swan Hill Rural City Council		Ports of the Murray Regional Development Victoria	Council's engineering dept. has done some preliminary work to create a board walk in this area.
15	Conversion of Horseshoe Bend from Pioneer Settlement to 'Semi- public realm'-(Lock-up' after hours) and investigate commercial opportunities	(multiple)	Review the opportunities to bring forward aspects of stage three of the Pioneer Settlement Masterplan including landscaping Monash Avenue in conjunction with this Masterplan.	Medium	MEDIUM TERM	Medium	Swan Hill Rural City Council	\$145,000	Parks Victoria	This directly links with the riverfront walking paths/trails.
16	Riverfront Event Manager/ Placemaker/Facilitator	(multiple)	Develop an events schedule to capital on staged events within our municipality including the Swan Hill Riverfront - Riverside park. I.e. develop of an events package including train fare, overnight stays and theatre performances or drag car, horse races	Low	LONG TERM	Medium	Swan Hill Rural City Council - Tourism		Tourism Victoria, RDV and RDA	
17	Short term riverbank remediation and reinforcement works within Riverside Park	(multiple)	(as per masterplan)	Medium	SHORT TERM	Low	Swan Hill Rural City Council		Land Care	
18	Design Development of typical Fitness station and drinking bubblers arrangement and furniture to facilitate	(multiple)		Low	SHORT TERM	Medium	Swan Hill Rural City Council		Swan Hill Rural City Council \$130,000 and Sports and Recreation Victoria \$80,000	EOI successful - full application being submitted, outcome will be known end 2013.
19	Provision of boardwalk and viewing deck over river bank at "Sculpture Park"	Tourism Precinct	Design and scoping of works needed to establish a boardwalk and viewing deck over the riverbank (as per masterplan)	Medium	SHORT TERM	Significant	Swan Hill Rural City Council			Build on the lessons learnt from the PS Wharf project.

NOTE

^{*} All indicative cost ranges are provided as preliminary estimates only.

Stra	tegy	Location	Summary	Priority	Timing	Impact	Responsibility	Indicative Cost Range	Funding Opportunities	Notes
Rive	rwalk Upgrades - Installation of 3 me	tre wide concrete Sl	hared Path							
20	Provision of a 3m wide shared path (on current riverwalk trail alignment) and upgrades to riverfront trail between Milloo St and retarding basin	Natural Riverfront and Biodiversity Precinct 1		Low	LONG TERM	Low	Swan Hill Rural City Council	\$155,000	Regional Development Victoria	
21	Provision of a 3m wide shared path (on current riverwalk trail alignment) and upgrades to riverfront trail between retarding basin and lift bridge	Riverside Park Precinct		Medium	SHORT TERM	Medium	Swan Hill Rural City Council	\$125,000	Regional Development Victoria	
22	Provision of a 3m wide shared path between lift bridge and Caravan Park, through Riverside Park	Riverside Park Precinct		Low	SHORT TERM	Medium	Swan Hill Rural City Council	\$205,000	Regional Development Victoria	
23	Provision of a 3m wide shared path along Monash Drive, adjacent to caravan park	Tourism Precinct		High	SHORT TERM	High	Swan Hill Rural City Council	\$86,000	Regional Development Victoria	
24	Provision of a 3m wide shared path adjacent to rail turntable	Tourism Precinct		High	SHORT TERM	High	Swan Hill Rural City Council	\$21,000	Regional Development Victoria	
25	Provision of a 3m wide shared path between the Sculpture Park and Arts Centre, adjacent Pioneer Settlement	Tourism Precinct / Arts and Culture Precinct		Medium	MEDIUM TERM	High	Swan Hill Rural City Council	\$110,000	Regional Development Victoria	
26	Provision of a 3m wide shared path between Art Centre and Spoons Café	Tourism Precinct / Arts and Culture Precinct	Design and scoping of initial works needed to establish this section of walking path to be implemented in the short term (as per masterplan)	High	SHORT TERM	High	Swan Hill Rural City Council	\$52,000	Healthy Community Initiatives program	
27	Provision of a 3m wide shared path between existing school lodges to Bryan St	Eco - Accommodation Precinct / Natural Riverfront and Biodiversity Precinct 2		Low	MEDIUM TERM	Medium	Swan Hill Rural City Council	\$260,000	Regional Development Victoria	
28	Upgrades gravel trail between Bryan St and Pental Island Bridge	Natural Riverfront and Biodiversity Precinct 2		Medium	LONG TERM	Low	Swan Hill Rural City Council	\$85,000	Regional Development Victoria	
29	Connections to Lake Boga Bike Path, Tower Hill and Nyah Bike Path	N/A		Medium	LONG TERM	Low	Swan Hill Rural City Council			

Stra	ategy	Location	Summary	Priority	Timing	Impact	Responsibility	Indicative Cost Range	Funding Opportunities	Notes
Riverwalk Facilities										
30	Riverfront Signage Strategy and branding- Upgrade Interpretive signage along Riverwalk, inc updated indigenous interpretation and Riverwalk Smart App and Precinct Entry signage	(multiple)	Dreaming Stories developed and will inform interpretive signage	High	SHORT TERM	High	Swan Hill Rural City Council; Economic Development Unit, Community Planning and Development, Information Technology, Media, Engineer	\$180,000		Council to develop a working party to do preliminary research prior to engaging a consultant to develop strategy
31	Installation of drinking bubblers	(multiple)	See Fitness Stations #18 / to be installed at every second station	Medium	SHORT TERM	Low	Swan Hill Rural City Council	\$120,000 (allows for 10)	Sports and Recreation Victoria	
32	WiFi in the Park	(multiple)	IT communication Strategy for Open spaces	Low	MEDIUM TERM	Low	Swan Hill Rural City Council			To be considered as part of a wider strategy for Swan Hill
33	Undertake a detailed Lighting Strategy	(multiple)		Medium	MEDIUM TERM	Medium	Swan Hill Rural City Council			Council to develop a working party to do preliminary research prior to engaging a consultant to develop strategy
34	Undertake a detailed Art and Sculpture Strategy	(multiple)		Low	MEDIUM TERM	Medium	Swan Hill Rural City Council			
Rive	erside Park Upgrade - Subject to comp	oletion of detailed i	masterplan							
35	Riverside Park Concept Plan (between lift bridge and Caravan Park)	Riverside Park Precinct and Family Fun and Activity Precinct	Design development (based on survey information) to refine masterplan and ensure layout conforms with constraints and space requirements of proposed facilities	High	SHORT TERM	Significant	Swan Hill Rural City Council		Sports and Recreation Victoria and Regional Development Victoria	
36	Provision of Adventure Playground with water play elements	Family Fun and Activity Precinct	Design and scoping of works needed to provide an Adventure Playground with water play elements (as per masterplan)	High	SHORT TERM	Significant	Swan Hill Rural City Council		Sports and Recreation Victoria and Regional Development Victoria	
37	Minor upgrades to sound shell	Riverside Park Precinct		Low	MEDIUM TERM	Low	Swan Hill Rural City Council		Sports and Recreation Victoria and Regional Development Victoria	

^{*} All indicative cost ranges are provided as preliminary estimates only.

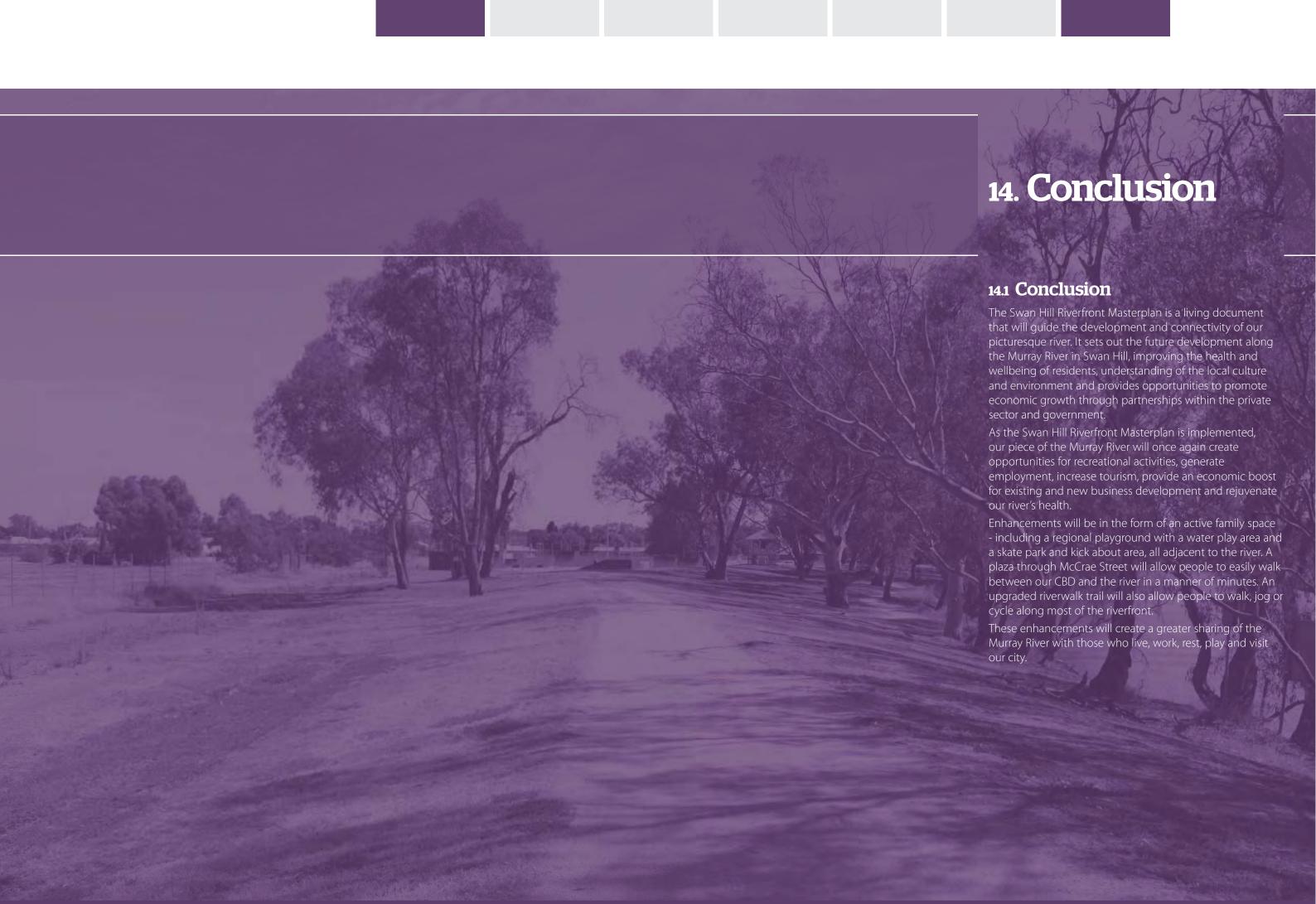
Stra	tegy	Location	Summary	Priority	Timing	Impact	Responsibility	Indicative Cost Range	Funding Opportunities	Notes
38	Monash Drive realignment	Riverside Park Precinct and Family Fun and Activity Precinct	Design and scoping of works needed to facilitate Monash Drive realignment (as per masterplan)	Medium	MEDIUM TERM	High	Swan Hill Rural City Council		Sports and Recreation Victoria and Regional Development Victoria	
39	Riverside Drive realignment	Riverside Park Precinct	Design and scoping of works needed to facilitate Riverside Drive realignment and allow space along riverbank for 3m shared pathway (as per masterplan)	Low	MEDIUM TERM	Medium	Swan Hill Rural City Council		Sports and Recreation Victoria and Regional Development Victoria	
40	Provision of River Hub #2 which includes Canoe Club, public toilets and other required facilities	Riverside Park Precinct	Design and scoping of works needed to establish RiverHub #2 (as per masterplan)	Low	LONG TERM	Low	Swan Hill Rural City Council		Sports and Recreation Victoria and Regional Development Victoria	
41	Cadell Wharf	Riverside Park Precinct	(refer item 14)	High	SHORT TERM	Significant	Swan Hill Rural City Council		Murray Darling Basin Grants	
Rive	Health Projects		i.	"						
42	Boat Ramp Beach - Weed removal and revegetation to Murray bank and surrounds	Natural Riverfront and Biodiversity Precinct 1		Low	MEDIUM TERM	Low	Swan Hill Rural City Council		Land Care and Swan Hill Community Pride	Create a land care project and support weed warriors
43	Ongoing weed removal, revegetation and riverbank stabilisation works	(multiple)		Low	MEDIUM TERM	Low	Swan Hill Rural City Council		Land Care	Create a land care project and support weed warriors
44	Rationalisation of irrigated grass areas and revegetation to Riverfront Walk, north of Boat ramp	Natural Riverfront and Biodiversity Precinct 1		Medium	SHORT TERM	Low	Swan Hill Rural City Council		Land Care	Create a land care project and support weed warriors

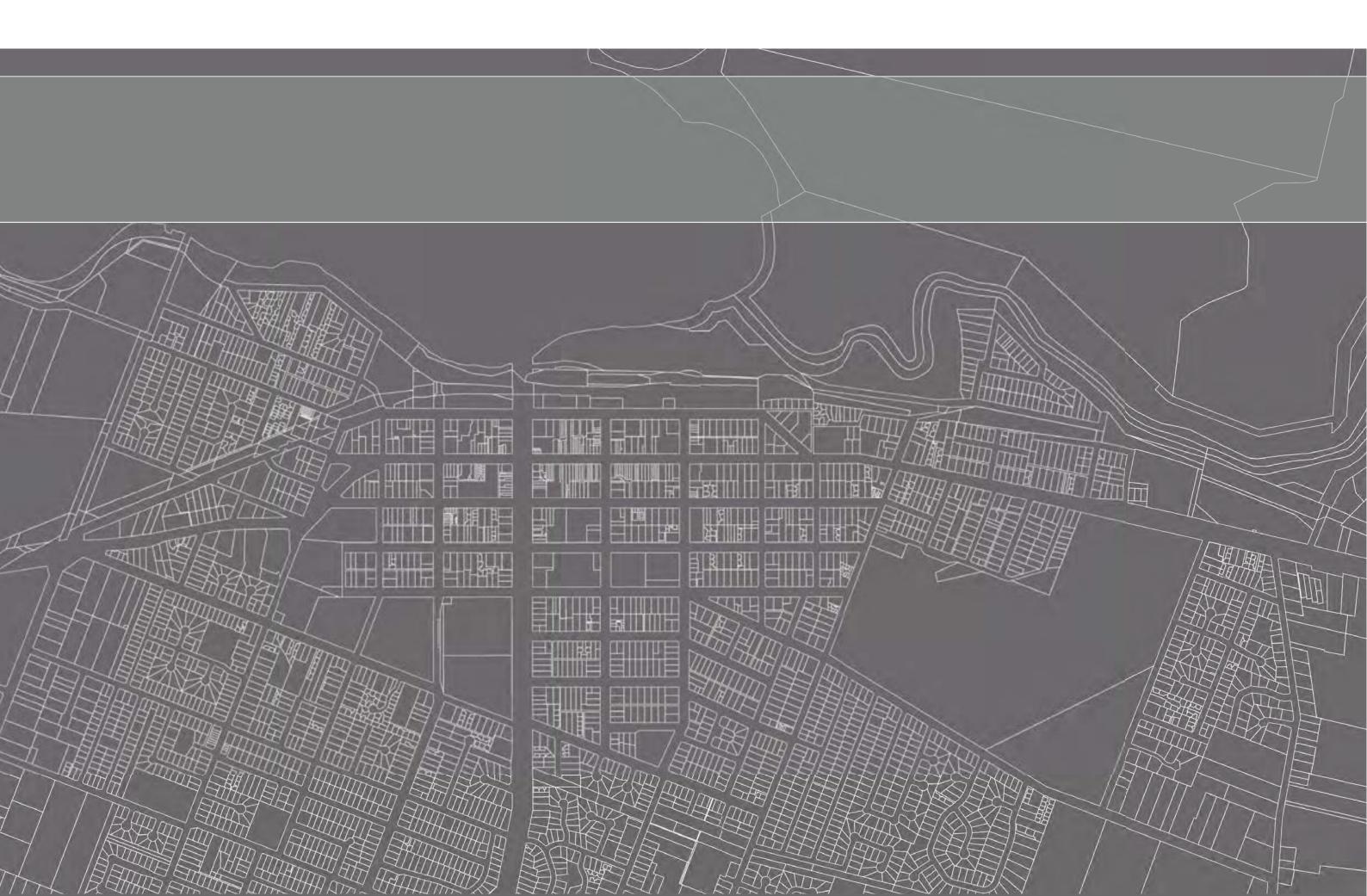
NOTE

^{*} All indicative cost ranges are provided as preliminary estimates only.

Stra	itegy	Location	Summary	Priority	Timing	Impact	Responsibility	Indicative Cost Range	Funding Opportunities	Notes
Oth	er Works									
45	Provision of toilets and general upgrade at boat ramp, inc of additional seating and furniture	Natural Riverfront and Biodiversity Precinct 1	Provision of public BBQ facilities, shelter, furniture, public toilets, fitness station and amenities at boat ramp	Medium	SHORT TERM	Medium	Swan Hill Rural City Council	\$185,000	Boat Safe Victoria	Lighting to be investigates as well
46	Tree planting to Monash Drive in key locations	Riverside Park Precinct and Family Fun and Activity Precinct	Provide tree planting where it does not conflict with future masterplan works (i.e. realignment of Monash Drive)	Low	MEDIUM TERM	Low	Swan Hill Rural City Council	\$75,000	Land Care / School tree planting projects	
47	Overpass at Wood St	(multiple)	Commence due diligence and initial studies on a future pedestrian overpass from Curlewis Street (at the end of Wood Street) across the rail lines into the Turntable area	Medium	LONG TERM	Significant	Swan Hill Rural City Council, Department of Transport and VicTrack			This overpass is secondary to the McCrae Street at-grade crossing
48	Art Gallery Expansion and plaza works	Arts and Cultural Precinct	Support current plans for the Art Gallery expansion and plaza works (as per the 'Interpretive Centre and Large Object Conservation Facility' August 2010 and the masterplan)	Medium	MEDIUM TERM	Significant	Swan Hill Rural City Council and Art Gallery		Arts Victoria	
49	Pental Island - feasibility study to investigate opportunities for access, interpretation, use and tourism	Tourism Precinct		High	SHORT TERM	Medium	Swan Hill Rural City Council			
50	Relocation of the existing skate park	(multiple)	Undertake a feasibility study to guide future location of the Swan Hill skate park	Low	LONG TERM	Low	SHRCC			
51	Water Sensitive Urban Design Strategy	(multiple)	Ongoing commitment to water conservation and ecological sustainability. Investigate opportunities for the river precinct development to incorporate Water Sensitive Urban Design (WSUD) principles aimed to reduce the water required to maintain the space and improve the quality of water flowing back into the Murray River.	Low	LONG TERM	Low	Swan Hill Rural City Council			

^{*} All indicative cost ranges are provided as preliminary estimates only.







Appendix A: Benchmarking **Tract**

14.2 Adventure Playground

Wombat Bend, Templestowe

Size (approximate)

Length x Width: 80m x 70m Area: 5600sqm

Features

- Maze
- Swings
- Slides
- Climbing cube
- Flying fox
- Carousel (with Harness)

Seesaw

- Amphitheatre
- Native forest walk
- Sun dial
- Sound recordings
- Scented plants

Hays Paddock, Kew East Size (approximate)

Length x Width: 60m x 50m Area: 3000sqm

Features

- Toilets
- Fence
- Sun Shade
- Swings
- Slides
- Swing with Harness

Double Width Slide

- See Saw
- Hammock
- Spiders Web Trampoline

Eltham North Reserve, Eltham North

Size (approximate)

Length x Width: 65m x 100m (triangle) Area: 3250sqm

Features

- Maze
- Swings
- Slides
- Climbing cube
- Flying fox
- Carousel

- Seesaw
- Amphitheatre
- Native forest walk
- Sun dial
- Sound recordings
- Scented plants







14.3 Amphitheatre

Echuca Adventure Play Park, Echuca

Size (approximate)

Length x Width: 80m x 100m

Area: 8000sqm

Features

- Tunnels
- Flying foxes
- Climbing towers
- Stairs
- Bridges
- Swings

Sand pits

Slides



EMO 500 sqm Historic Stone Jetty (no boat access) HMAS Sydney mast

Bradley Heads, Sydney Harbour Size (approximate)

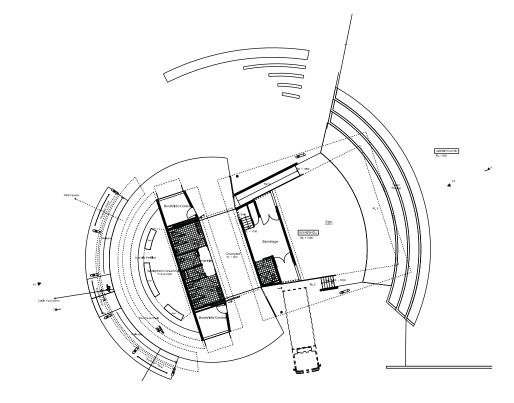
Area: 500sqm

Caters for a maximum of 400 people approximately

Bowen Foreshore, Bowen Size (approximate)

Area: 1000sqm No capacity specified







14.4 Kick About Space

Northshore Riverside Reserve, Hamilton

Size (approximate)

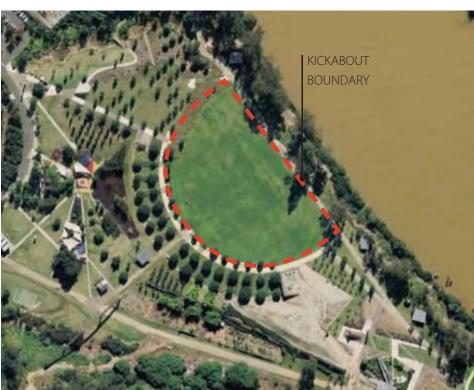
Length x Width: 50m x 30m Area: 1500sqm



Rocks Riverside Park, Brisbane Size (approximate)

Area: 8000sqm





14.5 Function Centre / Hotel Rooms

Crowne Plaza, Torquay Function Centre Size (approximate)

Length x Width: 40m x 40m Area: 1600sqm

Hotel Rooms Size (approximate) Length x Width: 45m x 25m

Area: 1150qm





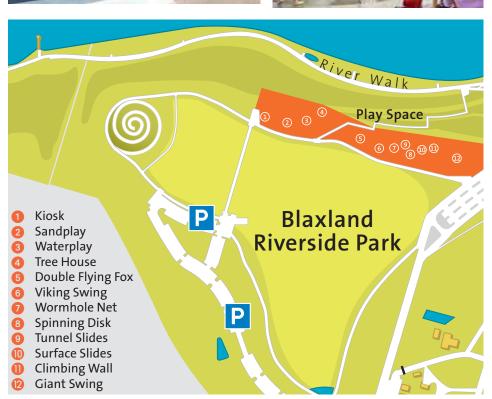
14.6 Water Park

Blaxland Riverside Park, Sydney Size (approximate)

Length x Width: 30m x 30m (circle) Area: 700sqm







Rocks Riverside Park, Brisbane Size (approximate)

Length x Width: 30m x 20m (irregular) Area: 500sqm







Seville Waterplay Park, Seville Size (approximate)

Length x Width: 40m x 20m (irregular) Area: 800sqm





14.7 Flying Fox 14.8 Public Toilets 14.9 Wharf

Rocks Riverside Park, Brisbane



Point Park, Docklands Size (approximate)

Length x Width: 4.5m x 2.5m (circle) Area: 12sqm (photo not of exact toilet)



Swan Hill Wharf, Swan Hill Size (approximate)

Length x Width: 11m x 25m Area: 275sqm



Darling Quarter, Sydney Size (approximate)

Length x Width: Ranges from 7 - 32m long and 1.6 - 7m wide



Swan Hill Riverside Park, Swan Hill Size (approximate) Length x Width: 8m x 1m

Area: 96sqm



14.10 Skate Park (Outdoor)

Geelong Foreshore, Geelong Size (approximate)

Area: 3000sqm









Cairns Plaza, Cairns Size (approximate)

Length x Width: 60m x 60m (includes grass areas) Area: 3600sqm



Length x Width: 35m x 20m Area: 700sqm







14.11 Skate Park (Indoor)

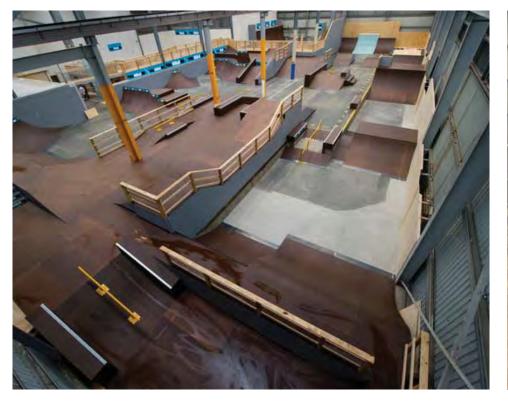
The Shed, Cranbourne

Size (approximate)

Length x Width: 60m x 60m (not including parking) Area: 3600sqm







Rampit Indoor Skatepark, Mitcham

Size (approximate)

Length x Width: 60m x 25m (not including parking) Area: 1500sqm





Rampfest Indoor Skatepark, Braybrook

Size (approximate)

Length x Width: 60m x 25m Area: 1500sqm





14.12 Skate Park (Informal)

14.13 Swimming Pool

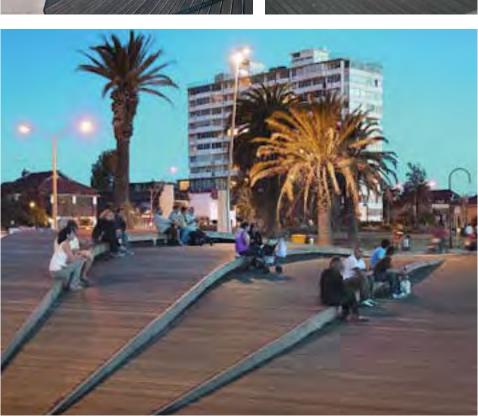
St. Kilda Foreshore, St. Kilda Size (approximate)

Swan Hill Swimming Pool, Swan Hill Size (approximate) Length x Width: 35m x 140m Area: 4900sqm

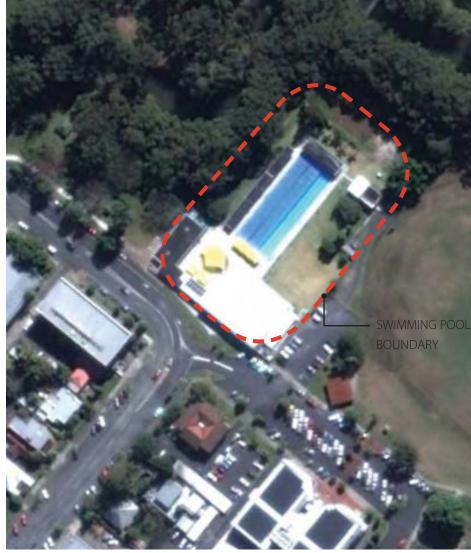












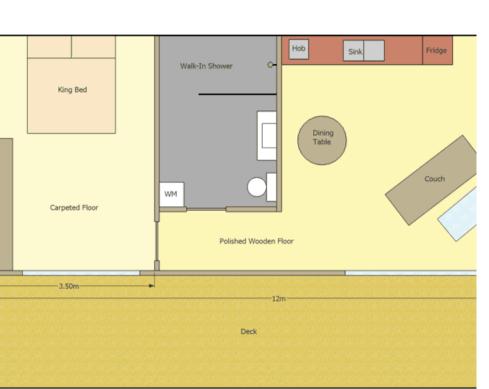
14.14 Eco Cabins

Freycinet Eco Retreat, Tasmania Size (approximate)

Length x Width: 12m x 7m (not including parking) Area: 84sqm each







Moreava Cottages, Easter Island Size (approximate)

Prefabricated cottages Area: 75sqm each







Casa de Veraneo, Buenos Aires, Argentina Size (approximate)

Area: unknown







14.15 Cafe / Provedore

Northshore Riverside Cafe, Hamilton

Size (approximate)

Length x Width: 30m x 15m (irregular and include opportunities for functions) Area: 450sqm





Pyrmont Point Park, Pyrmont

Size (approximate)

Length x Width: 20m x 9m (includes outdoor area) Area: 180sqm







Swan Hill Caravan Park, Swan Hill

Size (approximate)

Length x Width: 15m x 20m (includes public toilets)
Area: 250sqm



Spoons Cafe, Swan Hill Size (approximate)

Length x Width: 31m x 21m Area: 650sqm



14.16 Moving Food Offering

Mobile Food Vans

Size (approximate)

Length x Width: Generally no more than 5m x 5m. Can fit in a large car park but needs space around it for patrons

Area: 25sqm



Mobile Food Co-op





Lions Park, Alabama Size (approximate)

Length x Width: 5m x 5m (irregular and include opportunities for functions) Area: 25sqm







Mobile Coffee Vendor

Size (approximate)

Length x Width: Typically 1.7m x 3.2m (or 1.7m x 2.4m) plus room around (assume 2m to one side)

Area: 10sqm

Tent / Stall Length x Width: 1.5m x 2.5m Area: 4sqm



14.17 Bike Repair / Hire

14.18 Sky Walk

14.19 Hedgend Maze

Cog, Warburton & Mt Evelyn
Size (approximate)

Length x Width: 10m x 15m Area: 150sqm



The Otways Fly Tree Top Walk



Hedge End Maze, Healesville Length x Width: 70m x 40m Area: 2800sqm



Mr Spokes Bike Hire, Canberra



Warburton Tree Top Walk



14.20 BMX Track

Long Sleeve Skywalk, China Size (approximate)

Area: 860sqm (photo not of exact toilet)



Eastfield BMX Track, KilsythLength x Width: 200m x 100m
Area: 20000sqm



14.21 Information Centre

14.22 Cinema

14.23 Go - Karts

Information Centre, Swan Hill

Length x Width: 30m x 20m Area: 600sqm



Deakin Cinema Complex, Mildura

Length x Width: 40m x 40m Area: 1600sqm



Silhouette Karts, Somerton

Length x Width: 220m x 115m Area: 25300sqm



14.24 Cultural Centre

Brambuk, The National Park and Cultural Centre, Grampians and Halls Gap

Length x Width: 50m x 30m Area: 1500sqm



14.25 Small zoo / fauna park

Kyabram Fauna Park Length x Width: 700m x 750m Area: 525000sqm



14.26 Indoor Play Centre

Ace Space, Chirnside Park Length x Width: 40m x 25m Area: 1000sqm



14.27 YHA

14.28 Wave Pool (Outdoor)

14.29 Micro Brewery

YHA Echuca Length x Width: 50m x 35m Area: 1750sqm



Darwin Waterfront, Darwin Length x Width: 100m x 60m Area: 6000sqm



Holgate Brewery, Woodend Length x Width: 35m x 35m Area: 1225sqm



14.30 Laser Tag (Paintball)

14.31 Wave Pool (Indoor)

Dingley Length x Width: 200m x 150m Area: 30000sqm



Waves Leisure Centre, Mentone Length x Width: 120m x 75m Area: 9000sqm



White Rabbit Brewery, Healesville Length x Width: 45m x 25m Area: 1125sqm



14.32 Touch / Physical Interaction (not with water in rivers)



Built form imbedded in landform



Natural and light weight construction materials



Natural materials and simple forms



Use of glass providing views to water



Use of timbers and glass



Simple, contemporary built form



Rammed earth

14.33 Touch / Physical Interaction (with water in rivers)









Canoeing

Paddle boat hire

Swimming

Water slide into rivers







Canoeing

Fishing / boating

Paddle Steamer











Water skiing Rope swing / Swimming Wake boarding House boat Jet skis

14.34 Views Of Water









Deck Boardwalk Deck (associated with dining) Jetty







Wharf Deck Seating











Deck (associated with dining) Boardwalk Boardwalk Timber deck Timber deck

14.35 Foreshore Edge



Feature engineered embankment providing opportunities to engage with water



Hard engineered solution that provides opportunities to engage with water



Rock stabilised embankment, revegetated where possible



Rock embankment



Rock stabilisation and revegtation



Boat ramp / concrete ramp



Wharf



Revegatated edge









Revegetated edge Revegetated edge Revegetated edge Revegetated edge Revegetated edge Revegetated edge

14.36 Foreshore Path



Existing riverfront path (gravel)



Timber boardwalk following form of embankment



Hardscape paving for all weather access



Timber board walk to navigate areas, where a path might not be appropriate



Board walk to navigate areas, where a path might not be appropriate



Existing riverfront path (bare earth)

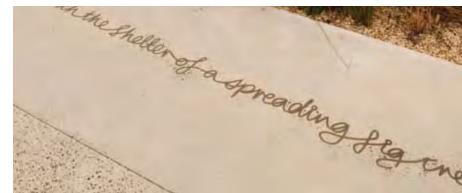
14.37 Interpretation



Water gauge showing water levels



Interactive feature allowing people to control water



Paving used to convey a message



Sculpture of nature



Water gauge / public art



Demonstrating water / stormwater process



Using public art to highlight natural processes



Public art to highlight climate change



Paving used to provide interpretation



Steps to demonstrate water level changes and to reveal a message



Paving and rockwork provides a map of the waterway network

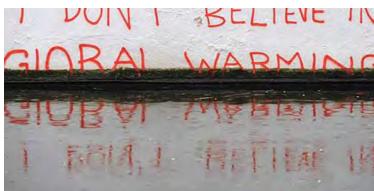


Using public art to highlight natural processes

14.38 Interpretation



Art used to reveal a natural process i.e stormwater



Simple art to convey a message



Water wheel used to demonstrate water speed



Existing interpretation along riverfront



Sculptures highlighting aquatic life



Glass walls with interpretive information allowing views through to adjacent landscape



Interpretation panel providing information



Interpretation shelter





Interpretation shelter overlooking riverfront



Sculptures highlighting aquatic life



Sculpture

Swan Hill Riverfront Masterplan 2013

Stage 2b

Community Consultation Findings



Contents

Community/Target Group	Method(s)	Numbers		
Executive Summary				
Residents - all	Australia Day Interviews	279		
Residents - all	25 th February Open House	127		
Residents - 21+ years	Resident's Survey	251		
Youth 10-20 years	Resident's Survey	308		
Youth 10 – 20 years	Novo small group discussion	10		
Youth 10 – 20 years	FREEZA Pool Party interviews	20		
Children 5-11 years	Drawing exercise	503		
Indigenous community	Survey, meetings, workshops	100		
Culturally & Linguistically Diverse Community	Small group discussion, surveys	38		
Artistic community	Small group discussion	6		
Specialist School	Small group discussion	11		
Murray Human Services	Small group discussion	8		
Swan Hill Health Professionals	Small group discussion	10		
Swan Hill Canoe Club	Small group discussion	3		
Sustainable Living in the Mallee (SLIM)	Small group discussion (self led)	11		
Swan Hill Rotarians	Various			
Visitors Survey		40		
Individual submissions	Various	5		

Total 1,730

Executive Summary

Planning for the initial community consultation phase (Stage 2b) of the Swan Hill Riverfront Masterplan 2013 commenced in December 2012 with the review of several core documents including the:

- Swan Hill River Precinct Project (1997),
- Swan Hill CBD Streetscape Masterplan (2009),
- Pioneer Settlement Interpretative Plan and Architects concept plans (2010) and
- Loddon Mallee Regionally Significant Trails Strategy (2010).

These documents revealed both enduring ideas and themes for the development of Swan Hill by the Swan Hill community together with insights into successful engagement strategies utilised previously. Both these areas informed this current community consultation process and document.

The actual engagement of the community in informing the 2013 Swan Hill Riverfront Masterplan commenced in January 2013 with the implementation of the Visitors survey and closed on the 26th February with an all day community Open House.

Conscious of enabling all community members to share their ideas for the development of the Swan Hill Riverfront research consultants, Local Logic Place, enacted a range of strategies aimed at 'hearing' the community voice including visual, written and conversational techniques. In all a total of 1,690 Swan Hill community members informed this document which will, in turn, guide the development of the draft Swan Hill Riverfront Masterplan.

The ensuing pages present the community consultation findings. For each community 'group' (including children, youth, residents, the Indigenous and culturally and linguistically diverse [CALD] communities, together with a range of groups with specific needs or interests) the consultation method used, the numbers engaged and the information shared is documented following this Executive Summary.

Exploring the development of the Swan Hill Riverfront meant understanding not only what the community valued now, but also what they would value and utilise into the future. With this in mind the following questions were asked of community members:

- If you do spend time along the riverfront, what are you mostly doing?
- What elements of the riverfront area do you most enjoy?
- What sorts of activities / events / facilities would you like to see developed along the riverfront that are not there now?
- How could the town centre of Swan Hill better connect to the riverfront area?
- What new businesses do you think would be viable within the riverfront and nearby area?
- What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

Analysis of the responses to these questions revealed considerable universality across the Swan Hill community both in terms of elements and aspects of the Riverfront that are currently valued and for where development efforts should focus over the short and long term. A summary of these responses are noted below. For detail the reader should refer to the consultation reports recorded for each community cohort.

The Swan Hill community demonstrated a resounding affinity with the Riverfront and an enduring connection to the Riverside Park area and surrounding walking tracks. A culture of respect for and preservation of the area was obvious, and whilst the potential for greater enhancement and utilisation of the area was clearly indicated by all a strong undercurrent of preserving existing green space and the 'bones' of Riverside Park was also made very clear. Respondents were universal in expressing their **current enjoyment** of the river itself, the walking and cycling tracks, the natural environment, green space and those facilities that enabled time with family and friends such as picnic areas and playgrounds. Public space was highly valued in all response and the themes of 'access for all' and elements that supported the coming together of families and communities was a clear consensus.

Reflecting the elements of the Riverfront that the Swan Hill community currently enjoy were the areas they would like to see enhanced – demonstrating an enduring commitment to long term use of these elements. For example almost universally the walking and cycling tracks were most mentioned as the 'facility' for **further development**. Respondents mentioned widening paths, making them 'all ability', increasing safety where they come close to the river's edge and enhancing their use through the installation of signage, seating, lighting, rubbish bins, dog bins, water bubblers and in some areas board walks. At the same time the natural and 'undeveloped' beauty of these areas was also highly valued – indicating that all development should be in keeping with the natural environment and a reflection of this beauty.

Respondents saw the walking tracks as the frame of the Riverfront, Tract acknowledged this in referring to walking tracks as the 'spine' from which the Riverfront development could grow. Great emphasis by the community was placed on these walking tracks 'linking' the various Riverfront zones stretching from the Milloo St wetlands to the Pental Island bridge. Applying a universal 'theme' to the development of the walking tracks was considered critical in identifying and framing the 'precinct' and in the development appearing organised and strategic. For example, whilst there was agreement that some areas remain 'undeveloped' emphasis was placed on signage, seating and other facilities being uniform across all areas.

The other facilities that were broadly agreed as requiring **further development** (in order of interest) included:

- Seating: including additional seating along the river's edge (supporting time to relax and reflect) and more seating throughout Riverside park for people who are coming together.
- Shade: particularly around picnic and playground facilities and also incorporated into parking spaces.
- Public art.
- Green space: community members expressed an overwhelming desire to not forgo green space throughout the consultation process.
- More BBQs along the Riverfront including the northern end.
- More toilets particularly along the northern end of the Riverfront and specifically to service the skate park, boat ramp and wetland areas.
- Exercise equipment placed along the walking tracks to support variations in physical activity.
- Picnic tables.
- Bubblers / drinking fountains.
- Community kitchen / kiosk: to support community fundraising activities. Community members were supportive of the development of a community kitchen that could be 'rented' by community groups over weekends / peak periods to service families enjoying the Riverfront.
- An additional boat ramp.
- Increased car parking spaces.
- Lighting along the walking tracks and throughout Riverside Park.

All respondents were also asked "What sorts of **activities and events** would you like to see developed along the riverfront that are not there now?" Once again there was general agreement in the responses. In order of popularity the following responses were recorded:

- Music / Concerts.
- Activities / events for children and youth. This reflects the level of care held by the broader community for children and youth in Swan Hill and demonstrates receptiveness to developments that prioritise the well-being and active support and engagement of children and youth.
- Markets and particularly markets that sell local produce and arts and craft.

- Water based activities and events (with many members of the community expressing a desire to interact more closely and safely with the river though opportunities such as the hire of water equipment for example).
- Activities which bring together the community and families.
- Festivals.
- Fishing based activities and events.
- Sports based activities and events.

The Swan Hill community was asked "How could the town centre of Swan Hill better connect to the riverfront area?" Responses included:

- Signage and maps particularly to increase visitor awareness of the area. Many respondents commented that unless you know the Riverfront is there driving through town along the Murray Valley Highway / Campbell St or even Curlewis St would give you no indication.
- Footbridge over railway was an extremely popular response and reflects an interest also noted in the CBD upgrade consultations. However a considerable number of respondents prefaced this as an option after acknowledging the 'railway would not be moved'.
- * Upgrade of existing footpaths particularly to be more pram, scooter and wheelchair friendly.
- Move industrial sites (including silos and water treatment plants) to open up line of 'sight' into the Riverfront for passing traffic.
- Riverfront area needs to 'flow' along the length of the precinct.
- Move railway (both freight and passenger or freight only out of the CBD)
- Truck by pass away from Curlewis Street to enhance community access to the Riverfront by easing pedestrian movement across the area.
- Public transport.

Through the consultation process responses which reflected **businesses** the community were either indicating they would use (for example by children through the drawing exercises) or they thought would be "viable within the riverfront and nearby area?" (as asked in the Residents survey) included:

- Cafes: specifically the community asked for Riverfront dining opportunities which were child, youth and family friendly and allowed an interaction with the river and immediate area.
- Shops: including souvenirs, supplies relevant to the Riverfront such as sunscreen, insect repellents and fishing supplies, local arts and craft / produce, water based equipment hire and bike hire.
- Food vans: setting up in the area over lunch breaks and particularly during peak periods with a clear preference for coffee and ice creams.
- Water equipment rental.
- Cinema.

- Function centre / hotel.
- Fishing supplies.

What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

- Arts / Cultural centre including an interest in the development of an Indigenous cultural hub which incorporates local artists.
- Wharf / Jetty / boardwalk most community members were seeking opportunities to safely interact with the river including to fish, swim, dine and relax.
- Playgrounds all age and all ability facilities which included specific activities or features such as a flying fox, rock climbing wall, maze, mini golf, sandpits and such.
- Wildlife park / fresh water aquarium.
- Water park / splash park development within the Riverfront (which could be incorporated into a swimming pool complex) and included simple opportunities for all ages to cool off. Affordability and accessibility were key components of this.
- * Skate park redevelopment to incorporate structures for older and young users, shade, toilet facilities and drinking fountain.
- Development of the Northern end of the Riverfront (including boat ramp, wetlands area and skate park).
- Accommodation options from 'high end' to eco cabins.
- Lock / weir to support a constant river height.
- Open up Pioneer Settlement to enable free access by the community and visitors and create additional business within this area.
- Houseboat moorings.
- History centre.

A second concise round of community consultation (Stage 4b) will occur in early May 2013 when the draft Riverfront Masterplan is presented to the Swan Hill community and their feedback is sought.

Australia Day Consultation

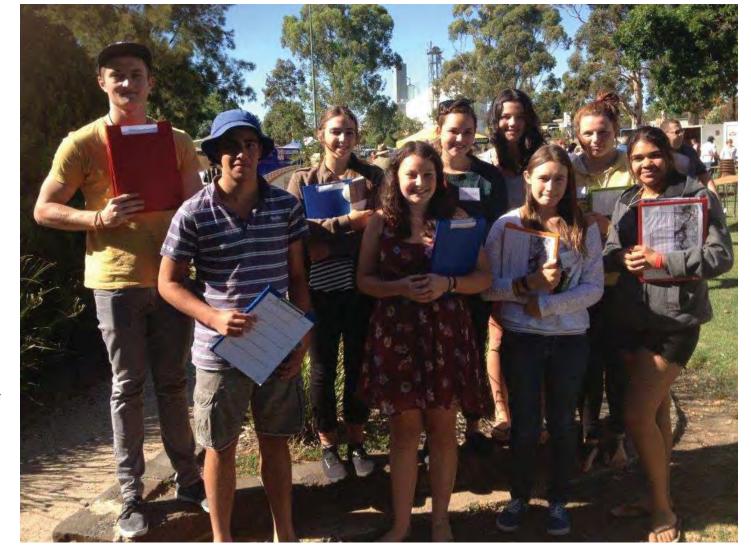
The Australia Day consultation was a whole of community targeted event held in Swan Hill on Saturday January 26th, 2013. At the Australia Day Breakfast Children, adults and visitors alike were engaged by one of 12 'roaming researchers' to answer a series of three questions regarding the development of the Swan Hill Riverfront Masterplan. A total of 279 community members were heard from during the course of the morning.

The 12 roaming researchers consisted of three consultants from Local Logic Place (Lisa McCoy, Rachael Williams & Fiona Mertz) who worked alongside nine local young people assisting as 'youth researcher' volunteers.

Youth Researchers were engaged as volunteers of Swan Hill Rural City Council. Council staff Leah Farrow and Kane Sparks assisted in the identification and recruitment of youth researchers. Local Logic Place completed a brief induction with the youth researchers on the morning of the breakfast prior to commencing the Australia Day interviews. Local gift vouchers were provided by Local Logic Place as a means of thanking young people for their involvement.

In addition to the 'roaming researchers', which ensured the researchers went to the people, a Swan Hill Riverfront Masterplan information table was set up alongside the children's face painting activity. This allowed for a stationary researcher to both staff the table, fielding questions and interviewing those parents waiting in line with children for face painting. Swan Hill Rural City Council staff member Robyn Fry was instrumental in supporting the set up and advising Local Logic Place regarding logistical issues.

The 3 questions asked by the roaming researcher were adapted from the General Community Survey as follows:



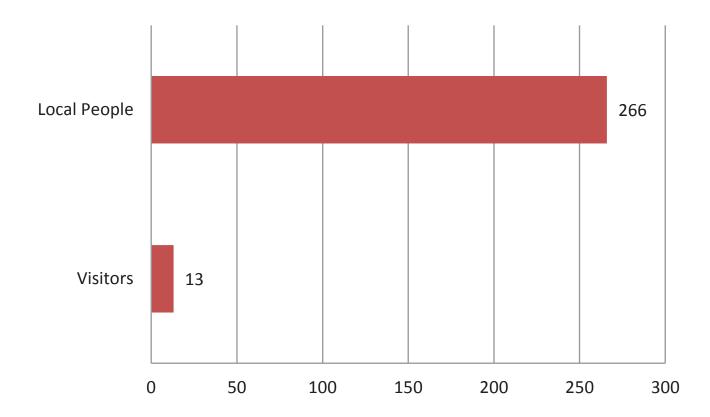
1. What sorts of activities / events / facilities would you like to see developed along the riverfront that are not there now?

- 2. How could the town centre of Swan Hill better connect to the riverfront area?
- 3. What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill? Responses to these open ended questions were coded into key categories and are presented below.

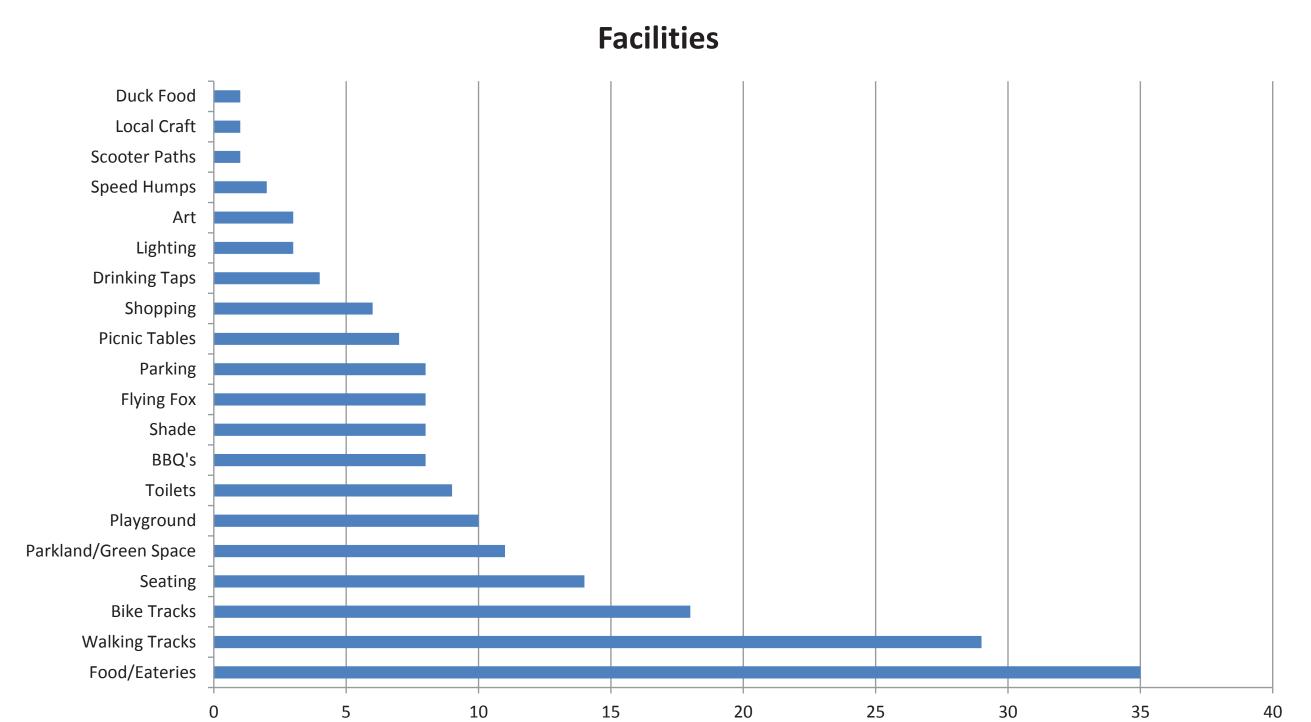
Summary of Results:

Who We Heard From:

A total of 279 people were consulted with at the Australia Day Breakfast, 95% were local people and 5% were visitors to the area.



Q1: What sorts of activities /events / facilities would you like to see developed along the riverfront that are not there now?



^{** 9%} of people interviewed expressed that they did NOT want a bridge through the pool/riverside park.

"Do paving with people's names in them"

"Build a maze in the shape of Australia"

"Combine all the playgrounds"

"Build a free waterpark"

"Improve the walking track by incorporating shaded seating areas at intervals along the track"

"Make the skate park a part of Riverside Park"

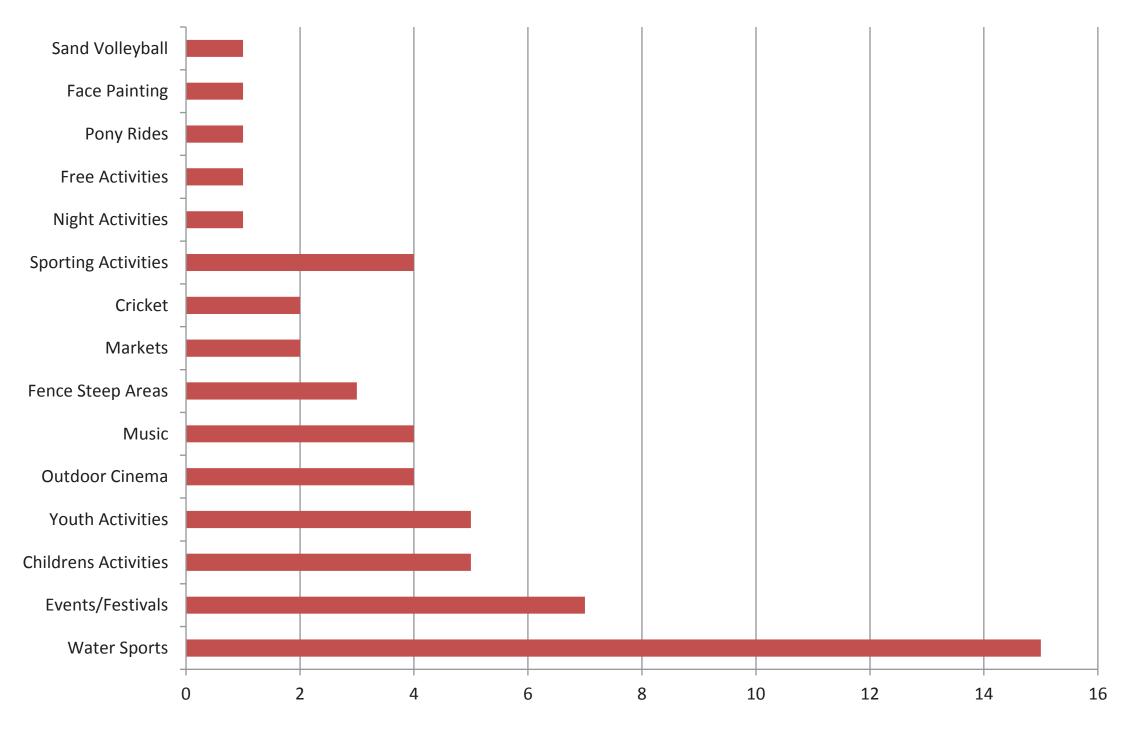
"Don't develop everything, leave some areas the same"

"Put in bubble taps/regular drinking taps along the full length of the river"

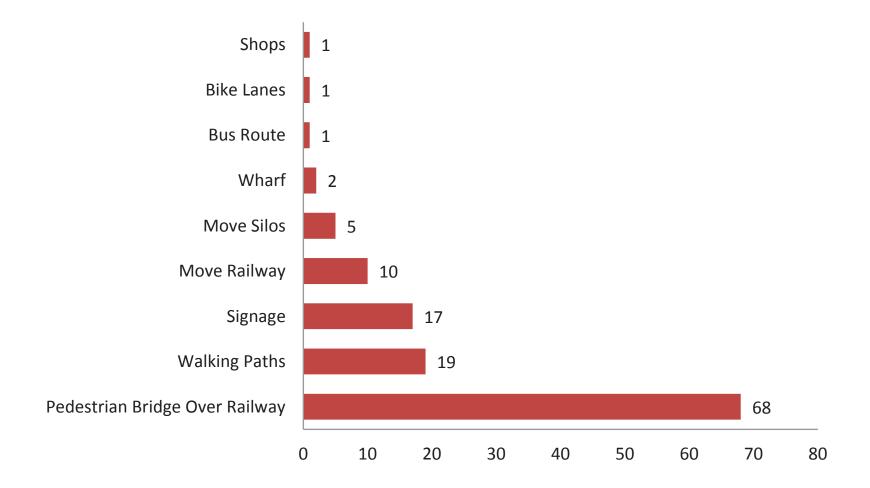
"Ensure there is access for all abilities"



Events/Activities



Q2: How could the town centre of Swan Hill better connect to the riverfront area?



"We need something colourful to attract people's attention"

"Remove or cover sewage processing plant- a wall with a mural designed by local kids could cover it"

"Build a flyover walkway"

"We need a walkway from Mcrae St over the railway line"

"They (town centre and riverfront) need to be connected with some kind of overpass or walking tunnel for pedestrians"

"Have fun runs and walking events down the river"

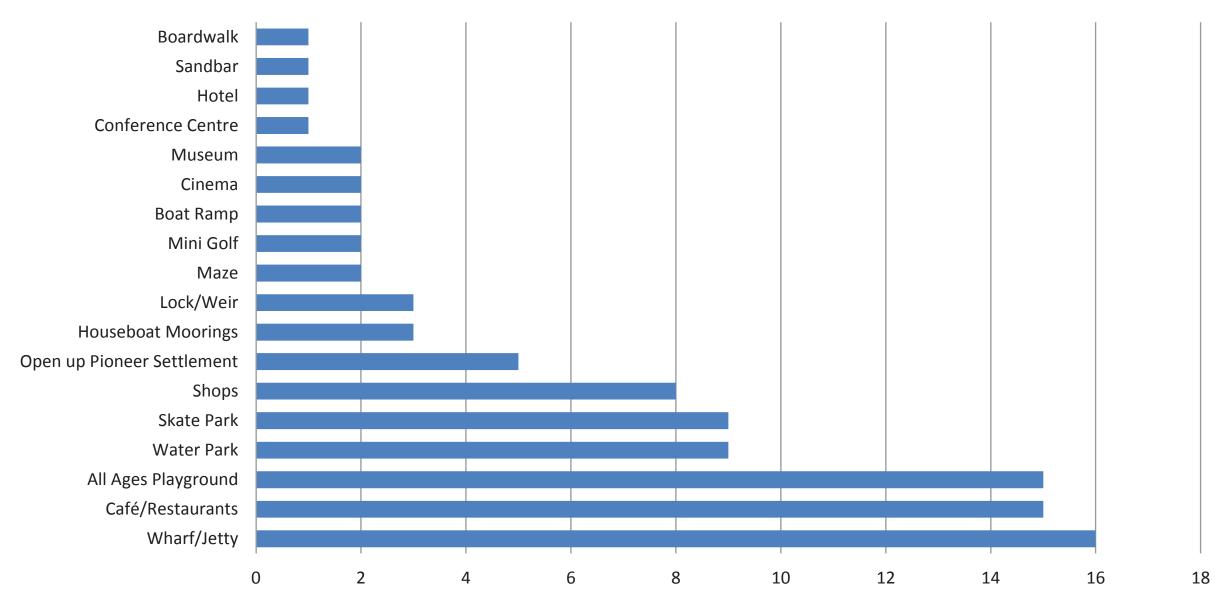
"Hold a music festival in January"

"Have an activity day for families every Sunday"

"Build a fence at steep banks"

Q3: What new developments within the riverfront area would have the potential to encourage people to either visit or move to Swan Hill?



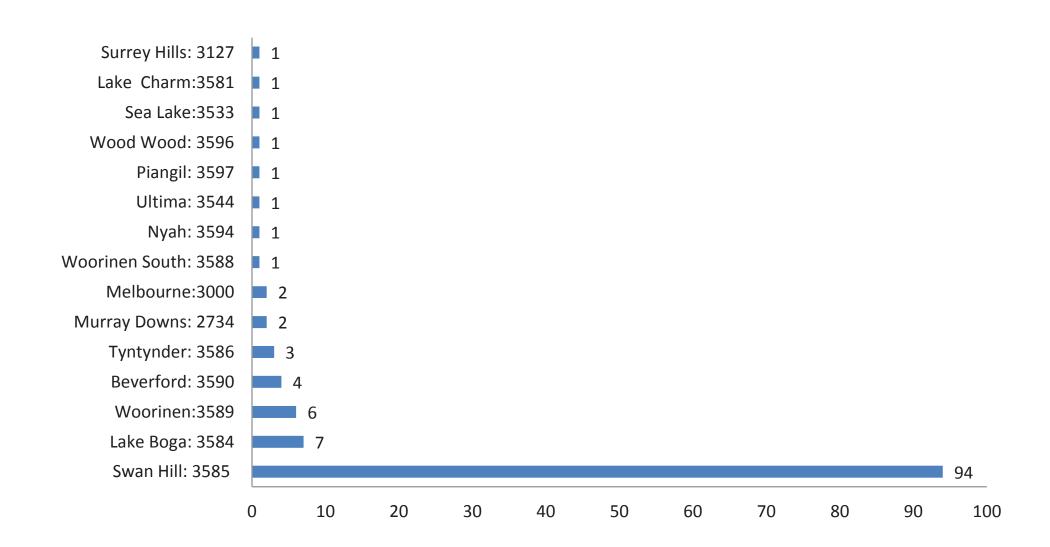


^{**}Renmark, Bright, Wangaratta (underground railway) and Echuca were all mentioned as models to look at for ideas.

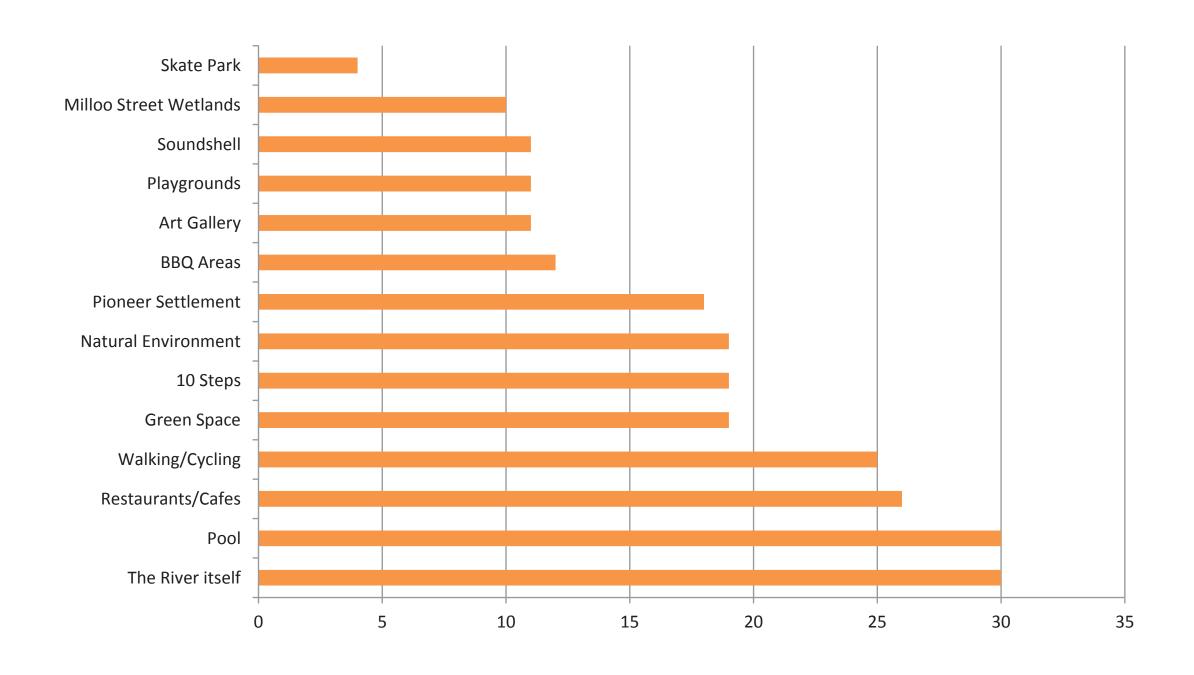
Open House Community Consultation

A total of 127 community members attended the Open House Consultation on February 25th, 2013. Commencing at 10am and concluding at 8pm the Open House timeframe allowed for 'family friendly' times together with post school and work availability. People were encouraged to spend as little or as long as they needed interacting with the researchers and engaging in the various methods. The consultation methods were intentionally varied, offering community members visual, written and conversational techniques through which to offer their feedback.

1. Postcodes of participants:



What elements of the Riverfront area do you most enjoy? (Place a red dot next to your TOP 3)



Graffiti Activity

Water Park

Canteen

Café

New amazing houses (& cheaper)

Plaza (3)

Shops (3)

Hotels and Motels

Concerts

Laser Tag

Canoe & Paddle Boat Hire

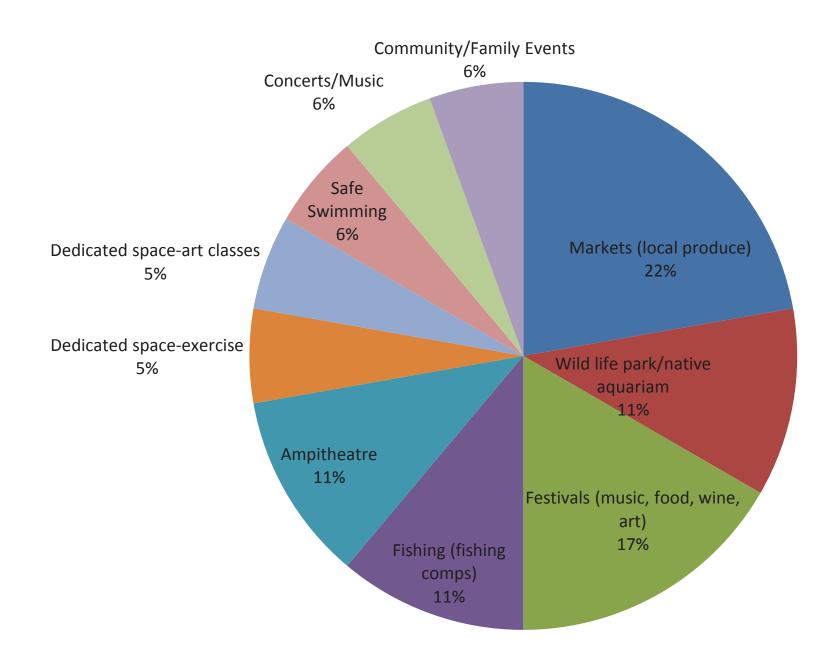
Farmers Market

More events like the Swan Hill Show

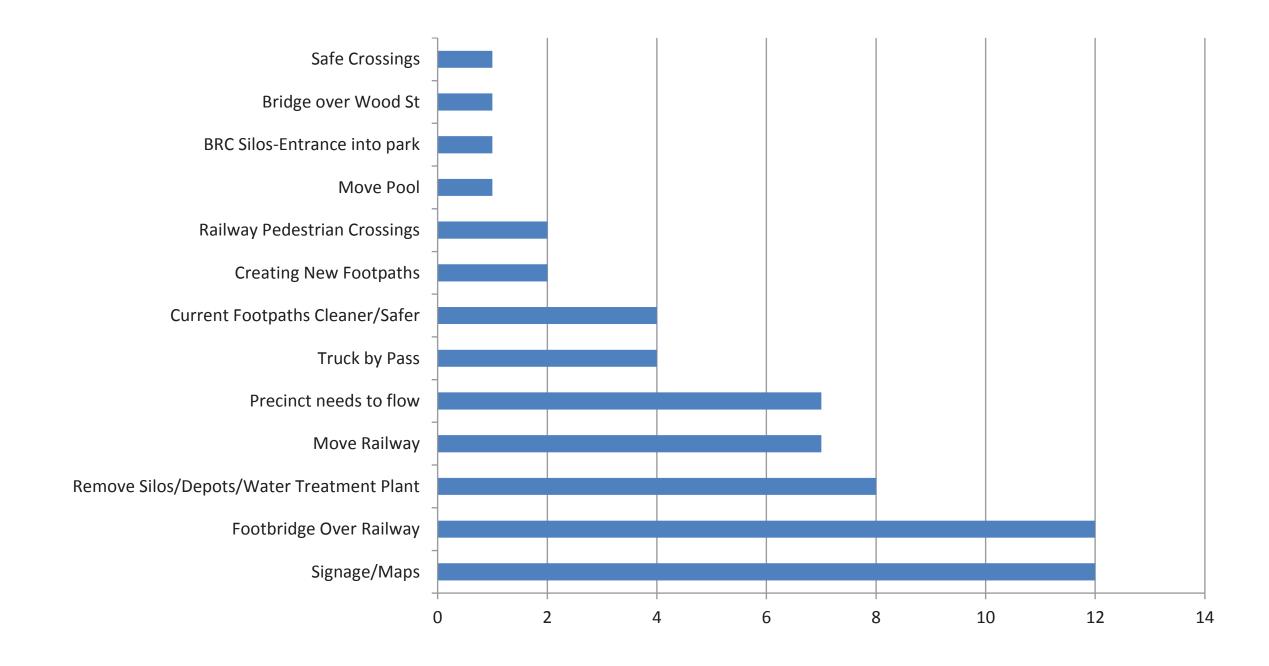
Fenced dog park

Outdoor covered seating overlooking river, suitable for picnics and BBQ's

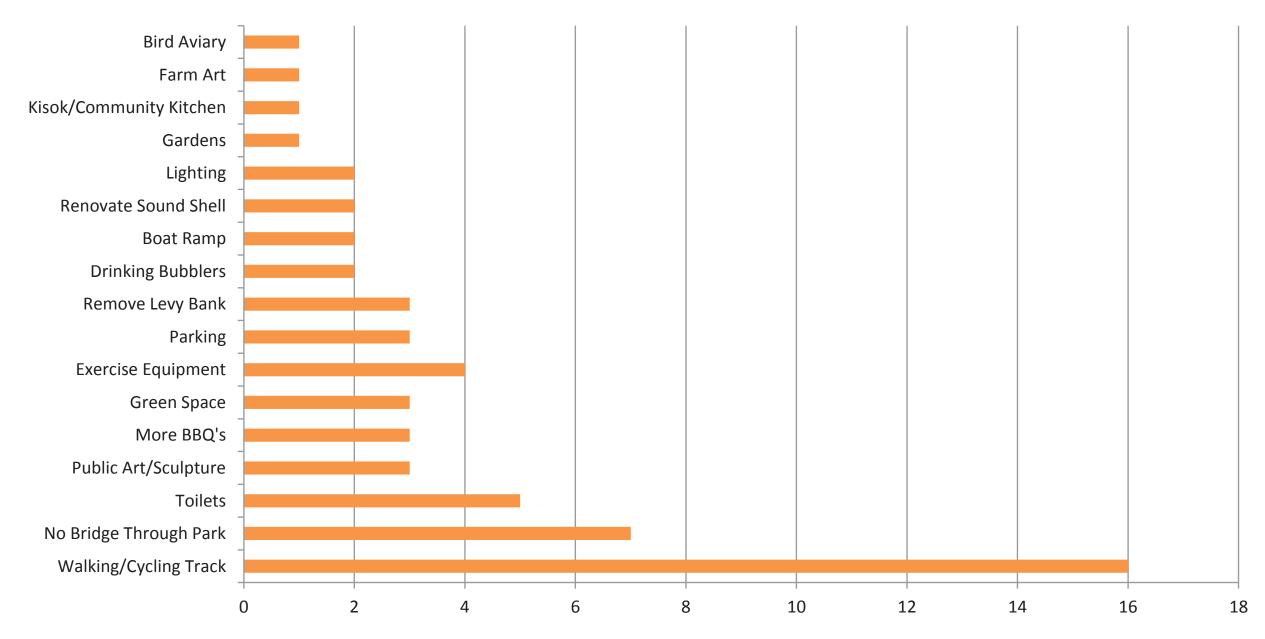
Events/Activity



Access

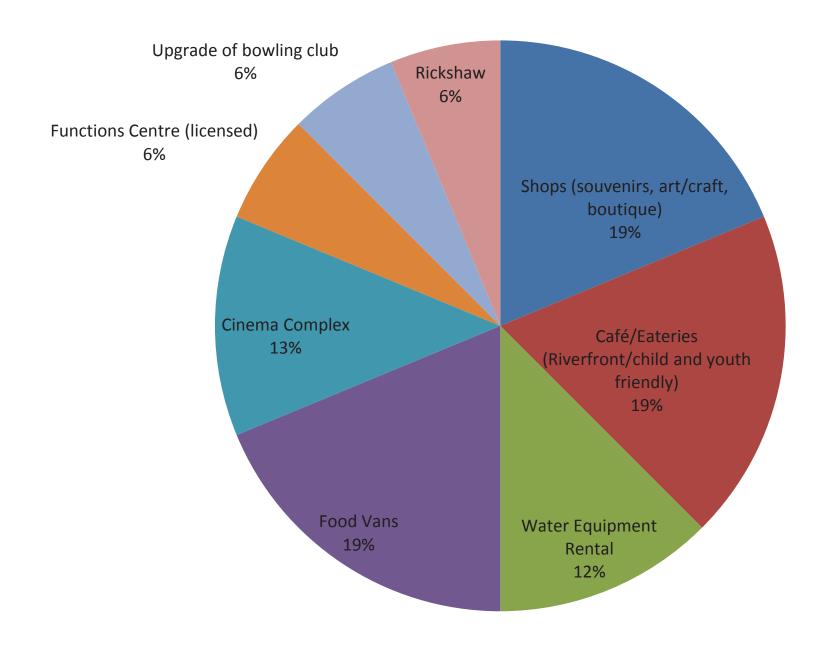


Facilities

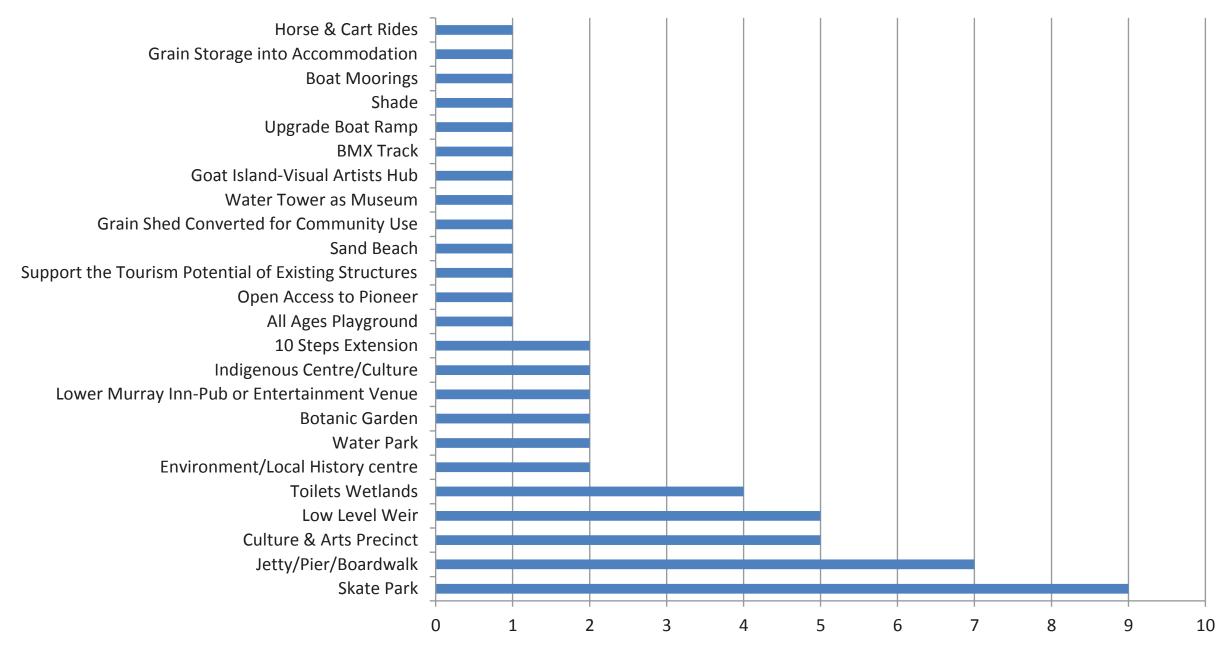


^{**} Do not over develop the riverfront, get rid of the willow trees near Milloo St to open up a fishing area, no lift bridge, palm tree needs trimming

Viable Business



Developments



"Keep a balanced approach to development, don't lose the park".

Heartbeat Consultation Process

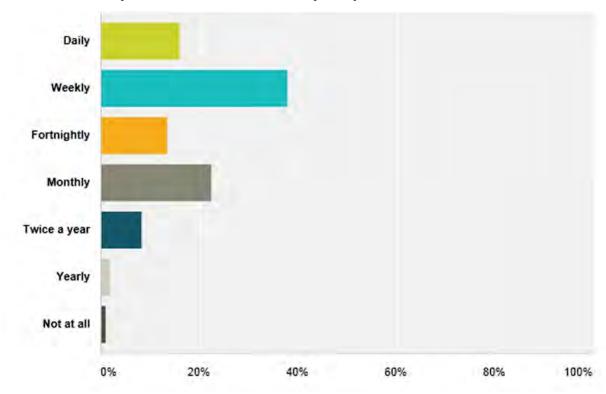
The Heartbeat of the Murray creative concept document was viewed by 126 people at the at the Swan Hill riverfront open house held Monday, 25 February 2013 at the Information Centre between 10.00 am and 8.00 pm. It was reported that all comments were supportive of the concept except for one comment which felt Council should spend their money on beautifying the riverfront for the use of residents rather than to create tourism opportunities. Comments noted by attendees are as follows:

- 1. Sensational Idea! Location is very appropriate
- 2. Great idea, well done!
- 3. Awesome Idea, I think it would bring the local people together and share with visitors. Will also bring job ops!
- 4. Great idea, I liken this to the famous Eiffel Tower in Paris light show every night. World famous
- 5. A great idea, one that needs to be developed and encouraged!
- 6. What happens if it is windy? And affordable to families.
- 7. Like option one, the ability to change the story to support festival concepts would be great!
- 8. It's a great concept, be great for locals to embrace and a great attraction for tourists
- 9. Sounds great
- 10. Wonderful, do it!
- 11. Maybe do a bit on Major Mitchell
- 12. I think the whole idea is just superb, get it going
- 13. Smoking/alcohol free public space or designated area
- 14. No speeding with outboards near Riverside Park
- 15. Boardwalk over the river around the caravan park
- 16. Indigenous story great, ensuring all tribal groups in Swan Hill have involvement in this is essential in ensuring it is successful
- 17. Idea is great tourist attraction vs. Local expectations is hard to balance especially focus on \$\$\$. Because of night time use need to consider how the rest of the riverside park redevelopment is incorporated eg. Walkability in a safe environment lights, paths etc, to access the Pioneer Settlement by foot at night and how this can occur from the centre of town
- 18. Love the laser light show on the Little Murray concept, hope it is realised
- 19. 'please be mindful that not everyone believes in the evolution especially Christians although saying this I think the laser show is a great idea for Swan Hill'

Swan Hill Riverfront Masterplan - Residents 21+ years

Swan Hill.

As a community member how often do you spend time on the Riverfront?



We are a lucky town to have such a beautiful natural space, as a Mother with a young child and planning to expand our family I would love to see the Riverside Park stay the same *without a bridge. We walk/ play/ run/ ride on the tracks - feed the ducks and enjoy the river with our family. Please don't reduce this space.

SWAN HILL RESIDENTS aged 21 years and over informed the Riverfront Mas-

terplan in several ways. Researchers attended the Swan Hill Australia Day

Breakfast, interviewing 279 community members. Numerous community

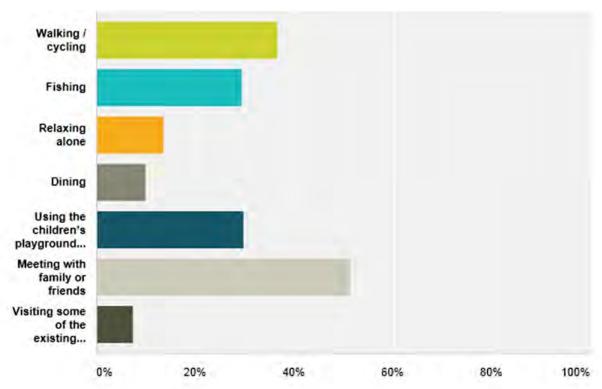
groups also informed the process. In addition to these methods 251 resi-

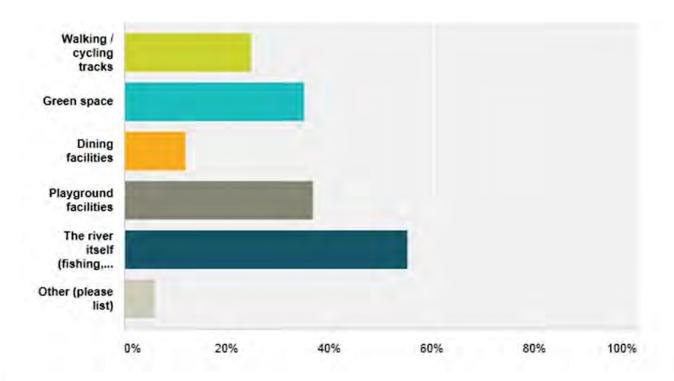
dents aged 21+yrs completed the 'Residents Survey'. Almost all were from

Public space is a very valuable asset in itself. A healthy community needs open space. Riverside park is well loved and used. We have to be careful that the riverfront is not broken up by commercial properties especially not gaming or licensed properties. What we don't have is recreational activities for our youth.

It will be such a boon for the town if it is planned carefully and maintained beautifully after it has been constructed. We are lucky to be one of the select number of towns on the Mighty Murray and we need to make it work for us to keep our town vibrant.

If you do spend time along the Riverfront, what are you mostly doing?

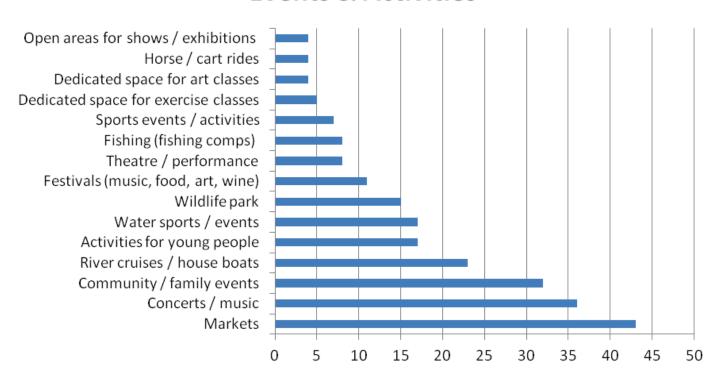




What elements of the Riverfront do you most enjoy?

Swan Hill Riverfront Masterplan - Residents 21+ years

Events & Activities



Facilities another toilet block up near the wetlands, seating and rubbish bins along the walking trail as well as drink stations and poop bags for dogs, easy access for wheelchairs, a bird hide at the wetlands, make the area RV friendly so visitors can stop for a break a cup of tea or perhaps lunch.

Have interpretation boards along the walking trail with factual information about birds, animals, aquatic life that live along the river, Historical info, Aboriginal Dreamtime stories.

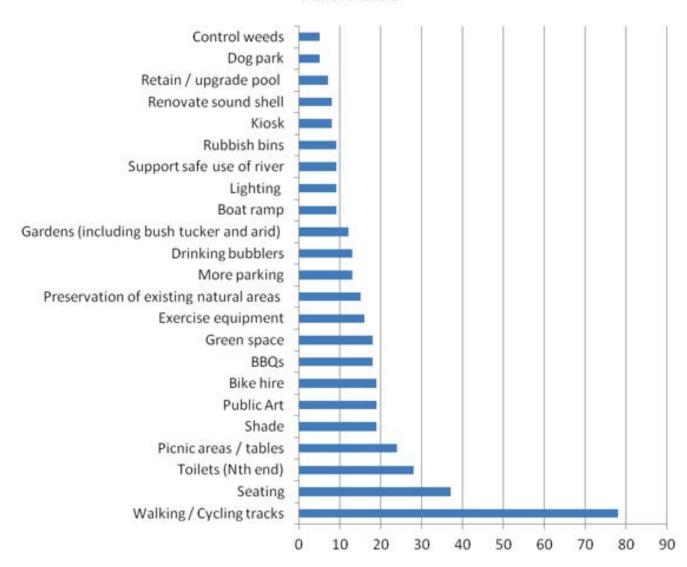
Open air restaurants, pubs, cafes, boardwalk, environment centre, something unique to Swan Hill, another port to ride the Pyap, plenty of night lighting. Make it authentic. Weir so the water level stayed high most of the time.

Designated car parking in the areas to be opened up at either end, and any other means of moving around the precinct because of its length including public bike hire system (eg Melb Central bike hire system).

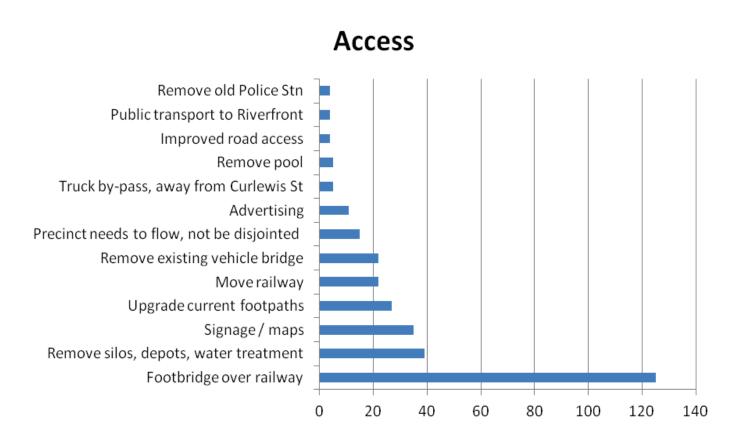
Having different themes/zones that allows people to work and entertain and relax – fishing zone; boat/canoe/kyak/water pedal tricycle zone; skate park area (not tucked away in a corner of the precinct but exposed for it to be seen by all and attract children and adults to use; outdoor theatre; music zone; Caravan Park; Pioneer Settlement opened up for more business activities at either end with the core existing historic as a centre piece; art gallery with indoor music and entertainment/theatre complementing each other; more water activities zone along the little Murray River to the Pental Island bridge.

Extend the walking running track through to Pental Island bridge, and install good quality exercise stations along the track from Milloo to Bridge.





Swan Hill Riverfront Masterplan - Residents 21+ years

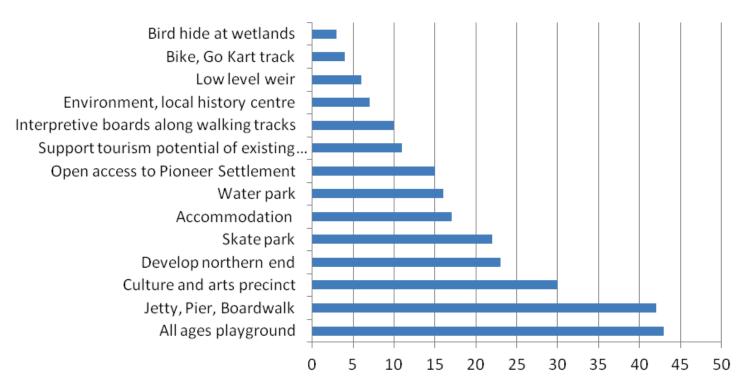


Firstly assessing which physical barriers need to stay & which ones can go to provide openings to the precinct from Curlewis Street - eg the area between Pye & McCallum Streets remove the silos; between McCallum & McCrae Streets create access to the precinct (rail line pedestrian walk) between the pool & water treatment plant or the grain silos; provide elevated walkover access over the rail line from Curlewis street to the precinct......

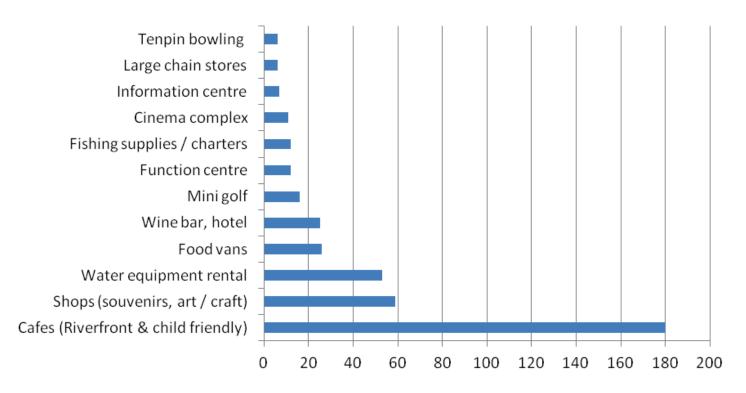
Accessible themed spaces that work to lead a visitor from one area to the next. Some historical (Pioneer Settlement), some retail, some dining/cafe, some walking, exercise, active interactive space. Exercise stations along a running track. Concrete paths for scooters, skateboards, roller blades. Family friendly spaces that are beautiful and relaxing. More elaborate and extensive playground equipment which makes for a stopping/staying destination.

At the moment the river is out of sight out of mind, it would be nice to be able to incorporated it into the town centre. I feel that at the moment there are too many un-utilised and UGLY vacant spots that makes it feel very industrial and unsafe. The Park itself is beautiful but you need to know it's there.

Developments

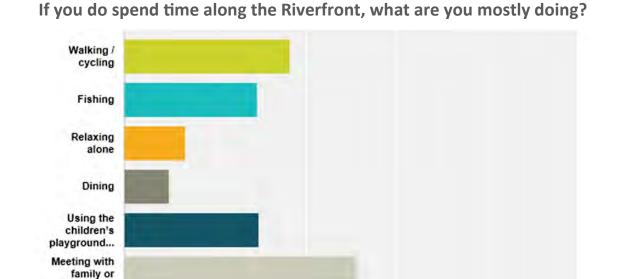


Viable Businesses



Swan Hill Riverfront Masterplan Youth aged 10-20 years

YOUNG PEOPLE AGED 10-20 YEARS informed the Riverfront Masterplan in several ways. Researchers met with Novo Youth Council and attended the FREEZA Pool Party. Swan Hill College grade 7 General Studies students hosted a consultation session and later acted as 'youth researchers' interviewing senior students at Swan Hill College. In addition to these methods 308 young people completed the 'Residents Survey'. Approximately half of all respondents were aged 10-15yrs with the remainder aged 16-20yrs. Almost all were from Swan Hill.



40%

60%

80%

100%

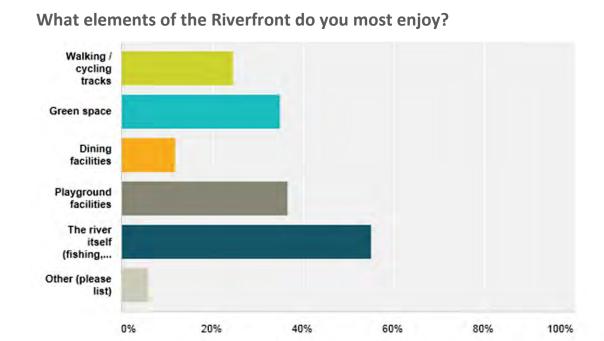
friends

0%

20%

Visiting some

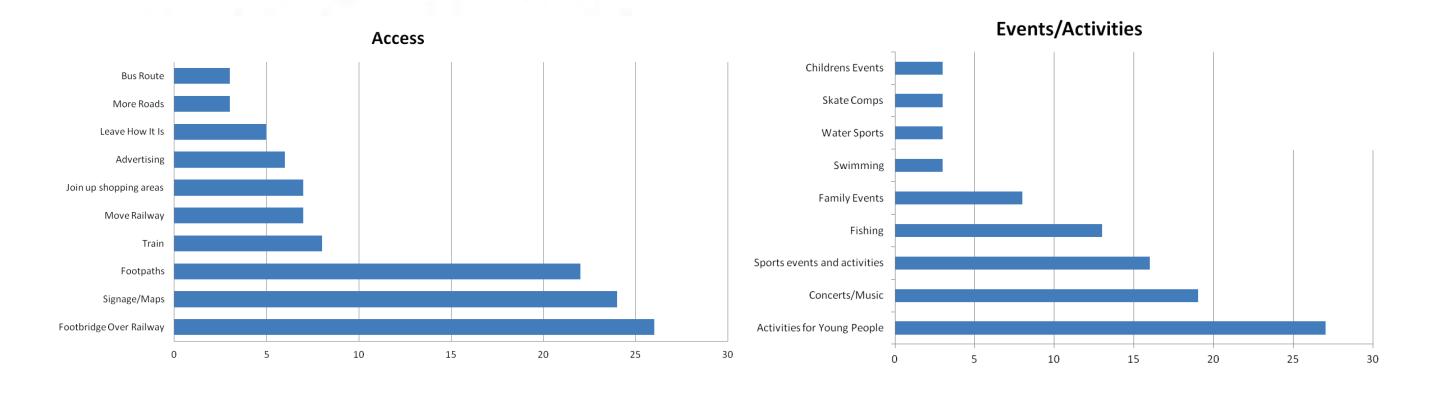
existing...



The Murray river is a beautiful Swan Hill icon and many people would visit the river if it was upgraded.

I would like a new skate park and to see more events down at the park like family days and things like that.

Connect the river to the centre of town by having a really big bridge so we can see the town view.



Swan Hill Riverfront Masterplan - Youth aged 10-20 years

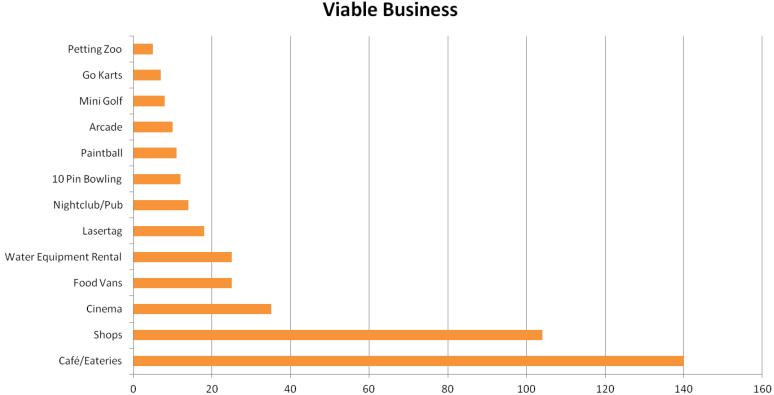
I would like to see the skate park move/replaced and in the public eye so it is safe and there is some lighting and there would be toilets and food within range from the skate park.

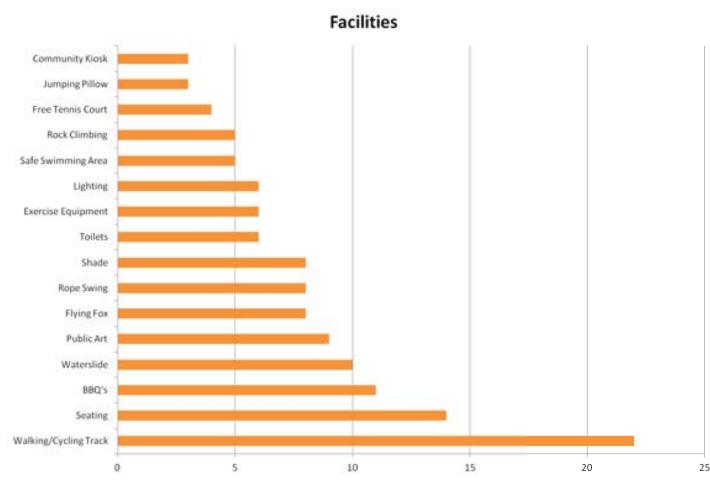
Make signs with pictures of the riverside and a really big water slide.

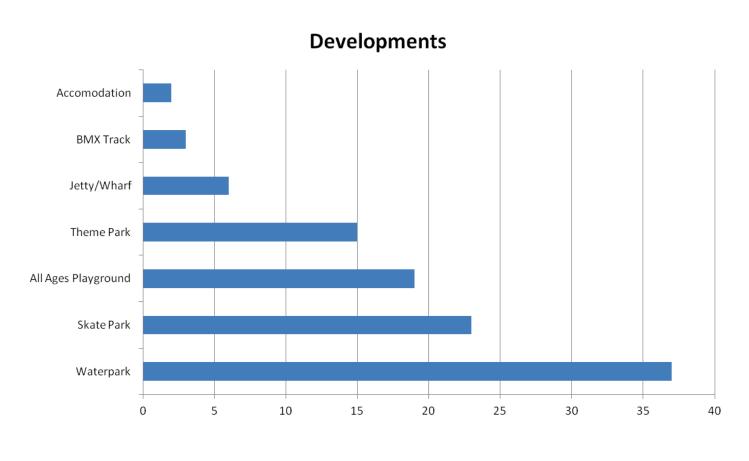
More chairs and park benches, fitness gym equipment and bike hiring (like in Melbourne).

Update the park with a basketball court, jumping pillow etc.

Do something big! That not just kids can do, but teenagers and older ones will enjoy also and not get bored of.







Small Discussion Group with Novo Youth Council

On February 12th Local Logic Place researchers met with 10 members of Novo Youth Council. This discussion was held at the Youth Inc building. The following responses were shared by the group:

Q1: What is your current use of the riverfront?

* 10 steps * Swimming * Playground

Q2: What sort of activities, events or facilities would you like to see developed along the riverfront that are not there now?

- Move skate park, make it central and expand it- put a bowl in it
- Open up the skate park a bit more
- Flying fox
- Big screen TV
- There needs to be promotion about what is available at the riverfront
- Kayaking, canoeing with the canoe club
- Make canoe club more open, could have casual memberships for young people
- Make the little island 'snake island' an enviro setting
- Fix up the mini golf
- A big maze
- Ice skating
- Go-karting
- Arcade
- Big daisy bikes

- Horse riding
- BMX bike track near the skate park
- The horse and cart should come out of the settlement
- Rock climbing wall
- Use silos as an advertising board-project information onto them
- More seating
- Use natural materials as seat
- Fix up the ten steps, they need redoing
- Create a safe swimming area in the Little Murray behind Spoons
- Turn the pond into riverside park into a fish feeding area
- Create a fishing only area
- Drinking bubblers
- More shade
- Toilets all the way along the riverfront
- Toilets at the boat ramp
- Rope/tire swing

Q3: How could the town centre better connect to the riverfront area?

- Better signage
- Distance Markers with km's
- A walkway over the railway

Q4: What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

- Join the playgrounds and make one big playground with play equipment for teenagers too
- A big Jetty
- Waterpark

Other comments:

- The skate park has a bad reputation for drinking, drugs and fighting
- Fix up the corner near the pool
- Have some cheaper options for activities
- When you walk along the river parts of it looks like it is private property
- Play the Marruk movie onto the silos
- Jet ski's/ boats etc. should not be allowed as they will erode the banks

"The riverfront is a bit old school and datey at the minute".

"We need something that makes people remember Swan Hill".

"I'd like a massive flying fox".

"If silos were going to stay I'd light them up, beautify them".

"The riverfront needs more Indigenous cultural activities".

"Slaughter the bollards".

"Tidy up the 'backyard area' near spoons so people can get in there".

Roaming Interviews at the FREEZA Pool Party

Attendance by the researchers at the FREEZA Pool Party, held at the Swan Hill swimming pool (adjacent Riverside Park) on January 25th offered an opportunity to hear from young people whilst they were 'on site' as the swimming pool is included in the proposed Riverfront Masterplan area. Like the Australia Day Breakfast consult this offered strong contextual insight to the comments shared by community members.

With support and guidance from Kane Sparks, Swan Hill Rural City Council Youth Officer, Local Logic Place researchers (Lisa and Rachael) were able to meet with a total of **20 young people** who willingly shared their ideas and hopes for the Swan Hill Riverfront. The level of enthusiasm once again confirmed the great community interest in, and connection to, the riverfront area.

During the roaming interviews three key questions were asked:

- 1. What is your current use of the riverfront?
- 2. What sort of activities, events or facilities would you like to see developed along the riverfront that are not there now?
- 3. What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

Responses were offered as follows:

Q1: What is your current use of the riverfront?

- Hanging out at 10 steps
- Swimming at 10 steps
- Fishing

"Most days after school we walk down to the riverfront"

A number of young people who live in the satellite communities to Swan Hill indicated the Riverfront as an important place to 'hang out' after school if they needed to fill in time before after school activities such as dance classes etc commenced. They indicated this was often done with groups of friends and the '10 steps' were a meeting place, known and recognised by young people.

Q2: What sort of activities, events or facilities would you like to see developed along the riverfront that are not there now?

- More seating
- More shade
- Food /drink vans (2)
- Outdoor picture theatre (2)
- Shelter over play equipment
- Playground equipment for older children, for example a flying fox (2)
- More BBQ's
- Place to share family meals
- More parking
- Bubblers
- Old bread from bakery to feed ducks
- Rope swing
- Fishing
- Swimming
- Ball play areas

"Move skate park to riverside park, there is a bad image associated with where it is now. There are a lot of drugs and organised fighting that happens where it is now"

"I would like a dedicated safe fishing spot where you could teach children to fish"

Q3: What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

- Indoor skate park
- Waterpark
- Playground for bigger kids

"I would like to access the park and the pool in the same place"

A number of people noted the importance of the park and swimming pool being located within close proximity to each other, reasoning that a family 'day' can be spent between the two facilities (ie early morning on the playground until it warms up enough to swim, then back to the park for a picnic lunch).

Swan Hill Riverfront Masterplan - Children aged 5-11 years

CHILDREN AGED 5-11 YEARS WERE ASKED TO DRAW "3 THINGS THEY WOULD LIKE TO DO OR SEE ON THE RIVERFRONT"

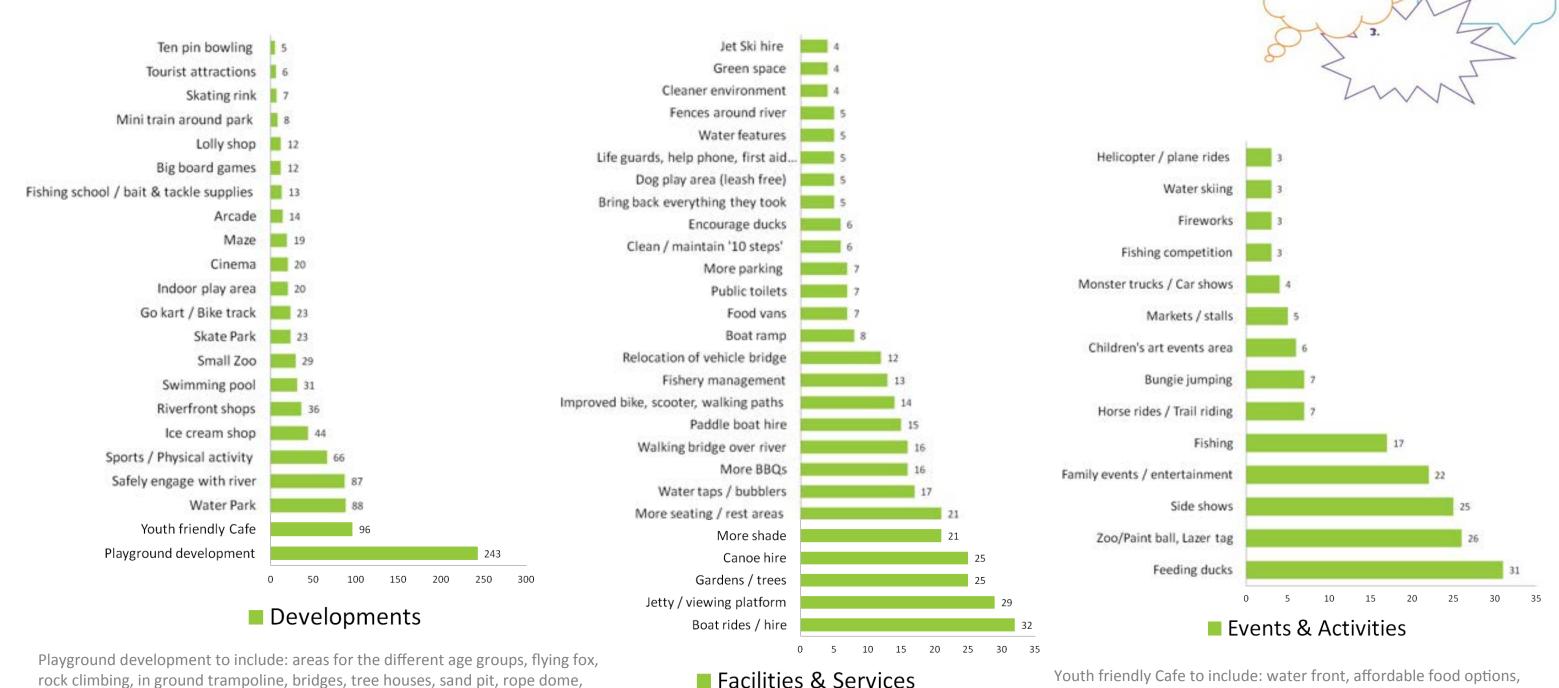
All Swan Hill Primary Schools took part in this exercise including Swan Hill Primary, Swan Hill North Primary, St Mary's Catholic Primary,

the Swan Hill Specialist and the Swan Hill Christian Schools. Children attending in the Swan Hill Vacation Pro- 3 things 1/4 like to DO OR SEE on the Swan Hill riverfront

gram also participated. In total 503 children completed the drawing exercise. Children's responses were cate-

gorised into the 3 areas -'Developments', 'Events & Activities' and 'Services & Facilities' - graphed below.

wheelchair access.



games / gaming, internet, music, free cold water, table tennis, books.

Children's 'Drawing Activity' Consultation: SHRCC Vacation Program

Attendance by the researchers at the Swan Hill Rural City Council Vacation Program presented an opportunity early in the consultation phase to hear from children. Children and young people value and use the riverfront areas; as such their voices are important in the consultation process.

On January 9th 2013 Local Logic Place attended the Vacation Program held each week day at Swan Hill Primary School. **A total of 40 children** aged 5-11 years were involved in talking to the researchers and completing the drawing exercise.

This event was organised in close consultation with Swan Hill Rural City Council staff members and their assistance was greatly appreciated.

A copy of the 'drawing exercise' is attached in Appendix ??? The drawing exercise asked children to DRAW / WRITE 3 things I'd like to **DO OR SEE** on the Swan Hill riverfront The drawing and written responses to this question are coded into key categories and are presented below. A summary table of all responses is presented on page???

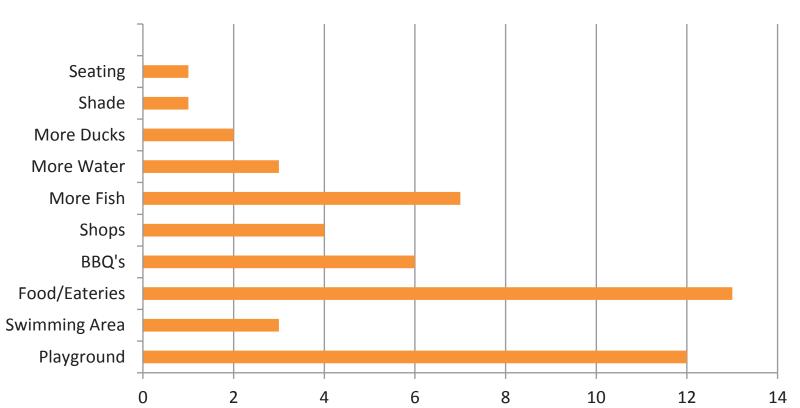


Events/Activites





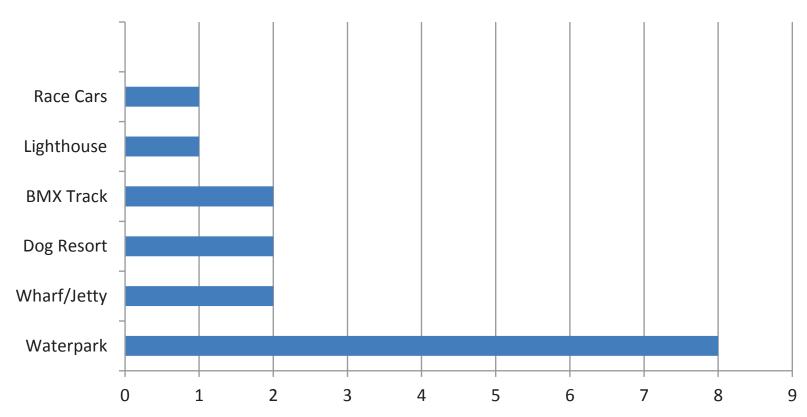








Developments





Indigenous Community Consultation

Consultation with the Swan Hill Indigenous community was led by Verna Eade, Swan Hill Rural City Council Aboriginal Community Planning Officer. This process commenced in January 2013 and continued for two months. During the engagement process all Traditional Owner groups, community members and affiliated clan groups were engaged. This included the 32 distinct family groups in Swan Hill as identified by the Local Indigenous Network (LIN).

The consultation process was as follows:

- 21st Jan: LIN initial discussion Riverfront project
- 30th Jan: Swan Hill Aboriginal Health Service
- 31st Jan: Local Aboriginal Lands Council Wamba Wamba
- Jan Feb: home visits to all family groups
- ¹ 1st Feb: Wamba Wamba reserve
- ^{4th} Feb: Local Aboriginal Lands Council, Swan Hill TAFE,
- Swan Hill Aboriginal Health Service
- 11th Feb: Payika College, Swan Hill, Aboriginal Health Service and Swan Hill Aboriginal Family Services

- 11-12th Feb: home visits to collect final surveys
- 20th Feb: Traditional Owner gathering presentation of Riverfront proposal for comment / endorsement
- 21st Feb: presentation of Riverfront proposal to full LIN membership for comment and endorsement
- 25th Feb: presentation of the Swan Hill Indigenous community Riverfront proposal Open House
- 26th Feb: presentation of the Swan Hill Indigenous community Riverfront proposal – Masterplan working group

Through the comprehensive consultation process the follow vision was identified by the Swan Hill Indigenous community:

Our vision is that an Indigenous Cultural Hub will be developed to help promote, encourage, educate, and increase awareness, as well as understanding of our local Indigenous communities (Wamba Wamba, Wadi Wadi, Latje Latje, Berapa Berapa) and their many diverse talents. In designing the building we would hope for multi-culturally appropriate aspects from the gallery, meeting place, community kitchen, to the community run garden, etc.

When you enter the Hub, you will begin creating your unique memento from this experience, thanks to the surrounding visual, audible, and palatable atmospheric spiritual and cultural diversities.

Surveys were distributed to all identified family groups and a total of 32 responses were returned. The responses to these surveys are coded below.

Please explain to us about the specific relationship your group / organisation has with the Swan Hill Riverfront

- Community / family 14
- Traditional Owners 8
- Local, that's my fishing spot 2
- Infinity Connection to natural environment and culture 1

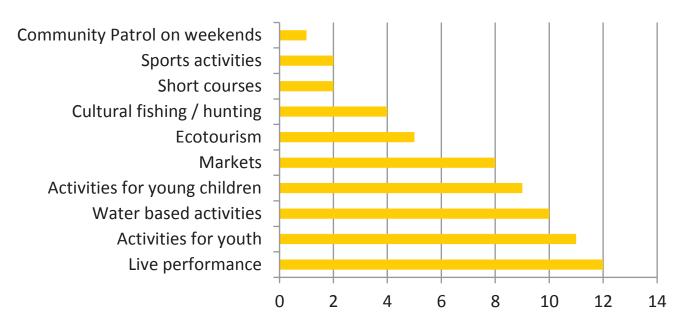
- Use for family celebrations 1
- As a service we often use the Riverfront to supervise access visits, community photos and gatherings for our various programs (area accepted by the community) 1
- Our life 1

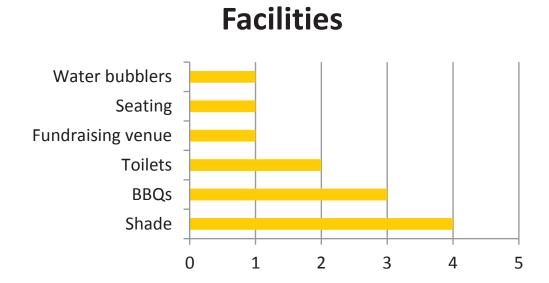
Q1: What sorts of activities / events / facilities would you like to see developed along the riverfront that are not there now? (please list).

- Live performance / music / Cultural Dance groups / lessons 12
- Activities / events for young people (holiday / weekend programs) 11
- Water activities (Sand bar / swimming area, Water bikes, paddle boats,
 Canoe club, river races, Ski club, river club, lake with water sports) 10
- More activities / better play equipment for 1-3 years, separate from the older kids 9
- All businesses could run a market down riverside along the paths (inc Indigenous stalls) 8
- Eco tourism (bush trail walks, cultural experiences, local history tours) 5
- More cultural and family friendly activities happening not just around special events / holidays 5
- Cultural fishing / hunting 4
- Shade (stage area, play equipment) 4
- BBQs 3

- Toilets Milloo st end 2
- Short courses for our people (sports clinics, life guard, engineering, fabrication, training facility for young indigenous people) 2
- Sports activities 2
- Things to benefit the whole community
- Fundraising venue
- Marruk Marruk projects (usage)
- Carnival atmosphere
- Seating areas
- A community 'patrol' especially on weekends
- Drinking water
- Come and try days
- Have events on the weekends (showcasing local talents and known artists) will bring people to visit for the weekend

Events & Activities





Q2: How could the town centre of Swan Hill better connect to the riverfront area?

- "Create an opportunity where people can come together to experience culture through performance and creativity" bridging the gap of indigenous people, activities, displays, workshops, performances, diversity (art, culture, stories, dancing) 19
- More signage and advertising 7
- Better walking access 6
- By learning about the "full" history of this town and its cultural heritage, Indigenous influence is missing 5

- Opening up the surrounding areas 2
- Footbridge over train line
- Roundabout at clock tower
- Linking counselling for the people
- Encouraging, educating advocacy
- Mainstream meeting place for all people
- Better promotion of the town

Q3: What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

Cultural Interpretive Centre "Traditions space for dance, music, arts and crafts, trade, exhibitions, story-telling (reading, writing and listening space), culture and awareness" for all community members for future planning (include internet access, youth space, pool tables, space for men's business).

Heritage exhibitions showcasing historical weapons, hunting sites, old photos, to trade and share culture and link community together. A space for our people to come together for all ceremonies, even sorry business. Community kitchen (community building inc showers etc) 48

- A water theme park (splash park) 7
- Restaurant facilities (Indigenous cafe) 7
- Community Bushtucker / Medicine garden (local Indigenous youth to maintain) 7
- Fenced wildlife park 3
- Jetty / board walk 2
- Move skate park, needs to be moved to central location of Riverside Park 4
- Space for local talent to perform, recording studio 2
- Cinema
- More buildings showcasing the talent, history and diversity
- Gift shops selling only local wares
- Great environment

"Fantastic opportunity to share ideas and engage with our mobs"

"I think this is a great idea and I really hope this goes ahead cause it will be great for our community"

"This could be an amazing activity to bring the Swan Hill and wider communities together in breaking down cultural difference and understanding"

"Anything to activate our people"

"thanks for involving me"

"having a say is fantastic - thanks for asking"

"for whole of community to gather around and understand why the Riverfront has so much Aboriginal history"

"a very good addition to have more cultural influence for local people and tourism industry, educational"

"I am excited for the opportunity to have a say"

CALD Community Consultation

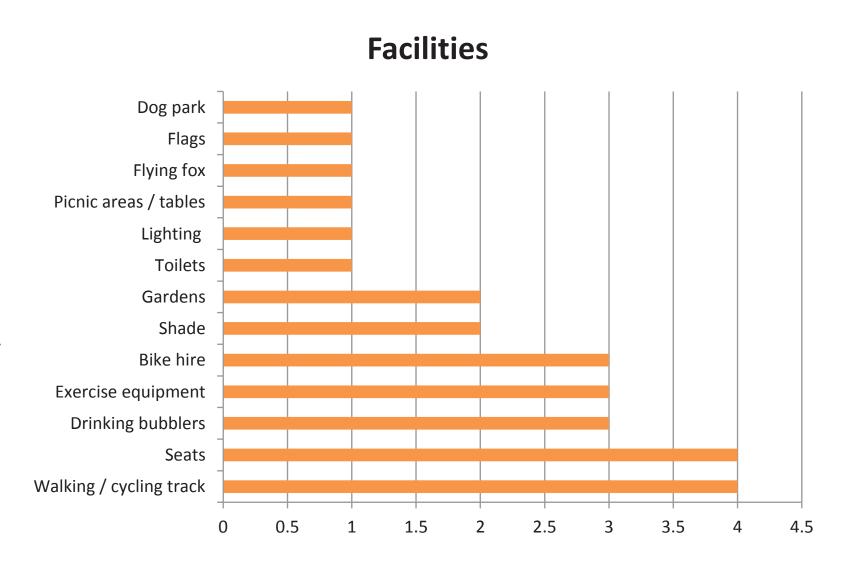
The culturally and linguistically diverse (CALD) community of Swan Hill informed the Riverfront Masterplan through a number of means. The researchers attended the Multicultural Mothers Group at the TLC, Swan Hill North Primary, where 11 parents shared their ideas. The Settlement Services / Specialist Homelessness Services team from Mallee Family Care also supported clients in sharing their ideas for the Riverfront, through this method 9 additional CALD community members were heard. The TAFE English Language group also took part completing surveys during class time, a total of 18 surveys were returned from this group.

Through these three means a total of 38 members of the CALD community were heard from.

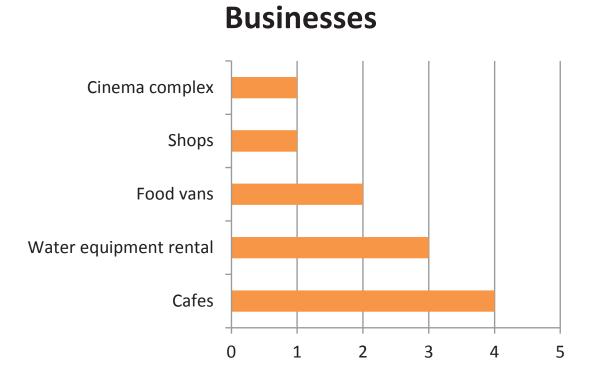
Three key questions were asked of the CALD community:

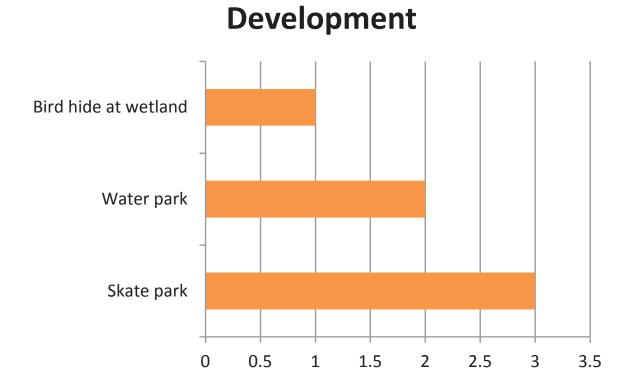
- 4. What sorts of activities / events / facilities would you like to see developed along the riverfront that are not there now?
- 5. How could the town centre of Swan Hill better connect to the riverfront area?
- 6. What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

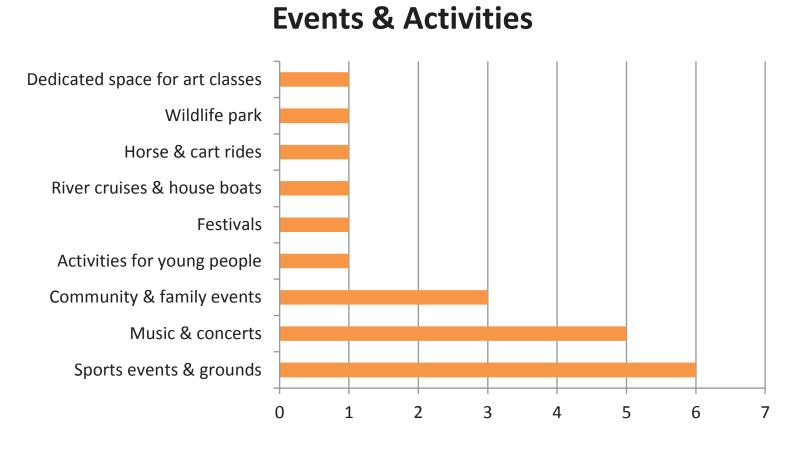
Responses to these open ended questions were coded into key categories and are presented in the tables right and below.











Small Discussion Group with Local Artists

On February 12th Local Logic Place researchers met with 6 members of the local Swan Hill artistic community. Camille Cullinan, Manager Cultural Development and Libraries at Swan Hill Rural City Council supported the researchers in contacting the various representatives. The group came together at the Swan Hill Region Information Centre to share the following ideas:

Q1: What is your current use of the riverfront?

- WalkingArt Gallery
- Dining Parkland

Q2: What sort of activities, events or facilities would you like to see developed along the riverfront that are not there now?

- Parkland flowing all the way along the riverfront
- Toilets and playground up the other end (Milloo St end)
- Establish Shady trees
- More seating
- Something like the farmer (at the Art Gallery) to sit on
- Incorporate art into seating
- An outdoor photo area:, it could be a sculpture of a photo frame, a piece of art that people could stand in and have a different vista behind to have their photo taken in
- Think about white ants when designing the riverfront area
- Ensure that interpretation boards are accessible/readable for people of all abilities
- Interpretation boards that share what lives in or near the river and information on plant life

- Share Aboriginal culture e.g. Pondi the fish, that story would be great on an interpretation board, could have fish signs outside of town and on the pavement showing people the way.
- Could have a Pondi sculpture and Indigenous bush tucker food as well as trees for canoe making and grasses for basket weaving
- Things that have made our town need to be highlighted e.g. beef, sheep, grain, fruit-incorporate this in
- An arid garden theme- Port Augusta has an arid Botanic Garden
- Promote backdrops for photos e.g. old train platform
- Pull the fence down at the pioneer settlement
- When there are other events happening, try to build on these by offering other events e.g. the night before the Australia Day Breakfast utilise the table and chairs that are set up by having an art event
- A place to display and sell art

- People want information boards to capture the stories, not just the facts
- Make the riverfront area tourist friendly
- Community projects that have artists workshops
- Bollards need maintenance
- More rubbish bins- could be murray cod bins
- Have a dog watering station with drinking bowls
- Sculptures & mural ideas
- Bird attracting plants

Q3: How could the town centre better connect to the riverfront area?

- Signage
- Open main street up, need more access
- Railway line needs removing
- An overpass at the end of McRae St
- Put some signs out of town
- Template the Pondi fish on sidewalk leading to the Riverfront 'follow the cod'
- Put distances on signs

Q4: What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

- An area for RV's, make caravan parking spots at the end of Milloo St
- A space for artists- an art facility
- Parkland extending to the wetlands

- Use the school camp accomm for art workshops, weekend retreats etc
- Painted punt boats as an art feature
- Different sections could feature different things along the riverfront
- Paint a mural on the 'pump shed' to depict the old wharf that used to be there
- Cheap places for families to eat
- A bird hide in the wetlands

"The bollards are in desperate need of love"

"It brings things to life if you add a yarn to it"

"We need to have Indigenous story telling"

"I would love it if it was shaded a bit more"

"Tourists come to Swan Hill and they don't know where to buy art"

"Plenty of money has been put into football, no one is putting money into artists"

"Litter bins can be fabulous!!"

"I would like to see a link between district produce and art on the riverfront".

Other comments:

- The pond in Riverside Park slopes down and is dangerous, pond areas could be developed
- Pull the fence down at the pioneer settlement
- Think about things that are not maintenance intensive
- Think carefully about how long things will last
- Some things could have a funeral date, they don't need to last forever without replacement
- Parking is an issue
- Nothing happened as a result of the last consultation (10 years ago), it just sat on a shelf
- Residents need to see action, they need to see something happening
- Pathways are not wide enough for a pram and a child walking beside it

Examples of other places that have good art/ideas

- On St. Kilda Rd near war memorial there is a good arid garden
- Broken Hill- the big seat
- Tasmania- there is a town that has a mural competition
- There is a farm that invited well known artists to paint utes that were positioned vertically
- Barcaldine Qld- has sculptures throughout the whole town
- Nyah West has the 'barbed wire man'
- There is a man at Wycheproof that makes sculpture out of farm machinery parts e.g. plough discs

"I used to walk through the caravan park, it is a lovely part of the river".

"The riverfront is beautiful, we are very proud of it".

Small Discussion Group with Swan Hill Specialist School

On February 13th Local Logic Place researchers met with 11 students from the Swan Hill Specialist School. This discussion was held at the Specialist School. The following responses were shared by the group:

Q1: What is your current use of the riverfront?

Playground facilities

Breakups at BBQ Rotunda

Riding for the disabled breakup

Outdoor movies

Pioneer settlement

Café

Riverside Park

Work experience in animal nursery

Ice skating

Sitting by river with paper and coffee

Q2: What sort of activities, events or facilities would you like to see developed along the riverfront that are not there now?

Seating

Tables

Space for soccer

A big giant swing

Artist classes

Bubble tap for skate park

Better security

 Farmers market where local produce can be sold A community kiosk on the riverfront that community groups can sell coffee, treats etc from

Dance classes e.g. hip hop

Cafes

Playing music

A cinema

Sell live animals

Plant/produce swaps

Big flying fox

Ghost Tour

A museum

A BMX TRACK

Horse riding

Bike hire

Pedal power- pedal cars

Go karts

Acting school

Q3: How could the town centre better connect to the riverfront area?

- Maps
- Pedestrian flyover
- Cable car
- Something like the circle tram

"We really miss our kiosk".

"I'd like nice places to sit".

"In Warrnambool they have taps with dog dishes along the walk, this would encourage people to walk their dogs and be more active".

Q4: What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

Big W • An aquarium

Kmart • A zoo

Hungry JacksAn ice skating rink

Pizza Hut A Maze

A shopping centre Waterslide

Bowling alley Circus

Day SpaWaterpark



Small Discussion Group with Murray Human Services' Day Program members

On February 12th Local Logic Place researchers met with 8 members of Murray Human Services' Day Program. This discussion was held at Murray Human Services' Rutherford St Centre. The following responses were shared by the group:

Disabled toilet (door should slide not swing)

Q1: What is your current use of the riverfront?

Walking groupsRelaxing

Fishing Pioneer Settlement

Q2: What sort of activities, events or facilities would you like to see developed along the riverfront that are not there now?

Disabled park / playground facilities - Access to the river's edge for wheelchairs

Development of walking tracks to offer
 Smooth surface
 Markets
 Ping pong table
 Live theatre performances at Pioneer

Seating Shade Settlement

Car parkingHistory boards

Q3: How could the town centre better connect to the riverfront area?

Walk bridge over railway line (starting at Information Centre)
 Small bridge over lake is uneven

McCallum St access is unstable for scooters / wheelchairs No access up gutter in front of Pioneer Settlement for wheelchairs

Path past swimming pool is also uneven

Q4: What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

Cinema Shopping area (extended trading hours)

Tenpin Bowling Food vans

Skate park (add BBQ, seating , shade)

Small Discussion Group with Health Professionals

On February 12th Local Logic Place researchers met with ten health professionals representing various health organisations from Swan Hill. This discussion was held at the Swan Hill Community Health Centre. With a strong emphasis on healthy lifestyles the following responses were shared.

Q1: What is your current use (either yourself or with client groups) of the riverfront?

Canoe club Cycling

Walking Café's/restaurants Health Expo's

Q2: What sort of activities, events or facilities would you like to see developed along the riverfront that are not there now?

- Sculptures around the river
- Drinking taps along the river
- Safe for drinking signs
- More BBQ's
- Add gym equipment
- Upgrade tracks
- Put signage along river
- Put track markers along the track (Bendigo do this well)
- Connect walking tracks so that people can connect in from River Oaks and from Tower Hill, Murray Downs and Lake Boga
- Make the riverfront more bike friendly, put bike racks along the river
- Clearly labelled exercise stations for people of varying levels of fitness
- Solar lighting along the walking tracks
- More dog bins and more water areas for pets
- Promote dogs on leads
- A look out over the river
- Speaker system at the skate park

 Develop walking circuits- consider different levels of fitness Improved lighting

Walking groups

- Open up Pioneer Settlement
- A beach area, a safe swimming area
- Bike racks
- Build decking along the rive
- Upgrade boat areas, improve accessibility
- More picnic spots
- Tables and seating that takes advantage of the river views
- Exercise stations
- Better access to canoe club
- Bike hire
- A market every weekend in Riverside Park
- Community garden
- Further development of the outdoor cinema
- More music events/festivals
- Use park more on the weekends

- A learners section at the skate park
- Safety signs at the skate park

- Indigenous guides
- A Cultural centre

Q3: How could the town centre better connect to the riverfront area?

- An overpass near the racecourse end
- Signage
- Colour coded signage with e.g. links and loops

Q4: What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

- New restaurants
- Waterpark
- Weir
- Boat ramps
- Move the railway and open up that area to new development
- A pub
- A decent pool
- Use gem for a meeting facility

Other comments:

- The track can be rickety down past Spoons
- The riverfront feels disconnected

"It is good that the playground is fenced"

"It's hard to know what is public and what is private down the Pental Island end"

"Track surfacing is an issue currently"

"It's hard to get boats in from the canoe club"

"Encourage people to walk their pets more as it gets them moving as well"

"There is a level of accepted dissatisfaction with the current riverfront"

"I love the differences along the riverfront, keep some things environmental) the same"

"Bring watersports back to Swan Hill"

"There is a concern about private enterprise taking over public land"

"Make Lower Murray Inn into a Pub"

Small Discussion Group with Swan Hill Canoe Club

On January 25th Local Logic Place researchers met with three representatives of the Swan Hill Canoe Club for a one hour small group discussion. This discussion was held 'on site' at the Canoe Club facility which is situated at the northern end of Riverside Park. Like the Australia Day Breakfast consult this offered strong contextual insight to the comments shared by community members and allowed the researchers a stronger understanding of the site as utilised by the Canoe Club.

During the small group discussion four key questions were asked:

- 1. What is your current use of the riverfront?
- 2. What sort of activities, events or facilities would you like to see developed along the riverfront that are not there now?
- 3. How could the town centre better connect to the riverfront area?
- 4. What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

The first question allowed the researchers to better understand the specific needs of the group. The following three questions reflected those asked in the Residents Survey and so offered continuity for response coding and collation.

Responses were offered as follows:

Q1: What is your current use of the riverfront?

- Club members use the riverfront to put canoes in and out- if fences were put up all along the Riverfront this would be difficult for members, although members did recognise that some areas of bank that were eroded or particularly steep needed fencing as a matter of safety.
- Access to Canoe Club building is important, members noted it would be difficult to 'get in and out' of the building if anything was to be put in front of the building or if road access along the river's edge (as is currently the case) was removed / compromised.
- The Swan Hill Walking group currently share use of the Canoe Club (for storage) and this relationship works well.

** Canoe club members shared that the river is quite dangerous and stressed that they wouldn't like to see inexperienced people e.g. visitors renting canoes, paddling in the river.

Q2: What sort of activities, events or facilities would you like to see developed along the riverfront that are not there now?

- Bollards with wire to protect steeper parts of the river
- A pedestrian ramp to put canoes in (built to specifications to allow disabled access)
- Shared walking and bike trail
- Tricycle/bicycle hire
- Food vans e.g. hot dog and ice cream
- Public use exercise equipment spaced along walking path e.g. pull up bars
- More undercover area's e.g. rotunda's
- More shade
- More BBQ's
- RV friendly site
- Canoeing for the disabled

"It would be nice if the Pyap came down to Riverside Park and picked up passengers".

Q3: How could the town centre better connect to the riverfront area?

- Should have access to the Riverfront from the end of McCrae St
- Pedestrian crossing needed, if this was placed North of the train station then only the occasional freight train would be passing (as opposed to South of the railway station which carries passenger trains)
- A pedestrian overpass would be most ideal

Q4: What new developments within the riverfront area would have potential to encourage people to either visit or move to Swan Hill?

- A commercial Waterpark
- A wharf

"It's not people user friendly to get from the centre of town to the riverfront".

Other comments:

- A facilities/brochure map promoting the area would be good
- A canoeist guide showing key facilities along the river would be useful (for the whole of the Murray with Swan Hill taking part)

Following up:

On the evening following the small group discussion with the Swan Hill canoe Club an email was sent to two of the participating members asking: "could we please ask you to strongly encourage all members to:

- 1. Complete the survey as a hard copy (which will be received by letter box drop this week) or online at www.swanhill.vic.gov.au
- 2. Attend the first open house 10am-8pm 25th February to offer ideas for the Riverfront Masterplan
- 3. Attend the second open house 6-7th May to review the draft Masterplan"

Sustainable Living in the Mallee

Sustainable Living in the Mallee would like to thank Swan Hill Council for the opportunity to provide input to the River Frontage plan (a total of 11 group members informed this document).

sustainable living in the mallee

SLIM requested comments from our members, these are summarised below. Some members provided their thoughts via the online survey individually instead.

- Seats on river bank next to river side of walking track so can rest, sit and watch the river go by.
- Neat parkland from the boat ramp to the Pental Island bridge. Move skate park to river side park (more in the open/ public)

 Easier access from the main street. It's a nightmare to get to with little children/prams.

 Less big infrastructure embellishments (e.g. amusement park) but to preserve/protect and utilise the only attribute Swan Hill has and that's the river.

 We want to use it but not abuse it (the river)
- Revegitating the river front with plant species indigenous to Swan Hill so that there is less lawn and more interesting spaces and walks would be wonderful. Semi-Arid Botanical Gardens would be great, but due to maintenance just have low maintenance gardens that showcase what will grow here.
- Wildlife Park. Would create opportunity for environmental education.
- An indigenous information centre with information boards recording how the original Swan Hill inhabitants lived and used the river would be terrific. Even if the information centre was just a rotunda type shelter to keep the information boards out of the weather and for people to stand out of the wind/rain/sun while they looked at the boards.
- Embrace identity of the natural environment
- Co-op space (like a kiosk) a space where clubs/organisation could hold BBQ's etc like in the main street. Place where organisations could promote themselves, sell coffee, cake, produce, etc if running an event to raise money. Run a community café on the weekend such as the Specialist School does.
- " It's ideal for our kids to use their riverfront during school hours to learn about the environment, test the water etc. It needs to be friendly for this
- Indigenous heritage is vital, and this art type of representation needs to be recognised.
- Renewable Energy and sustainable design incorporated where possible
- Infrastructure earthly natural colours
- Prioritise walkers and cyclists rather than cars, particularly around walking paths and close proximity to the river.

Rotary Club of Swan Hill

Rotary Club of Swan Hill was recognised as a local community group with strong links to the Swan Hill Riverfront. Not only does the Rotary Club of Swan Hill maintain a stretch of the Riverfront (between the Milloo St Wetlands and Swan Hill Bridge) they also funded and continue to maintain one of the BBQ sites.

With this in mind Local Logic Place researchers worked to engage with the Rotary Club of Swan Hill. Via email a number of contacts were made with several members of Swan Hill Rotary offering the following opportunities for hearing from their membership:

- Completing the residents paper based survey
- Completing the online residents survey at www.swanhill.vic.gov.au
- Researchers attendance at a Swan Hill Rotary Club meeting
- Visiting the open house at the Swan Hill Region Information Centre on Monday, 25 February from 10am until 8pm, to talk with researchers in person
- Interviewing by phone three or so Rotarians who have been instrumental in Rotary's involvement in the Swan Hill Riverfront (with guidance from Rotary as to who these members should be)
- Scheduling a small group discussion with Swan Hill during Tuesday 12th and Wednesday 13th February when the researchers are in Swan Hill
- Inviting all members back to the Open House on the 6-7th May to preview and comment on the draft masterplan.

The Rotary Club of Swan Hill were very willing to be part of this process and were in regularly contact with the researchers in planning this process. Ultimately however the following email was received from the Club President:

"We had a brief Board meeting last night to discuss the kind offer to meet with Lisa and yourself and Rotary members to discuss the Swan Hill Riverfront masterplan. It was decided that as many Rotarians had already provided their individual feedback via interview or internet feedback that the need for further meetings was not necessary.

We fully support the plan to build on our riverfront facility and access to same. Thank you once again."

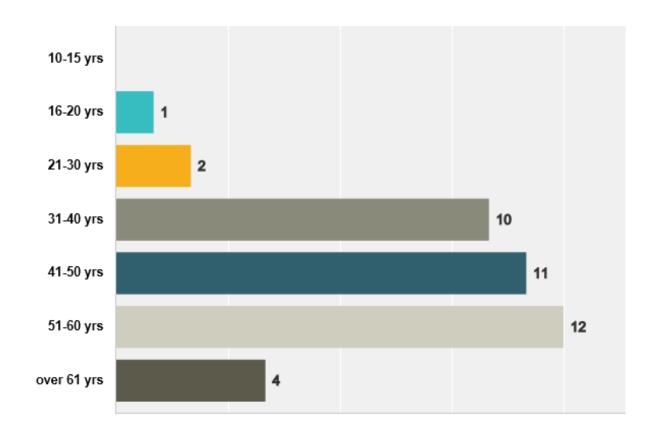
Visitors Survey Consultation

A survey to hear from visitors to the Swan Hill region was delivered to 19 Swan Hill based accommodation providers. Accommodation providers were asked to display the survey at the 'front desk' and encourage guests, whilst checking in or out, to complete and return the survey. **A total of 40 visitors** to the Swan Hill community completed the Visitor's survey which opened on the 12th January and closed one month later on the 15th February.

The Visitor's survey was also available online from the Swan Hill Rural City Council's website and extensive networks were utilised to increase awareness of both the Swan Hill Riverfront Masterplan Project generally and Visitor's survey specifically in surrounding communities and LGAs.

Responses to the Swan Hill Riverfront Masterplan Visitor's Survey were as follows:

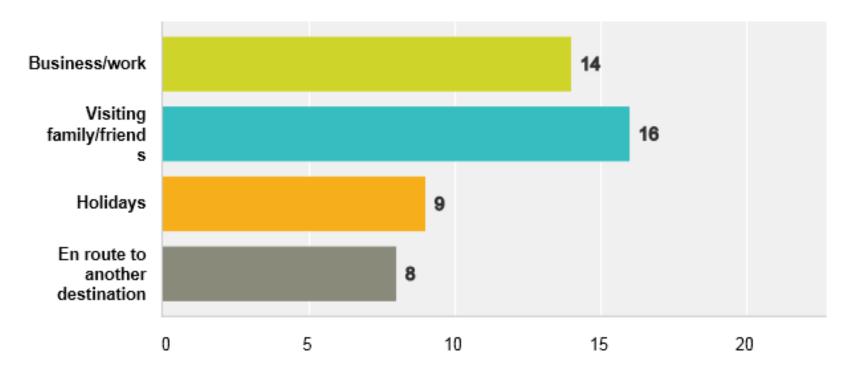
What is your age?



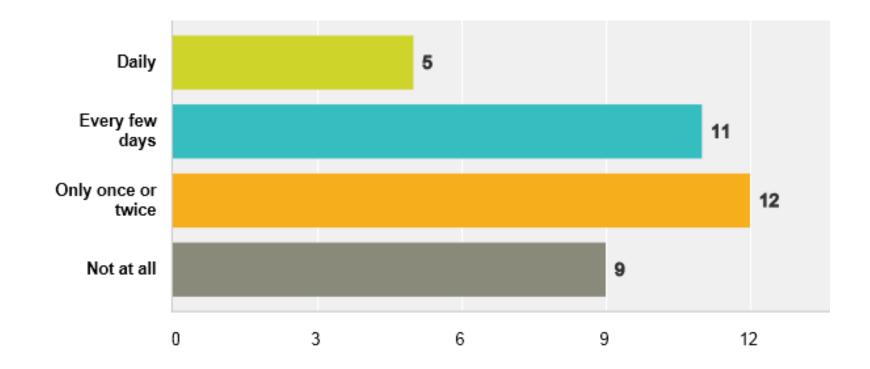
What is your postcode?

The 40 respondents to the Visitors survey listed their postcode as Balranald- 2715 (5), Swan Hill- 3585 (3), Shepparton- 3630 (2), Albury- 2640 (2), Penrith NSW- 2750 (2), Amherst VIC-3371 (2), Narre Warren- 3805 (2), Robinvale- 3549 (2) and one each from Melbourne-3000, Northcote-3070, Ashmont-2650, Goorambat- 3725, Frankston-3200, Fitzroy-3065, Mildura-3500, Kew-3101, Daylesford-3460, Salisbury SA-5108, Narre Warren East and Narre Warren North – 3804, Rowville – 3178, Traralgon – 3844.

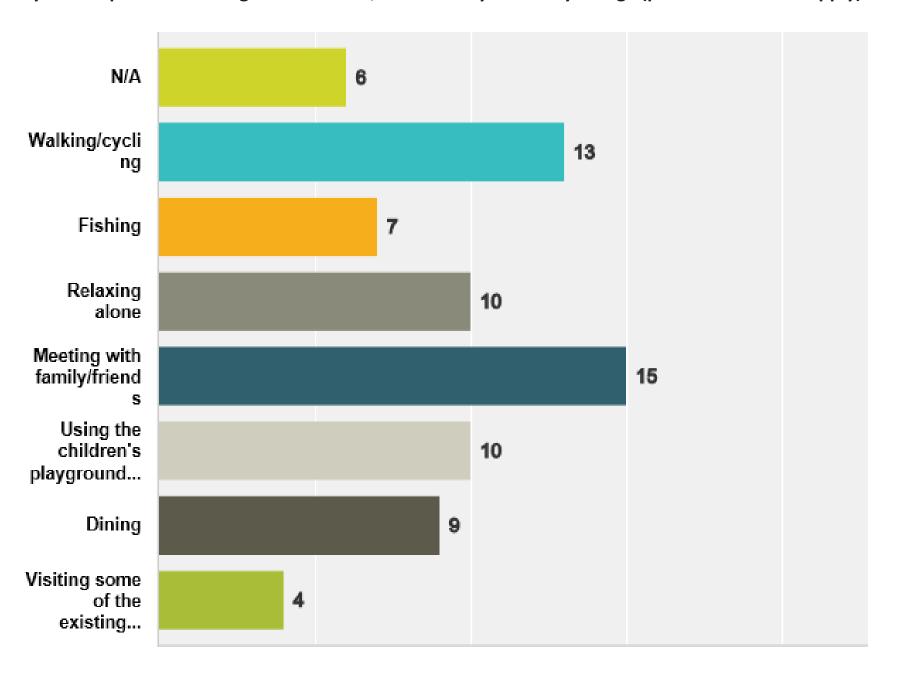
What was the purpose of your visit to Swan Hill?



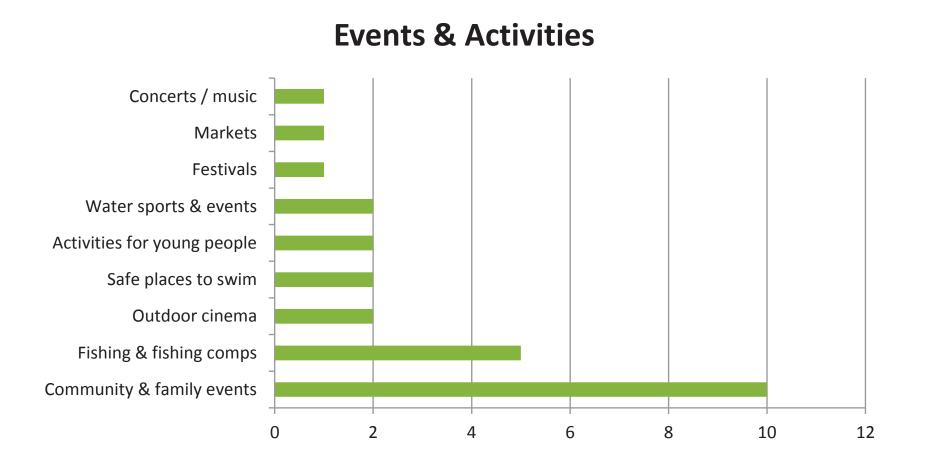
As a visitor to Swan Hill how often did you spend time in the riverfront area?



If you did spend time along the riverfront, what were you mostly doing? (please tick all that apply)



What sorts of activities / events / facilities would you like to see along the Riverfront that are not there now?

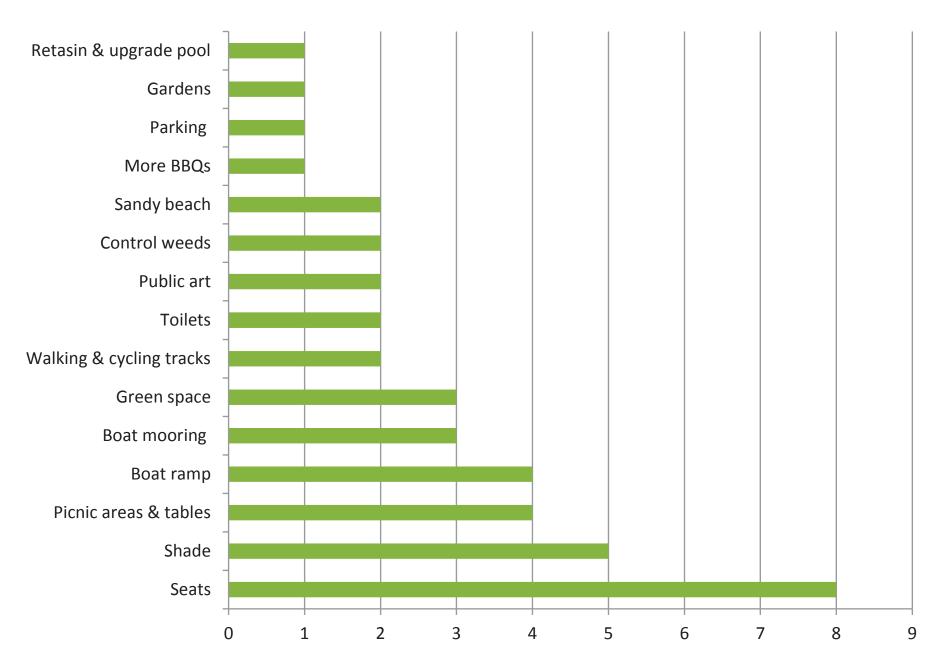


A beach front like at other river towns where people can swim and play on the shore comfortably like they would at the beach. Also an extension to the bike path to have it go further.

A jetty with seating and shade and fishing facilities, even a kiosk - have it floating so you don't have to worry about floods!!!!!.

Put the skate park in the middle of the action where families of all ages can be supervised, play, eat and toilet facilities close by. No point having it in the middle of nowhere, doesn't suit anyone.

Facilities



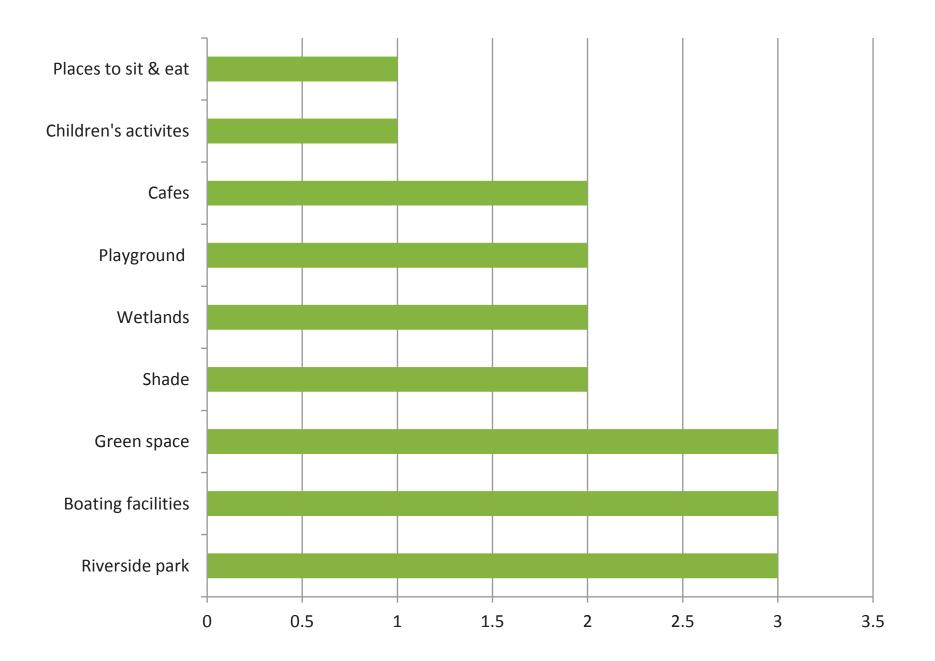
"More eating areas, with good use of outside eating. Possibly an eatery that sits over the water. Boats could pull up there".

"A bar along the waterway".

"A better set up for live music / bands and performances - possibly an area with a roof but no walls and tiered seating".

Open up the Pioneer settlement.

As a visitor, what aspects of the current Riverfront would you return to see?



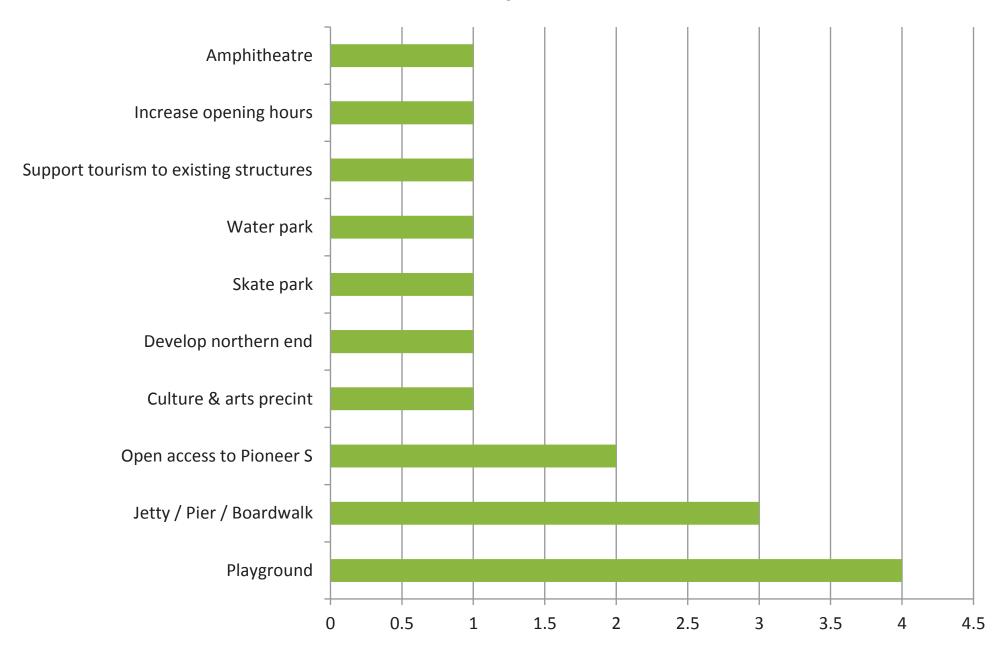
"Green space, children's play area, its cleanliness, dining options such as Spoons and the new cafe are excellent".

"Fencing the playgrounds was welcome because it increased safety especially for the northern playground which is close to the road".

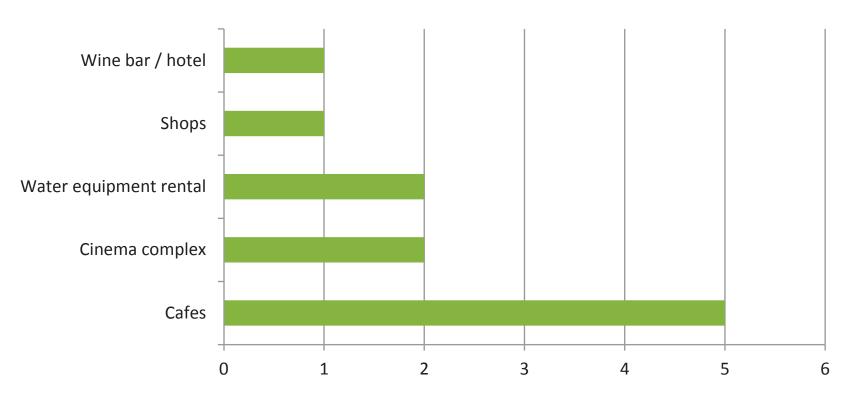
"More shaded areas to sit and to eat. Shaded playground areas".

"Summer activities".

Developments







"Whole Riverfront environment was brilliant"

"A wonderful idea for a precious area of Swan Hill".

Just some photos to support my email response.

Forgot to mention to continue avenue of trees along caravan park.

Narrow the access road at wetlands. Replicate wetland gardens on river side or avenue of red gums.

Kill the ants nesting on the path for years. They must drive campers mad, scare little kids.

Photos of, bad watering system, wide access road, avenue of trees, broken seat, signs not on walking track, ants, and could council wipper snip edges where they cannot mow rather than just spray





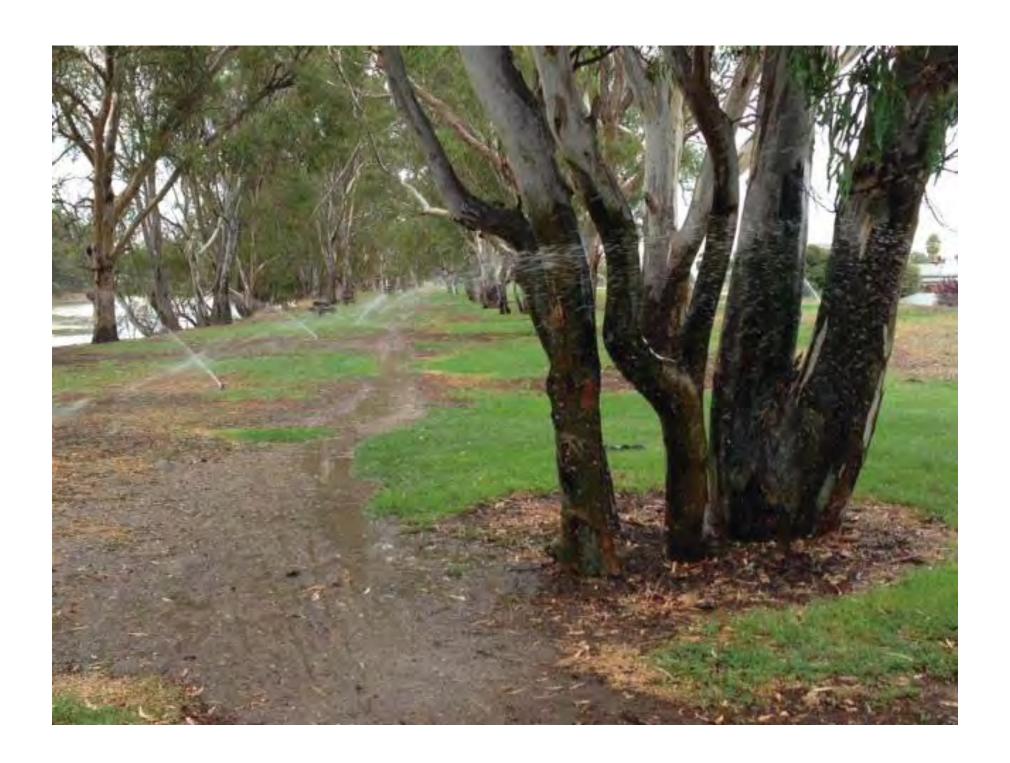














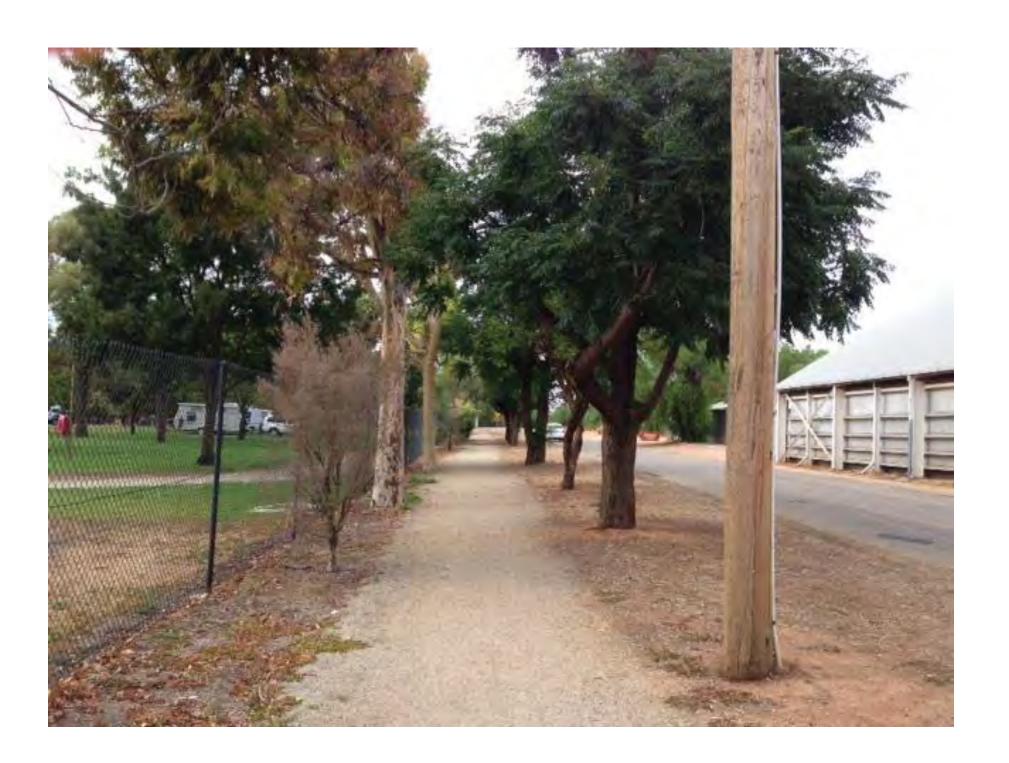












Bubbler fountain for the kids. Like in Glonely main street also Darwin main. The water sports up intermittently and he kids run in & out ///

Excavate an area where the river can be accessed to swim, Almost like a sand bar beach front. le Echoca.

Thanks for considering (i)

Swan Hill Riverfront Masterplan

Economic Assessment

SWAN HILL RURAL CITY COUNCIL

JANUARY 2013

URBAN ENTERPRISE 389 ST GEORGES RD NORTH FITZROY 3065 VIC PH (03) 9482 3888 | FAX (03) 9482 3933



Authors

Todd Denham Shashi Karunenathy

Reviewed

Mike Ruzzene

© Copyright, Urban Enterprise Pty Ltd, January 2013.

This work is copyright. Apart from any use as permitted under Copyright Act 1963, no part may be reproduced without written permission of Urban Enterprise Pty Ltd.

Document Information

Filename Swan Hill Riverfront Masterplan 20130117

Last Saved 1 July 2013 4:17 PM
Last Printed 1 August 2013 2:36 PM

File Size 964 kb

Disclaimer

Neither Urban Enterprise Pty. Ltd. nor any member or employee of Urban Enterprise Pty. Ltd. takes responsibility in any way whatsoever to any person or organisation (other than that for which this report has been prepared) in respect of the information set out in this report, including any errors or omissions therein. In the course of our preparation of this report, projections have been prepared on the basis of assumptions and methodology which have been described in the report. It is possible that some of the assumptions underlying the projections may change. Nevertheless, the professional judgement of the members and employees of Urban Enterprise Pty. Ltd. have been applied in making these assumptions, such that they constitute an understandable basis for estimates and projections. Beyond this, to the extent that the assumptions do not materialise, the estimates and projections of achievable results may vary.

CONTENTS

ISSUES AND OPPORTUNITIES	4	2.9. CONSULTATION	2.5
ECONOMIC PROFILE	4	3. RESIDENTIAL	26
RESIDENTIAL	4	3.1. INTRODUCTION	26
TOURISM	4	3.2. SUMMARY	26
RETAIL	5	3.3. METHODOLOGY	26
ECONOMIC IMPACT	5	3.4. MARKET ANALYSIS	26
1. SWAN HILL REGION ECONOMIC PROFILE	6	3.5. SUPPLY	29
1.1. INTRODUCTION	6	3.6. DEMAND ASSESSMENT	3 1
1.2. SUMMARY	7	3.7. OPPORTUNITIES	36
1.3. POPULATION	7	4. RETAIL	3 9
1.4. AGE PROFILE	9	4.1. INTRODUCTION	3 9
1.5. RESIDENT EMPLOYMENT	10	4.2. SUMMARY	3 9
1.6. HOUSEHOLD INCOME	1.1	4.3. SWAN HILL CBD ANALYSIS	3 9
1.7. COST OF LIVING	1.1	4.4. SWAN HILL RETAIL CATCHMENT	4 (
1.8. EDUCATION ATTAINMENT	1 2	4.5. RETAIL CAPTURE	4 1
2. TOURISM	1 3	4.6. RETAIL GAPS	4 1
2.1. INTRODUCTION	1 3	4.7. ASSESSMENT OF RECOMMENDATIONS	4 1
2.2. SUMMARY	1 3	5. ECONOMIC IMPACT ASSESSMENT	4 3
2.3. VISITATION	1 4	5.1. INTRODUCTION	43
2.4. VISITOR ACTIVITIES	1 5	5.2. CONSTRUCTION AND OPERATIONS IMPACT	4.3
2.5. OVERNIGHT MARKET ANALYSIS	16	APPENDIX	44
2.6. DAYTRIP MARKET ANALYSIS	19		
2.7. TOURISM PRODUCT	2 1		
2.8. DEVELOPMENT PROPOSALS	2 4		

ISSUES AND OPPORTUNITIES

ECONOMIC PROFILE

- The population of the Swan Hill urban centre has grown over the past decade, as the region Surrounding Swan Hill, based on Victorian Government population estimates.
- Based on State Government population projections, the Swan Hill Region is expected to increase population by more than 6% between 2011 and 2031.
- The ageing of the population that occurred between 2001 and 2011 is expected to continue in the 20 years to 2031.
- Agriculture, forestry and fishing, Health care and social assistance and Retail trade are the main industries in the region, based on the number of residents employed.
- Households in Swan Hill are more likely to be lower in income than Regional Victoria in general;
- Increases in median rents and mortgage repayments in Swan Hill have been greater than both household income and the Consumer Price Index, indicating that it has become more expensive to live in the region in real terms.
- More Swan Hill residents have post-secondary qualifications in 2011 than in either 2001 or 2006. In particular, there has been a marked increase in TAFE qualifications.

RESIDENTIAL

The residential assessment indicates that most of the demand for additional housing in Swan Hill the next 15 years can be fulfilled by the existing development sites to the west of the city centre.

Given the prime location of the Riverfront Precinct site, and the adequate supply of residential land, the precinct should focus on niche, high yield residential housing markets, including:

- Empty nesters and retirees: high wealth households downgrading from larger dwellings and rural properties, and,
- Rental investors.

Demand from these target markets may be met through the development of high-end apartments and townhouses with rivers and parkland views, and within walking distance of the town centre.

The provision of apartments, particularly with the inclusion of serviced apartments, may appeal to mid-range markets, such as young couples without children, visiting medical staff and business visitors.

TOURISM

Based on the assessment of tourism in Swan Hill and the surrounding region, the following development opportunities should be considered for the Swan Hill Riverfront:

Serviced apartments, to provide accommodation for the growing Business market.
 Serviced apartments also appeal to the family, as they enable the preparation of meals. It is also expected that the motorsport complex may attract racing teams for extended periods for trials: this would also provide a market for serviced apartments.

- A 200 to 250 capacity conference and function space, developed in conjunction with the serviced apartments. This will provide a venue for larger functions in the Swan Hill community, and also serve to attract business events to the city.
- A backpackers in town, to service itinerate workers and also visitors using the train service.
- Dining and restaurants, possibly in conjunction with a bar.
- A shopping precinct, open during weekends to service visitors.
- A provedore, highlighting the local food and wine production.
- Links to a nature-based tourism precinct on Pental Island.
- There may be future demand for a Cinema as part of a tourism precinct within the riverfront study area.

RETAIL

- The development of retail stores as part of a tourism precinct, which offer shopping opportunities to visitors over weekends and during peak visitation periods.
- This may be collocated with cafes and dining on the riverfront.

ECONOMIC IMPACT

The recommended uses for the Swan Hill Riverfront are expected to include over \$35 to \$45 million in capital expenditure investment. Utilising a mean capital investment value of \$40 million, an economic impact assessment has been prepared for the recommended uses. The following outlines the findings of the economic impact assessment:

CONSTRUCTION PHASE

The key economic impacts for Swan Hill Rural City during the construction phase of the projects include:

- The creation of 159 direct and indirect full time equivalent (FTE) jobs; and
- Over \$54 million in total economic impact to the Swan Hill Rural City's gross regional output.

OPERATIONAL PHASE

The key economic impacts for Swan Hill Rural City during the operational phase of the projects include:

- The creation of 212 direct and indirect FTE jobs; and
- Over \$46 million in total economic impact to the Swan Hill Rural City's gross regional output.



1. SWAN HILL REGION ECONOMIC PROFILE

1.1. INTRODUCTION

The information analysed in this economic profile has been sourced from Australian Bureau of Statistics Census data from 2001, 2006 and 2011. Population projections from NSW and Victorian Government agencies have also been used to provide an estimated population for the region in 2031.

The Swan Hill Urban Centre/Locality area is used to provide analysis of the changes to the Swan Hill City itself

FIGURE 1 SWAN HILL URBAN CENTRE/LOCALITY: 2011



Source: ABS: 2011 Census Geography

For a broader regional perspective data for the Swan Hill Rural City and the Wakool Shire has been used: this is referred to as the Swan Hill Region.

1.1.1. CENSUS DATA AND ESTIMATED RESIDENTIAL POPULATIONS

Changes in the way the population was counted in the 2011 Census resulted in a reduction of the Victorian population of 86,700 compared to the Estimated Residential Profile. The impact on this report is that:

- The 2011 population count is considered more accurate, 2001 and 2006 data may inflate population counts.
- The Estimated Residential Population (ERP) prepared by Victoria's Department of Planning and Community Development is better indication of population growth trends than the comparison of 2006 and 2011 census data. ERP is based on the 2006 Census population figure adjusted for births, deaths and migration.
- For important data sets, such as income, dwelling type, employment and education, the only analysis available is the comparison of census data: review of this information should take acknowledge the over count of the 2006 and 2001 data sets.

As the NSW Government does not prepare as detailed forecasts of Local Government Area population as the Victorian Government, census counts are used for Wakool Shire population information.

1.2. SUMMARY

Key findings from the economic profile include:

- The population of the Swan Hill urban centre has grown over the past decade, but the Swan Hill Rural City Council population has marginally decreased.
- The population of the Swan Hill Region, including the Swan Hill Rural City Council and the Wakool Shire decreased by 2% between the 2006 and 2011 census. This may be due to the poor horticultural season in 2011 reducing the number of agricultural workers.
- Based on State Government population projections, the Swan Hill Region is expected to increase population by more than 6% between 2011 and 2031.
- The ageing of the population that occurred between 2001 and 2011 is expected to continue in the 20 years to 2031.
- Agriculture, forestry and fishing, Health care and social assistance and Retail trade are the main industries in the region, based on the number of residents employed.
- Households in Swan Hill are more likely to be lower in income than Regional Victoria in general;
- Increases in median rents and mortgage repayments in Swan Hill have been greater than both household income and the Consumer Price Index, indicating that it has become more expensive to live in the region in real terms.
- More Swan Hill residents have post-secondary qualifications in 2011 than in either 2001 or 2006. In particular, there has been a marked increase in TAFE qualifications.

1.3. POPULATION

SWAN HILL URBAN CENTRE

The 2011 Census found 9,894 residents of the Swan Hill, based on the Urban Centre/Locality statistical area, shown in the following map.

The 2011 population for the Swan Hill Urban Centre was greater than both the 2001 and 2006 population, as shown in Table 1.

TABLE 1 SWAN HILL URBAN CENTRE POPULATION

Census Date	2001	2006	2011
Population	9,771	9,685	9,894

Source: ABS, Urban Centre/Locality Data, Swan Hill, Note that the Swan Hill UC/L boundaries were redefined for the 2011 census. Note data reference in Section 1.1.1

SWAN HILL REGION

The 2011 Census found 26,267 people living in the Swan Hill Region, 85% were living in the Swan Hill Rural City council area and the remaining 15% were living in Wakool. The Swan Hill Retail Catchment was estimated at 37,200 in 2012, which includes regions in nearby Council areas such as Gannawarra, Yarriambiak, Buloke and Balranald¹.

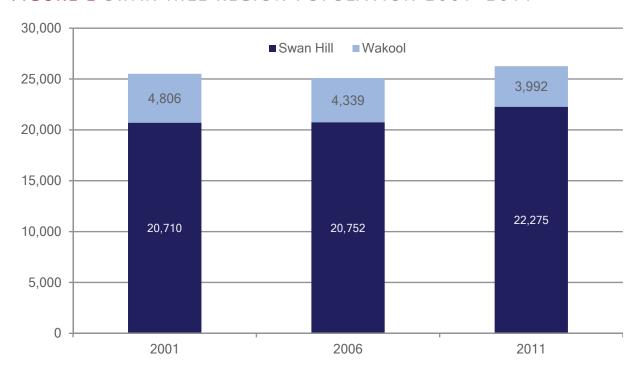
The population of the both Wakool and Swan Hill municipalities increased between 2001 and 2011, by a total of 751 residents. The population of the Swan Hill Rural City increased by 1,565 residents between 2001 and 2011, based on the Victorian Governments Estimated Residential Population. Wakool Shire has experienced significant declines in population, with the 2011 population 17% lower than the 2001 population, based on the census data.

URBAN ENTERPRISE PTY LTD

MAY 2012

¹ Essential Economics, 2012: North Park Reserve - Economic Impact of Proposed Rezoning

FIGURE 2 SWAN HILL REGION POPULATION 2001-2011



Source: ABS: 2011 Census Time Series Profile, Swan Hill RC and Wakool LGAs.

Across the Swan Hill Region the annual reduction in population between 2001 and 2006 was 0.34%, but from 2006 to 2011 the population grew on average by 0.92% per year.

TABLE 2 SWAN HILL REGION POPULATION GROWTH: 2001-2011

	Growth		Annual	Growth
	2001-06	2006-11	2001-06	2006-11
Swan Hill	0.20%	7.34%	0.04%	1.43%
Wakool	-9.72%	-8.00%	-2.02%	-1.65%
Swan Hill Region	-1.67%	4.69%	-0.34%	0.92%

Source: ABS: 2011 Census Time Series Profile, Swan Hill RC and Wakool LGAs, 2011 ERP for Swan Hill

1.3.1. POPULATION PROJECTIONS

GOVERNMENT PROJECTIONS

The 2012 Victoria in Future projections for the Swan Hill Rural City provide an expectation that the municipality will experience population growth over the forthcoming 30 year period. The population is predicted to increase by more than 2,000 residents in this period, initially at an annual rate of 0.64%. Although the population is predicted to grow, the annual rate of growth is expected to decline to 0.35% between 2026 and 2031.

The most recent projections for Wakool Shire, produced by the NSW Department of Planning and Infrastructure in 2010, indicate that the population is expected to continue to decline over the next 20 years.

The population projection for the Swan Hill Region, combining these two Local Government Areas, is provided in Table 3. Overall, the region is expected to experience population growth between 2011 and 2031, initially at 0.46% per annum.

TABLE 3 SWAN HILL REGION POPULATION PROJECTIONS

Year	2011	2016	2021	2026	2031
Swan Hill Rural City	22,275	22,999	23,524	24,024	24,448
Wakool Shire	4,500	4,400	4,300	4,200	4,100
Total ²	26,775	27,399	27,824	28,224	28,548
Growth		624	425	401	324
%Growth (5yr)		2.33%	1.55%	1.44%	1.15%
%Annual Growth		0.46%	0.31%	0.29%	0.23%

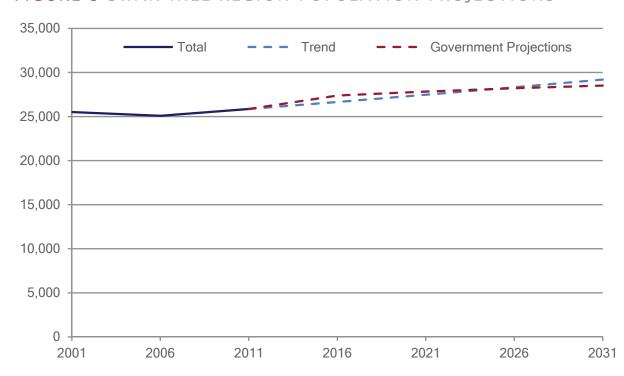
Source: DPCD, Victoria in Future, 2012. NSW Department of Planning and Infrastructure, 2010 NSW Statistical Local Area Population Projections.

² Note: Victoria in Future 2012 population data for 2011 is based on earlier projections rather than the most recent census data. The NSW population projections were produced prior to the 2011 Census, and have underestimated the decline in Wakool population between 2006 and 2001. This explains the discrepancy between the data in Figure 2...

COMPARISON WITH RECENT TRENDS

The State Government population projections for Swan Hill Rural City and Wakool are for the regional population to grow over the forthcoming 20 years, although at a lower overall growth rate than recent trends³ over the entire period.

FIGURE 3 SWAN HILL REGION POPULATION PROJECTIONS



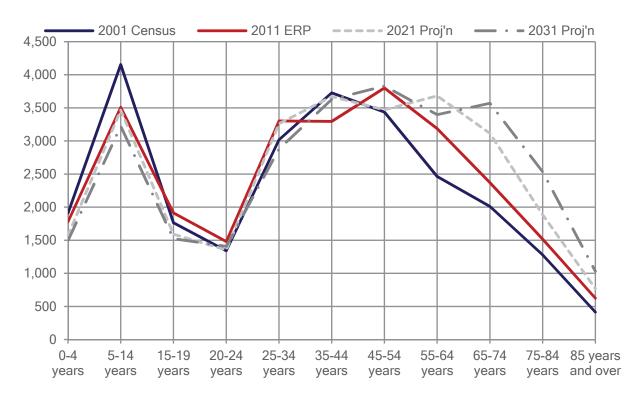
Source: ABS: 2001, 2006 Census, Swan Hill RC and Wakool LGAs., DPCD, Victoria in Future, 2012. NSW Department of Planning and Infrastructure, 2010 NSW Statistical Local Area Population Projections.

1.4. AGE PROFILE

The ageing of the Swan Hill Region population is evident in the comparison of the 2001 census results and the 2011 Estimated Residential Profile, and is projected to continue over the forthcoming 20 years, as shown in Figure 4.

The reduction in the number of residents aged between 0 and 19 years is not expected to be as large as between 2001 and 2011, but significantly the population of 55 years of age and older is expected to increase markedly. People aged 55 and over represented 24% of the population in 2001; this is expected to increase to 38% by 2031.

FIGURE 4 SWAN HILL REGION AGE PROFILE



Source: ABS: 2011 Census Time Series Profile, Swan Hill RC and Wakool LGAs., DPCD, Victoria in Future, 2012. NSW Department of Planning and Infrastructure, 2010 NSW Statistical Local Area Population Projections.



³ Due to census anomalies, recent trends is based on the ViF estimated residential population growth between 2006 and 2011, and the Wakool change in population between the 2001 and 2006 censuses.

1.5. RESIDENT EMPLOYMENT

The 2011 Census identified 10,733 employed people in the Swan Hill Region, 8,955 in the Swan Hill Rural City and 1,917 in Wakool Shire. There was a 5% reduction in employment between 2006 and 2011, as shown in Table 4. The impact of the issues with census comparison discussed in 1.1.1 needs to be taken into account when assessing this data.

The main industries of employment for residents of the Swan Hill Region in 2011 were:

- 20% were employed in Agriculture, forestry and fishing;
- 11% were employed in Health care and social assistance; and,
- 10% were employed in Retail trade.

Health care and social assistance was not only the second largest regional employer in 2011, it increased by 22% between the 2006 and 2011 Census, and may be expected to continue to increase as the resident population ages.

While Agriculture, forestry and fishing remained the largest employer in the region, there were 629 fewer people employed in 2011 than in 2006. 2011 was a particularly bad fruit seasons for the Swan Hill region; as there are many seasonal workers in the region's horticultural industry this may not reflect a decline in permanent employment in the industry ⁴. On a positive note, if this reduction in Agriculture, forestry and fishing employment is excluded resident employment across all other sectors in the Swan Hill Region increased by 115.

Manufacturing employment, which is the fourth largest regional employer, increased by 7% in the five years to 2011. Although smaller sectors, Mining and Electricity, gas, water and waste services also grew at significant rates during this period.

4 http://www.abc.net.au/news/stories/2011/06/07/3237214.htm?site=Swan Hillswanhill

TABLE 4 SWAN HILL REGION RESIDENT EMPLOYMENT

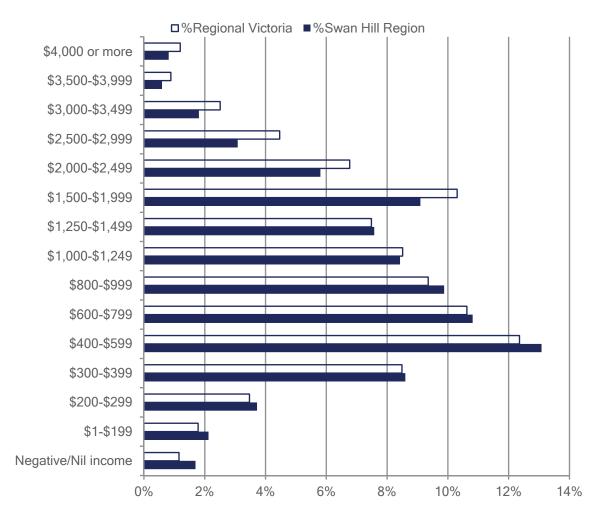
Industry of Employment	2006 Census	2011 Census	%Change 2006-11
Mining	16	36	125%
Health care and social assistance	985	1,197	22%
Electricity, gas, water and waste services	113	130	15%
Manufacturing	881	947	7%
Transport, postal and warehousing	462	488	6%
Financial and insurance services	175	184	5%
Public administration and safety	518	532	3%
Professional, scientific and technical services	278	285	3%
Construction	672	685	2%
Rental, hiring and real estate services	60	60	0%
Education and training	812	799	-2%
Retail trade	1,147	1,108	-3%
Arts and recreation services	106	102	-4%
Other services	366	345	-6%
Accommodation and food services	713	664	-7%
Administrative and support services	228	207	-9%
Inadequately described/Not stated	345	310	-10%
Wholesale trade	441	383	-13%
Agriculture, forestry and fishing	2,834	2,205	-22%
Information media and telecommunications	95	66	-31%
Total	11,247	10,733	-5%

Source: ABS: 2011 Census Time Series Profile, Swan Hill RC and Wakool LGAs

1.6. HOUSEHOLD INCOME

Weekly incomes in the Swan HII Region are lower than in Regional Victoria, as shown in Figure 5. The percentage of households with income of more than \$1,500 per week is lower in each category for the region, and greater for all categories up to \$999 per week.

FIGURE 5 HOUSEHOLD WEEKLY INCOME



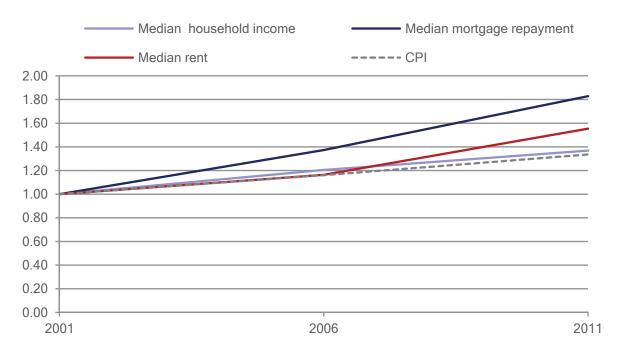
Source: ABS: 2011 Census Basic Community Profiles, Swan Hill and Wakool LGAs., Rest of Victoria

As noted previously, 2011 was a particularly poor year for the region's agriculture industry, which is also the largest employer in the region. This may have skewed the 2011 income data, explaining some of the bias towards lower income levels.

1.7. COST OF LIVING

As shown in Figure 6, median household income in the region has grown at a rate marginally above the consumer price index between 2001 and 2011⁵, but median mortgage repayments and rents have increased significantly higher than both income and CPI.

FIGURE 6 COST OF LIVING INDEXES



Source: ABS: Consumer Price Index, ABS: 2011 Census Time Series Profile, Swan Hill RC and Wakool LGAs

As mortgage repayments or rents are a significant proportion of most household budgets, this indicates that the cost of living has deteriorated in the region over this decade. This increase in housing costs is supported by median house price for the Swan Hill Rural City, which increased from 95,000 in 2001 to 208,000 in 2011⁶.

The medians recorded in the 2001, 2006 and 2011 Censuses and the relevant Consumer Price Index is included in the following table.

⁶ Department of Sustainability and Environment: A Guide to Property Values, 2011.



⁵ Medians for the Swan Hill Region in this section are the weighted average by population for the Wakool Shire and Swan Hill Rural City.

TABLE 5 COST OF LIVING INDICATORS

Indicator	2001	2006	2011
Median total personal income (\$/weekly)	\$338	\$401	\$473
Median total family income (\$/weekly)	\$752	\$1,011	\$1,072
Median total household income (\$/weekly)	\$633	\$763	\$866
Median mortgage repayment (\$/monthly)	\$631	\$867	\$1,154
Median rent (\$/weekly)	\$97	\$113	\$151
Consumer Price Index	75	87	100

Source: ABS: 2011 Census Time Series Profile, Swan Hill RC and Wakool LGAs. Medians are weighted average by LGA population.

1.8. EDUCATION ATTAINMENT

Education attainment in the Swan Hill region has increased over the past decade, in terms of both the number of qualified residents and the percentage of residents with qualifications, as shown in Table 6.

TABLE 6 RESIDENT QUALIFICATIONS

	No. Residents			No. Residents				%Residents	; _
Qualification Level	2001	2006	2011	2001	2006	2011			
Bachelor or Higher	1,064	1,260	1,470	16.5%	16.5%	18.1%			
Adv. Diploma, Diploma or Certificate	3,250	3,833	4,436	50.3%	50.3%	54.7%			
Post Secondary Qualification	4,314	5,093	5,906	66.8%	66.8%	72.8%			

Source: ABS: 2011 Census Time Series Profile, Swan Hill RC and Wakool LGAs

The TAFE qualifications, Advanced Diploma, Diploma and Certificate, accounted for 75% of the increase in residents with post secondary qualifications.

Within the Bachelor or Higher category, there was a significant increase in the number of residents with Bachelor Degrees. Between 2001 and 2011, the number of residents with Bachelor Degrees increased from 827 to 1,175, an increase of more than 40%.

2. TOURISM

2.1. INTRODUCTION

This section provides an analysis of tourism in Swan Hill, including an assessment of the visitor market the tourism product offered and proposed tourism developments.

2.2. SUMMARY

2.2.1. KEY FINDINGS

Key findings regarding tourism are:

- Visitation to the city of Swan Hill has been steadily increasing since 2008, with total visitation in 2012 higher than any year since 2003.
- Visitation to Swan Hill and the surrounding region has been relatively steady over the past decade, but as per Swan Hill visitation has been consistently higher than the trough in 2008.
- Melbourne and Regional Victoria are the key tourism markets for Swan Hill.
- There has been significant growth in the Business visitor market over the past decade, for both overnight and day trips.
- Swan Hill receives a higher percentage of older visitors when compared to Regional Victoria.
- Golf is primary product strength for Swan Hill, with food and wine, history and heritage and nature based as secondary product strengths.
- Additional tourism product that emphasised Swan Hill's location on the river may attract additional tourism, particularly dining and accommodation.

2.2.2. DEVELOPMENT OPPORTUNITIES

Based on the assessment of tourism in Swan Hill and the surrounding region, the following development opportunities should be considered for the Swan Hill Riverfront:

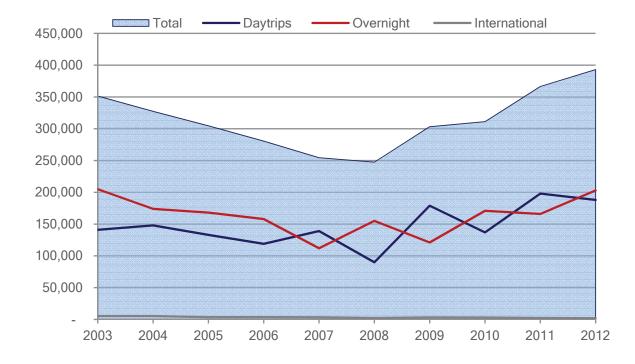
- Serviced apartments, to provide accommodation for the growing Business market. Serviced apartments also appeal to the family, as they enable the preparation of meals. It is also expected that the motorsport complex may attract racing teams for extended periods for trials: this would also provide a market for serviced apartments.
- A 200 to 250 capacity conference and function space, developed in conjunction with the serviced apartments. This will provide a venue for larger functions in the Swan Hill community, and also serve to attract business events to the city.
- A backpackers in town, to service itinerate workers and also visitors using the train service.
- Dining and restaurants, possibly in conjunction with a bar.
- A shopping precinct, open during weekends to service visitors.
- A provedore, highlighting the local food and wine production.
- Although not likely to be viable based on the current catchment, consideration for the development of a cinema should be considered as a long term option.

2.3. VISITATION

Visitation to Swan Hill as steadily increased over the past four years, coinciding with the end of the prolonged drought in south eastern Australia. In the past two years visitation has been greater than in the year ending September 2003, as shown in Figure 7.

Visitors to the region are predominantly day trippers or overnight visitors travelling from within Australia. On average international visitors comprise 1% of the total. Although there is variation from year to year, across the past five years day and domestic overnight visitation has been approximately equal.



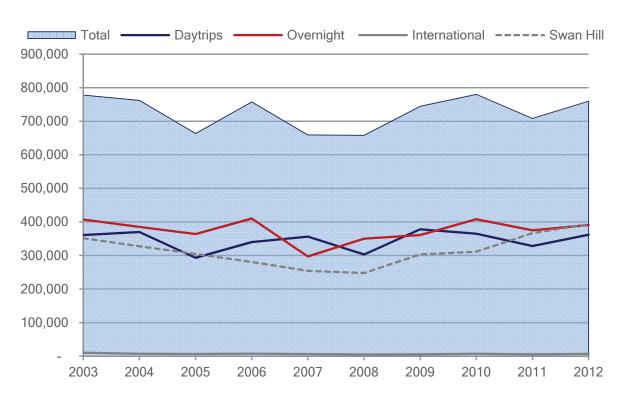


Source: Tourism Research Australia, NVS and IVS. Data for Swan Hill and Swan Hill Region SA2s.

REGION VISITATION

Analysis of the visitation to the region surrounding Swan Hill⁷, indicates that visitation has remained relatively consistent over the past decade, as shown in Figure 8. Although Swan Hill accounts for between 37% and 50% of visitors per year over this period, the decline in visitation to 2008 and subsequent growth is not as apparent in the regional data.

FIGURE 8 REGIONAL VISITATION



Source: Source: Tourism Research Australia, NVS and IVS. Data for the region defined in the footnote below.

The mix of visitors to the region is similar than to Swan Hill itself, with a small proportion of international visitors, and similar levels of domestic day trip and overnight visitation.

⁷ This includes these SA2s: Wentworth-Balranald Region, Deniliquin Region (excludes Deniliquin), Gannawarra, Kerang, Robinvale, Swan Hill and Swan Hill Region.

2.4. VISITOR ACTIVITIES

The most popular visitor activities in Swan Hill are shown in Table 7, with comparison to the top 20 tourist activities for the Murray Region⁸.

Although Eat out at Restaurants is the most frequently undertaken visitor activity in Swan Hill, a lower percentage of visitors undertake this than visitors to the Murray Region or Regional Victoria, where 53% of visitors include this activity. This lower rate of eating out indicates the need for the development of new dining experiences in the Murray Region.

Other major activities that have a lower frequency than the Murray Region include shopping and Pubs, clubs and discos; this supports the need for a tourist shopping precinct and a bar in the riverfront precinct.

In addition, the low rates of visitation to wineries and farms suggests that a provedore, focusing on the local produce may also provide an opportunity for visitors to access this aspect of the Swan Hill region.

⁸ Murray Region Product Gap Analysis and Tourism Development Plan Research Paper

TABLE 7 SWAN HILL VISITOR ACTIVITIES

Activity	Day Trips	Overnight	Total	Murray Region
Eat out at restaurants	44%	48%	46%	49%
Visit friends and relatives	32%	31%	32%	11%
Go shopping (pleasure)	27%	14%	20%	37%
General sight seeing	10%	23%	17%	24%
Pubs clubs discos etc	3%	18%	11%	10%
Picnics or BBQs	6%	8%	7%	5%
Visit history heritage buildings sites or monuments	4%	8%	6%	
Go fishing	2%	9%	6%	4%
Visit museums or art galleries	2%	7%	5%	
Visit national parks or State parks	5%	3%	4%	3%
Visit botanical or other public gardens	5%	2%	4%	
Exercise gym or swimming at a local pool river or creek	1%	6%	4%	
Attend an organised sporting event	3%	4%	3%	9%
Play golf		5%	3%	
Play other sports	3%	2%	2%	6%
Bushwalking or rainforest walks	1%	4%	2%	
Charter boat cruise or ferry ride		4%	2%	3%
Water activities or sports		4%	2%	3%
Other outdoor activities	2%	2%	2%	4%
Go on a daytrip to another place		3%	2%	
Going to markets	1%	2%	2%	
Visit art or craft workshops or studios	2%	1%	1%	
Attend festivals or fairs or cultural events		2%	1%	
Visit farms		2%	1%	
Go cycling		2%	1%	
Visit industrial tourism attractions		2%	1%	
Visit wineries	1%	1%	1%	

Source: NVS Swan Hill, Years Ending September 2008 to September 2012, Murray Region Tourism Research



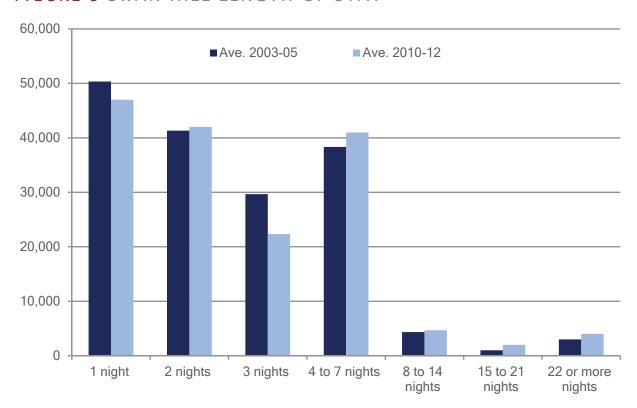
2.5. OVERNIGHT MARKET ANALYSIS

The following analysis is based on the Swan Hill SA2, which is the smallest area that tourism data is provided for. This enables analysis of tourism specific to the Swan Hill locality.

2.5.1. LENGTH OF STAY

The number of visitors to Swan Hill staying more than four nights has increased over the past decade, as shown in Figure 9. There has also been a slight increase in visitors staying two nights, when the average of the years ending September 2010 to 2012 are compared to 2003 to 2005.

FIGURE 9 SWAN HILL LENGTH OF STAY



Source:: NVS, Swan Hill Overnight. Average of years ending September 2003 to September 2005 and September 2010 to September 2012.

Only 1 night and three night visits have declined over this period, with the 3 night stays decreasing by 25% based on this analysis.

2.5.2. VISITOR ORIGIN

Visitors to Swan Hill are predominantly from Melbourne and Regional Victoria: these two markets provide 76% of visitors to the City. Over the past five years South Australia has provided a higher percentage of overnight visitors than NSW. While NSW may be just across the river from Swan Hill, Adelaide is closer than any major NSW population centres, or Canberra.

Melbourne provides a greater percentage of visitation across Regional Victoria than to Swan Hill, this may be due to Swan Hill being approximately 4 hours drive from Melbourne, and the range of tourism destinations that are closer.

TABLE 8 OVERNIGHT VISITOR ORIGIN

Origin	Swan Hill	Regional Victoria
NSW	9%	7%
Melbourne	39%	60%
Regional Victoria	37%	25%
Queensland	3%	2%
South Australia	11%	4%
Western Australia	1%	1%
Tasmania	1%	1%
Northern Territory	0%	0%
ACT	0%	1%

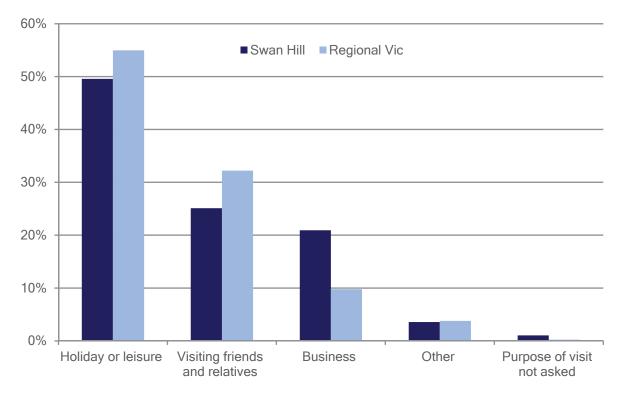
Source: TRA: NVS, Swan Hill Overnight, Victoria Excluding Melbourne. Average of years Ending September 2008 to September 2012.

2.5.3. PURPOSE OF VISIT

In comparison to Regional Victoria, visitors to Swan Hill are significantly more likely to be for business purposes, as shown in Figure 10. Over 20% of overnight visitors to Swan Hill are for business purposes compared to approximately 10% for Regional Victoria. This provides the city's accommodation and dining establishments with a strong weekday trade, making businesses more viable than destinations reliant on holiday and leisure visitation.

As there is a higher proportion of business visitors, the city receives a lower percentage of Holiday or leisure and Visiting friends and relatives visitors than Regional Victoria.

FIGURE 10 SWAN HILL OVERNIGHT VISITOR PURPOSE:2010-12

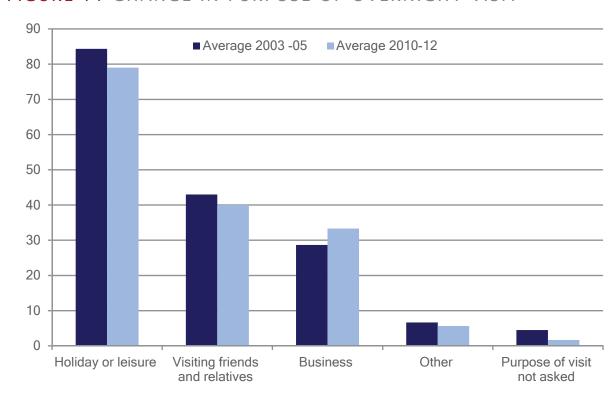


Source: TRA: NVS, Swan Hill Overnight, Victoria Excluding Melbourne. Average of years Ending September 2010 to September 2012.

Approximately half of the overnight visitors to Swan Hill in the years ending September 2010 to September 2012 were visiting for Holiday or Leisure purposes. In comparison to the years ending September 2003 to 2005, there is fewer Holiday and Leisure visitors and

Visiting Friends and Relatives, but the number of Business visitors has increased, as shown in Figure 11.

FIGURE 11 CHANGE IN PURPOSE OF OVERNIGHT VISIT

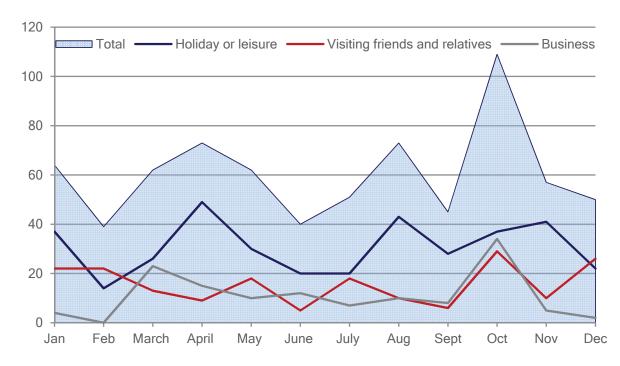


Source: TRA: NVS,, Swan Hill Overnight

2.5.4. SEASONALITY

Visitation to Swan Hill peaks in October, based on the month returned from trip data averaged over the past five years. This peak coincides with peaks for both the business and visiting friends and relatives market segments, as shown in Figure 12. The data indicates that the other peak months for tourism in Swan Hill are during January, March, April and May, and in August. These three peaks coincide with the Easter period and school holidays, and are largely driven by increased Holiday or leisure visitation.

FIGURE 12 SWAN HILL VISITOR SEASONALITY



Source: TRA: NVS, Swan Hill Overnight: Five year average to September 2012

Business visitation to Swan Hill primarily occurs between March and October, with only 5% of business visits occurring during summer.

2.5.5. LIFECYCLE GROUPS

Comparison of the visitation of a range of lifecycle groups to Swan Hill with Regional Victoria indicates it is a destination for older travellers, particularly Older non-working married people. This market segment comprised 23% of visitation to Swan Hill over the 5 years to September 2012, compared to 14% for Regional Victoria. Older working married people were also more frequent visitors to Swan Hill than regional Victoria as a whole.

In contrast, the lifecycle groups with significantly less frequent visitation to Swan Hill include Young, midlife couple with no kids, Midlife singles and Parent with youngest child aged 15+ still living at home.

TABLE 9 OVERNIGHT LIFECYCLE VISITATION

Lifecycle group	Swan Hill	Regional Victoria
Young single living at home	11%	12%
Young single living alone or in shared accommodation	0%	1%
Midlife single	4%	6%
Young/midlife couple, no kids	8%	12%
Parent with youngest child aged 5 or less	14%	14%
Parent with youngest child aged 6-14	12%	12%
Parent with youngest child aged 15+ still living at home	8%	10%
Older working single	2%	3%
Older non-working single	4%	4%
Older working married person	14%	12%
Older non-working married person	23%	14%
Refused	1%	0%

Source: TRA: NVS, Swan Hill Overnight, Victoria Excluding Melbourne. Average of years Ending September 2008 to September 2012.

2.6. DAYTRIP MARKET ANALYSIS

The following analysis is based on the Swan Hill SA2, which is the smallest area that tourism data is provided for. This enables analysis of tourism specific to the Swan Hill locality.

2.6.1. VISITOR ORIGIN

As expected a significant percentage of daytrips to Swan Hill originate from Regional Victoria. Although Swan Hill is located across the Murray River from NSW, there were only 3,992 residents recorded in Wakool Shire in the 2011 Census. There were approximately 10,000 residents of the Swan Hill Rural City Council that live outside of the Swan Hill urban centre⁹.

The only other significant daytrip visitor origin is Melbourne, which provides more daytrips than NSW.

TABLE 10 DAYTRIP VISITOR ORIGIN

Origin	Swan Hill
NSW	12.5%
Melbourne	16.2%
Other VIC	71.2%
Qld	0.0%
SA	0.1%
WA	0.0%
Tas	0.0%
NT	0.0%
ACT	0.0%

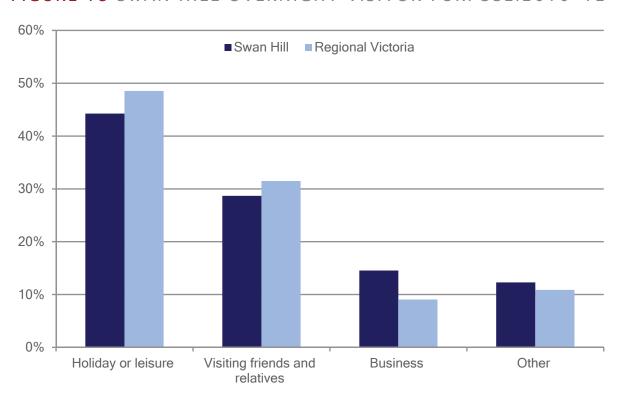
Source: TRA: NVS, Swan Hill Daytrips,. Average of years Ending September 2008 to September 2012.

-

2.6.2. PURPOSE OF VISIT

The majority of daytrip visitors to Swan Hill are for Holiday or leisure purposes, followed by Visiting friends and relatives. In comparison to Regional Victoria, Swan Hill receives a much higher of daytrips for Business and Other¹⁰ purposes, but fewer in the Holiday or leisure and Visiting friends and relatives categories.

FIGURE 13 SWAN HILL OVERNIGHT VISITOR PURPOSE: 2010-12



Source: TRA: NVS, Daytrips - Swan Hill, Victoria Excluding Melbourne. Average of years Ending September 2010 to September 2012.

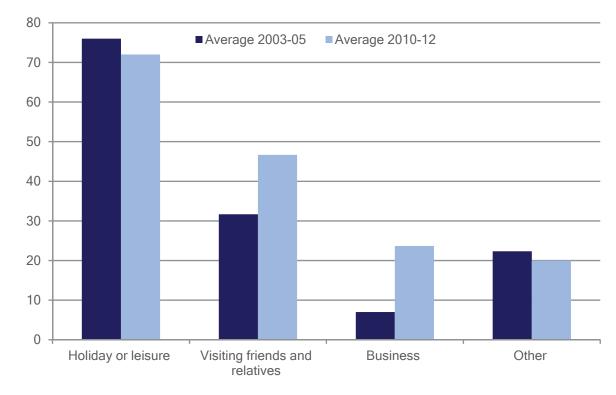
Both Visiting friends and relatives and Business daytrips have increased significantly over the past decade, as shown in Figure 14. The increased number of daytrips, particularly for business may be attributable to the continued improve and upgrades to the Calder Freeway during this period. This includes additional lanes and town bypasses between Melbourne

⁹ Refer to Section 1.2: Population

¹⁰ Other includes Education, personal appointments, health related, employment or leisure, transport and passing through.

and Bendigo, and the bypass of Bendigo itself. Overnight Business trips to Swan Hill have also increased during this period, indicating that Swan Hill has become more of a business hub during this period.

FIGURE 14 CHANGE IN PURPOSE OF DAYTRIP VISIT

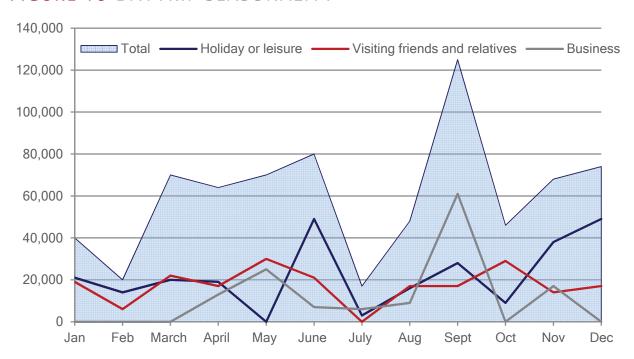


Source: TRA: NVS,, Swan Hill Daytrips

2.6.3. SEASONALITY

Based on the average of the past five years, September is the main month for day trips to Swan Hill, with 17% of the total day trips to the city. The main reason for this peak is the number of business day trips that occur during this month; on average there are 35,000 more business daytrips during September than any other month. As with overnight Business trips, the data indicates that there are very few Business daytrips that occur during the summer period.

FIGURE 15 DAYTRIP SEASONALITY



Source: TRA: NVS, Swan Hill Daytrips: Five year average to September 2012. Total includes Other category, Other is not graphed.

December and June are the main months for Holiday and Leisure daytrips to Swan Hill, with very few occurring in the months of May and July.

2.6.4. LIFECYCLE GROUP

The visitation to Swan Hill by lifecycle groups is generally consistent with Regional Victoria, as shown in Table 11. The most notable variation is that Swan Hill received a lower percentage of Parents with children aged 5 or less, but a higher percentage of Parents with children aged 6-14.

TABLE 11 DAYTRIP LIFECYCLE

Lifecycle Group	Swan Hill	Regional Victoria	
Young single living at home	11.5%	11.8%	
Young single living alone or in shared accommodation	2.5%	1.5%	
Midlife single	6.9%	6.3%	
Young/midlife couple, no kids	11.0%	10.7%	
Parent with youngest child aged 5 or less	10.0%	14.1%	
Parent with youngest child aged 6-14	16.4%	12.3%	
Parent with youngest child aged 15+ still living at home	8.2%	8.8%	
Older working single	2.3%	3.1%	
Older non-working single	7.0%	5.8%	
Older working married person	9.5%	9.7%	
Older non-working married person	14.1%	15.4%	
Refused / don't know	0.4%	0.5%	

Source: TRA: NVS, Swan Hill Daytrips: Five year average to September 2012. Total includes Other category, Other is not graphed.

2.7. TOURISM PRODUCT

This analysis of Swan Hill tourism product is based on the Murray Region Tourism Destination Management Plan, prepared by Urban Enterprise in 2012.

2.7.1. PRODUCT STRENGTHS

The product strengths identified for Swan Hill and the surrounding region identified in the Murray Region Destination Management Plan are included in Table 12¹¹. The primary product strength is golf, supported by strengths in the Wine, Nature Based and History and Heritage tourism sectors. Indigenous based tourism to the area is seen as an emerging product.

TABLE 12 TOURISM PRODUCT STRENGTHS

Tourism Sector	Swan Hill and Surrounding Region	The Murray
Food		Secondary
Wine	Secondary	Secondary
Nature based	Secondary	Secondary
Arts and culture		Emerging
Indigenous	Emerging	Emerging
Golf	Primary	Primary
Adventure		Emerging
History and Heritage	Secondary	Primary
Festivals and events		Secondary
Business events		Secondary

Source: Murray Region Destination Management Plan: Urban Enterprise 2012

¹¹ Note: This is referred to as the Mid Western Murray in the Murray Region Destination Management Plan

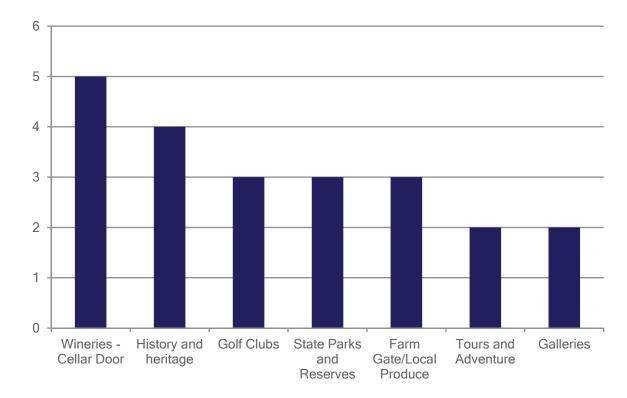
2.7.2. PRODUCT AUDIT

The tourism product audit for Swan Hill undertaken to inform the Murray Region Tourism Destination Management Plan resulted in the summary of product included in Figure 16. The audit identified 22 tourism attractions, with Cellar Doors and History Heritage recording the most number of products. Note that this table excludes accommodation and cafes and dining, which will be discussed separately.

This representation of product does not account for scale or quality of the tourism attraction. The significant attractions for Swan Hill identified in the Murray Region Tourism Destination Management Plan include:

- Murray Downs Golf Resort, featuring a high quality course, lawn bowls, dining and extensive gaming facilities;
- Swan Hill Pioneer Settlement, which includes a range of historic buildings and activities as well as paddle steamer rides;
- The appeal of the Murray River itself, which provides opportunities for fishing, boating and camping.

FIGURE 16 SWAN HILL TOURISM ATTRACTIONS AND ACTIVITIES



Source: Murray Region Product Gap Analysis project: Urban Enterprise 2012.

2.7.3. ACCOMMODATION

Thirty one accommodation establishments were identified in Swan Hill, as shown in Table 13. Motels represent almost half of the establishments in the city. The most accommodation capacity is provided by Caravan, Cabin and Camping establishments, with 67% of the total supply. Motels provided the second largest capacity, with 22% of the total provided in Swan Hill.

TABLE 13 SWAN HILL ACCOMMODATION SUPPLY

Туре	Establishments	Capacity
Bed & Breakfast	2	14
Caravan Cabin & Camping	5	2,345
Club Resort	1	140
Group Accommodation	1	126
Motel	14	779
Self Contained - Multiple	1	38
Self Contained - Single	6	55
Total	31	3,497

Source: Murray Region Product Gap Analysis project: Urban Enterprise 2012.

The star ratings for Motels, Club Resorts and Self Contained - Multiple are summarised in Table 14. All establishments are rated between 3 and 4.5 stars, with more than half of the establishments rated at 3.5 stars.

TABLE 14 MOTEL STAR RATING

Accommodation Type		Star F	Rating	
	3	3.5	4	4.5
Establishments	1	9	5	1
Capacity	75	435	311	136

Source: Murray Region Product Gap Analysis project: Urban Enterprise 2012.

2.7.4. CAFES AND RESTAURANTS

The product audit fund 5 cafe/bakeries and 20 restaurants in Swan Hill. This excludes neals offered at hotels in the region, and the dining provided at Murray Downs Resort.

There are three listed on the Australian Good Food Guide website, Quo Vadis, Spoons and Java Spice. Java Spice is the topped ranked Swan Hill restaurant on Trip Advisor. Searches of restaurant reviews on the Age website and News Limited's Taste.com.au did not result in any reviews of Swan Hill restaurants.

Spoons is one of only three places to dine on the banks of the river¹² between Albury and the South Australian border. Increasing dining opportunities on the river was recommended in the Murray Region Tourism Destination Management Plan.

2.7.5. CINEMA

There is currently not a cinema operating within the Swan Hill Region. The current residential catchment of 24,503 persons does not meet the catchment size for the development of a viable stand-alone 4 screen cinema establishment, of 41,000 residents¹³.

At present, cinema entertainment is provided through seasonal movie screenings in the Swan Hill Town Hall and Riverside Park.

Opportunities for the establishments of a viable cinema complex may be possible through a combination of:

- Growth in residential and visitor market size;
- On-site collocation with tourist facilities or retail services (e.g. tourist accommodation, shopping centre, restaurants and cafes); and
- Grant provision of subsided land and building costs.

On-going viability of the facility would depend upon the development of a vibrant tourism hub and retail precinct. As such, an opportunity for a cinema established should be considered at a later stage of the development of the Swan Hill Riverfront Precinct.

¹² Spoons is located on the Little Murray River, an anabranch of the Murray,

¹³ Moira Entertainment Precinct Economic Analysis (Urban Enterprise, 2012)

In the short to medium term, demand for movie screenings may be met through the existing cinema screenings in the Swan Hill Town Hall and Riverside Park. The existing provision may be supported through the development of a purpose built outdoor arts space, with fixed seating and staged platforms for hosting entertainment uses, including cinema screenings.

2.8. DEVELOPMENT PROPOSALS

The Murray Region Tourism Destination Management Plan includes projects proposed for Swan Hill, including the Swan Hill Riverfront Masterplan, these are:

- An upgrade to Swan Hill's Pioneer Settlement, to provide a more interactive experience in line with the demands of the modern visitor, with the main initiative being the development of a sound and light show.¹⁴
- Pental Island, located between the Murray River and the Little Murray River provides an opportunity to develop wildlife and nature based tourism experiences within the proposed tourism precinct. The island is accessible via a foot bridge from the masterplan study area, and leads into the remnant wetlands on the island.
- A concept master plan has been developed for upgrading the Chisholm Reserve motorsport complex. The development is to be coordinated with the Mildura motorsport complex to ensure that they offer a complimentary range of facilities to promote the region as a motor sports hub. A feasibility study has been done for the Swan Hill component, and the State Government has pledged \$2m to the project.
- Swan Hill does not have a facility for small to medium conferences and events, such as weddings: a capacity of up to 200 banquet guests is required.
- Consultation in the Mid Western Murray indicated that there is demand for serviced apartments in Swan Hill. Anecdotally, the Motels in the city are busier during the week than at weekends, indicating a strong business market, and an indicator of demand for serviced apartments.
- The closest backpackers to Swan Hill is the Nyah West Grand Hotel. As the area has large numbers of itinerate workers and Swan Hill has a train service, there is demand for a backpackers in the Swan Hill.

From the perspective of the Murray Region, the redevelopment of the Swan Hill Riverfront and the Pioneer Settlement, and the Motorsports Complex were assessed as being priority developments.

_

¹⁴ This project was combined with the riverfront masterplan project in the Destination Management Plan

2.9. CONSULTATION

Two workshops were held in Swan Hill in 2012 to inform the Murray Region Destination Management Plan. The following proposals were discuss as being of benefit to Swan Hill tourism:

- Swan Hill Parkland Masterplan incorporating Pioneer Settlement Upgrade (including improved engagement with the river, waterside hotel, nature based accommodation on the island), perhaps a zip line or something similar on the island);
- Large Backpacker facility (could also double for business stays eg: https://www.spacehotel.com.au/);
- Cycling link track between Lake Boga and Swan Hill;
- Chisholm Reserve motorsports facility upgrade; and,
- Increased weekend shopping and trading hours in the Swan Hill CBD.



3. RESIDENTIAL

3.1. INTRODUCTION

This section examines the current state of the medium to high density residential market in Swan Hill and seeks to identify if opportunities exist for the development of medium to high density residential uses in the Swan Hill riverfront.

3.2. SUMMARY

The analysis of the demand and supply of the Swan Hill residential real estate market indicates that:

- There is an opportunity to provide medium density housing, such as townhouses in the riverfront precinct;
- Given the location, it should be seen as a premium precinct, particularly for lots overlooking the river;
- This would appeal to the retiree and empty-nester market, particularly those looking to downsize from rural properties in the surrounding region;
- Demographic projections indicate that these market segments will grow in Swan Hill over the next twenty years;
- This form of development may appeal to rental investors;
- Increased medium density rental properties in the region may appeal to professionals, such as those associated with the hospital, moving into the region; and,
- Medium density development in the riverfront precinct is differentiated from the other two development precincts in the region as:
 - It is within walking distance from the CBD; and,
 - It should provide medium density, easy to maintain dwellings a riverfront location.

3.3. METHODOLOGY

DEFINITION

Like much of regional Victoria, the majority of Swan Hill's housing stock consists of separate residential dwellings. Swan Hill does not have any high density residential development such as large scale apartment blocks or multi-level towers. In local terms, medium density residential development would generally be classified as one or two level townhouse or unit developments.

SOURCES

The analysis of supply and demand utilises data from a range of sources, including:

- Australian Bureau of Statistics;
- Department of Human Services; and
- Consultation with local stakeholders.

3.4. MARKET ANALYSIS

3.4.1. DEMOGRAPHIC INDICATORS

POPULATION AND AGE STRUCTURE

The analysis of Swan Hill's current and projected population and age structure provided in Section 1 of this report found:

The estimated population of the Swan Hill Urban Centre in 2011 was 9,894 persons.
 40.5% of the Swan Hill Rural City's population was located within Swan Hill Urban Centre with the remaining 59.5% located within Robinvale and remaining areas of the Shire's rural areas.

- Between 2001 and 2011 Swan Hill Urban Centre population grew by 123 persons, at a rate of 10 persons per year or 0.1% p.a. State projections provided by the Victoria and New South Wales governments in 2008 suggest that the rate of growth in Swan Hill and surrounding regions will increase to 0.3% p.a. by 2026.
- Swan Hill's current age structure is characterised by a large proportion of the population aged in both the 35 to 54 year old and 5 to 14 year old age groups.
- Age structure projections indicate that over the next 20 years Swan Hill will see high growth in the population of residents aged over 65 years, while there will be marginal decreases in the population of residents aged 34 and below.

HOUSEHOLD STRUCTURE

66% of the Swan Hill Urban Centre (UC) housing stock was occupied by traditional families in 2011. Of the remaining amount 31% of households were lone person households, and 3% were shared group households.

Between 2006 and 2011 there was an increase of 77 lone person households within Swan Hill (UC), a 7% increase as shown in Table 15.

TABLE 15 SWAN HILL HOUSEHOLD STRUCTURE

	Total Households 2011	Change in Households 2006 - 2011
Family households	2,450 (66%)	73 (3%)
Lone person households	1,139 (31%)	77 (7%)
Group households	124 (3%)	23 (19%)

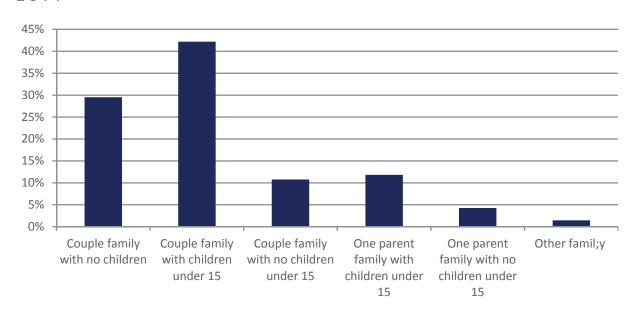
Source: ABS Census 2011, Swan Hill Urban Centre

Generally, an increase is lone person households indicates that there may be increasing demand for medium density dwelling types, such as apartments or townhouses.

FAMILY COMPOSITION

Within the Swan Hill urban centre family composition is dominated by couple families either with no children (30%) or young children (42%). Families with no children are a potential market for medium to high density housing, in lifestyle locations such as the riverfront precinct. 16% of households are occupied by lone parent families, who may be seeking more compact and affordable medium to high density housing.

FIGURE 17 SWAN HILL URBAN CENTRE FAMILY COMPOSITION 2011



Source: ABS Census 2011

HOUSEHOLD INCOME

An analysis of Swan Hill's income structures is provided in Section 1 of this report.

The key findings as they relate to Swan Hill's need for residential housing are:

- Swan Hill generally has lower than average household income distribution when compared with the Regional Victoria.
- A majority of households in the Swan Hill are in low-to-medium income brackets earning between \$400 and \$1,199 per week.

- The median weekly household income in Swan Hill was \$881, significantly lower than the average median weekly household income for Regional Victoria, at \$1,300.
- While incomes are generally lower in the Swan Hill, the relative cost of housing in the region in terms of loan repayments and rental levels is more affordable than the Regional Victorian averages, although the data suggests that affordability is declining.

INWARD MIGRATION

Data from the 2011 Census suggests that the Swan Hill urban centre has experienced inward migration from other regions, both the surrounding Swan Hill local government area and other municipalities. Table 16 shows the total number of people living in Swan Hill in 2011 that had an address outside of the city in 2006.

The data suggests a strong inward migration into Swan Hill, particularly from rural areas of Swan Hill, other areas of Victoria and New South Wales. This migration has helped to drive a stable population growth and has placed increasing demand and pressure on the housing market.

TABLE 16 SWAN HILL INWARD MIGRATION

Address in 2006	Number of Persons
Swan Hill Urban Centre	6,552
Remaining Areas of Swan Hill Rural City	542
Victoria (excluding Swan Hill Rural City)	744
New South Wales	245
Queensland	96
Other Australian States & Territories	153
Overseas	338
Not Applicable/Not Stated	593

Source: ABS Census 2011: Swan Hill Urban Centre

STUDENT ACCOMMODATION IN SWAN HILL

Sunraysia TAFE (SuniTAFE) currently provides 14 units for up to 28 students, intended for international students. Other students are required to find their own accommodation within Swan Hill.

The Swan Hill District Health hospital currently undertakes medical internships in partnership with Latrobe University. According to the Swan Hill District Health 2011 Annual Report, a key strategic priority is the delivery of student accommodation within Swan Hill to facilitate the medical internships. At present, the hospital does not currently provide student accommodation.

There is a reliance on the private sector to provide the majority of student accommodation in Swan Hill. As such, there may be opportunities with the development of the riverfront precinct to provide for some of this growing demand for student accommodation.

MEDICAL STAFF ACCOMMODATION IN SWAN HILL

According to the 2011 Census, over 837 persons are employed in the Health Care and Social Assistance industry, representing the second largest employing industry after Retail Trade. The employment in this sector also grew substantially between censuses.

Swan Hill District Health employs approximately 450 staff, and services a catchment of 30,000 people. At present the hospital does not provide on site accommodation for new staff, although arrangements for short term accommodation can be made upon arrival. The Swan Hill District Health Relocation Guide identifies that "accommodation can be limited in Swan Hill", reflecting industry sentiments on the availability of residential supply to meet worker needs.

In accordance with the Swan Hill District Health future growth plans, there may be opportunities to provide short and medium term medium density accommodation to meet residential demand for medical staff and medical students/interns.

¹⁵ Join Swan Hill District Health Brochure (Swan Hill District Health)

3.5. SUPPLY

There were a total of 11,257 dwellings in the Swan Hill-Wakool region in 2011 as indicated in Table 17. The number of occupied dwellings in the Swan Hill Region increased by 330 dwellings, or 3%, between 2006 and 2011. There was a large disparity in change in the number of occupied dwellings between the Swan Hill Rural City (4%) and Wakool Shire (-1.2%) during this period. This trend reinforces that the mostly rural Wakool is losing households while the urbanised local government area of Swan Hill Rural City is attracting households.

The data also shows that the growth in occupied dwellings is concentrated within the Swan Hill Urban Centre, which attracted 268 new dwellings over the period, indicating it the key growth area in the region.

TABLE 17 OCCUPIED DWELLINGS: SWAN HILL AND WAKOOL

Region	2006	2011	Change
Neglon			(2001-2006)
Swan Hill Rural City	8,784	9,139	355 (4.0%)
Wakool Shire	2,143	2,118	-25 (-1.2%)
Swan Hill Region	10,927	11,257	330 (3.0%)
Swan Hill Urban Centre	4,251	4,519	268 (6.3%)

Source: ABS Census 2006 and 2011.

The housing stock of the Swan Hill Urban Centre comprises a very high proportion of separate houses. On average, 2.31 persons lived in each dwelling classified as a separate house in 2006. Compared to Urban Centres of similar sizes, Swan Hill has a higher proportion of flat and townhouse style dwellings.

TABLE 18 SWAN HILL DWELLING CHARACTERISTICS

	Swan Hill Urban Centre		Urban Centre (5,000 - 9,99	
Dwelling Type	Dwellings	Persons per Dwelling	Proportion of Dwellings	Person per Dwelling
Separate house	3,163 (81.4%)	2.31	85.4%	2.22
Semi-detached, row or terrace house, townhouse	185 (4.8%)	1.58	4.9%	1.45
Flat, unit or apartment	525 (13.5%)	1.27	7.8%	1.23
Other dwelling	9 (0.2%)	1.89	0.3%	1.72
Total	4,519	2.24	100.0%	2.17

Source: ABS Census 2011.

The number of occupied dwellings in the Swan Hill Urban Centre has been increasing, as shown in Table 19. The combined total of occupied Semi-detached and Flat dwellings in the Swan Hill Centre has increased by 223 between 2001 and 2026, or by more than 40%. This indicates demand for dwellings other than traditional separate housing to be increasing in Swan Hill. There was also a 10% increase in occupied separate housing over the ten year period to 2011.

TABLE 19 CHANGE IN DWELLING TYPES, SWAN HILL

Dwelling Type	2001	2006	2011
Separate house	3,149	3,196	3,405
Semi-detached, row or terrace house	82	272	198
Flat, unit or apartment	451	429	558
Other dwelling:	110	77	89
Dwelling structure not stated	12	3	6
Total	3,804	3,977	4,256

Source: ABS Census Time Series Profile: Swan Hill Urban Centre

3.5.1. MEDIUM DENSITY SUPPLY

The supply of medium density housing in Swan Hill consists of unit, terrace, row and townhouse developments with the majority of this supply consisting of unit and townhouse dwellings. These dwellings are generally dispersed across the city and supply is predominantly met via the conversion or turnover of existing stock, as opposed to new construction.

MEDIUM DENSITY PROPERTY: FOR SALE

Research has identified a total of 30 medium density properties for sale in Swan Hill and the surrounding catchment at the time of writing this report. The number of properties available by type and location within the Swan Hill Region are listed in Table 20.

TABLE 20 MEDIUM DENSITY PROPERTIES FOR SALE

City/Township	Units	Townhouses	Apartments
Swan Hill	13	3	0
Robinvale	0	0	0
Kerang	11	2	1
Balranald	0	0	0
Total	24	5	1

Source: Real Estate Agents and Internet Based Research (18.12.2011)

SWAN HILL URBAN AREA

Within Swan Hill, units comprise the majority of the medium density market and are generally available at a more affordable cost than townhouses. Units are available for between \$97,000 and \$229,000, with a median house price of \$198,000 in 2011. These values are significantly lower than the Country Victoria median price in 2011 which was \$237,000¹⁶.

Multiple unit sites for sale in Swan Hill included:

¹⁶ A Guide to Property Values 2010, Victorian Government Department of Sustainability and Environment

- Units 1-3 Murlong Street 3 modern décor, single storey 2 bed units, available for a total of price of \$210,000 to \$229,000.
- Units 1-5 White Street 5 single story 2 bedroom units, with up to 3 beds, available for between \$230,000 and \$240,000 each.

Townhouses generally range in price between \$305,000 and \$320,000. The most expensive townhouse on the market is in El Alamein Avenue, with river frontage, priced at \$525,000.

Swan Hiill did not have any apartments on the market at the time the research was undertaken.

MEDIUM DENSITY RENTAL

Research has identified 15 properties available to rent in Swan Hill and surrounding towns at the time of writing this report. The number of properties available by type and location within the region are listed in Table 21.

TABLE 21 MEDIUM DENSITY PROPERTIES FOR RENT

City/Township	Units	Townhouses	Apartments
Swan Hill	9	1	1
Kerang	3	0	1
Total	12	1	2

Source: Real Estate Agents and Internet Based Research (18.12.2011)

Only 1 townhouse was available for rent in Swan Hill, at \$295 per week. Similarly, only 1 apartment was available for rent, at \$260 per week.

HIGH DENSITY SUPPLY

At present, there is currently no supply for high density development. Furthermore, there are currently no proposals for medium density development along the riverside.

RIVERFRONT RESIDENTIAL PROPERTY: FOR SALE

There is currently only one riverfront residential property for sale. The 3 bedroom modern property is currently marketed for its 'luxurious' and 'panoramic river views'. At a price of \$525,000, this represents one of the highest valued properties in Swan Hill, suggesting there is a premium attached to riverfront development.

3.5.2. DEVELOPMENT PRECINCTS

TOWER HILL

A significant residential development is currently being undertaken to the east of the city, known as the Tower Hill Estate. The development will encompass approximately 1,200 residential allotments, including a range of medium density housing ¹⁷.

Development may be extended in this area, via the South West Development Precinct. This precinct potentially provides a yield of 1,360 lots, including medium density housing ¹⁸.

MURRAY DOWNS

Murray Downs, located approximately 5kms from Swan Hill on the NSW side of the river, has planning approval for 750 lots¹⁹. In particular, the Shearers Rise section offers 16 premium lots, some with river frontage.

The lots in this development precinct are sizeable, ranging from 900m² to 1,200m², and are located on or near the golf course.

RIVER OAKS ESTATE

The River Oaks Estate is located to the south of Pental Road, which forms the southern end of the riverfront study area. The former Swan Hill Technical School oval site has planning approval for up to 16 residential allotments: 14 of these allotments must be between 1,100m² and 1,650m². As of February 2013, there were not any allotments for sale in River Oaks Estate.

RIVER GUMS ESTATE

River Gums estate is a rural living development approximately 16kms south east from Swan Hill, on Pental Island. The estate is offering 40ha allotments with river frontage. As of February 2013, one undeveloped property is listed for sale at \$245,000.

3.6. DEMAND ASSESSMENT

SALES

Table 22 summarises residential sales data for Swan Hill since 2007 from the *Guide to Property Values (2011)*. The total number of residential sales fluctuated from year to year during the period with a large drop off in total sales occurring in the year 2010. While the number of sales was down, median sales prices for Houses, Units / Apartments and Vacant Land were all at their highest level for the period in 2010.

Units and apartments in Swan Hill had a median price of \$200,000 in 2010. The average sale price of a unit or apartment was \$10,000 less than the average price of a house. There was a large 34% decline in sales between 2009 and 2010, with only 107 dwellings sold in 2010.

Sale prices of unit/apartment have generally fluctuated over the past 5 tears, in line trends of other housing types. As such, the sale price data is indeterminate in revealing demand and supply gaps.

TABLE 22 RESIDENTIAL SALES AND VALUES. SWAN HILL

	2007	2008	2009	2010	2011	
Houses						
Sales	306	259	277	221	201	
Median Price	\$191,000	\$188,500	\$200,000	\$210,000	\$208,000	
Unit / Apartmer	nt					
Sales	53	37	43	42	39	
Median Price	\$215,000	\$190,000	\$180,000	\$200,000	\$198,000	
Vacant House I	Vacant House Blocks					
Sales	83	79	126	60	59	
Median Price	\$70,000	\$62,500	\$67,000	\$81,250	\$71,737	

Source: A Guide to Property Values 2010



¹⁷ Swan Hill ODP: South West Development Precinct (Connell Wagner, June 2008)

¹⁸ Swan Hill ODP: South West Development Precinct (Connell Wagner, June 2008)

¹⁹ Wakool Shire Council: Development Control Plan No.2 - Murray Downs Development Area, 2011.

Table 23 shows data by property type for the year 2011. This data indicates that amongst the 33 sales in the 'Unit / Apartment' category, 20 sales represented a Unit or Flat and 13 sales resented Townhouses. Data also indicated that within the medium density market:

- The median sale price for Unit or Flat was \$193,500.
- The average Townhouse was located on a block with an average area of 451m² with a median sales price of \$209,000.

TABLE 23 SELECTED PROPERTY SALES ANALYSIS, SWAN HILL RURAL CITY, 2011

Residential	No. of Sales	Median Sales Price	Median Block Size (m²)
House (Existing)	137	\$210,000	785
House (New)	1	\$358,000	600
Rural Lifestyle	45	\$256,002	21,300
Strata Units/Flat	20	\$193,500	n/a
Townhouse	13	\$209,000	451

Source: A Guide to Property Values 2011

RENTS

Table 24 shows the median rental price of properties in Swan Hill from the *Department of Housing Rental Report* between the December Quarters of 2009 and 2011.

The median weekly rents of all property types generally softened in 2011, with the weekly cost of one bedroom flats falling from \$125 to \$120. Median rents have stagnated between 2010 and 2011, most likely due to the pressure being felt in the wider housing market.

The median rent in December 2012 for a one bedroom flat in Swan Hill was \$120, whilst 2 bedroom flats were available at a median of \$200 per week. Housing rents were significantly higher, with a median of \$190 and \$225 per week for 2 bedroom and 3 bedroom houses respectively.

Rental values for the whole of Regional Victoria in 2012 were substantially higher than those for Swan Hill for all types of accommodation. Although this may be skewed to the larger number of rental properties in regional centres such as Ballarat and Bendigo, this data suggests the relative affordability of rental property in Swan Hill.

TABLE 24 MEDIAN RENTAL PRICE SWAN HILL: JUNE QUARTER 2008 TO JUNE QUARTER 2011

	Year	1 Bedroom Flat	2 Bedroom Flat	2 Bedroom House	3 Bedroom House
	2009	\$105	\$183	-	\$200
Swan Hill	2010	\$120	\$183	-	\$220
Rural City	2011	\$125	\$205	-	\$230
	2012	\$120	\$200	\$190	\$225
Regional Victoria	2012	\$150	\$210	\$230	<i>\$270</i>

Source: Rental Report December Quarter 2009 - June 2012, Department of Housing Victoria.

BUILDING APPROVALS

Table 25 shows building approvals data for the Swan Hill between 2008 and 2011 from the Australian Bureau of Statistics.

The total number of dwellings granted building approval during the period fluctuated significantly from a high of 129 in the 2009-10 financial year to a low of 81 in the 2010-11 financial year.

In the medium density market the approval of 'New other residential building' (includes townhouses, apartments and other medium to high density developments) also ranged from 5 approvals in 2010-11 to a high of 19 in 2009-10. The data indicates that approximately 10% of Swan Hill's new development during the period was medium density dwellings.

The average building investment in medium density dwellings was \$167,936 per dwelling across the period. By comparison the average building investment in housing was \$243,329 per dwelling.

During the period the total level of investment in building fluctuated from a high of \$64.3 million in 2009-10 to a low of \$36.4 million in 2010-11.

TABLE 25 BUILDING APPROVAL DATA, SWAN HILL REGION, 2008-09 TO 2010-11

Year	New houses	New other residential building	Total dwellings	Value of new houses (\$000's)	Value of new other residential building (\$000's)	Value of alterations & additions to residential buildings (\$000's)	Value of total residential building (\$000's)	Value of non- residential building (\$000's)	Value of total building (\$000's)
2008-09	109	7	116	\$24,691	\$1,012	\$3,496	\$29,199	\$25,421	\$54,620
2009-10	129	19	148	\$30,859	\$3,425	\$3,190	\$37,473	\$26,850	\$64,323
2010-11	81	5	86	\$22,072	\$768	\$2,984	\$25,824	\$10,531	\$36,355
Total	319	31	350	\$77,622	\$5,206	\$9,669	\$92,496	\$62,803	\$155,299

Source: ABS, Building Approval Data, Cat. No. 8731.0

DWELLING PROJECTIONS

Swan Hill Rural City Council projects that there is annual demand for 91 dwellings, for a total of 1,365 dwellings required to meet growth up to the year 2030. This projection is based on a residential assessment undertaken in 2006.²⁰

Recent building approvals data indicates that on average 102 new dwellings are being constructed per year. This figure is 12% higher than the Council projection, indicating that the previous residential demand studies may reflect conservative forecasts.

Given the range provided by both indicators, it can be concluded that a rate of between 1,365 and 1,530 dwellings will be required in Swan Hill up to 2026. Based on this range an average figure of 97 dwellings per year may be taken as a reasonable estimate of future growth. This amount projected forwards indicates an average requirement for 1,448 new dwellings by 2030.

At present, over 82% of future demand may be met through the release and development of residential land in Tower Hill Estate, with approximately 1,200 new low to medium density dwellings. Further excess demand may be also met through the release of farmed land within the South West Development Precinct, located to the south of Tower Hill estate.

TABLE 26 PROJECTED DWELLING REQUIREMENTS

	Average Annual projected Dwellings	Projected Total Number of Dwellings 2011-2026
Swan Hill Rural City Council Estimate	91	1,365
Average Approvals 2007-2010	102	1,530
Average Estimate	97	1,448

Source: Swan Hill Rural City Council Projection & ABS, Building Approval Data, Cat. No. 8731.0

PROJECTED DEMAND FOR MEDIUM DENSITY HOUSING

The Swan Hill Residential Strategy identifies the need to promote medium density development as 20% of total new dwellings in the township; historically, medium density development has represented 10% of new housing developments

The 2011 Grattan Report *Getting the Housing We Want* provides survey data on which type and location of housing residents would choose to live in based on housing prices and their budgets. The results are focussed on Metropolitan Melbourne and Sydney but provide evidence that people would prefer to live in a semi-detached home or an apartment in locations that are close to family or friends, or to shops.

Whilst Swan Hill cannot be directly compared to Melbourne and Sydney, the evidence included in Table 19 suggests that demand for medium density dwellings is increasing.

Given recent trends, it is considered that up to 25% of new households within the medium to high density category could be appropriate to meet future demand for these increasingly popular types of housing; Swan Hill Rural City Council has previously adopted a target of 20% medium density provision for new housing development. Projecting forward the lowend and high-end target ratios of development, it is predicted that a total of 273 to 383 medium/high density dwellings (or 18 to 26 dwellings per year) will be required to meet changing demand in Swan Hill up to the year 2026.

Dwelling Projection	Projected Dwellings Per Year	Total Dwellings 2011 to 2026	Low End Medium Density Requirement (13.5%)	High End Medium Density Requirement (20- 25%)
Low End	91	1,365	184 (12 p.a.)	273 (18 p.a.)
High End	102	1,530	207 (14 p.a.)	383 (26 p.a.)

Source: Compiled by Urban Enterprise

²⁰ Swan Hill Residential Development Strategy, 2006-2009.

²¹ p. 36,m Swan Hill Residential Development Strategy 2006-2030

3.6.1. DISCUSSIONS WITH AGENTS

Real estate agents in Swan Hill have been contacted by Urban Enterprise to provide anecdotal evidence to support the findings of the supply and demand assessment. Whilst there is no traditional high density development in Swan Hill, agents have indicated both a steady supply and demand for units and townhouses. The key observations included:

- There has been a steady demand for property in Swan Hill. Although there has softening in real estate activity in the recent 2 years, in alignment with the residential market across regional Victoria.
- Demand for housing within the Swan Hill urban centre is predominantly driven by investment from within the Swan Hill Rural City area, with rural residents looking to downsize their properties.
- In general, agents have indicated that new residents market generally consists of:
 - Young families, seeking to gain a footing on the property ladders;
 - Retiree market, looking to downsize to a close location to the retail and service centre.
- Agents noted that although there are currently no river-view properties, there is 'strong demand' and 'premium value' for properties within a 'river environment' setting, including El Alamein Avenue (facing flood levees and parklands) and Mitchell Street (positioned across the Pioneer Settlement).
- Agents have indicated there is an undersupply of riverfront properties, with supply restricted to 14 properties in Murray Downs, excluding an additional 19 to 25 undeveloped lots along NSW riverfront. New developments will continue to predominantly consist of rural lifestyle properties.
- Agents have indicated that there is opportunity to meet the market needs through delivering residential developments with 'elevated views of the river', 'whilst maintaining the natural aspects of riverside parklands'.
- Furthermore, there is found to be 'strong demand' for town centre properties (2-3 streets from the CBD) with a modern, contemporary architecture. These may include

medium density properties (townhouses), although a high density property is indicated to be potentially feasible 'with a view of the riverfront park', conditional on the revitalisation of the light industrial and railway precinct.



3.7. OPPORTUNITIES

INCREASING DEMAND FOR MEDIUM / HIGH DENSITY LIVING

Demographic and market evidence suggests that there is increasing demand for medium to high density living in Swan Hill. Demand for this type of product is driven by:

- A rapidly aging population, including
 - 'Empty nesters' looking to downsize their home; and
 - Retirees looking to undertake a lifestyle change / move to more affordable accommodation.
- High earning households attracted to a river front location.
- An absence of genuine higher density apartment development to supply any latent demand.
- A lack of high quality medium density housing choice in comparison to the supply of separate dwellings and a lack of high end product to meet a high yield market.

An indication of the potential market size of retirees and empty nesters and couples, families & young professionals, projected forward to 2026, for a new product at Swan Hill, is shown in Table 27. The data illustrates that the theoretical market that may be attracted by higher end medium to high density property stood at 7,038 in 2011. By 2026, these segments of the market are predicted to rise by a combined total of 9,365 persons, or 37%. The data suggests a substantial and growing section of the population could be attracted to medium to high density residential product at the Riverfront, particularly for the older market segments.

TABLE 27 POTENTIAL MARKET SEGMENTS

	Number of Persons / Households				
Market Sector	2011	2026	% Change		
Retirees (65-84 year olds)	2,564	4,719	84%		
Empty Nesters (55-64 year olds)	1,951	2,752	41%		
Couples/Families and young professionals (25-34 year olds)	2,523	2,164	-14%		
Total	7,038	9.635	37%		

Source: Australian Bureau of Statistics, 2006

Literature review and residential demand modelling indicates that a total of 273 to 383 medium/high density dwellings (or 18 to 26 dwellings per year) will be required to meet changing demand in Swan Hill up to the year 2026.

RESIDENTIAL MARKET GAPS

The following table summarizes the delivery and capacity of future residential supply to meet key residential markets by property type.

TABLE 28 RESIDENTIAL MARKET SUMMARY

Residential Markets	Demand by Property Type	Supply Capacity	
Couples/Families and Young Professionals	Affordable entry-level housing	Sufficient supply through development of Tower Hill Estate and South West Development Precinct, with capacity for 2,560 lots including medium density housing.	
Tourig Froiessionals	High density housing/apartments	Not currently supplied, with no proposed future developments.	
Retirees and Empty Nesters	Rural residential lifestyle properties	Sufficient supply through development of Tower Hill Estate, Shearers Rise Estate and existing developments surrounding Murray Down Golf Club.	
	CBD and town centre housing	No proposed future developments. Demand currently met through existing housing stock.	
	Riverside developments	Marginal stock available through 11 low density rural residential housing developments in Murray Downs.	
Holiday Home Owners	Rural residential lifestyle properties	Sufficient supply through development of Tower Hill Estate, Shearers Rise Estate and existing developments surrounding Murray Down Golf Club.	
Holiday Home Owners	Riverside developments	Marginal stock available through 11 low density rural residential housing developments in Murray Downs.	

The residential assessment indicates housing demand for the next 15 years will be predominantly met through development of land in Swan Hill and the residential development in Murray Downs.

However, the analysis reveals these market gaps:

- Medium to high residential properties in close proximity to the town centre. This is particularly appealing for the retiree and elderly market, which requires walking distance to retail and health services;
- Premium residential developments with frontage to the river. Consultation with agents indicates there is strong demand for the product. At present there is limited supply of medium density riverside housing.

RESIDENTIAL DEVELOPMENT OPPORTUNITIES IN RIVERFRONT PRECINCT

Given the prime location of the Riverfront Precinct site and significant provision of medium density development in these green field estates, it is considered that the Riverfront Precinct may play a differentiated role in meeting future demand for these niche residential housing markets including:

- High-end markets, including empty nesters and retirees (owner occupiers), high wealth households downgrading from larger dwellings and rural properties and property investors in permanent of holiday rental. Demand from these target markets may be met through:
 - The development of modern, boutique, high-end apartments and townhouses;
 - Provision for unique riverside/parkland views; and
 - Walking distance and connection to Swan Hill CBD and town centre retail strip (contingent on improvement of existing railway precinct).
- Mid-range markets, including young couples without children, short/medium term accommodation for visiting medical staff and business visitors. Demand from these target markets may be met through provision of apartment (including serviced apartments).



There is limited access to property with river views in and around Swan Hill, and in nearly all cases this property is characterised by large, detached dwellings. There is an opportunity to create residential property at the Riverfront Precinct aimed towards buyers who would pay a premium for a water view but are not necessarily looking for large homes. Development to meet the premium market would also be contingent on other factors including:

- Improvement in quality and quantity of retail and service offers;
- Revitalisation of railway precinct;
- Improved connection of riverside to existing CBD and town centre retail strips; and
- Preservation of riverside parklands aspects (i.e. avoiding overdevelopment of riverside).

Not all potential residential development locations within the Riverfront Precinct will have river / parkland aspects. There exists an opportunity to provide mid-range properties in these other locations. These locations still have the benefits of proximity to the CBD and proximity to the riverfront.

DEVELOPMENT OPPORTUNITY

Given potential demand, market evidence indicates that:

- There is projected demand for between 91 and 102 dwellings developed in Swan Hill per year up to 2026, equating to between 1,365 and 1,530 total new dwellings;
- Of these dwellings there exists a potential demand for development of between 12 and 26 medium to high density dwellings per year within the Swan Hill urban centre

The Riverfront Precinct site offers opportunities to target different market segments and price points due to its layout:

- Residential uses oriented towards the river side of the site will generally offer river and parkland views for which a price premium will be paid. These properties should focus on the high-end residential market;
- Residential uses oriented towards the CBD will provide opportunities for more midmarket buyers and rental market investors.

4. RETAIL

4.1. INTRODUCTION

This assessment of the Swan Hill retail sector is based on analysis of the 2012 report, *North Park Reserve, Swan Hill: Economic Impact Review of Rezoning*, prepare for the Swan Hill Rural City Council by Essential Economics²².

In December 2012 the planning scheme amendment came in to effect, rezoning North Park to a Business 1 zone, facilitating the development of a discount department store on the site.

4.2. SUMMARY

The two recommendations for retail development included in *North Park Reserve, Swan Hill: Economic Impact Review of Rezoning* are for a 7,000 m² discount department store and 800m² of specialty retailing.

These developments address gaps in the current Swan Hill retail offer: the city current received a lower proportion of the non-food retail expenditure from its catchment than comparable regional centres. The report also indicates that the increased appeal of the Swan Hill retail offer will translate into improved trading for the existing retailers.

The opportunity for retail development in the riverfront precinct is to establish a range of retail shops as part of a tourism precinct, providing shopping opportunities to visitors over weekends and other peak visitation periods.

4.3. SWAN HILL CBD ANALYSIS

As of March 2012, there were 45,600 m² of retail floorspace in Swan Hill, with 37,320 m² of this located within the core retail area. The Essential Economics research also identified 22,020m² of commercial office space in Swan Hill.

Vacancy rates of between 4% and 6% are used as a benchmark for a centre performing strongly. While the Swan Hill Core Retail Area falls within this benchmark, overall the retail vacancy rate in Swan Hill is greater.

TABLE 29 RETAIL FLOORSPACE

	Core Retail Area	Total Retail
Occupied (m ²)	37,320	45,600
Vacant (m ²)	2,100	3,180
Vacancy Rate	5.3%	6.5%

Source: Essential Economics,

Non-food retail is the largest use of floorspace within the CBD, with 50% of the total. The next largest user of floorspace is the Food, Liquor and Groceries sector, with approximately 29%.

²² Draft dated May 3 2012: available for download from the Swan Hill Rural City Council website.

TABLE 30 RETAIL SECTOR FLOOR SPACE

Retail Category	CBD Floorspace (m2)	%Floorspace
Food Liquor and Groceries	10,810	28.8%
Food-Catering	3,990	10.6%
Non-Food	18,770	50.0%
Services	3,940	10.5%
Total Retail Floorspace	37,510	

Source: Essential Economics,

4.4. SWAN HILL RETAIL CATCHMENT

The Swan Hill Retail Catchment has been defined in two tiers²³:

- The Primary Trade Area, which is areas up to a 30 to 60 minute drive to the Swan Hill CBD;
- The Secondary Trade Area, which is areas between 60 and 90 minute's drive to the Swan Hill CBD;

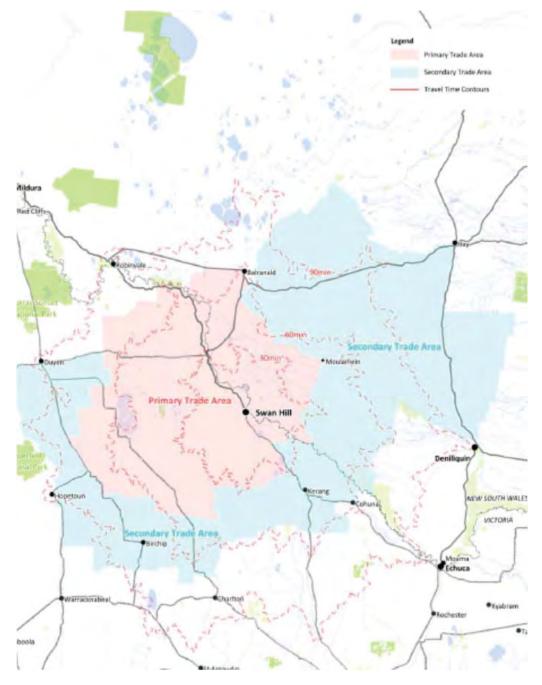
These trade areas, as shown in Figure 18, also take into account the proximity of other regional centres, such as Echuca, Bendigo, Horsham and Swan Hill.

4.4.1. POPULATION PROJECTIONS

The population projections used in *North Park Reserve, Swan Hill: Economic Impact Review of Rezoning* were prepared using projections from Victoria in Future, 2008 and 2010 NSW Department of Planning and Infrastructure.

²³ Refer to *North Park Reserve, Swan Hill: Economic Impact Review of Rezoning* for more detail on defining the Swan Hill Retail Catchment.

FIGURE 18 SWAN HILL TRADE AREA



Source: Essential Economics,

Based on 2008 population projections, the Primary Trade area identified in the Essential Economics report is expected to grow through to 2016, and then stabilise at approximately 22,640 people. The reduction in population projected for the secondary trade area, of approximately 400 people per 5 year period, provides an expectation that the population within Swan Hill's retail catchment will decline over the next 16 years.

TABLE 31 RETAIL CATCHMENT POPULATION

Trade Area	2011	2016	2021	2026
Primary Trade Area	22,330	22,680	22,640	22,640
Secondary Trade Area	14,870	14,460	14,000	13,590
Total	37,200	37,140	36,640	36,230

Source: Essential Economics, North Park Reserve: Economic Impact Review of Proposed Rezoning

Although the population is expected to decline, it is expected that there will be growth in retail expenditure. This is based on expectations of continued growth in retail expenditure, and growth in the primary catchment.

TABLE 32 RETAIL EXPENDITURE FORECASTS

Trade Area	2011	2016	2021	2026	Ave. Annual Growth 2011-26
Primary Trade Area	\$245.5m	\$262.3m	\$279.5m	\$298.8m	+1.3%
Secondary Trade Area	\$163.4m	\$167.2m	\$172.7m	\$179.2m	+0.6%
Total	\$408.9m	\$429.5m	\$452.2m	\$478.1m	+1.0%

Source: Essential Economics, North Park Reserve: Economic Impact Review of Proposed Rezoning

4.5. RETAIL CAPTURE

The analysis undertaken by Essential Economics identifies a lower capture of non-food retail expenditure for Swan Hill, indicating that there is a need to expand the offer in this sector. The capture of non-Food expenditure with the Swan Hill Retail Catchment was estimated at 38%, much lower than the 55% to 60% estimated for the comparable centres of Swan Hill and Horsham.

TABLE 33 SWAN HILL RETAIL MARKET SHARE

Market Share	Food, Liquor and Groceries	Food- Catering	Non-Food	Services	Total
Primary Trade Area	73%	64%	48%	84%	62%
Secondary Trade Area	28%	22%	22%	41%	26%
Retail Catchment	55%	47%	38%	66%	47%

Source: Essential Economics

The expenditure capture in other markets was within expectations.

4.6. RETAIL GAPS

The significant gaps in the Swan Hill retail offer identified in the analysis are the need for a Discount Department Store of 7,000m² with a further 800m² of speciality retail, for attracting national brands not currently operating in Swan Hill.

These gaps were identified through consultation with residents within the Swan Hill Retail Catchment and comparison with other regional centres in western Victoria.

4.7. ASSESSMENT OF RECOMMENDATIONS

Although the data used to project the retail catchment population has been superseded by the outcomes of the 2011 census, the analysis of current expenditure capture by the Swan Hill retail supports the need for additional retail floorspace, particularly in the non-food sector.

The improved retail offer in Swan Hill that would be provided through the development of a discount department store and specialty retail can be expected to have a positive effect on the existing retail sector, as it will attract additional shoppers to the city. Although, the addition of a new 7,000m² store may be at the expense of the Target Country, reducing the economic impact of the new development.

The low vacancy rates in central Swan Hill also the development of new retail space within the city's core retail area. It is also important to consider that the additional expenditure and jobs created within Swan Hill as a result of the recommended retail development can be expected to have a positive influence on the region's population.

DISCOUNT DEPARTMENT STORE

A discount department store, such as Target or Kmart, would provide a lead tenant in a retail development in the Riverfront precinct. The development would also address a significant gap in the current retail offer within Swan Hill and attract additional shopping related visitation.

Based on the standard of 50m² per job, the 7,000m² store would provide employment for 140 people.

SPECIALTY RETAIL

The 800m² of specialty retail would provide an estimated 23 additional jobs in Swan Hill, as well as increase the appeal of the city as a shopping destination and increase the capture of non-food retail.

The provision of speciality retail, particularly as part of a tourism precinct that remains open over weekends, would provide an additional tourism activity for visitors to Swan Hill.

5. ECONOMIC IMPACT ASSESSMENT

5.1. INTRODUCTION

This section examines the projected economic impact of the Swan Hill Riverfront recommended development on Swan Hill Rural City's economy. The identified recommended uses include the following:

SHORT TERM PROJECT (0-15 YEARS)

- Serviced apartments;
- Pioneer Settlement upgrade including Heartbeat of the Murray Laser show;
- Eco Lodges;
- Residential apartments and provedore;

The short term projects are estimated to include over \$20 to \$25 million in capital expenditure investment.

LONG TERM PROJECTS (15+ YEARS)

- Large function, conference and accommodation precinct;
- Tavern; and
- Heart of the Murray Restaurant.
- The short term projects are estimated to include over \$20 to \$25 million in capital expenditure investment.

The long term projects are estimated to include over \$15 to \$20 million in capital expenditure investment.

5.2. CONSTRUCTION AND OPERATIONS IMPACT

Utilising a Regional Input-Output Model methodology²⁴ an economic impact assessment has been prepared for the recommended uses. Urban Enterprise has based the assessment on a mean base-case scenario of \$40 million in capital investment. The following outlines the findings of the economic impact assessment:

CONSTRUCTION PHASE

The key economic impacts for Swan Hill Rural City during the construction phase of the projects are estimated to include:

- The creation of 159 direct and indirect FTE jobs; and
- Over \$54 million in total economic impact to Swan Hill Rural City's gross regional output.

OPERATIONAL PHASE

The key economic impacts for Swan Hill Rural City during the operational phase of the projects are estimated to include:

- The creation of 212 direct and indirect FTE jobs; and
- Over \$46 million in total economic impact to Swan Hill Rural City's gross regional output.

²⁴ Refer to Appendix A.

APPENDIX

Appendix A URBAN ENTERPRISE INPUT-OUTPUT MODEL

WHAT IS AN INPUT-OUTPUT TABLE?

INTRODUCTION

The following section provides the description of use and methodology of the economic impact assessment through a regional input-output table.

WHAT IS AN INPUT-OUTPUT TABLE?

An Input-Output (I-O) table fulfils two key functions; it is a descriptive framework for showing the relationship between industries and sectors and between inputs and outputs in an economy. It is also an analytical tool for measuring the impact of autonomous disturbances on an economy's output, employment and income. Utilising the Leontief Inverse and several other augmentation methods, the economic impact of expenditure the region can be depicted through the I-O model.

URBAN ENTERPRISE INPUT-OUTPUT MODEL METHODOLOGY

As regional input-output models are not readily available, the report utilises input-output model technique from Flegg and Webber (2000), the Location Quotient (LQ) adjustment technique to construct a Regional Input-Output Table²⁵. The LQ adjustment technique will allow for accounting the regional industry mix of the region. Due to the unavailability of regional data, government expenditure, taxes and subsidies have been excluded from the model.

The report will utilise the ABS 2007 Input-Output Industry Groups (IOIG) consisting of 111 industry sectors for the economic impact analysis. The Total Economic Impact is constructed through three categories:

²⁵Flegg. A.T., Webber, C.D., and Elliot, M.V., 1995, On The Appropriate Use of Location-Quotients In Generating Regional Input-Output Tables, Regional Studies, Vol. 29, No. 6,

- Initial Output Effects the estimated initial expenditure on the general regional economy.
- Production Induced Effects this is the estimated impact of the Initial Output Effects on the general economy. The Production Induced Effects are made up of two components:
- The First Round Effects is the amount of output required from all industries of the economy to product the Initial Output Effect; and
- Industrial Support Effects the effects of the second and subsequent rounds of induced production;
- Consumption Induced Effects the induced production of extra goods and services as
 a result of private final consumption expenditure of households affected by the initial
 output affects.

WHAT IS THE DIFFERENCE BETWEEN EXPENDITURE, OUTPUT, VALUE ADD AND GROSS DOMESTIC PRODUCT?

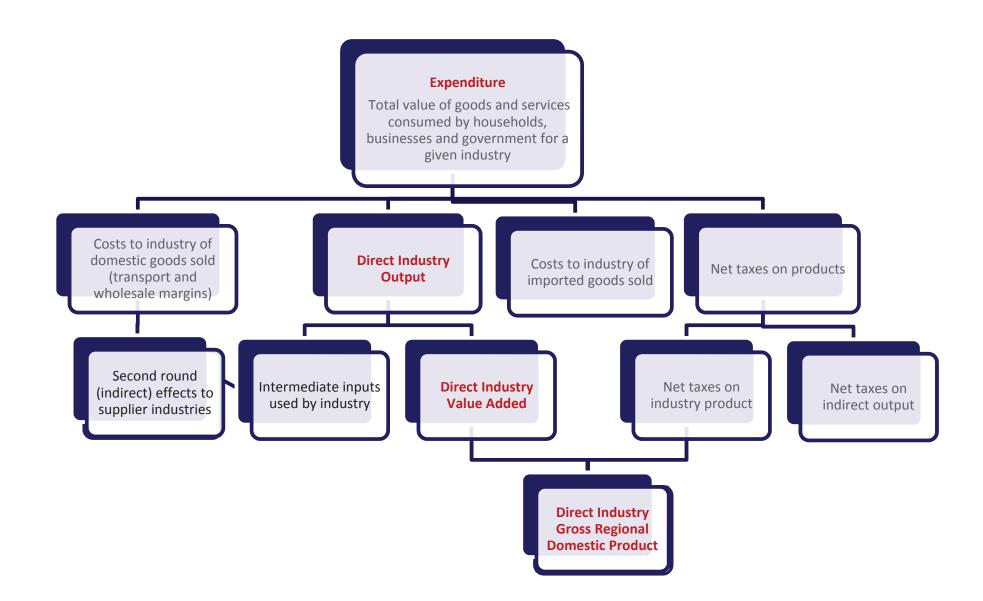
Expenditure or industry consumption represents the internal consumption by households, business and government for particular given industry.

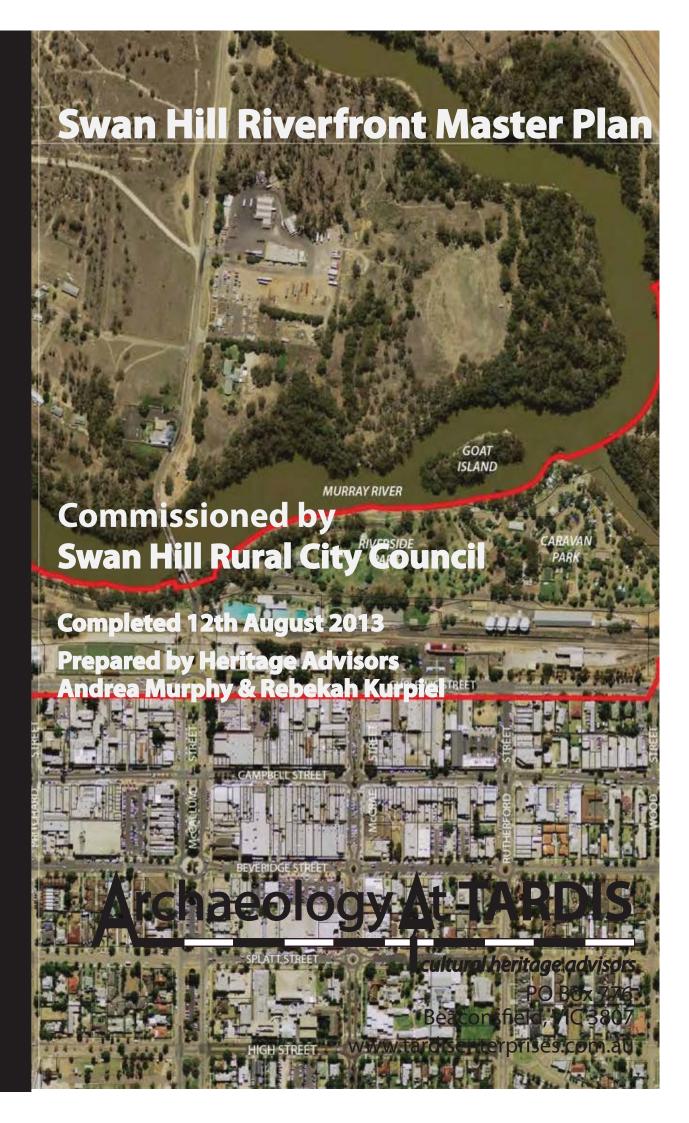
Direct Industry Output is equal to expenditure [or industry consumption] less the costs to retailers of domestic goods sold, costs to industry of imported goods sold and net taxes on products. In the context of regional economies, *imports relate to goods and services purchased outside a defined region (in this case Swan Hill Rural City)*. As such, costs of imported goods sold sourced from outside Swan Hill Rural City are not attributed to the value of Output for a given Industry; for certain industries that rely heavily on imports from outside a regional area, the value of direct output will be significant less than the value of industry expenditure.

Direct Industry Value Added is calculated by subtracting industry intermediate inputs (goods and services product and supplied by other businesses).

Direct Industry Gross Regional Domestic Product is then calculated by adding industry next taxes on products to direct industry value added

The figure to the right depicts flow of industry expenditure to industry output, value added and gross domestic product.





EXECUTIVE SUMMARY

This desktop cultural heritage assessment (DCHA) has been commissioned by Swan Hill Rural City Council (ABN 97 435 620 016). The proposed activity is the development and implementation of a master plan for the Swan Hill riverfront.

The activity area is situated in Swan Hill, approximately 304km northwest of Melbourne (Map 1). The activity area comprises approximately 89.8 hectares and is located in the parishes of Pental Island and Castle Donnington (Map 1).

This DCHA was prepared to identify any potential indigenous and historic cultural heritage values within and surrounding the activity area so that these can be considered during the development of a master plan for the Swan Hill Riverfront.

Relevant Geographic Region (Section 4.2)

The relevant geographic region of the activity area is defined as land within the floodplain or 1km of the Murray River or Little Murray River, and within 20km of Swan Hill. This area contains a representative sample of Aboriginal cultural heritage places and reports relevant to formulating an Aboriginal cultural heritage sensitivity model.

Registered Aboriginal Places within the Activity Area

Five Aboriginal places are registered within the activity area (Map 6; Table 1).

Table 1 Registered Aboriginal Places within the Activity Area

VAHR No Place Name	Place Type	Location	Place Size Contents	Scientific Significance (Recorder)
Swan Hill Technical School Burials 7627-0224	Burial	Adjacent to railway line. Just north of Swan Hill Tech School	Human remains, which have subsequently been removed	Not provided
Swan Hill Levee Bank 4C 7627-0270	Artefact Scatter	Bank of the Little Murray River. 120m northwest of Pental Island Road Bridge	c 7m x 2-3m Approx. 27 quartz flakes & 1 snapped quartz blade	Not provided
Swan Hill Levee Bank 4-A2 7627-0272	Earth Mound	Between the railway line and the Little Murray River, south of Swan Hill Tech School	c 30m x 8.5m Burnt clay lumps, freshwater mussel shells and charcoal	Not provided
Swan Hill Levee Bank 4-A3 7627-0273	Earth Mound	Between the railway line and the Little Murray River, near Swan Hill Tech School	c 20m x 6.5m Burnt clay lumps, freshwater mussel shells, sheep bones and charcoal	Not provided
Swan Hill Levee Bank A4 7627-0274	Earth Mound/Shell Midden	Adjacent to the Little Murray River, near Bryan Street	c 18.6m x 8m Burnt clay lumps, freshwater mussel shells and charcoal	Not provided

iii

EXECUTIVE SUMMARY

A total of 89 Aboriginal places are recorded within the geographic region (**Appendix 3**). Earth mounds (n=59) are the dominant place-type followed by scarred trees (n=15), and burials (n=8) (**Table 2**).

Table 2 Aboriginal Place-Types within the Relevant Geographic Region

Place-Type	Number
Earth Mound	59
Scarred tree	15
Burial	8
Shell Midden	4
Fireplace/hearth	1
Artefact scatter	1
Artefact collection	1
Total	89

Aboriginal Cultural Heritage Scientific Sensitivity Model (Section 4.10)

In relation to Aboriginal cultural heritage values the following model predicts the likely values within the activity area in relation to strategic values and landform. The relevant information for the model is presented below (**Table 4**, **Map 10**):

- 1. Strategic resources are located within the activity area.
- 2. Routes of movement comprising the Murray River and Little Murray River are located within the activity area.
- 3. There are no strategic vantage points inside the activity area.
- 4. Place-types likely to be present in the activity area are earth mounds, scarred trees, burials and shell middens.
- 5. Stone artefact scatters
 - Artefact scatters are rare in the geographic region.
 - Artefact scatters in the floodplain may have been washed in from elsewhere.
 - The predominant raw material for stone tool manufacture will be quartz.
 - Stone artefact types will be represented predominantly by flakes with a smaller component of former tool types (eg microliths, cores).

Table 4 Aboriginal Cultural Heritage Scientific Sensitivity Model

Place Types	Location / Landform	Sensitivity
Earth mounds, scarred trees, burials, shell middens	Entire Activity Area	Moderate
Stone Artefact Scatters	Entire Activity Area	Low

Aboriginal Cultural Heritage Conclusions (Sections 4.11)

In relation to Aboriginal cultural heritage the desktop assessment has concluded that:

EXECUTIVE SUMMARY

- 1. There are five registered Aboriginal cultural heritage places within the activity area.
- 2. The banks of and floodplains associated with the Murray River and Little Murray River are areas of high Aboriginal cultural heritage scientific sensitivity.

Historic Cultural Heritage Registers (Section 5.2.2)

The following heritage databases were searched for places relating to the study area (accessed 14 July 2013): the Victorian Heritage Database (VHD), the Australian Heritage Database (AHD), the planning schemes for the Swan Hill Rural City Council and the National Trust of Victoria Register. The VHD includes the Victorian Heritage Registry (VHR) and the Victorian Heritage Inventory (VHI) at HV. The AHD includes the World Heritage List, the National Heritage List, the Commonwealth Heritage List and the Register of the National Estate.

There are two registered non-Aboriginal historic heritage place within the activity area (**Table 4**) and eight within 1km of the activity area boundary (**Table 5**).

Table 4 Historic sites within the activity area

Site Number/ Identifier	Site Name	Location
	Iron House	Swan Hill Pioneer settlement, Monash Drive.
H1742	Paddle Steamer Gem	Swan Hill Pioneer settlement, Monash Drive.

Table 5 Historic sites within 1km of activity area

Site Number/ Identifier	Site Name	Location
H7627-0003	Swan Hill Levee Bank	Approximately 500m northwest of the activity area
AHD 16074	Murray River Road Bridge	McCallum Street, immediately to the east of the activity area
B6386	Former Swan Hill Butter Factory	Curlewis Street, immediately to the west of the activity area
B4865	Swan Hill & District Hospital	Corner of McCrae & Splatt Streets. Demolished 1981.
B5642	Former Swan Hill Primary School no. 1142	Corner of McCrae & Splatt Streets, approximately 300m from the activity area
B4869	Former Presbyterian Church	313 Campbell Street, approximately 100m east of the activity area
B7101	White Swan Hotel	Campbell Street, approximately 100m east of the activity area
B4867	Houses at 318-320 Beveridge Street	Approximately 200m to the east of the activity area

iv

EXECUTIVE SUMMARY

Historic Site Prediction Model (Section 5.2.3)

In relation to historic cultural heritage the desktop evidence and site inspection has been used to formulate a historic cultural heritage sensitivity model. This model predicts the likely historic cultural heritage values that may be present in the study area. The relevant information is presented below (**Table 6**):

- There is potential for pre-1860 burials to exist to the southeast of the intersection of Pye and Curlewis Streets.
- The major buildings associated with the early European settlement of the Swan Hill area have been identified by the Swan Hill Rural City Council and are protected by Heritage Overlays.

Table 6 Historic Cultural Heritage Sensitivity Model

Period	Places & Location	Sensitivity
Pastoral Era (mid 19 th century)	Entire activity area	moderate-high
Early Selection & Freehold (mid to late 19th century	Entire activity area	moderate
Closer Settlement (late 19 th century to 1950s)	Entire activity area	moderate-high

Historic Cultural Heritage Conclusions

In relation to historic cultural heritage the desktop assessment and site inspection has demonstrated that in relation to the activity area:

- 1. There are a number of registered historic places within the activity area.
- 2. It is likely that both archaeological and extant historic cultural heritage is present.
- 3. There is potential for the project to impact unknown historic cultural heritage.

Specific Cultural Heritage Management Recommendations (Section 7)

Based on the findings of this report the following recommendations are made:

Aboriginal Cultural Heritage (Section 7.1)

Mandatory Cultural Heritage Management Plan is Required for Riverfront Development (Section 7.1.1)

A mandatory CHMP is required for the future development of the Swan Hill Riverfront under the *Aboriginal Heritage Act 2006* and *Aboriginal Heritage Regulations 2007*. Some of the activities likely to be included in the Swan Hill Riverfront Master Plan are high impact, and most of the activity area is within legislated areas of Aboriginal cultural heritage sensitivity. An approved CHMP will also manage any Aboriginal cultural heritage issues that may occur before, during and after the conduct of the activity. This will avoid

vi

EXECUTIVE SUMMARY

any unnecessary and costly delays that may occur in the event that any Aboriginal cultural heritage is discovered during the conduct of the activity.

Historic Cultural Heritage (Section 7.2)

Historic Cultural Heritage Assessment is Recommended (Section 7.2.1)

Harm to the two recorded sites within the activity area should be avoided during future development of the riverfront.

Additionally, as all historic archaeological sites (whether recorded or not) are protected under the *Heritage Act 1995*, it is recommended that an historic assessment be undertaken for the activity area. This assessment would identify all sites within the activity area and develop site specific management recommendations.

vii

CC	NTENT	·S	PAGE
EX	ECUTI	/E SUMMARY	iii
1	INTR	ODUCTION	1
	1.1 1.2 1.3 1.4 1.5 1.6 1.7	Reasons for Preparing this DCHMP Location of the Activity Area and Cadastre Sponsor Cultural Heritage Advisor Owners and Occupiers Registered Aboriginal Party Consultation	1 2 2 2 2 2 2
2	ACTI	VITY DESCRIPTION	7
3	EXTE	NT OF THE ACTIVITY AREA	7
	3.1	Relevant Local Municipality	7
4	DES	CTOP ASSESSMENT: ABORIGINAL CULTURAL HERITAGE	8
	4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 4.10 4.11 4.12	Victorian Aboriginal Heritage Registry Access and Search Relevant Geographic Region Map showing the Relevant Geographic Region Registered Aboriginal Places within the Activity Area Registered Aboriginal Places in the Relevant Geographic Region Reports and Published Works in the Relevant Geographic Region History and Ethnohistory in the Relevant Geographic Region Geology and Landforms of the Activity Area Landuse History of the Activity Area Strategic Values Aboriginal Cultural Heritage Scientific Sensitivity Model Aboriginal Cultural Heritage Conclusions	8 8 8 9 14 15 17 23 23 26 27
5	DES	(TOP ASSESSMENT: HISTORIC CULTURAL HERITAGE	29
	5.1 5.2 5.2.1 5.2.2 5.2.3 5.3	Cultural Heritage Registers	29 38 38 39 42 42
6	STAT	TUTORY OBLIGATIONS	43
	6.1 6.2	Aboriginal Cultural Heritage Historic Cultural Heritage	43 43

CONTENTS			PAGE	
		CIFIC CULTURAL HERITAGE MANAGEMENT DMMENDATIONS	47	
	7.1 7.1.1	Aboriginal Cultural Heritage Mandatory Cultural Heritage Management Plan is Required for Riverfront Development	47 47	
	7.2 7.2.1	Historic Cultural Heritage Historic Cultural Heritage Assessment is Recommended	47 47	
REFI	EREN	ICES	69	
TAB	LES	IN TEXT		
1 2 3 4 5 6 7 8		Registered Aboriginal Places within the Activity Area Aboriginal Place-Types within the Relevant Geographic Region Historic Aboriginal Places & Aboriginal Cultural Places Aboriginal Cultural Heritage Scientific Sensitivity Model Historic sites within the activity area Historic sites within 1km of activity area Historic Features within and adjacent to the Activity Area Historic Cultural Heritage Sensitivity Model	8 9 12 27 39 39 40 42	
MAP	S (IN	TEXT)		
1 2 3 4 5 6 7 8 9 10		Activity Area Location Cadastre Statutory Areas of Aboriginal Cultural Heritage Sensitivity Extent of Activity Area: Aerial Photograph Relevant Geographic Region VAHR Places within the Activity Area Wadiwadi Language Areas & Clans Activity Area Geology 1750 Ecological Vegetation Classes Areas of Aboriginal Cultural Heritage Potential Historic Features within the Activity Area	3 4 5 6 10 11 16 22 25 28 41	
FIGU	JRES	(IN TEXT)		
1 2 3 4 5 6 7		Relative occurrence of earth mound contents types Relative occurrence of agents of disturbance Stratigraphic representation of Recent fluvial sediments Run 342(A); PROV, VPRS 15899, Historic Plans Collection Police Reserve at Swan Hill on the Lower Murray River Township of Swan Hill Lift bridge over the Murray River at Swan Hill An aerial view over Swan Hill	13 14 18 31 33 34 36	

PAGE

VIII ix

CONTE	CONTENTS			
APPENDICES				
1	Glossary	48		
2	Scientific Significance Assessment: Aboriginal Places	53		
3	ACHRIS Registered Aboriginal Places within the Geographic Region	61		
4	1750 Ecological Vegetation Classes	64		
5	Summary CVs	66		
6	Draft Master Plans A - D	69		

Χ

ACKNOWLEDGEMENTS

Archaeology At Tardis Pty Ltd would like to thank the following people for their assistance:

Vera Eades - Swan Hill Rural City Council

ABBREVIATIONS

AAT Archaeology at Tardis Pty Ltd

AAV Heritage Services Branch, Aboriginal Affairs Victoria

ACHRIS Aboriginal Cultural Heritage Register and Information Services

af Approved Form under clause 64(a) of the Aboriginal Heritage Regulations

2007, specifying the required format of CHMPs

ASTT Australian Small Tool Tradition
BP Years Before Present (1950)
CHMP Cultural Haritage Management

CHMP Cultural Heritage Management Plan

CHP Cultural Heritage Permit

dGPS Differential Global Positioning System

DPCD Department of Planning and Community Development

DSE Department of Sustainability and Environment

GPS Global Positioning System
Ka Thousand years ago
LGM Last Glacial Maximum

LV Land Victoria
Ma Million years ago

Nol Notice of Intent to Prepare a Cultural Heritage Management Plan

OSL Optically Stimulated Luminescence

RAP Registered Aboriginal Party PGC Primary Grid Coordinate SLV State Library of Victoria

VAHR Victorian Aboriginal Heritage Registry

χİ

^{*}Throughout this report several technical terms are used that may not be familiar to some readers. An extensive glossary has been included as Appendix 1 and should be referenced for an explanation of terms.

[©] Copyright – This report is copyright. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the Copyright Act, no part may be reproduced by any process without written permission. Archaeology At Tardis Pty Ltd Project No 1822.000.

1 INTRODUCTION

This desktop cultural heritage assessment (DCHA) has been commissioned by Swan Hill Rural City Council (ABN 97 435 620 016). The proposed activity is the development and implementation of a Master Plan for the Swan Hill Riverfront (Appendix 6).

1.1 Reasons for Preparing this DCHA

This DCHA was prepared to identify any potential indigenous and historic cultural heritage values within and surrounding the activity area so that these can be considered during the development of a Master Plan for the Swan Hill Riverfront.

In relation to Aboriginal cultural heritage a mandatory CHMP is not required for the development of the Master Plan, but will be required for later implementation, pursuant to the *Aboriginal Heritage Regulations 2007*. Most of the activity area includes legislated areas of cultural heritage sensitivity (**Map 3**) and some of the activities that are likely to be included within the Swan Hill Riverfront Master Plan are listed as high impact (r.6 *Aboriginal Heritage Regulations 2007*):

When a cultural heritage management plan is required

A cultural heritage management plan is required for an activity if - (a) all or part of the activity area for the activity is an area of cultural heritage sensitivity; and (b) all or part of the activity is a high impact activity.

Much of the activity area is in legislated areas of cultural heritage sensitivity (r.23(1) a waterway or land within 200m of a waterway is an area of cultural heritage sensitivity) (Map 3). The high impact activities associated with the Swan Hill Riverfront Master Plan may include but will not necessarily be limited to:

- works associated with car parks (r.43(1)(a)(b)iii);
- works associated with retail premises (r.43(1)(a)(b)xx);
- works associated with utility installations (r.43(1)(a)(b)xxiii);
- works associated with a minor sports and recreation facility (r.43(1)(a)(b)xv;
- construction of bicycle paths of more than 100m in length (r.44(1)(b));
- construction of roads of more than 100m in length (r.44(1)(e));
- construction of a walking track of more than 100m in length (r.44(1)(f)).

In relation to historic cultural heritage, this desktop assessment was prepared in compliance with the *Heritage Act 1995* and the *Planning and Environment Act 1987*. All historic archaeological sites are protected under the Heritage Act 1995 and extant historic places may require consideration for inclusion on the municipality Planning Scheme heritage overlay under the *Planning and Environment Act 1987* if not already included. This desktop assessment addresses both historic extant and archaeological sites in accordance with statutory requirements.

1.2 Location of the Activity Area and Cadastre

The activity area is situated in Swan Hill, approximately 304km northwest of Melbourne (Maps 1 & 2). The activity area comprises approximately 89.8 hectares and is located in the parishes of Pental Island and Castle Donnington (Map 1).

1.3 Sponsor

The Sponsor is Swan Hill Rural City Council. Tract Consultants Pty Ltd is acting as their agent.

1.4 Cultural Heritage Advisor

Andrea Murphy and Rebekah Kurpiel from Archaeology At Tardis Pty Ltd (AAT) are the heritage advisors and authors of this DHCA (see **Appendix 5**).

1.5 Owners and Occupiers

Some of the activity area is not owned by the Sponsor, because a number of commercial premises are included within the Riverfront Master Plan. All landowners within the activity area will have to be formally notified once a Notice of Intent to undertake a Cultural Heritage Management Plan is submitted.

1.6 Registered Aboriginal Party (RAP)

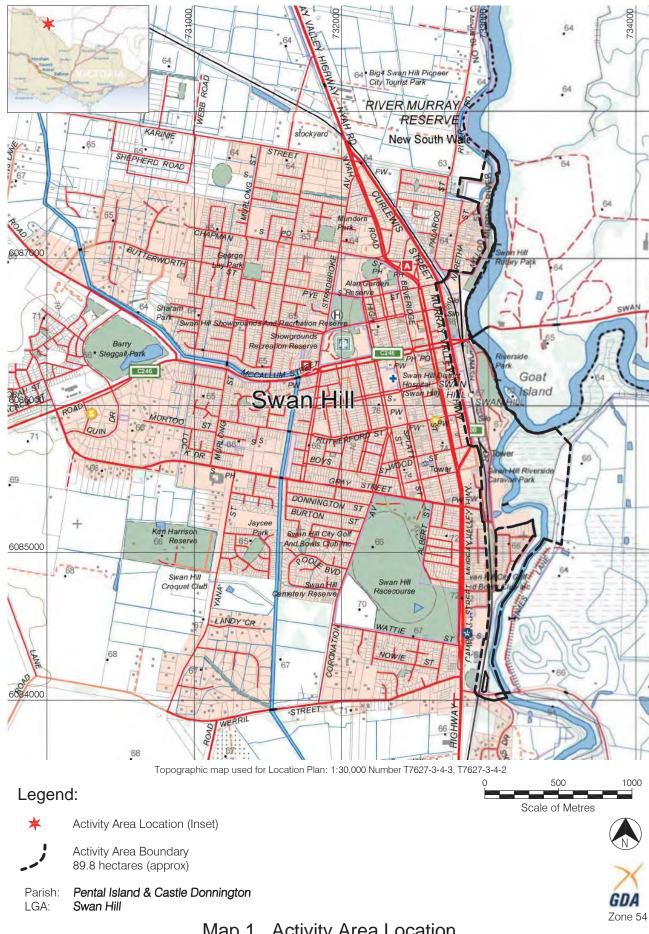
There is currently no RAP or RAP applicant in relation to the activity area. Aboriginal Affairs Victoria will therefore evaluate any CHMP that is prepared for the activity area.

1.7 Consultation

There is currently no appointed Registered Aboriginal Party (RAP) and there are currently no RAP applicants in relation to the activity area. However, the Wamba Wamba community has traditional links with the Swan Hill area and preliminary consultation has been conducted by Verna Eades of the Swan Hill Rural City Council.

Various databases were consulted as part of the desktop assessment for registered indigenous and historic cultural heritage places. These comprise:

- Aboriginal Cultural Heritage Register and Information System (ACHRIS)
- State Library of Victoria
- Land Victoria
- Public Records Office



Map 1 Activity Area Location (VicRoads Ref: 14 B7)

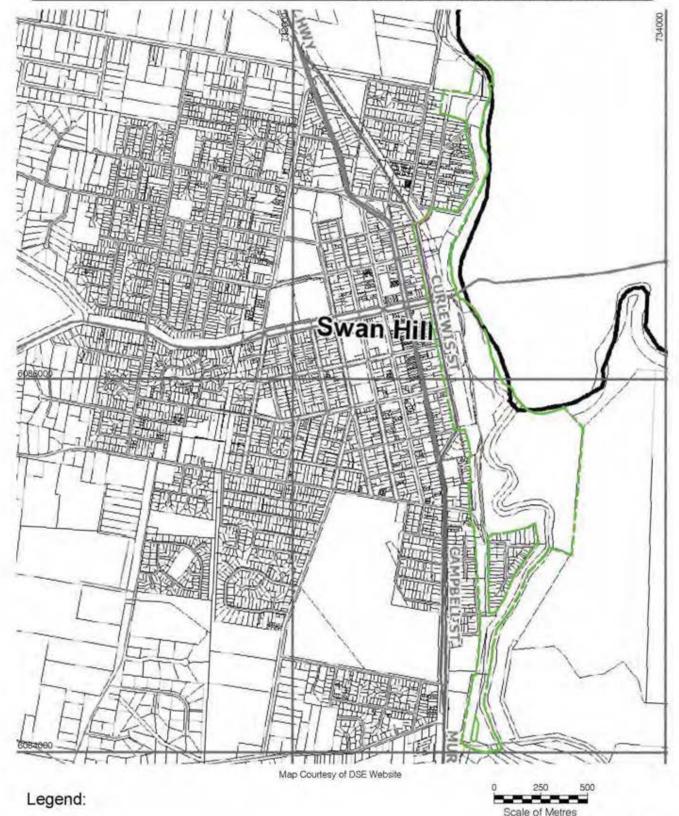
GDA

Pental Island & Castle Donnington Parish: Swan Hill

Activity Area Boundary 89.8 hectares (approx)

Map 2 Cadastre

(VicRoadsMelway Ref: 14 B7)

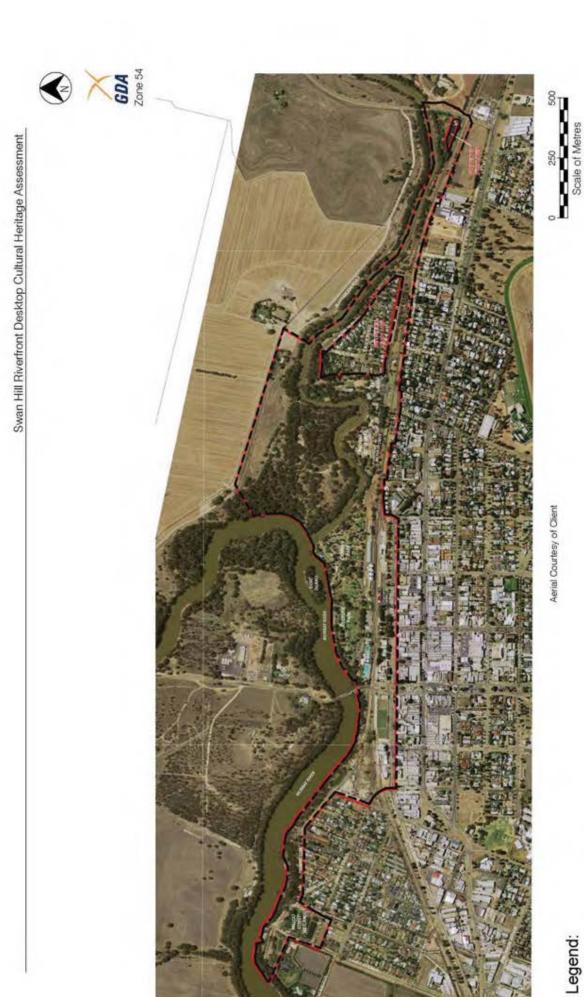






Map 3 Statutory Areas of Aboriginal Cultural Heritage Sensitivity (VicRoads Ref: 14 B7)

Archaeology at Tardis archaeologists & heritage advisors



Activity Area Boundary

Extent of Activity Area: Aerial Photograph Archaeology at Tardis archaeologists & heritage advisors

Map 4

6

2 ACTIVITY DESCRIPTION

The current activity is the development of a Master Plan as part of pre-planning works (Appendix 6). The future activities associated with the Swan Hill Riverfront Master Plan may comprise, without limit:

- redevelopment of streetscapes;
- construction and redevelopment of car parks;
- redevelopment of retail precincts;
- improvements to parks and recreational spaces;
- construction of infrastructure (e.g. footpaths, roads etc.)

Some of these activities will involve significant ground disturbance and will impact the surface of the land and any former land surfaces. Some of these activities may harm Aboriginal or historic cultural heritage if it is present.

3 EXTENT OF THE ACTIVITY AREA

The activity area is situated in Swan Hill, approximately 304km northwest of Melbourne (Map 1). The activity area comprises approximately 89.8 hectares and is located in the parishes of Pental Island and Castle Donnington (Map 1). The activity area is bounded by the Murray River and Marraboor River to the east and bounded and traversed by various roads. The area is dominated by recreational and commercial land.

The regional context of the activity area is the riverbank and flood plains associated with the Murray River and Marraboor River. The salient prominent structures and features of the activity area are (**Map 4**):

- River band and remnant vegetation
- Retail premises
- Recreational areas
- Tourist facilities
- Roads, footpaths and other infrastructure

The Aboriginal Cultural Heritage Register and Information System (ACHRIS) and the Victorian Heritage Database (VHD) shows that there are a number of Aboriginal cultural heritage places and historic cultural heritage places within the activity area region at the commencement of the DCHA (accessed 26.06.2013, **Section 5.2**).

3.1 Relevant Local Municipality

The relevant local municipality is the Swan Hill Rural City Council (Map 1).

4 DESKTOP ASSESSMENT: ABORIGINAL CULTURAL HERITAGE

The aim of the desktop assessment is to formulate an Aboriginal cultural heritage sensitivity model for the activity area (Section 4.11).

4.1 Victorian Aboriginal Heritage Registry Access and Search

The Aboriginal Cultural Heritage Register and Information System (ACHRIS) were accessed for reports and places on 25 June 2013.

4.2 Relevant Geographic Region

The relevant geographic region of the activity area is defined as land within the floodplain or 1km of the Murray River or Little Murray River, and within 20km of Swan Hill. This area contains a representative sample of Aboriginal cultural heritage places and reports relevant to formulating an Aboriginal cultural heritage sensitivity model.

4.3 Map showing the Relevant Geographic Region

The boundary of the relevant geographic region is shown in Map 5.

4.4 Registered Aboriginal Places within the Activity Area

Five Aboriginal places are registered within the activity area (Map 6; Table 1).

Table 1 Registered Aboriginal Places within the Activity Area

VAHR No Place Name	Place Type	Location	Place Size Contents	Scientific Significance (Recorder)
Swan Hill Technical School Burials 7627-0224	Burial	Adjacent to railway line. Just north of Swan Hill Tech School	Human remains, which have subsequently been removed	Not provided
Swan Hill Levee Bank 4C 7627-0270	Artefact Scatter	Bank of the Little Murray River. 120m northwest of Pental Island Road Bridge	c 7m x 2-3m Approx. 27 quartz flakes & 1 snapped quartz blade	Not provided
Swan Hill Levee Bank 4-A2 7627-0272	Earth Mound	Between the railway line and the Little Murray River, south of Swan Hill Tech School	c 30m x 8.5m Burnt clay lumps, freshwater mussel shells and charcoal	Not provided
Swan Hill Levee Bank 4-A3 7627-0273	Earth Mound	Between the railway line and the Little Murray River, near Swan Hill Tech School	c 20m x 6.5m Burnt clay lumps, freshwater mussel shells, sheep bones and charcoal	Not provided
Swan Hill Levee Bank A4 7627-0274	Earth Mound/Shell Midden	Adjacent to the Little Murray River, near Bryan Street	c 18.6m x 8m Burnt clay lumps, freshwater mussel shells and charcoal	Not provided

Swan Hill Riverfront Masterplan - Desktop Cultural Heritage Assessment

4.5 Registered Aboriginal Places within the Relevant Geographic Region

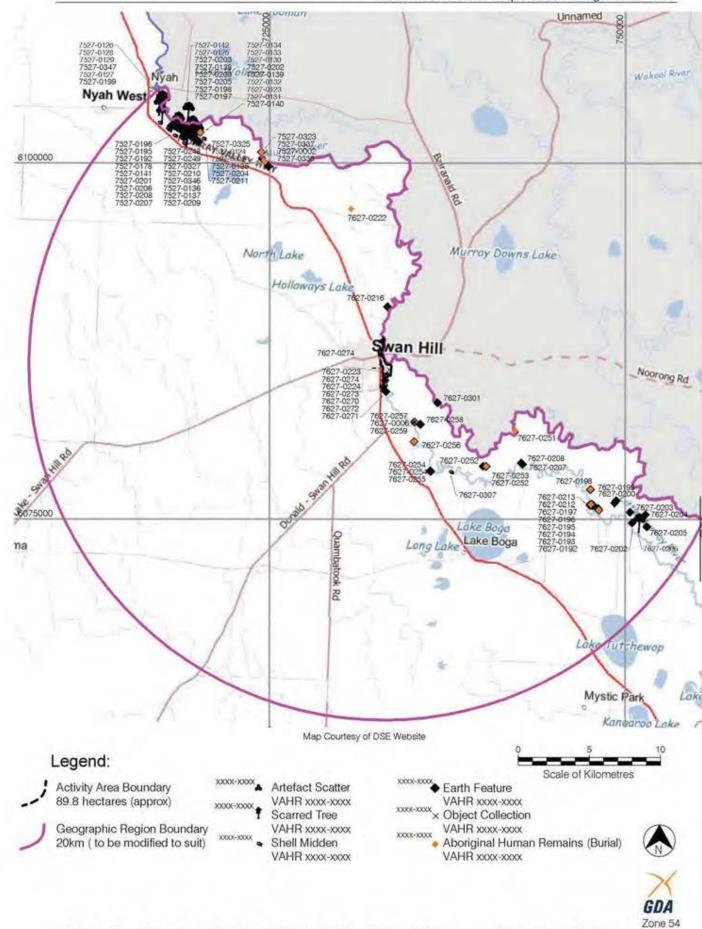
A total of 89 Aboriginal places are recorded within the geographic region (**Appendix 3**). Earth mounds (n=59) are the dominant place-type followed by scarred trees (n=15), and burials (n=8) (**Table 2**).

Table 2 Aboriginal Place-Types within the Relevant Geographic Region

Place-Type	Number
Earth Mound	59
Scarred tree	15
Burial	8
Shell Midden	4
Fireplace/hearth	1
Artefact scatter	1
Artefact collection	1
Total	89

Archaeology At Tardis Pty Ltd cultural heritage advisors

Swan Hill Riverfront Desktop Cultural Heritage Assessment



Map 5 Previously Registered Aboriginal Places within the Relevant Geographic Region

10

Archaeology at Tardis archaeologists & heritage advisors

Historic Aboriginal Places & Aboriginal Cultural Places

There are fifteen recorded historic Aboriginal places in the geographic region (**Table 3**). None are recorded within the Activity Area.

Table 3 Historic Aboriginal Places & Aboriginal Cultural Places

ID	Name	Association
12.1	Castle Donnington Weir	Ron Murray used to catch cod at the weir
2.1	Federal Square Camp	Aboriginal people used to camp at the present-day Federal Square
9.3	Fish Point Aboriginal Cemetery	Aboriginal Cemetery
4.3	Fish Point Camping Spot	Favourite childhood camping spot of Ron Murray
13.7	Fish Point Properties	Land owned by Aboriginal people
12.3	Geranyuk or Davie's Swamp Spiritual Place	Spiritual place
12.2	Little Murray Camp	Camp site/meeting place
4.3	Little Murray River Camping Spot	Favourite childhood camping spot of Ron Murray
2.1	Mullavi Family House	Place where Aboriginal people lived
4.1	Quenn Aggie's Swamp Camp	Living camp away from towns and properties
2.1	Speewa Camp	Aboriginal people camped here
5.5	Swan Hill Depot	'Board for the Protection of the Aborigines' depot
5.5	Swan Hill Store	'Board for the Protection of the Aborigines' depot
1.1	Tyntynder Station, Honorary Correspondent Depot	Property where initial contact with pastoralists occurred
2.2	Wandarra Meeting Place	Place where Aboriginal people congregated in the 1960s

Earth Mounds

Fifty-nine earth mounds have been previously recorded in the geographic region. A complete list of these can be found in **Appendix 3**. The size of the earth mounds range from 12m² to 1833m² with an average of 595m². The contents of the earth mounds is summarised in **Figure 1**.



Swan Hill Riverfront Desktop Cultural Heritage Ass

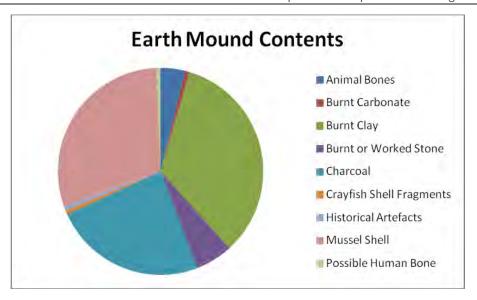


Figure 1 Relative occurrence of earth mound contents types

Scarred Trees

All of the scarred trees that have been previously identified within the geographic area are Red Gums. Scar condition was an even split between good (n = 5), fair (n = 5) and poor (n = 5). Only one of the scars had steel axe marks (VAHR 7527-0123) suggesting bark was removed during the historic period either by Aboriginal people or Europeans.

Human Remains

There are eight recorded burials in the geographic region. These were found in close proximity to the Murray or Little Murray Rivers, often associated with an earth mound.

Shell Middens

Four freshwater shell middens (VAHR 7527-0346, 7527-0347, 7627-00257 & 7627-0307) are found within the geographic region. These were comprised of freshwater mussel shells.

Artefact Scatters

There is only one previously recorded stone artefact scatter within the geographic region (VAHR 7627-0270). This comprised a scatter of quartz artefacts covering an area of 7m x 3m. The artefacts are not thought to be *in situ* as they appear to have been washed in from elsewhere. The assemblage includes at least one core, a snapped blade and approximately 27 flakes.

Agents of Disturbance

Agents of disturbance have been identified for fifty-two of the Aboriginal cultural places described above. The relative occurrence of these agents are displayed in **Figure 2**.

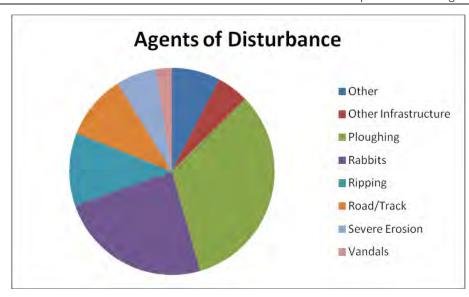


Figure 2 Relative occurrence of agents of disturbance

4.6 Reports and Published Works in the Relevant Geographic Region

Regional Investigations

In 1977, Coutts completed a review of Aboriginal Prehistory in North Western Victoria, which includes the activity area. The aim of the review was to synthesise the information being generated by the Victoria Archaeological Survey in relation to past human use of northern Victoria. Although the main focus of the Coutts review was archaeological material, other relevant information is also presented, including information about the climate, resources and ethnohistorical accounts that are associated with the region. A contrast is drawn between the riverine environment surrounding the Murray River in the far north, and the semi-arid Mallee environment. Coutts'(1977) synthesis indicates that the semi-arid mallee environment was probably used seasonally, and that a limited range of activities were undertaken. Due to this lack of focused Aboriginal behaviour it is less likely that Aboriginal cultural material will be present in semi-arid mallee environments such as the activity area.

Small Scale Investigations

ACHRIS shows there have been a number of local investigations in the geographic region (Nicolson 1997; Edmonds 1998; Hyett 2001; Edmonds 2006).

Nicolson (1997) conducted an archaeological investigation of Proposed Levee Banks in Swan Hill. A 9km x 10m area was surveyed along the Murray and Little Murray Rivers, during which five Aboriginal cultural heritage places were identified. These included one stone artefact scatter, one shell midden and three earth mounds. These sites were described as being of moderate to high significance, and it was recommended that the levee bank construction avoid causing harm to them.

Edmonds (1998) conducted an archaeological survey of the Proposed No.1 Pipeline at Nyah and the Woorinen Pumping Station and Rising Main, near Swan Hill. During the survey, one possible Aboriginal cultural heritage place was identified. This consisted of

some burnt clay lumps and one mussel shell fragment of <1cm in size. It was recommended that works associated with the pumping station and rising mains be monitored for the appearance of subsurface cultural material and that Goulburn Murray Water either alter their pipeline route to avoid this feature, or that they fund an archaeological excavation of it to determine whether or not it is of cultural origin.

Hyett (2001) completed an archaeological report for the Pental Island Levee Bank Project. One Aboriginal cultural place (VAHR 7627-0301) was situated in the study area. It was recommended that this site be protected during levee bank works, unless a Consent to Disturb was sought. It was considered that the potential for uncovering previously unrecorded Aboriginal cultural heritage material was high. To reduce the potential for damage to sites, it was recommended that soil for the levee be sourced from previously disturbed nearby farm land rather than from the river bank or flood plain areas.

Edmonds (2006) completed an Indigenous heritage assessment of The Pental Island Water Saving Project, Swan Hill. Two previously recorded Aboriginal cultural places were relocated during the survey (VAHR 7527-0258 & 7527-0259) but no previously unrecorded cultural material was identified. This was interpreted as being due to the location of the proposed pumping stations on low-lying areas. It was recommended that Pump Station 5 be moved to avoid damaging the two sites.

Cultural Heritage Management Plans

ACHRIS shows there are two approved CHMPs in the geographic region (Gilding 2009; Hill and Attwood 2012).

Gilding (2009) prepared CHMP 10925 for the Beverford Boat Ramp, Beverford, Victoria. The activity area measured 50m x 250m. A standard, but no complex, assessment was conducted. The entire activity area was surveyed and ground surface visibility was exceptionally good (95%). No Aboriginal cultural material was identified during the assessment.

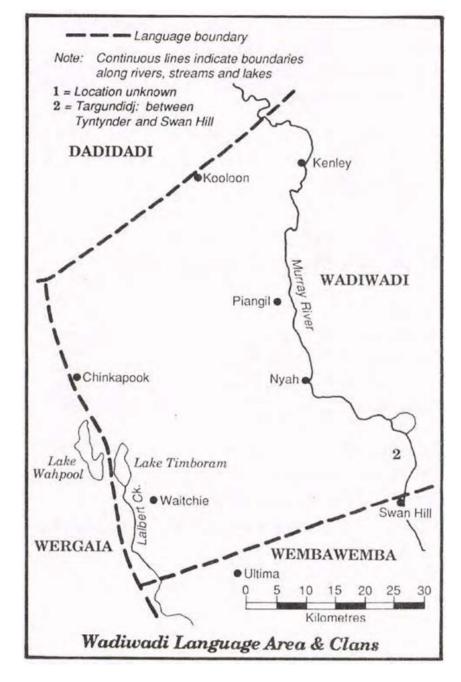
Hill and Attwood (2012) prepared CHMP 12079 for the Fish Point Aggregation Project, Lake Boga, North-West Victoria. The entire activity area of over 71km² was surveyed, but low levels of ground surface visibility and high levels of ground disturbance resulted in an effective survey coverage of 14.4%. No previously unrecorded Aboriginal cultural heritage places were identified during the standard assessment.

4.7 History and Ethnohistory in the Relevant Geographic Region

Clark (1990: 404) refers to the dialect tribe that occupied the Swan Hill region as the Wadiwadi (more than 50 variants). The earliest references to this group are provided in the 1846 journal and report prepared by George Augustus Robinson who called them 'Watte Watte'. Further primary sources to this group are also provided by Beveridge (1861-4, 1883, 1889), Curr (1887), Cameron (1899), and Hercus (1986). The meaning od Wadi/wati is word for no (Clark 1990: 404).

The location of the 'lake natives'; Wadiwadi is described as at Lake Tala, Murray region, Tyntynder, Lake Tyrell and along the Murray River between a point fifteen miles above Murrumbidge Junction and Swan Hill and extending northwards to about Moolpa in

N.S.W. Information has survived for only two clans of this dialect/tribe, the Nat Konedeyoke and the Targundidj (Map 7). Although no location information is known for the Nat Konedeyoke clan, the statement of evidence for this group is that three members of this clan were charged with the murder of Andrew Beveridge at Piangil (Clark 1990: 405). The Targundidj were known to frequent the 'wilde ready flats on the Murray towards the junction of the Murrumbidge just past Piangil'. The meaning of the clan name, Targundidj is literally 'belonging to targ' = reed tribe or reed spear tribe. No clan head or moiety for this group was recorded by any ethnographers.



Map 7 Wadiwadi language Areas & Clans (Clark 1990: 404)

Verna Eade (Swan Hill Council) has provided the following statement:

The Aboriginal community in Swan Hill have been looking at the proposed Swan Hill Riverfront Masterplan. Proposed works in relation to the proposed development area have been discussed to identify possible cultural significant areas, several highly significant areas have been identified and marked on the map. During these discussions the areas were identified near and on Pental Island and along the Little Murray River area, behind the newly constructed police station and remaining Payika College. Several sights are indicated on Pental Island and on the site near the Pioneer Settlement and the caravan park. No sites were recorded or identified north at the Goat Island towards the wetlands'.

As part of a future CHMP, consultation must occur with the Aboriginal community of Swan Hill to ensure all significant places are identified and mapped. This will enable places of importance to the local Aboriginal people to be taken into consideration during preparation of the Masterplan.

4.8 Geology and Landforms of the Activity Area

The activity area lies largely upon Pleistocene to Holocene (2.6 Ma – Present) alluvial sediments (VandenBerg 1997). Previously known as the Coonambidgal Formation, this unit has been lain down by the anastomosing channels of the Murray River (Lawrence et al 1976) (Map 8). The unit is defined in part by previous landforms and tectonics of the region, with inset river terraces and previous levee banks creating alluvial ridges along channels being the most common features observed (Lawrence 1967). Comprised of sand, silt and gravel, the unit has thin soils due to the lack of time for complex development of soil units to occur (VandenBerg 1997; Cupper et al 2003). Shoestring sands and gravel lenses are common in the soil profile (Figure 3).

Also covered by the activity area is the Shepparton Formation, although only a small section of the unit is represented within the southeast of the activity area. In north-western Victoria, the Shepparton Formation is largely overlain by the Loxton Sand or more Recent alluvial sediments of the Murray River. The unit lies in the lower areas of the landscape, deposited intermittently over a long period of time by streams in the Late Pliocene and Pleistocene (4-0.1 Ma BP) (VandenBerg 1997; Lawrence et al 1976). The Shepparton Formation comprises largely of poorly sorted, clay-dominated alluvial sediments and shoestring sands with mottling, and ranges in thickness from 8m to 14m within the activity area and directly overlies the Loxton Sands (Robson & Webb 2011; Lawrence et al 1976). Deposited by a system of prior streams flowing north into the Murray basin from the Victorian uplands, the unit has been eroded sufficiently to remove most surficial fluvial features like levees and river cut-offs, leaving in place broad, flat alluvial plains (Lawrence et al 1976).

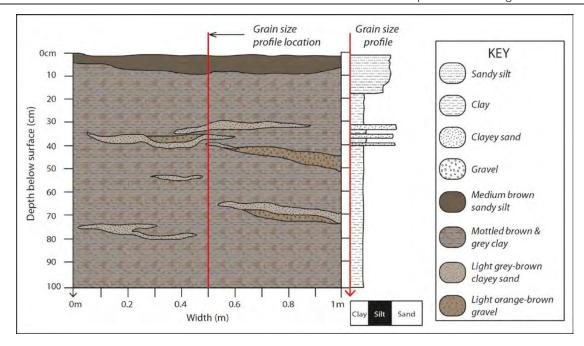


Figure 3 Stratigraphic representation of Recent fluvial sediments

Geomorphology & Landform

The activity area lies within the Northwest Dunefields and Plains geomorphic unit in Victoria, a feature that contains one of the largest strandplains in the world (Joyce et al 2003; Wallace et al 2005). This unit is defined by its long history of aeolian deposition broken up by fluvial and lacustrine periods since the Mid Tertiary (Joyce et al 2003; Hills 1975). The landscape today is dominated by large, arcuate strandlines of the Loxton Sands unit; the parabolic dunes of the Lowan Sand which are best preserved in the local national parks; and the fluvial floodplains and river valleys of the Shepparton Formation and inset Recent stream sediments (Hills 1975; Joyce et al 2003; VandenBerg 1997). The landscape lies to the north of the dividing range, thereby making it part of the Murray Basin, a large subsidence feature that was formed in the Tertiary in response to uplift to the south in the highlands and subsidence along local faults in the Mid-Late Tertiary (34-2.6 Ma BP) (Wallace et al 2005; Holdgate & Gallagher 2003).

The activity area is a level plain with subtle undulations and pronounced drainage depressions created by the Murray River. The activity area is dominated by a stream terrace inlaid within a higher and older Shepparton Formation floodplain which is a result of past fluvial activity. All features of the activity area, both undulations and drainage depressions, were formed by fluvial processes since the end of the Pliocene, approximately 2.6 Ma (Edwards et al 1998). Abandoned channels on the younger alluvial sediments can be clearly observed in the landscape, and have resulted from the migration, formation and cut-off of various channels under different hydrological regimes over time (Cupper et al 2003). Drainage within the landscape is along the meandering Murray River and its tributaries as they flow northwest in their path towards the Bass Strait (Cupper et al 2003). The Little Murray River in the southeast of the activity area is a subsequent connector stream of the Murray, breaking away from the main river to the east near the confluence of the Loddon and Murray Rivers.

Landscape Evolution

The current landscape of the region effectively originated in the Early Tertiary after a period of rapid tectonic reorganisation occurred in Victoria in response to the split up between Australia and Antarctica (Duddy 2003). During the Tertiary, there were three main periods of sea rise and fall, interspersed by periods of tectonic instability and stability, with each cause and effect creating the three depositional sequences of the Renmark Group; the Murray Group; and the Wunghnu Group (Kingham 1998; Brown & Stephenson 1991). In the Paleocene, rapid upland contraction to the south began to increase the elevation of the landscape and caused the concomitant subsidence of the Murray Basin, allowing alluviation of the basin to occur (Jones & Veevers 1982). The sediments eroded from the highland surfaces were lain down in flat sequences within the Murray Basin, transported by north-flowing rivers (Holdgate & Gallagher 2003; Lawrence & Abele 1976). This thick sequence is now known as the Renmark Group, and ranges in age from Paleocene to Middle Miocene (Brown & Stephenson 1991). Over time, swamps developed on the floodplains, depositing several coal seams in the Middle Eocene (48-37 Ma BP) (Holdgate & Gallagher 2003; Brown & Stephenson 1991).

An advance of the sea in the Early Oligocene (34-28 Ma BP) changed the local sedimentation conditions from fluvial-lacustrine of the Renmark Group to the marine marls and limestones of the Murray Group (Holdgate & Gallagher 2003; Brown & Stephenson 1991). This inland sea deposited between 50-250m thick sequences of these sediments in flat-lying beds, including the economically important Duddo Limestone, which is one of the main water aquifers of the region (Holdgate & Gallagher 2003). Deposition changed over time, with shallow marine sediments becoming more common as the inland sea retreated until deposition halted after the Middle Miocene and a short period of erosion occurred (Brown & Stephenson 1991; Lawrence & Abele 1976).

This short interval ended when the sea intruded again to a peak of ~65m above present levels in the Late Miocene, depositing the first sequences of the Wunghnu Group in the form of the Bookpurnong Beds marl facies (Cupper et al 2003; Holdgate & Gallagher 2003). These beds were only deposited in the deeper sections of the Murray Basin inland sea, and were being deposited even as the sea began to retreat in the Late Miocene-Early Pliocene (11-4 Ma BP) (Holdgate & Gallagher 2003). A combination of sea level retreat and minor subsidence reworked the uppermost sediments of the local siliceous sediments, creating the Loxton Sand strandlines to the west in a prolonged period of deposition between ~8-2.5 Ma BP (Miranda et al 2009; Robson & Webb 2011). With each successive creation and subsequent reworking of a strandline as the sea retreated, bands of heavy metals were deposited and then buried, leading to the wealth of heavy mineral resources found in the Murray Basin at present (Robson & Webb 2011). Considerable tectonic movement has affected the strandlines since their deposition, peaking in the Neogene (23-2.6 Ma BP) along NNE-oriented faults, effectively displacing some parts of the landscape by approximately 10m (Dickinson et al 2002; Robson & Webb 2011).

During the Pleistocene (2.58-0.25 Ma BP), the Shepparton Formation was deposited in thick sequences along floodplains in response to high discharge conditions, particularly during the Last Interglacial (~125ka BP) (Lawrence et al 1976). In the latter half of the Pleistocene, temperature and sea level fluctuation from the mid-Pleistocene through to the Recent caused periods of cyclic weathering and erosion, and by the Late Quaternary, the climate had cooled substantially, and sea levels dropped approximately 120m below the

current levels during the Last Glacial Maximum (LGM) (White & Mitchell 2003). The environment of northwestern Victoria became arid, with a veneer of dunes and dust deposits moving across the landscape, in particular forming the lunettes on the eastern sides of dry lakes (Cupper et al 2003). Most sand and dust sediments probably originated from the reworking of the Loxton Sands strandlines, and were blown to the east by prevailing westerly winds to mantle the landscape with dune and sand sheets (Cupper et al 2003). The resulting source-bordering dunes can still be seen at present on the eastern side of billabongs and salt lakes (VandenBerg 1997). Erosion at this period was high due to harsh climatic conditions and the lowering of base level, causing streams to incise in some areas and deposit sediment in others (Cupper et al 2003).

The patterns of erosion and sedimentation continued through to the Early Holocene (11.7-8ka BP), although at lower magnitudes compared to the conditions seen in the Late Pleistocene (120-11.7ka BP) (Lawrence et al 1976). Intermittent floods and the constant lateral migration of the channels spread thick layers of upwardly fining sediments across the landscape to gradually form the floodplains seen at present (Fried 1993). The Holocene Climatic Optimum (HCO) dominated the middle part of the Holocene (6-5ka BP), which saw a slight increase in average temperatures and precipitation, allowing for increased sedimentation along streams, creating a complex pattern of levee banks, channel cut-offs and oxbow lakes (White & Mitchell 2003; Cupper et al 2003). However, despite small increases in precipitation in the region, there is evidence of dune building at the local scale (White & Mitchell 2003; Wasson & Donnelly 1991).

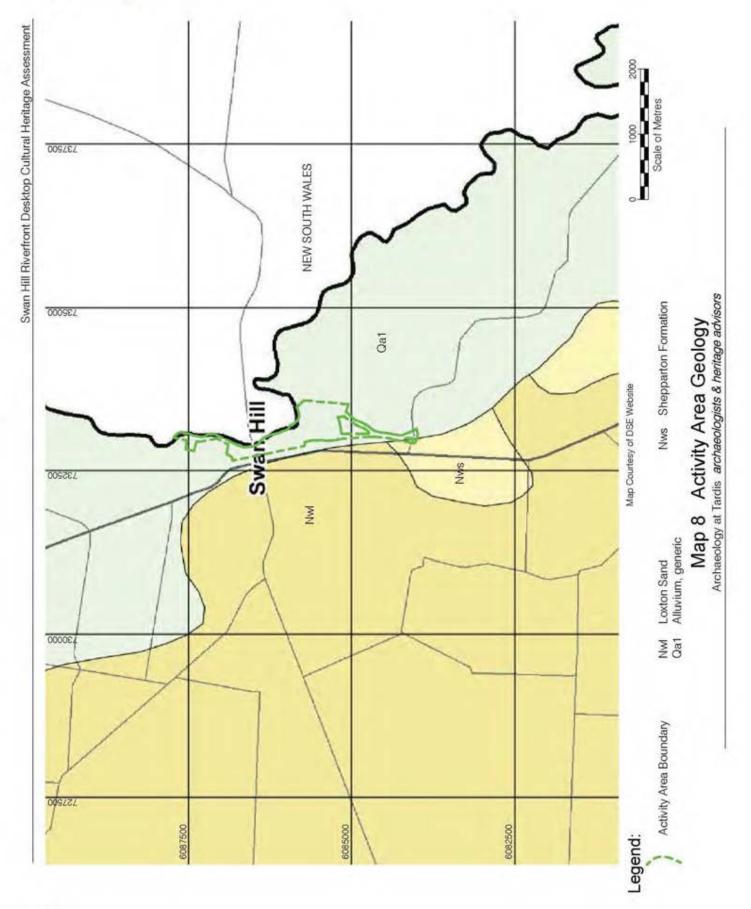
Across the region as a whole, there was a period of woodland expansion with an understorey of shrubs (Cupper 2005). These conditions were brief, and around 4ka BP, the environment shifted to arid climates with a reduction in woodland and shrubland landscapes (Cupper 2005; White & Mitchell 2003). Source-bordering and linear dunes reactivated from 4ka BP onwards, responding to the decrease in stabilising vegetation on the dune crests, while most lakes became ephemeral (Cupper 2005). These conditions continued through to Recent times, with slight variations in magnitude in response to local climate and microclimate variation (White & Mitchell 2003). Continuous sequences of stream sediments continued to be laid down in response to changing upstream conditions and local precipitation variations. With the onset of European settlement, large areas of vegetation were cleared to provide land for cropping. This removal of the stabilising vegetation allowed aeolian erosion to dominate, removing between 1-50 t/ha of sediment from the landscape each year (McKenzie et al 2004).

Geomorphological History

Time period	Geological event/Environmental conditions	Effect
Paleocene (65-56 Ma BP)	 Widespread uplift & tectonic reorganisation Murray Basin subsidence 	Uplift of upland landscapes to south promoted erosion of sediments, which were then washed into the sinking Murray Basin
Paleocene – Middle Eocene (56- 11.6 Ma BP)	- Relative regional tectonic quiescence	In the absence of major tectonic reorganisation, the Renmark Group was deposited in the Basin, forming coal swamps in places,

		particularly in the Eocene
Oligocene – Middle Miocene (34- 11.6 Ma BP)	- First inland sea incursion & regression	Incursion of the inland sea deposited sequences of the calcareous Murray Group before retreating in the Middle Miocene, allowing erosion to occur in the landscape
Late Miocene - Pliocene (11-2.5 Ma BP)	- Second inland sea incursion & regression	The second marine incursion increased sea levels to ~65m above current levels, depositing the Bookpurnong Beds to the west before retreating. Landscape subsidence & sea level retreat deposited the Loxton Sands strandlines across the Murray Basin strandplain
Neogene (23-2.6 Ma BP)	- Regional tectonic reorganisation	Tectonic activity within the Murray Basin created and reactivated NNE-oriented faults, displacing the strandlines in places by ~10m
Pleistocene (2.58-0.25 Ma BP)	- Murray Basin fluvial evolution	Deposition of the Shepparton Formation during periods of higher fluvial discharge occurs across most of the Murray Basin. The upward fining sequences show the slow incursion of arid climates
Late Pleistocene – Early Holocene (120-8ka BP)	- Last Glacial Period	During LGM, sea levels dropped ~120m below current levels and climate became arid. Dunes mobilised, covering most of northwest Victoria, and lunettes were formed on the eastern shores of lakes
Middle Holocene (8- 4ka BP)	- HCO	Climatic conditions warmer and wetter during HCO, causing an increase in base level. Complex deposition of alluvial sediments occurred during the wetter climate. Dunes stabilised and woodland vegetation expanded in range
Late Holocene - Present (4ka BP - Present)	- Arid expansion - European settlement	Following the HCO, arid environments expanded. Woodlands & shrublands decreased in response to a decrease in precipitation. Dunes & source-bordering dunes were remobilised & most lakes became ephemeral. European settlement caused large tracts of vegetation to be stripped from the landscape, destabilising many landscapes





4.9 Landuse History of the Activity Area

The landuse history of the activity area is discussed in detail in **Section 5.1**. The township of Swan Hill developed in the 1850s with the activity area home to a number of buildings and structures associated with transport, the administration of law and order, the supply of goods and services, and the provision of medical services. The construction of these facilities and associated township infrastructure such as roads would have degraded archaeological resources within parts of the activity area. The river band and immediate surrounds have seen the most intensive historic use, significantly altering the activity area from its pre-contact form.

4.10 Strategic Values

A discussion of strategic values in the activity area and surrounding region is important because variations in strategic values likely influenced Aboriginal cultural heritage place location and visitation frequency (Walsh 1987). Strategic values include strategic resources (eg potable water, flora, fauna, stone sources), routes of movement (eg along waterways or ridgelines) and vantage points (eg prominent hills above plains). In general, strategic values were likely of greater importance to Aboriginal people rather than landform or soil type, that is, Aboriginal groups generally would have chosen long-term campsites close to the richest and most diverse resources within the activity area region. Information about strategic values provides insight into Aboriginal cultural heritage place patterning and informs directly on the desktop model presented in Section 4.11.

Hydrology

The activity area is aligned with the Murray River and Little Murray River. The Murray River extends 2,508km from its beginnings in the Kosciusko National Park (Geoscience Australia). It forms part of the 3,750km long combined Murray-Darling river system, which drains most of inland Victoria, New South Wales, and southern Queensland. The Little Murray River is an anabranch of the Murray River, part of the ancestral course of the Murray-Goulburn river system. The Little Murray River, together with the modern course of the Murray River, forms Pental Island, a 25 km long island stretching from Fish Point to Swan Hill.

Flora

Prior to European settlement the activity area was dominated by Riverine Grassy Woodland (EVC103). Smaller areas of Semi-arid Chenopod Woodland (EVC98) and Sedgy Riverine Forest (EVC816) were also present (Map 9). The areas immediately beyond the activity area were also characterised by these EVCs, with the exception of an area of Lignum Swamp (EVC104) to the east. Ecological Vegetation Classes (EVCs) are described in detail in Appendix 4.

Riverine Grassy Woodlands are Eucalypt woodlands, characterised by trees up to 15m tall and a diverse array of shrubs and grasses comprising the understorey. Riverine Grassy Woodlands are generally confined to heavy clay soils on higher level terraces within or on the margins of riverine floodplains (or former floodplains) that are naturally subject to only extremely infrequent incidental shallow flooding from major events. Common species for this EVC include Black Box (*Eucalyptus largiflorens*) and River Coobah (*Acacia*)

stenophylla) which give 10 per cent tree canopy cover. These would have provided shelter and the Black Box would have provided bark resources for Aboriginal people. Salt bush species such as *Atriplex nummularia* and *Chenopodium nitrariaceum* would have dominated the understorey, along with other small shrubs and herbs. The smaller shrubs and herbs provided a spring/summer seasonal vegetable food resource; plants such as Pigface, salt bush and emu bush fruits would have been available.

Fauna

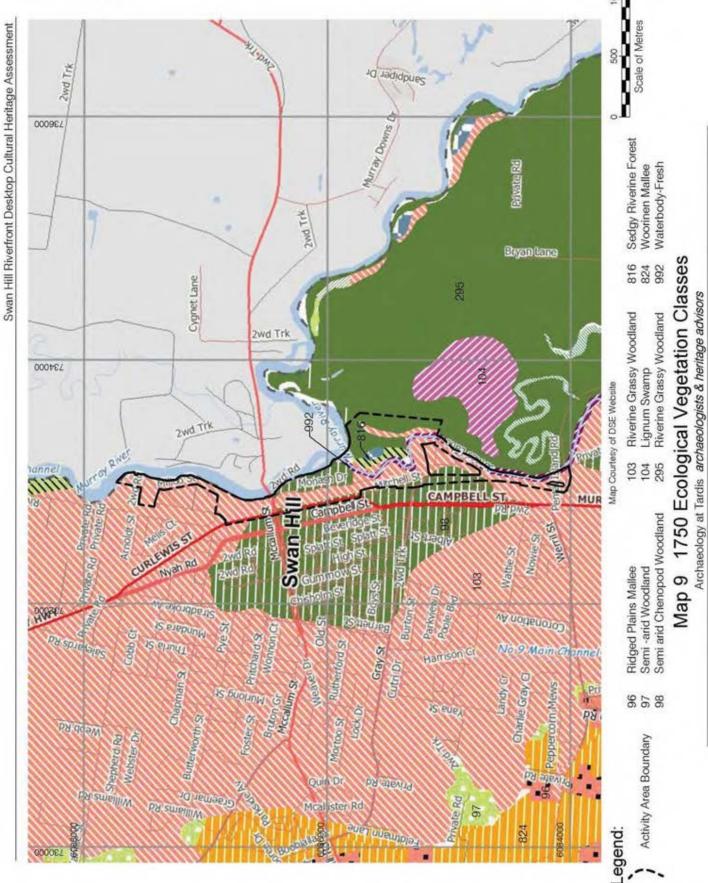
The Murray River and Little Murray River would have been important corridors for many species. Animal species exploited by Aboriginal groups included kangaroos, wallabies, possum, bandicoots, potoroos, rat-kangaroos, echidnas, native rats and mice (Bird 1984: 9).

Birds and their eggs were also consumed. Species of bird include emu, bush stone curlew, plains wanderer, grey crowned babbler, grey falcon, hooded scaly foot, Australian bustard, mallee fowl, swans, pelicans and ducks. Not all would have been caught for food, but also for clothing and ceremonial purposes. Emus, the largest of birds predated upon, would have ranged the plains. Ducks on the Murray River were caught with fibre nets up to 55m long.

Aquatic resources would have been available. Fish species likely included Australian smelt (*Retropinna semoni*), freshwater catfish (*Tandanus tandanue*), Murray cod (*Maccullochetta peeli*), golden perch (*Macquaria ambigua*), flat headed gudgeon (*Phitypnodon grandiceps*) and freshwater blackfish (*Gadopsis marmoratus*). Fishing was conducted using spears, nets, weirs and poison. Other aquatic resources included yabbies, freshwater mussels, tortoises and frogs (**Bird 1984**: 10). Although few shell middens are recorded in the geographic region, around one-third of the earth mounds contained mussel shells (Figure 1).

Lizards, snakes and some insects were also targeted (Bird 1984: 10). Insects include witchetty grubs, honey ants and honey from bees.





Stone Sources

Most available stone sources in the region are only available many kilometres to the south, due to the dominance of unconsolidated sediments found in the region. Common stone sources in the south include quartz from hydrothermal veins in the Cambrian metasediments, hornfels from metamorphic aureoles, silcrete from sub-basaltic sources to the south and the Karoonda Regolith in the west, and quartzite from the Grampians to the south (VandenBerg 1997; Phillips et al 2003). Other stone sources include chert from the Castlemaine Supergroup to the south in the dissected highlands of the Western Uplands region, and small outcrops of radiolarian chert from the Mount Stavely Volcanic Complex to the southeast (VandenBerg et al 2000). It is possible that many of these sources were transported in the fluvial system from their sources in the Dividing Range, and deposited within the activity area included within the alluvial sediments.

Routes of Movement

Major routes of movement probably followed the Murray River, because it would have provided fresh water and abundant resources, even at times when the surrounding areas were dry. It is considered as one of the most significant routes of movement for Victoria and New South Wales.

Vantage Points

There are no known strategic vantage points in the geographic region.

Summary of Strategic Values

In summary the strategic values to Aboriginal people in the region included the following:

- Availability of bark for a variety of wooden implements.
- Availability of spear shafts for the production of spears.
- Permanent water bodies (the Murray River and Little Murray River) were of highest strategic value in the broader region.
- Various suites of resources appear to have been found along different parts of these waterways and may have been differentially exploited during different parts of the year (for example, fresh water mussel).
- Strategic values are therefore located within the activity area.

4.11 Aboriginal Cultural Heritage Scientific Sensitivity Model

In relation to Aboriginal cultural heritage values the following model predicts the likely values within the activity area in relation to strategic values and landform. The relevant information for the model is presented below (**Table 4**) (**Map 10**):

- 1. Known sites/places within the activity area;
- 2. Strategic resources are located within the activity area.
- 3. Routes of movement comprising the Murray River and Little Murray River are located within the activity area.
- 4. Place-types likely to be present in the activity area are earth mounds, scarred trees, burials and shell middens.

5. Stone artefact scatters

- Artefact scatters are rare in the geographic region.
- Artefact scatters in the floodplain may have been washed in from elsewhere.
- The predominant raw material for stone tool manufacture will be quartz.
- Stone artefact types will be represented predominantly by flakes with a smaller component of former tool types (eg microliths, cores).

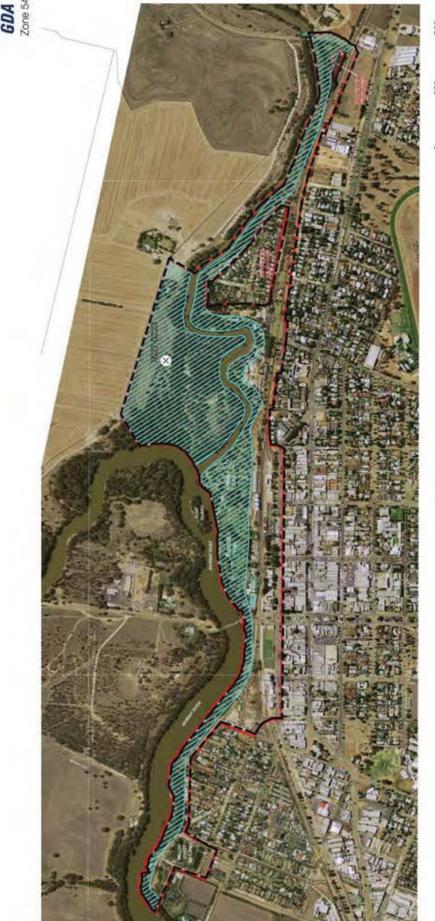
Table 4 Aboriginal Cultural Heritage Scientific Sensitivity Model

Place Types	Location / Landform	Sensitivity
Earth mounds, scarred trees, burials, shell middens	Entire Activity Area	Moderate
Stone Artefact Scatters	Entire Activity Area	Low

4.12 Aboriginal Cultural Heritage Conclusions

In relation to Aboriginal cultural heritage the desktop assessment has concluded that:

- 1. There are five registered Aboriginal cultural heritage places within the activity area.
- 2. The banks of and floodplains associated with the Murray River and Little Murray River are areas of high Aboriginal cultural heritage scientific sensitivity (Map 10).



DESKTOP ASSESSMENT: HISTORIC CULTURAL HERITAGE

The aim of the desktop assessment is to formulate an historic cultural heritage sensitivity model for the activity area (Section 5.3.3).

5.1 Historical Background

The history and development of the activity area and surrounding region are described below and is paraphrased from **Blake 2013**.

Exploration era

Between 1798 and 1802 several British expeditions explored the Victorian coastline, Port Phillip Bay and Western Port and reported on the settlement potential of the region. Following these expeditions a short lived British settlement was established at Port Phillip near what is now Sorrento, but it was not until the 1820s that the Port Phillip region was again investigated as a potential settlement. In 1824 explorers Hume and Hovell visited the Port Phillip region and surveyed the landscape with a view to its potential as grazing land. Although Hume and Hovell did not explore the Swan Hill region, Shaw (1996: 34) writes that they discovered the Murray River, which they named the Hume, in the vicinity of what is now Albury. Shaw (1996: 38) writes that although there was some interest in the Port Phillip and Western Port region, Governor Darling, then in charge of the colony of New South Wales, was intent on limiting settlement rather than extending it.

While the authorities and settlers debated the possibilities of the Port Phillip and Western Port region, explorers such as Charles Sturt were focused on the interior of the continent which they believed featured an inland sea. In 1828 Sturt, accompanied by Hamilton Hume, led an expedition that followed the course of the Macquarie River and eventually located a river he named the Darling. On a second expedition in 1829 Sturt followed the Murrumbidgee River to its junction with the Lachlan River, before continuing along the Murrumbidgee in a whale boat. On 14 January Sturt's party reached a "broad and noble river" which Sturt named after the then Secretary of State, Sir George Murray (H. J. Gibbney, 'Sturt, Charles (1795–1869)', Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au/biography/sturt-charles-2712/text3811, accessed 9 July 2013).

In 1835 Sturt's expedition prompted Surveyor General Major Thomas Mitchell to follow the course of the Darling River to its junction with the Murray. Mitchell's expedition reached as far as Minindee where there was a confrontation with the Aboriginal people of the area that resulted in a number of Aborigines being killed and wounded. The following year Mitchell led another expedition, which reached the junction of the Darling and Murray rivers. Scholes (1989: 7) writes that after reaching the junction Mitchell's party continued down the Murray River, where at what is now known as Mount Dispersion they encountered a group of Aborigines they believed to have been the same that attacked them the previous year. Another violent confrontation resulted in the deaths of a number of Aborigines. On 13 June Mitchell's party crossed the Murray River just west of its junction with the Murrumbidgee River, and on 20 June Mitchell reached what is now Swan Hill (Scholes 1989: 7). In his journal of the expedition Mitchell wrote that,

"When we arrived there just before sunset we had the good fortune to find close under the hill a bend of the Murray, and to discover the junction of another river or branch with it at this point. Within the margin we found a small pond quite accessible to the cattle, and behind the hill was an extensive flat covered with the richest grass. Here therefore we could encamp most contentedly beside a clear hill, always a desirable neighbour, and an accessible river. We were also thus enabled to determine the junction perhaps of two rivers, an important object in geography." Mitchell added that "Among the reeds on the point of ground between the two rivers was a shallow lagoon where swans and other wild fowl so abounded that, although half a mile from our camp, their noise disturbed us through the night. I therefore named this somewhat remarkable and isolated feature Swan Hill, a point which may probably be found to mark the junction of two fine streams" (Mitchell, Three Expeditions into the Interior of Eastern Australia, Vol. 2 (electronic resource); https://gutenberg.net.au/ebooks/e00036.html, accessed online 9 July 2013).

Mitchell's expedition continued along the Murray River and then travelled south-west where he observed a landscape he described as 'Australia Felix', a fertile country with good soil and a temperate climate, with enough timber to be of practical use. Mitchell eventually reached Portland where he encountered the Henty family, who had taken up land in the area in 1834, and told them about the good country he had observed on his travels. Mitchell's expedition then returned to Sydney, arriving in November. In 1936, as part of the centenary of Mitchell's expedition a number of memorial cairns were erected along Mitchell's route, which came to be known as the 'Major's line'. One of these cairns was unveiled in Swan Hill in the vicinity of Mitchell's camp site in what is now Riverside Park.

Pastoral era

30

Shaw (1996: 63) writes that although Mitchell's expedition attracted overlanders transporting stock to Port Phillip and South Australia, it was the official sanctioning of the Port Phillip district on 9 September 1836 that prompted the arrival of many squatters into the Port Phillip district. As noted above, members of the Henty family were the first of a number of Tasmanian squatters to take up land in Victoria when took up land in Portland in 1834. In June 1835, John Batman, one of the founders of the Port Phillip Association visited Port Phillip in June 1835 and acquired a large amount of land through a 'treaty' with the Woi wurrung, Boon wurrung and Watha wurrung clans. Following Batman's initial expedition surveyor John Helder Wedge visited Port Phillip to map the area claimed for the Port Phillip Association. While the treaty was later declared void by the Governor of New South Wales, members of the Port Phillip Association began flooding into the Port Phillip district, bringing with them sheep and cattle to graze on what seemed like an abundant supply of grazing land.

When the Port Phillip district was sanctioned in 1836 the north-east and Gippsland regions were not included within its boundaries. By 1840 these boundaries were extended with the Murray River acting as the north-east boundary of the district. Scholes (1989: 8) writes that squatters were slow to take up land along the Murray River, suggesting that the reasons for this delay included the well publicised confrontations between Mitchell's party and the Aboriginal people in the area, the region's distance from the ports of Port Phillip and Portland Bay, and the availability of fertile land closer to these ports. In 1838 overlander Joseph Hawdon followed the Murray River when overlanding cattle from New South Wales

to Adelaide, but it wasn't until after the economic depression in the early 1840s that squatters began to take up land in the region.

Among the pastoral runs in the region were the Tyntynder run taken up by the Beveridge family in 1846, and the Reedy Lake run taken up by Robert McDougall and licensed to G.C. Curlewis and Robert Tertius Campbell in 1845 (Scholes 1989: 32-33) (see Figure 4). Squatters were charged a licence fee of £10 for a 'run'. Dingle (1984: 25) writes that these runs were often quite large and were determined by the number of stock that could be grazed on them with minimal labour. From 1847 squatters were given more security of tenure with the Orders in Council of 1847 giving them the option of taking up a preemptive right on their land - a long term lease - at the end of which lease holders could purchase up to 640 acres of the run, which usually included a homestead and adjoining land (Nelson & Alves 2009: 29). The Beveridge's established a homestead at Tyntynder station, but Reedy Lake was later split into three separate runs. There were no pre-emptive right sections associated with either run in the activity area.

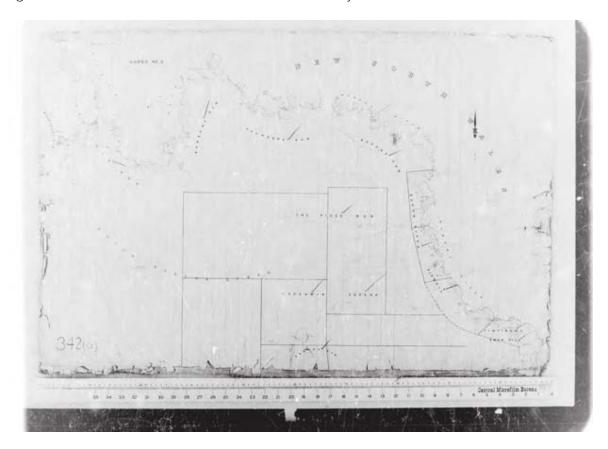


Figure 4: Run 342(A); PROV, VPRS 15899, Historic Plans Collection (copy of VPRS 8168; reproduced with the permission of the Keeper of Public Records, Public Record Office Victoria)

Swan Hill Township

The township of Swan Hill initially developed as a river crossing with a punt service, and a hotel and store. Scholes (1989: 54) writes that by 1849 John McCrae held the licence for the punt service at Swan Hill and operated McCrae's Inn, which also had a store that supplied the pastoral runs in the district. The 1850s was a period of significant change in

the administration and development of Victoria, which in 1851 became a separate colony from New South Wales. The 1850s goldrush led to an increase in the population and the opening up of land for settlement and food production. The township of Swan Hill also developed in the 1850s with the activity area home to a number of buildings and structures associated with transport, the administration of law and order, the supply of goods and services, and the provision of medical services.

The township of Swan Hill was surveyed in 1851 and was then enlarged to one square mile in 1856 (see Figure 5). Following the survey of the township was the establishment of facilities for the administration of law and order. Within the plan of the township of Swan Hill land was set aside between Curlewis Street and the Murray River for police purposes (see Figure 6). In 1852 William Lavender was appointed Police Magistrate to Swan Hill and was replaced a year later by George Plunkett. Some accommodation was provided for the Police Magistrate as well as stabling for horses, but in 1859 a tender was called for the construction of a police station and lock up (Scholes 1989: 54-55). In 1853 a Clerk of Petty Sessions was also appointed to the district (Scholes 1989: 55). Gardner (2000: 26) writes that by 1858 a log court house was located on the south-east corner of McCallum and Curlewis streets. This was replaced by a pine weatherboard building in 1860, which was also used as a police office. Additional buildings included constable's quarters, a watch house, cells and stable and chaff house, all built on the south side of the courthouse in Curlewis Street. The old stable and feedhouse were acquired by the Swan Hill Folk Museum in 1968. Gardner (2007: 28) writes that in 1893 a new brick court house was built in McCallum Street, but the weatherboard court house was not removed until 1913 where it became a private residence on the corner of Stradbroke Avenue and Chapman Street. It was moved again in 1986 to the Swan Hill Pioneer settlement. Further research is needed to determine if any structures associated with the police and court precinct remain in the activity area. Gardner (2000: 27) writes that when "the police office was established in Curlewis Street, the whole area bordering Curlewis Street, McCallum Street, the railway line to the east and the station yard to the south was fenced with a three-rail fence, and used as a police paddock. This fence was only demolished in the 1950's." Heritage Concepts (2009: 30) write that Long and Clark identified the area between Curlewis Street, Rutherford Street, Chapman Street and the Murray River as the site of a police depot where supplies were distributed to Aboriginal people. The site is said to have been a known Aboriginal camp site.

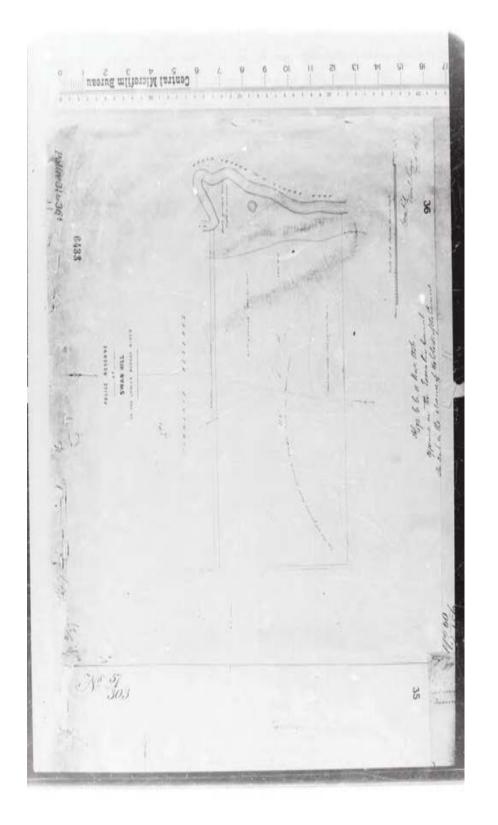


Figure 5: 'Police Reserve at Swan Hill on the Lower Murray River', 1856; PROV, VPRS 15899, Historic Plans Collection (copy of VPRS 8168; reproduced with the permission of the Keeper of Public Records, Public Record Office Victoria)

Archaeology At Tardis Pty Ltd cultural heritage advisors

33

Swan Hill Riverfront Desktop Cultural Heritage Assessment

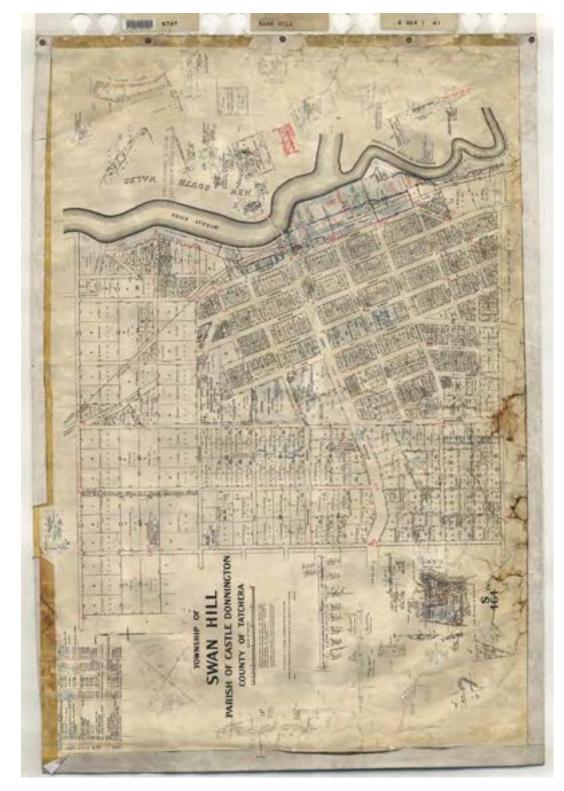


Figure 6: Township of Swan Hill S464(4); © State of Victoria, 2009. Materials supplied by the State of Victoria under the Creative Commons Attribution – Noncommercial 2.5 Australia Licence. To view a copy of this licence, visit http://creativecommons.org/licenses/by-nc/2.5/au/

In addition to the buildings established for the police and courts, the activity area also included Swan Hill's first hospital. Cusack (1979: 3-4) writes that in the 1850s the region was still isolated. Dr Benjamin Gummow had established a medical practice following his arrival in 1858, but the nearest hospitals were located some distance away at Sandhurst and across the border in Denilquin. In 1859 a committee was formed following a meeting between local squatters to discuss the establishment of a hospital at Swan Hill. Cusack (1973: 8) writes that the committee suggested that the hospital should be located near the police station, and by the river to provide a water supply and allow the hospital to grow its own vegetables. By January 1860 the Crown had allocated five acres of land south of the police station for the purposes of the hospital. Cusack (1973: 8) writes that the building was planned as a brick building with shingle roof and verandah. It was to be divided by a long passage with seven rooms, bedroom, surgery, bathroom, and storeroom. The architect is unknown but it appears to have been built by Thomas Dick, a local master builder who had also worked as a butcher, baker, puntkeeper, and innkeeper (Cusack 1973: 7). The hospital opened in late 1861 and was known as the Lower District Murray Hospital. The building was later extended and a well was sunk to provide a permanent water supply (Cusack 1973: 28). With the extension of Victoria's railway network in the 1880s, the hospital site was acquired for a railway station, and a new hospital was built and opened in 1889. A plan of the township of Swan Hill marks the location of the old hospital site and the new railway station (see Figure 6). Ballinger (1998: 68) writes that there is a cairn marking the spot where the original hospital once stood. The existing Big 4 Caravan Park appears to be located on the site of the former hospital. The State Library of Victoria holds a manuscript collection relating to the hospital which may be utilised for further research (MS9710, 'Letters and documents, 1860-1891' (manuscript), 1860-1891, State Library of Victoria). Heritage Concepts (2009: 32) write that Chinese market gardens along the Murray River may have also been destroyed when the railway line was constructed. Gardens were said to have been located south of the Little Murray Bridge, and near Horseshoe Bend where the Swan Hill Pioneer Settlement is located. Further research is needed on the structures in the activity area associated with the railway line.

Transport services have been a feature of the activity area since a punt service was established in the 1840s. In addition to the railway station, the Rural City of Swan Hill Heritage Study (2001) has identified a number of buildings and structures associated with rail and river transport, including the site of the wharf (HO139), and Customs House (HO148). Heritage Concepts (2009: 12) writes that it was the river trade that first brought economic prosperity to the township. Among the first river boats that traded along the Murray were the *Lady Augusta* and *Mary Ann*. Feldtmann (1973: 57) writes that in the 1853, after hearing the favourable reports of the Murray River from Captain Francis Cadell, Sir Henry Young, Governor and Chief Administrator of South Australia, issued a proclamation offering a prize for anyone who launched a forty horsepower steamer at Lake Alexandrina and reached the junction of the Murray and Darling rivers. Cadell captained the *Lady Augusta*, while unbeknown to Cadell pastoralist Captain William Randell launched the *Mary Ann*. Their separate journeys ended in a race that resulted in the *Lady Augusta* arriving in Swan Hill four hours ahead of the *Mary Ann*.

Feldtmann (1973: 60-61) writes that following this initial race, regular trade began on the Murray and its tributaries supplying station owners. Heritage Concepts (2009: 15) writes that after Swan Hill became a customs port of entry in 1864 the port of Swan Hill developed with paddlesteamers and barges transporting wool, wheat, and other goods. Feldtmann (1973: 62) writes that in the 1860s and 1870s there were approximately 160

steamers on the Murray River. In 1864 Echuca was connected to Melbourne by rail, and in 1890 the railway was extended to Swan Hill from Kerang. Following the extension of the railway line to Swan Hill, a wharf was erected in 1892. When the Swan Hill bridge was built in 1896 a Customs House was built on the Victorian side of the river. Gardner (2000: 205) writes that following Federation in 1901 the building became a private residence, but was later destroyed by fire in 1913. The Rural City of Swan Hill Heritage Study has identified a well associated with the property. A photograph of the bridge dated ca1910-1920 shows the bridge over the river at a time of drought. The wharf, customs house (then a private residence) and the water tower erected in 1883 are also visible in the photograph (see Figure 7).



Figure 7: Lift bridge over the Murray River at Swan Hill (picture), ca.1910-ca.1920, State Library of Victoria, accessed online 9 July 2013.

One of the businesses that benefited from the river and railway trade was Permewan Wright & Co. Gardner (2000: 114) writes that the business formed in 1878 and later developed a fleet of paddle steamers on the Murray and Darling rivers with 43 branches in Victoria and Tasmania by 1900. Their main office was said to be originally located in the railway yards with stables and a residence in Curlewis Street opposite the wharf. The office later moved to Curlewis Street. Gardner (2000: 160) writes that the company also used what is now Riverside Park as a resting paddock for the Clydesdale lorry horses. Another business located in the activity area between Curlewis Street and the Murray River was the Swan Hill Flour Mills that were established by the Gillespie Brothers in 1895 on land originally owned by the Presbyterian Church. Feldtmann (1973: 159) writes that a spur line was constructed from the railway to the mill. The mill business closed in 1902 and was reopened in 1908 by Ross Bros. It continued to operate under various owners until 1967.

Heritage Concepts (2009: 25) writes that the land occupied by the flour mill is said to have been the location of a pre-1860s burial ground. Although no official records have been located to confirm the burials that may have taken place, Heritage Concepts (2009: 27-28) write that newspaper articles published in 1914 when work was undertaken on the Swan Hill to Piangil railway line suggest that human remains were found on the site, but were later abandoned. Heritage Concepts (2009: 29) writes that there is a high potential for remains still to be found on the south-east corner of Pye and Curlewis streets, as well as evidence of the later flour mill.

The activity area is also associated with irrigation. In 1882 the Swan Hill Shire Waterworks Trust was gazetted with the responsibility of overseeing the supply of water to Swan Hill and Kerang. The Rural City of Swan Hill Heritage Study has identified a brick water tower that was constructed at the northern end of McCallum Street (Allom Lovell & Associates 2001: 376). Gardner (2006: 17) writes that water was pumped from the river to the top of the tower using steam power, and was then circulated through the town. Another structure associated with supply of water and listed in the Council's Heritage Overlay is the Lower Murray Water Pumping station (HO149). A plan of the Township of Swan Hill marks the location of an irrigation channel in the vicinity of the Milloo Street wetlands (see Figure 6). Feldtmann (1973: 129) writes that in the 1890s the Swan Hill Irrigation and Water Supply Trust erected a pumping station at the northern end of Cohn Street between the water channel and Murray River. Feldtmann (1973: 129) writes that the

"pumps were placed at the side of a deep, brick well which went well below the level of the river bottom and was located about twenty-five yards from the edge of the river. A timbered race brought water from the river to the brick well, and a brick race carried the water away from the pumps".

Feldtmann (1973: 129) writes that the pumps and machinery, together with the house occupied by the engineer in charge, were later demolished or removed. In 1973 the brick well and engine mounts were said to be still in their original position on the river bank. Further research is needed to determine what structures if any are still located in the activity area.

Closer Settlement Era

In the late nineteenth & early twentieth century's the pastoral industry experienced a number of significant changes that affected land settlement and use. One of the first was the 1893 Settlement on Lands Act that saw village settlements established in rural areas to provide relief from unemployment during the 1890s depression (Nelson & Alves 2009: 275). The 1893 Settlement on Lands Act was followed by the Land Act 1898 which enabled the Government to purchase large estates and subdivide them into smaller farming allotments, allowing more people to settle on the land (Nelson & Alves 2009: 285). Following WWI and WWII similar schemes were introduced to settle soldier settlers on the land. A plan of the Township of Swan Hill shows that a number of allotments between the river and Curlewis Street, near the pumping station, were acquired under Closer Settlement (see Figure 6). These allotments are located outside the activity area.

The activity area is also associated with the history of recreation and tourism in Swan Hill. From the 1920s and 30s recreational facilities were developed at Riverside Park. Gardner (2000: 160) writes that the Swan Hill Lawn Tennis Club established tennis courts in 1925

with a clubhouse built in 1956. The tennis courts are now surrounded by the Big 4 Caravan Park. Gardner (2000: 175-176) writes that Horseshoe Bend used to be a popular swimming place, until a municipal swimming pool was built in the early 1930s. Dirt was excavated using pick and shovel, and removed to Riverside Park to form a levee bank along Murray River. The pool, which was located between the water tower, railway line, and track along Riverside Park opened in 1934. An aerial view of Swan Hill dated c1920-1954 shows the pool (see Figure 8). Horseshoe Bend later became the site of the Swan Hill Folk Museum, now known as Swan Hill Pioneer Settlement, which opened in 1966. Some of the early buildings in Swan Hill were relocated to the Pioneer settlement. Nearby is the Swan Hill Regional Art Gallery which was established in 1966 and housed in part of the Paddle steamer *Gem* in the Pioneer Settlement. A new building opened in 1987 with additional changes in 1997 (Gardner 2000: 186).

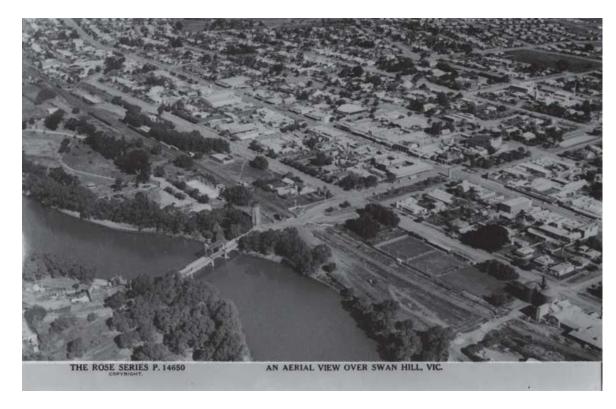


Figure 8: Rose Stereograph Co, 'An aerial view over Swan Hill, VIC' (picture), c1920-1954, State Library Collection, accessed online 9 July 2013.

5.2 Archaeological Background

5.2.1 Previous Archaeological and Heritage Studies

Parkinson *et al* (2009) completed a historic heritage assessment as part of the Swan Hill Bridge Planning Study. The aim of the Planning Study is to identify the most suitable of four proposed locations for the construction of a new bridge to replace the existing Swan Hill Bridge. The existing bridge, constructed in 1895 and 1896, is a timber truss design of the Allan truss type. Its association with designer Percy Allan makes it historically significant. The desktop component of this assessment identified an area that may contain buried remains of the early European settlers of Swan Hill. This is situated on the southeast corner of Pye and Curlewis Streets. The four proposed new bridge route options were subject to ground surface survey. On the Victorian side of the Murray River, good

ground surface visibility of 70-89% was encountered, whereas the New South Wales side was characterised by ground surface visibility of 30-49%. Based on both the desktop and survey results, eight historic 'items' were described. These included the pre-1860 burial ground, the former Swan Hill butter factory, a water tower, the Swan Hill wharf, the Customs Site and blue stone well, Pumping Station No. 1, Swan Hill-Murray River Road Bridge and the Federal Hotel. Route 9a (the most southerly of the proposed routes) was determined to be associated with the lowest risk of harm to historic cultural places.

5.2.2 Cultural Heritage Registers

The following heritage databases were searched for places relating to the study area (accessed 14 July 2013): the Victorian Heritage Database (VHD), the Australian Heritage Database (AHD), the planning schemes for the Swan Hill Rural City Council and the National Trust of Victoria Register. The VHD includes the Victorian Heritage Registry (VHR) and the Victorian Heritage Inventory (VHI) at HV. The AHD includes the World Heritage List, the National Heritage List, the Commonwealth Heritage List and the Register of the National Estate.

There are two registered non-Aboriginal historic heritage place within the activity area (**Table 5**) and eight within 1km of the activity area boundary (**Table 6**). Map 11 shows the location of recorded historic sites within the activity area.

Table 5 Historic sites within the activity area

Site Number/ Identifier	Site Name	Location
	Iron House	Swan Hill Pioneer settlement, Monash Drive.
H1742	Paddle Steamer Gem	Swan Hill Pioneer settlement, Monash Drive.

Table 6 Historic sites within 1km of activity area

Site Number/ Identifier	Site Name	Location
H7627-0003	Swan Hill Levee Bank	Approximately 500m northwest of the activity area
AHD 16074	Murray River Road Bridge	McCallum Street, immediately to the east of the activity area
B6386	Former Swan Hill Butter Factory	Curlewis Street, immediately to the west of the activity area
B4865	Swan Hill & District Hospital	Corner of McCrae & Splatt Streets. Demolished 1981.
B5642	Former Swan Hill Primary School no. 1142	Corner of McCrae & Splatt Streets, approximately 300m from the activity area
B4869	Former Presbyterian Church	313 Campbell Street, approximately 100m east of the activity area

B7101	White Swan Hotel	Campbell Street, approximately 100m east of the activity area
B4867	Houses at 318-320 Beveridge Street	Approximately 200m to the east of the activity area

Historic features that exist within or adjacent to the activity area are described in Table 7.

Table 7 Historic features within and adjacent to the activity area (Map 11)

HO number	Name	Location
126	Former Swan Hill Butter Factory	Curlewis Street
127	Moreton Bay Fig Tree	Curlewis Street
129	Railway Station	Railway line, between Rutherford and McCrae Streets
134	Former State Offices	1-3 McCallum Street
138	Water Tower	Riverfront, near McCallum Street
139	Wharf site	Riverfront, near McCallum Street
148	Customs House Site and blue stone well	Riverfront, near McCallum Street
149	Lower Murray Water Pumping Station	Riverfront, near McCallum Street
150	Railway turntable	Riverfront, near Wood Street
151	Paddle Steamer Gem	Swan Hill Pioneer settlement, Monash Drive
157	Railway House	3 Railway Avenue
158	Railway House	5 Railway Avenue
159	Railway House	7 Railway Avenue
160	Railway House	9 Railway Avenue
169	House	Northern end of Wilson Street

Mundara 64 Reserve Recreation Reserve Showgrounds Recreation Reserve C246 149 verside Swan Hill District Goat sland 66 Swan Hill Riverside SETTLEMENT Caravan Park STREET H1742 PADDLE DONNINGTON ST BURTON Jaycee Park Swan Hill City Golf And Bowls Club Inc Swan Hill Topographic map used for Location Plan: 1:30,000 Number T7627-3-4-3, T7627-3-4-2 Legend: Activity Area Boundary ◆ Heritage Overlay 89.8 hectares (approx) xxx = heritage overlay number

Map 11 Historic Features Within and Adjacent the Activity Area (VicRoads Ref: 14 B7)

Pental Island & Castle Donnington

41

5.2.3 Historic Site Prediction Model

In relation to historic cultural heritage the desktop evidence and site inspection has been used to formulate a historic cultural heritage sensitivity model. This model predicts the likely historic cultural heritage values that may be present in the study area. The relevant information is presented below (**Table 8**):

- There is potential for pre-1860 burials to exist to the southeast of the intersection of Pye and Curlewis Streets.
- The major buildings associated with the early European settlement of the Swan Hill area have been identified by the Swan Hill Rural City Council and are protected by Heritage Overlays.

Table 8 Historic Cultural Heritage Sensitivity Model

Period	Places & Location	Sensitivity
Pastoral Era (mid 19 th century)	Entire activity area	moderate-high
Early Selection & Freehold (mid to late 19 th century	Entire activity area	moderate
Closer Settlement (late 19 th century to 1950s)	Entire activity area	moderate-high

5.3 Historic Cultural Heritage Conclusions

In relation to historic cultural heritage the desktop assessment has demonstrated that in relation to the activity area:

- 1. There are a number of registered historic places within the activity area.
- 2. It is likely that both additional archaeological and extant historic cultural heritage is present.
- 3. There is potential for the project to impact unknown historic cultural heritage, particularly historic archaeological sites.

6 STATUTORY OBLIGATIONS

6.1 Aboriginal Cultural Heritage

All Aboriginal cultural heritage in Victoria is protected under the *Aboriginal Heritage Act 2006*. The Act provides for the protection and management of Aboriginal cultural heritage linked to the Victorian planning scheme. This is achieved by managing activities that may harm Aboriginal cultural heritage through Cultural Heritage Management Plans (CHMPs) or Cultural Heritage Permits (CHPs). The *Aboriginal Heritage Regulations 2007* gave effect to the Act and came into operation on 28 May 2007.

The Act specifies when a CHMP must be prepared and the standards for its preparation. A CHMP must be prepared if required by the regulations, if directed by the Minister or if an Environmental Effects Statement (EES) is required (s.46 – s.49 *Aboriginal Heritage Act 2006*). Under the Regulations the preparation of a CHMP is mandatory if the activity is a high impact activity and if part of the activity is an area of cultural heritage sensitivity (r.6 *Aboriginal Heritage Regulations 2007*). If only one of these two conditions applies to the activity, the preparation of a mandatory CHMP is not triggered. High impact activities are listed in Division 4 of the Regulations. Areas of cultural heritage sensitivity are listed in Division 3 of the Regulations. If a mandatory CHMP is not required a voluntary CHMP may be prepared to manage any Aboriginal cultural heritage risk.

If a CHMP is not required, an application for a CHP can be made in order to:

- Disturb or excavate land to uncover or discover Aboriginal cultural heritage
- Carry out scientific research on an Aboriginal place
- Carry out an activity that will, or is likely to, harm Aboriginal cultural heritage
- Buy or sell and Aboriginal object
- Remove Aboriginal cultural heritage from Victoria.

Typically a voluntary CHMP is preferred rather than a CHP due to regulatory processing timeframes.

6.2 Historic Cultural Heritage

Local Government

Swan Hill Rural City Council have a policy framework that requires planning to take into consideration heritage sites and to protect places and sites with significant cultural heritage value. The following strategies have been developed:

- Encourage the conservation and enhancement of heritage places in the Heritage Overlay.
- Consider the impact of the proposed use and or development upon the maintenance and conservation of the heritage place.
- Discourage the demolition or substantial alteration of any heritage place.
- Consider the character and local heritage values of towns and rural areas with the siting and design of new developments.
- Encourage owners of significant or contributory buildings within heritage precincts to preserve the streetscape character by repainting buildings in heritage colour

schemes where this is appropriate to the various periods of construction. Early buildings of face brick should retain original unpainted finish. Removing intrusive accretions, such as modern verandahs and carports, and replacing them with structures of more suitable design.

• Retain original front fences (timber pickets, woven wire and so on) and maintain heritage gardens, such as they are.

State Government

Non-Aboriginal archaeological sites in Victoria are protected by the *Heritage Act 1995*. The following is a summary of the latest statutory obligations regarding non-Aboriginal historic archaeological sites:

- All historical archaeological sites in Victoria (not included on the Heritage Register)
 are protected under Section 127 of the Heritage Act 1995. Under this section it is an
 offence to excavate, damage or disturb relics and sites whether they are included
 on the Heritage Inventory or not, unless a consent has been issued under Section
 129.
- Under Section 64 of the *Heritage Act 1995* it is an offence to damage, disturb, excavate or alter a place or object on the Heritage Register, unless a permit is granted under Section 67.
- Under Section 132 of the Heritage Act 1995 any person discovering or uncovering an archaeological relic is required to report the discovery to the Executive Director of the Heritage Council.
- Schedule 5 of the Heritage (General) Regulations 2005 prescribes fees to undertake specified activities with respect to archaeological relics. These are currently \$225.00 for Consent to uncover or excavate a relic; \$420.00 for Consent to damage or disturb less than 50% of a relic or site \$635.00 for Consent to damage or disturb more than 50% of a relic or site. Fees for permits to carry out works etc to a registered place or object are detailed in Schedule 3 of the Regulations. These fees range in scale from \$100.00 to \$7,160.00, depending on the nature of the works involved and the cost of the proposed works.

In addition, Heritage Victoria requires that funds be made available by developers to ensure the responsible management of all significant artefacts that are recovered during an excavation. As a condition on any consent or permit, there will be a requirement that a specified sum of money is submitted to Heritage Victoria prior to the commencement of works. The funds will be used to ensure the cataloguing and conservation of any significant artefacts that are recovered. Any unexpended funds will be returned to the client, minus a 15% levy that is used for the management of all excavation projects in Victoria.

Written application to disturb such sites should be lodged as early as possible in the planning stages of any works program, and must be directed to:

The Director
Heritage Victoria
Department of Planning and Community Development
1 Spring Street
Melbourne VIC 3000

GPO Box 2392 Melbourne VIC 3001 Ph 03 9208 3333

Enquires relating to the *Heritage Act 1995*, works, site management *etc.* should be directed to:

Jeremy Smith
Senior Archaeologist
Heritage Victoria
Department of Planning and Community Development
1 Spring Street
Melbourne VIC 3000
GPO Box 2392
Melbourne VIC 3001
Ph 03 9208 3516

General enquires relating to sites, the Heritage Inventory / Register, reports, permits or consents, including application procedures and fees should be directed to:

Bethany Sproal
Heritage Victoria
Department of Planning and Community Development
1 Spring Street
Melbourne VIC 3000
GPO Box 2392
Melbourne VIC 3001
Ph 03 9208 3409

Heritage Victoria has also recently requested that the following statements relating to sites listed on the Heritage Inventory be included within consultant's reports.

All archaeological sites in Victoria are protected by the *Heritage Act 1995*. All known archaeological sites are listed in the Heritage Inventory. Regardless of whether they are listed in the Inventory no one can knowingly excavate or disturb an archaeological site without the consent of the Executive Director.

Prior to the *Heritage Act 1995* sites were protected under the *Archaeological and Aboriginal Relics Preservation Act 1972*. Thus since 1972 there has been protection in Victoria for archaeological sites. The protection was not about the preservation and conservation of all sites. Under the AARP there was provision for archaeological areas to be declared an archaeological area that was intended to protect and conserve an archaeological site (S15). Activities for the remainder of archaeological sites were controlled through the requirement to gain a permit (S22).

With the advent of the *Heritage Act 1995* archaeological sites continued to be protected in two ways. Sites, which were considered to be of significance to the State, were recommended to be placed on the Victorian Heritage Register (VHR). The VHR exists to protect and conserve places and objects. All other archaeological sites are protected

through the requirement to gain consent from the Executive Director to disturb, destroy, or excavate an archaeological site.

Thus the Victorian Heritage Register enables Heritage Victoria to preserve and conserve archaeological sites which are of significance to the State of Victoria while the Heritage Inventory enables Heritage Victoria to record and monitor sites which are not considered to be of State significance or where the significance is unknown. Heritage Victoria also registers sites under a 'D' listing, which accommodates sites of very low archaeological value though they may have local historic value. 'D' listed sites are typically those that have little structural or artefactual features such as earthen formations (i.e. dams, railway formations). Sites registered under this system do not require Consent prior to any proposed development, but apart from this are managed in the same way as Heritage Inventory sites. 'D' Listed sites therefore, may be subject to a variety of conditions prior to impact, such as detailed recorded, additional historic research and archaeological monitoring.

The two levels of protection enable two different principles in issuing consents and permits to be followed. The guiding principal for places on the Register is to protect and conserve as much of the fabric of the place and the relics/artefacts as is possible. While for places listed in the Heritage Inventory recording, excavating and monitoring are the usual methods of assessing and managing the heritage values of a site.

Consultation with Heritage Victoria, Department of Planning and Community Development, should occur at least 4 months prior to lodgement of a permit application to disturb or destroy a historic archaeological site. In the event of a site or relic being uncovered or discovered during works, any works that would damage the relic object or place should cease and either the consulting archaeologist or Heritage Victoria be notified.

Commonwealth Government

Nationally significant heritage places are primarily registered and protected under the *Environment Protection and Biodiversity Conservation Act 1999* which is administered by the Australian Government Department of the Environment, Water, Heritage and the Arts. Other Australian Government Acts dealing with historic cultural heritage include the *Historic Shipwrecks Act 1976*, *Protection of Movable Cultural Heritage Act 1986* and the *Australian Heritage Council Act 2003*. The Australian Heritage Council (AHC) is the principal adviser to the Australian Government on heritage matters and assesses nominated places and recommends to the Minister whether or not a nominated place is appropriate for listing on the Australian Heritage Database (AHD). The Minister rejects or approves the nominated place. The AHD comprises heritage places from the World Heritage List (WHL), Commonwealth Heritage List (CHL), the Natural Heritage List (NHL) and the Register of the National Estate (RNE).

7 SPECIFIC CULTURAL HERITAGE MANAGEMENT RECOMMENDATIONS

Based on the findings of this report the following recommendations are made:

7.1 Aboriginal Cultural Heritage

7.1.1 Mandatory Cultural Heritage Management Plan is Required for Riverfront Development

A mandatory CHMP is required for the future development of the Swan Hill Riverfront under the *Aboriginal Heritage Act 2006* and *Aboriginal Heritage Regulations 2007*. Some of the activities likely to be included in the Swan Hill Riverfront Master Plan are high impact (all those requiring excavation), and most of the activity area is within legislated areas of Aboriginal cultural heritage sensitivity. An approved CHMP will also manage any Aboriginal cultural heritage issues that may occur before, during and after the conduct of the activity. This will avoid any unnecessary and costly delays that may occur in the event that any Aboriginal cultural heritage is discovered during the conduct of the activity.

7.2 Historic Cultural Heritage

7.2.1 Historic Cultural Heritage Assessment is Recommended

Harm to the two recorded sites within the activity area should be avoided during future development of the riverfront.

Additionally, as all historic archaeological sites (whether recorded or not) are protected under the *Heritage Act 1995*, it is recommended that an historic assessment be undertaken for the activity area. This assessment would identify all sites within the activity area and develop site specific management recommendations.

APPENDIX 1 – GLOSSARY

Aeolian Sediments: Wind-borne, wind-blown or wind-deposited material, usually sand, but also silt and clay.

Alluvium: Sedimentary unconsolidated deposits lain down through the action of running water. Usually found in or near rivers and floodplains. It is usually applied to coarser sediments such as sands and gravels, but sometimes to finer particles such as silt and clay.

Anvil: A portable flat stone, usually a river pebble, which has been used as a base for working stone. Anvils that have been used frequently have a small circular depression in the centre where cores were held while being struck. An anvil is often a multifunctional tool used also as a grindstone and hammer stone.

Archaeological Site: A place/location of either Aboriginal or non-Aboriginal origin. Aboriginal archaeological sites have been formed prior to the European settlement of Australia, and may be in any of the forms outlined above.

Artefact: Any product made by human hands or caused to be made through human actions.

Artefact Horizon: A discernable horizontal distribution of artefacts within a natural soil horizon. An artefact horizon has generally suffered a degree of post depositional disturbance that has affected the spatial and temporal integrity of the deposits and associated artefact assemblage.

Artefact Scatter: A scatter of cultural material, most commonly stone artefacts. Artefact scatters are often the only physical remains of places where Aboriginal people have camped, prepared and eaten meals and worked stone material.

Basalt: Fine-grained, hard, but easily weathered dark-grey igneous rock formed by the cooling of lava.

Bedrock: Solid rock at the surface or rock at depth that has been undisturbed by weathering.

Blade: A long parallel sided flake from a specially prepared core. Blade flakes are twice as long as they are wide.

Bipolar: A core or a flake, which, presumably, has been struck on an anvil. That is, the core from which the flake has been struck has been rotated before the flake has been struck off. Bifacial platforms tend to indicate that the flake has come off a heavily worked core.

Broken Flake: Defined by the part of the flake remaining, ie proximal (where the platform is present), medial (where neither the platform nor termination is present), or distal (where the termination is present).

Calcareous: A sediment containing calcium carbonate in concentrations of up to 50%.

Coffee Rock: A term used to describe a hardened iron- and organic-rich cemented deposit that when wet, resembles coffee grains. It is usually found in sandy soils that have a source of iron and organic matter.

Colluvium: An unconsolidated mixture of weathered material (gravel, sand, silt and clay) transported downslope by the force of gravity.

Complete Flake: An artefact exhibiting a ventral surface (where the flake was originally connected to the core), dorsal surface (the surface that used to be part of the exterior of the core, platform and/or flake scar).

Core: An artefact from which flakes have been detached using a hammer stone. Core types include blade, single platform, multiplatform and bipolar forms. These artefacts exhibit a series of negative flake scars, each of which represents the removal of a flake. Core types are as follows:

- *Unidirectional cores* These cores have scars originating from a single platform, and all the flakes struck from the core have been struck in the same direction from that platform.
- *Bidirectional cores* These cores have two platforms, one opposite the other; flakes have been struck from each of the platforms, and thus from opposite directions.
- *Bifacial cores* These kinds of core have a single platform, but the flakes struck from it have been detached from two core faces.
- *Multidirectional cores* These cores have two or more platforms and there is no clear pattern, either in the orientation of the platforms or in the orientation of the scars resulting from the striking of flakes from those platforms.
- Bipolar core Nodules or cobbles that are flaked using an anvil. The resulting artefacts exhibit crushing on their proximal, distal and often their lateral margins, where they have been rotated.

Cultural Heritage: Something that is inherited or passed down because it is appreciated and cherished. Categories of cultural heritage include; built structures and their surrounds, gardens, trees; cultural landscapes; sites; areas; precincts; cemeteries; ruins and archaeological sites; shipwrecks; sites of important events; commemorative sites; contents of buildings and significant relics, objects artefacts and collections of objects.

Burials: Burial places may occur in association with campsites, in mounds or shell middens or in specific burial grounds that lack any other cultural material. Softer ground was chosen for burials, and any sandy area can be expected to contain burials. Burial places can contain one or a number of individuals. Burials places and cemeteries are a common archaeological place type in the sand country adjoining the Murray River, though are a rare feature in the southern part of Victoria.

Contact Place: These are places relating to the period of first contact between Aboriginal and European people. These places may be associated with conflict between Aboriginal people and settlers, mission stations or reserves, or historic camping places. The artefact assemblage of contact places will often include artefacts manufactured from glass.

Dune: A mound or ridge of wind-blown granular material (usually sand) that is partially, fully or bare of vegetation, and capable of being moved from one location to another while still retaining its characteristic shape.

Ferruginous: Rocks or soils containing a large percentage of iron.

and micas.

50

Ferruginisation: The process by which iron minerals move in the sediment and/or regolith, staining and cementing the substrate to form a hard, iron-rich layer.

Fluvial: Referring to rivers and their processes. E.g. stream erosion and deposition.

Gilgai: An undulating surface of mounds and depressions resulting from the uneven shrinking and swelling of the soil. Usually present on basalt soils, but also on alluvial soils. **Granite**: A coarse-grained intrusive igneous rock, usually comprised of quartz, feldspar

Groundwater: Water that lies within the saturated zone of rock and soil. It moves between pore spaces, cavities and fractures in the sediment and rock under the influence of gravity. Groundwater can transport trace minerals and elements dissolved in the water.

Hearth: Usually a subsurface feature found eroding out of a river or creek bank or in a sand dune - it indicates a place where Aboriginal people cooked food. The remains of a hearth are usually identifiable by the presence of charcoal and sometimes clay balls (like brick fragments) and hearth stones. Remains of burnt bone or shell are sometimes preserved within a hearth.

High Integrity Occupation Deposit: The laying down of deposits by human activities that bury artefacts to form distinct stratigraphic entities such as layers (eg dense lens of stone artefacts & bone between environmental deposits, stratified shell deposits) or features

(hearths, occupation mounds). High integrity occupation deposits have a high degree of spatial and temporal integrity.

Holocene Period: The time from the end of the Pleistocene Ice Age (c 10,300 BP) to the present day.

Hydrothermal Quartz: Also known as milky quartz. Formed by the intrusion of hydrothermal water containing dissolved silica and other minerals into folded bedrock (commonly metasediments). The hydrothermal water reaches a natural trap such as an anticlinal fold or a fault before cooling, allowing the silica to precipitate into quartz.

Igneous: Rocks that have formed through the crystallisation of magma.

Intrusion: The act of an intrusive igneous rock rising up through the Earth's crust and breaking through the lower levels of the bedrock.

Iron Staining: Where a crust of iron oxide enriched clay coating precipitates on the surfaces of individual sediment grains, giving an orange-red-yellow stain to the sediment or soil as a whole.

Last Glacial Maximum: A period of cold, dry conditions on Earth when the ice caps on the polar regions were at their largest extent. This period lasted between approximately 18-24

Lava: Molten material extruded from a volcano or fissure in the Earth's surface.

Lithic: Anything made of stone.

Metamorphism: The process by which rocks are transformed by recrystallisation due to increased heat and/or pressure in the Earth's crust. Metamorphism can be either on a regional scale or on a contact scale.

Middens: Midden is a term borrowed from the Danish. It originally applied to the accumulations of shell and other food remains left by Mesolithic man. Australian middens are an accumulation of hearth and food debris, which has built up a deposit over a length of time. Middens are generally comprised of charcoal and either freshwater or coastal shell species, depending on the place's location. Middens may also contain stone artefacts, and the food refuse of other native animals such as small mammals. The thick deposit of burnt shells and dark grey/black deposit can distinguish middens within the landscape. Coastal shell middens are often found in close association with rock platforms. Freshwater shell middens are found in close proximity to areas with freshwater mussels.

Mounds: Mounds are accumulation of hearth (fire place) debris, which has over time built a thick deposit on the ground's surface. Mounds are generally comprised of charcoal; burnt clay balls and burnt food refuse (eg native animal bones). Mounds may also contain stone artefacts. On rare occasions mounds may also contain human burial remains. Mounds can be distinguished in the landscape by their characteristic dark grey/black deposit and height above surrounding land. Mounds that have been utilised over long periods can obtain dimensions of over 100 metres in length and 1 metre in height. Mounds are generally situated close to major streams, and large water bodies. In times of flood, mounds are often become marooned, and provide dry land points from which surrounding resources could have been exploited.

Occupation Surface: A distinct layer or interface between depositional strata upon which human activities were carried out and artefacts/features deposited. Most commonly this may be a prior land surface (eg soil horizon) that has been subsequently buried by later environmental deposits (eg dune deposits).

Pisolith: Hard, iron-cemented spherical particles of sediment (usually sand). These range in size from 3mm to 6mm.

Pleistocene: The geological period corresponding with the last or Great Ice Age. The onset of the Pleistocene is marked by an increasingly cold climate. The date for the start of the

Pleistocene is not well established, and estimates vary from 3.5 to 1.3 million years ago. The period ends with the final but gradual retreat of the ice sheets, which reached their present conditions around 10,300 BP.

Raw Material: Organic or inorganic matter that has not been processed by people.

Regolith: An incoherent mantle of varying thickness that lies above fresh rock. This is usually the decomposed, weathered and broken up derivative of the fresh bedrock. The soil profile lies above this layer.

Sand Sheet: A thin, continuous deposit of sand with no large topographic features on the surface.

Scarred Tree: Scars on trees may be the result of removal of strips of bark by Aboriginal people for the manufacture of utensils, canoes or for shelter; or resulting from small notches chopped into the bark to provide toe and hand holds to climber after possums, koalas and/or views of the surrounding area. A scar made by humans as opposed to naturally made by branches falling off, etc. is distinguished by the following criteria: symmetry and rounded ends, scar does not extend to the ground, some re-growth has occurred around the edges of the scar, and no holes or knots present in the heartwood.

Scoria: Pyroclastic volcanic rock containing numerous gas pockets and spaces. Colour ranges from red-brown to black.

Sensitivity: Based on collated existing data and place inspection an area or specific place may contain sensitivity for extant or archaeological deposits. Background research will present the most likely place types, contents and state of preservation.

Siliceous: Rocks and sediments that contain an abundance of silica.

Stony Rise: Irregular, hummocky and stony ground formed on younger lava flows. Caused by uneven cooling and slumping of basalt flows.

Swale: A linear depression that runs between two ridges. This is usually applied to dune environments where the swale is located between two dune ridges and is occupied by a swampy environment.

Terrace: A gently sloping or flat step-like structure usually associated with a fluvial environment and bounded by steeper slopes on the outer margins. Streams commonly flow along terraces. Terraces can be paired or unpaired according to the depositional environment.

Uplift: Upward surface movement attributed to faulting or movement of the continental plates.

Visibility: Refers to the degree to which the surface of the ground can be observed. It is generally expressed in terms of the percentage of the ground's surface visible for an observer on foot (Bird 1992). For example 10% visibility equates to 10cm² per 1 m² of ground surface that is not covered by vegetation or soil deposit. The following applies to descriptions of ground surface visibility within this report.

0%	No visible ground surface	50 – 70%	Good
0 – 10%	Very Poor	70 – 90%	Very Good
10 – 30%	Poor	90 – 100%	Excellent
30 – 50%	Fair		

Weathering: The process by which fresh rock degrades/breaks down at or near the surface. This process modifies rock chemically, organically, and/or physically, whereby a mantle of waste known as regolith will remain *in situ* until it is eroded away.

The heritage values of a place are broadly defined as the 'aesthetic, historic, spiritual scientific or social values for past, present or further generations' (Australia ICOMOS, *The Illustrated Burra Charter* 1999). Cultural significance considers aesthetic, historic, spiritual and social values. The assessment of cultural significance Aboriginal places is left to the relevant Aboriginal community.

'The scientific or research value of a place will depend upon the importance of the data involved or its rarity, quality or representativeness to the degree which the place may contribute further substantial information' (Australia ICOMOS, *The Illustrated Burra Charter* 1999: 73). Schiffer and Gumerman (1977: 211-212) consider 'a site or a resource ... to be scientifically significant when its further study may be expected to help answer current research questions. This is scientific significance as defined as research potential'. Some places have evidence that may span many thousands of years and therefore have the potential to answer significant research questions regarding natural history, human evolution and adaptation.

The following framework rates Aboriginal cultural heritage places in detail so that transparent cultural heritage outcomes and management strategies can be formulated. It comprises a structured query-based analysis which produces detailed, consistent and replicable place assessments and clear links to place management recommendations. Selected place attributes examine in detail questions of place contents, condition and representativeness.

Some place attributes are more significant than others. For example, stratified high integrity occupation deposits are usually in better condition, rarer and contain more significant cultural material than artefact horizons in environmental deposits. As archaeological data bases grow and change, the significance of criteria may change. This does not mean that the assessment of archaeological scientific significance is subjective but that it is affected by the interaction of various disciplinary forces including theory, research questions, methodology, knowledge base and the nature of the archaeological record.

After applying the following scientific significance assessment framework, the place rating results are subsequently considered within the context of the analysis of stone artefacts, a discussion of the cultural heritage values within the activity area, answers to specific research questions, an assessment of the research potential of recorded places and a general assessment of the cultural heritage values of the activity area within a regional context.

This process ensures that the scientific significance assessment framework has been applied reasonably and takes into account unusual scenarios. For example, an artefact may have very little *intrinsic* scientific values in itself, say a single isolated geometric microlith in a natural soil horizon; but may be found within a highly significant stratigraphic *context*; say in an undisturbed soil horizon below a buried terminal Pleistocene ground surface. This place would rate low-moderate scientific significance (3) using the criteria below. However, a consideration within a regional context would demonstrate that the place is in fact of very high scientific significance because it would demonstrate that the ASTT began thousands of years earlier than previously thought. In this manner *extraordinary* examples can be accounted for.

Artefact Scatters

The stone artefact scatter is a common place-type found in Victoria and consequently comprises a high proportion of places recorded on the VAHR. Scientific significance is assessed in this investigation by the examining the following criteria.

Average Artefact Density

Places with higher average artefact densities per m² contain larger amounts and more varied information. Higher artefact densities usually represent more intensive and varied human behaviour. For example, focussed Aboriginal activity, such as longer-term campsites, will generally

leave high concentrations of cultural material. In contrast, Aboriginal people traversing the landscape, dropping or otherwise discarding stone artefacts on a regular basis will often leave a very low density of artefacts. This is considered to represent *background cultural noise* or *background archaeological noise* and is identified by artefact densities with less than five artefacts per m². The higher the density of stone artefacts within a place, the higher its scientific significance.

Formal artefact density calculations for place scientific significance assessments are based on the results of hand excavated test pits. Once place boundaries are known the average artefact density is calculated by dividing the number of recorded artefacts by the extent of the area excavated (m²). The density scale is based on consulting experience and benchmarking conducted on various known places (eg VAHR 7921-0735, VAHR 7921-0736 & VAHR 7921-0769) which have been excavated using proper archaeological practice and have different levels of scientific significance (eg VAHR 7921-0735 & VAHR 7921-0736 having *very high* scientific significance). It is envisaged that additional benchmark data from the VAHR will be available in the future in order to refine the average artefact density classes used in this scientific significance assessment framework.

Extent of Artefact Densities

Larger places are usually considered to have higher scientific significance than smaller ones because they generally contain more information. Furthermore, larger places were likely the focus of more intensive and varied Aboriginal behaviour. If places have artefact densities of 46 per m² or above, then they are likely to be assessed having at least moderate scientific significance (see below). Based on consulting experience and benchmarking (see *Average Artefact Density* above) a significant size threshold is notionally considered here to be at least 100m x 100m in extent (or 10,000m²).

Natural Soil Horizons

Natural formation processes may form natural soil layers or horizons by the laying down of sediments by natural agents such as wind and water (Isbell 2002; McKenzie et al 2004; cf Schiffer 1972, 1976: 15-16). These horizons may be subsequently created or destroyed by various post-depositional processes. The process of soil profile genesis and development may bury artefacts but without forming obvious anthroposols or high integrity occupation deposits. Artefacts found within natural soil profiles habitually form artefact horizons. The temporal and spatial integrity of artefact horizons will depend on the depositional and post-depositional formation processes of these deposits. Generally they have less temporal and spatial integrity than intact high integrity occupation deposits and, with all other criteria being equal, have less scientific significance. They comprise the overwhelming artefact scatter type encountered during complex assessments.

Disturbance

Disturbance of Aboriginal cultural heritage places can take many forms and include both environmental and human agents not only at the time of deposition but also after places have been abandoned. Disturbance can be categorised as low, high or significant. Low disturbance is when archaeological deposits or features have little discernable disturbance so they are essentially intact and retain a high degree of spatial and temporal integrity. High disturbance is when agents have likely altered the temporal and spatial integrity to an extent which has lowered their information potential and therefore scientific significance. Examples of high disturbance include deflation, native vegetation clearance, ploughing, rabbit burrowing, heavy stock trampling and stock rubs. Significant ground disturbance has altered the information potential of a place to such a degree that it has effectively destroyed the integrity of the place. Examples of significant ground disturbance include heavy natural erosion, or grading, excavating digging, dredging and deep ripping by machinery. The information potential remaining will essentially be the intrinsic attributes of the artefacts themselves.

Period and Number of Periods Represented

Most places contain stone tool assemblages attributed to the Australian Small Tool Tradition which may be dated 6,000 and 7,000 years ago (Hiscock & Attenbrow 2004). The landform and depositional context is also usually attributed to the period of latest landscape formation associated with present sea level stabilising 5,000 to 6,000 years BP (Marsden & Mallet 1975: 114-116; Bird 1993: 145; Douglas & Ferguson 1993: 387; Kershaw 1995: 669). Other periods, such as the Late Pleistocene and European Contact, are poorly represented in the archaeological knowledge base. Due to their rareness they are of high research interest and significance. Places with more than one period represented allow the investigation of cultural change, interaction and adaptation over a longer period of time. Based on the criteria of research potential and rarity, these places will have increased scientific significance.

High Integrity Occupation Deposits, Surfaces and / or Features

AAV has no official definition of an occupation deposit or feature (r.61(6) Aboriginal Heritage Regulations 2007) but unofficially defines an occupation deposit as "anything that is indicative of human occupation eg a single artefact ..." (AAV email 25.5.2009). This nominal definition of an occupation deposit takes no account of the depositional context of cultural material which is critical in understanding the archaeological record and the interpretation of past human behaviour - as pointed out by Binford (1964: 431) more than 45 years ago in the distinction between primary and secondary depositional context. Taking the above into account, and in contrast to the nominal definition of AAV, a high integrity occupation deposit can be defined as a deposit formed by the laying down of deposits (artefacts and / or sediments) by human activities that bury artefacts and form distinct archaeological stratigraphic entities such as layers (eg dense lens of stone artefacts & bone between natural soil horizons, stratified shell deposits) or features (eg hearths, occupation mounds). An occupation surface is a distinct layer or interface between depositional strata upon which human activities were carried out and artefacts / features deposited. Most commonly this may be represented by a prior land surface (eg soil horizon) that has been subsequently buried by natural soil horizons (eg dune deposits). High integrity occupation deposits, features and surfaces have a high degree of spatial and temporal integrity and therefore will have higher scientific significance than archaeological deposits with lower integrity (eg artefact horizons in environmental deposits).

Multiple Artefact Horizons, Stratified High Integrity Occupation Deposits, Surfaces and / or Features

Places with multiple artefact horizons, stratified high integrity occupation deposits, surfaces and / or features have the potential to investigate chronological change within places; often with greater time depth and chronological resolution compared to places with lower spatial and temporal integrity. They are rarer, have higher research potential, and therefore also have higher scientific significance. High integrity occupation deposits, surfaces and features will likely have higher scientific significance than artefact horizons.

Natural History Potential

Some places have environmental evidence that may span many thousands of years and therefore have the potential to answer significant research questions regarding natural history, climatic and environmental conditions. This evidence can be used to investigate human evolution and adaptation. Generally this evidence is rarely found in Victorian places and has high research potential and scientific significance.

Representativeness

Representativeness refers to the regional distribution of a particular place-type and its scientific significance. It is assessed to whether the place is common, rare or very rare in a given region. Assessments of representativeness are biased by current knowledge of the distribution and numbers of places in a region. Current knowledge varies from place to place, depending on the extent and quality of previous archaeological research. Consequently, a place that is assigned low scientific significance based on other queries, but is considered a rare occurrence, may only be regarded as such in terms of current knowledge of the regional archaeology. Its rareness may not necessarily increase the place significance to moderate or above. The representativeness used for Aboriginal cultural heritage places are:

- Common occurrence:
- Rare occurrence;
- Very rare occurrence.

Common places include the majority of stone artefact scatters. Typically such stone artefact scatters have the following attributes: below moderate artefact density class (≤45 artefacts per m²); date to the Late Holocene, and no evidence of high integrity occupation deposits or features, stratified or otherwise. Rare stone artefact scatters typically have the following attributes: moderate or above artefact density class (≥46 artefacts per m²); more than one artefact horizon; more than one period of occupation (eg early and late Holocene); but may not have high integrity occupation deposits. Very rare stone artefact scatters typically have the following attributes: moderate or above artefact density class (≥46 artefacts per m2); high integrity occupation deposits, stratified or otherwise; and occupation from more than one period (eg late Pleistocene and late Holocene). Ensuring a representative sample of significant place-types is preserved provides opportunities for research questions and techniques not yet developed to be available for future archaeologists.

Stone artefact scatters identified during this investigation are rated according to the following queries and answers:

1. What is the average artefact density per metre?

Stone Artefact Density (per m²)*	Score	Density Class
1 – 4	0	Extremely low
5 – 15	1	Very low
16 – 30	2	Low
31 – 45	3	Low – moderate
46 – 60	4	Moderate
61 – 75	5	Moderate – high
76 – 90	6	High
91+	7	Very high

^{*}Minimum artefact size 10mm

- 2. If the average artefact density rates 46 artefacts per m² or above, is the density spatially extensive (more than $100m \times 100m$, $10,000m^2$)? No = 0, Yes = +1
- 3. Are artefacts within natural soil horizons? No = high integrity occupation deposits (see below),Yes = 0
- 4. Are the natural soil horizons disturbed? No = 0, Yes (high) = -1, Yes (significant) = -2
- 5. Are European Contact or Pleistocene / Early Holocene periods represented? No = 0, Yes = +1
- 6. Is more than one period represented? No = 0, Yes = +1
- 7. Are there high integrity occupation deposits, occupation surfaces and / or features? No = 0, Yes = +1

- 8. Are there multiple artefact horizons, stratified high integrity occupation deposits, occupation surfaces and / or features? No = 0, Yes = +1 (artefact horizons), Yes = +2 (high integrity occupation deposits, surfaces, features)
- 9. Is there an opportunity to research natural history (eq climate & environmental changes)? No = 0. Yes = +1
- 10. Is the place a common, rare or very rare occurrence? C = 0, Rare = +1, Very rare = +2

Artefact scatters are rated according to the following scores from the detailed list of queries above:

Score	Scientific Significance Rating
0	extremely low
1	very low
2	low
3	low – moderate
4	moderate
5	moderate – high
6	high
7+	very high

General Principles on the Appropriate Application of the Framework

Although the framework presented above cannot be applied as a simple formula in all circumstances, the appropriate application of the framework must take into account the following principles:

Current knowledge of stone artefact scatters typically means that places with the following attributes must not be rated having moderate or above scientific significance:

- Average stone artefact density of ≤45 per m²;
- No evidence of a discernible stone artefact horizons:
- A single stone artefact horizon in natural soil horizons;
- One period of occupation either ASTT or post-ASTT;
- No high integrity occupation deposits and / or features, stratified or otherwise.

Places rated moderate or above scientific significance typically must have the following attribute:

• Average stone artefact density of \geq 46 artefacts per m².

If the place has a lower average density class then the place typically must score one or more of the following queries:

- European Contact or Pleistocene / Early Holocene periods represented;
- More than one period represented;
- High integrity occupation deposits, occupation surfaces and / or features;
- Multiple artefact horizons, stratified high integrity occupation deposits, occupation surfaces and / or features;
- Natural history research potential; or
- Rare or very rare occurrence;

If the average density score is below moderate, then the number of extra scores required to rate a place with moderate or above scientific significance must be as follows:

58

Swan Hill Riverfront Masterplan - Desktop Cultural Heritage Assessment

Average Density Class	Score	Minimum Extra Score Required
Extremely low	0	4
Very low	1	3
Low	2	2
Low-moderate	3	1

If the principles presented above are not followed, then the framework has not been applied appropriately.

Scarred Trees

The scientific significance assessment for scarred trees varies from other place-types (eg stone artefact scatters) because a scarred tree has different assessment criteria. Although scarred trees are a place type usually associated with traditional Aboriginal cultural activity, there are examples of scarred tree associated with non-Aboriginal activity (eg survey blazes). Scarred trees are rated according to four criteria: scar origin, scar condition, tree condition and representativeness.

Scar origin takes into account the likeliness of the cultural scar resulting from Aboriginal activity. A scar must be of definite Aboriginal origin for a scarred tree to be rated moderate scientific significance or above. The scar origin ratings used for scarred trees are:

- 0 uncertain
- 1 probably Aboriginal
- 2 definitely Aboriginal

Scar condition takes into account the preservation of the scar. The *scar condition* ratings used for scarred trees are:

0	Destroyed
1	Poor
2	Fair
3	Good
4	Excellent

Tree condition takes into account the condition or health of the tree. The *tree condition* ratings used for scarred trees are:

- O Destroyed / removed
- 1 Fallen
- 2 Dead standing (stag)
- 3 Poor health (dying)
- 4 Good health

Representativeness refers to the regional distribution of scarred trees. Representativeness is assessed on whether the place is common, occasional, rare or very rare in a given region. Representativeness should take into account the type and condition of the scar as well as the species and condition of the tree involved. The *representativeness* ratings used for scarred trees are:

Archaeology At Tardis Pty Ltd cultural heritage advisors

- 1 Common occurrence
- 2 Occasional occurrence
- 3 Rare occurrence
- 4 Very rare occurrence

Murra Warra Wind Farm Desktop Cultural Heritage Assessment

Overall scientific significance ratings for scarred trees based on a cumulative score for scar origin, scar condition, tree condition and representativeness are:

0-2	No scientific significance
3-4	Very low scientific significance
5-6	Low scientific significance
7-8	Low-moderate scientific significance
9-10	Moderate scientific significance
11-12	Moderate-high scientific significance
13-14	High scientific significance

Swan Hill Riverfront Masterplan - Desktop Cultural Heritage Assessment

	· · · · · · · · · · · · · · · · · · ·	<u> </u>
ABORIGINAL PLACE NUMBER	ABORIGINAL PLACE NAME	COMPONENT TYPE
7527-0002	Tyntynder Site 2	Burial
7527-0123	Vinifera Forest ST 1	Scarred Tree
7527-0124	Vinifera Forest ST 2	Scarred Tree
7527-0125	Vinifera Forest ST 3	Scarred Tree
7527-0126	Vinifera Forest ST 4	Scarred Tree
7527-0127	Vinifera Forest ST 5	Scarred Tree
7527-0128	Vinifera Forest ST 6	Scarred Tree
7527-0129	Vinifera Forest ST 7	Scarred Tree
7527-0130	Vinifera Forest ST 8	Scarred Tree
7527-0131	Vinifera Forest ST 9	Scarred Tree
7527-0132	Vinifera Forest ST 10	Scarred Tree
7527-0133	Vinifera Forest ST 11	Scarred Tree
7527-0134	Vinifera Forest ST 12	Scarred Tree
7527-0135	Vinifera Forest M 4	Earth Mound
7527-0136	Vinifera Forest M 5	Earth Mound
7527-0137	Vinifera Forest M 6	Earth Mound
7527-0138	Vinifera Forest M 19	Earth Mound
7527-0139	Vinifera Forest M 20	Earth Mound
7527-0140	Vinifera Forest M 21	Earth Mound
7527-0141	Vinifera Forest M 28	Earth Mound
7527-0142	Vinifera Forest ST 13	Scarred Tree
7527-0178	Vinifera Forest M 1	Earth Mound
7527-0192	Vinifera Forest M 2	Earth Mound
7527-0195	Vinifera Forest M 3	Earth Mound
7527-0196	Vinifera Forest M 7	Earth Mound
7527-0197	Vinifera Forest M 8	Earth Mound
7527-0198	Vinifera Forest M 9	Earth Mound
7527-0199	Vinifera Forest M 10	Earth Mound
7527-0200	Vinifera Forest M 11	Earth Mound
7527-0201	Vinifera Forest M 12	Earth Mound
7527-0202	Vinifera Forest M 14	Earth Mound
7527-0203	Vinifera Forest M 15	Earth Mound
7527-0204	Vinifera Forest M 16	Earth Mound
7527-0205	Vinifera Forest M 26	Earth Mound
7527-0206	Vinifera Forest M 27	Earth Mound
7527-0207	Vinifera Forest M 29	Earth Mound
7527-0208	Vinifera Forest M 30	Earth Mound
7527-0209	Vinifera Forest M 31	Earth Mound
7527-0210	Vinifera Forest M 32	Earth Mound
7527-0211	Vinifera Forest M 33	Earth Mound
7527-0248	Unknown 1	Earth Mound
7527-0249	Unknown 2	Earth Mound
7527-0323	Tyntynder Mound	Earth Mound
7527-0325	Vinifera Mound 1	Earth Mound
7527-0327	Vinifera Mound 2 (Burial 1)	Earth Mound
7527-0337	Tyntynder Mound 2	Earth Mound

7527-0338	Tyntynder Mound 3	Earth Mound
7527-0339	V-ST-1	Scarred Tree
7527-0346	V-SM-1	Shell Midden
7527-0347	V-SM-2	Shell Midden
7627-0006	Pental Island Burial 1	Burial
7627-0192	Thomson 1	Earth Mound
7627-0193	Thomson 2	Earth Mound
7627-0194	Thomson 3	Earth Mound
7627-0195	Thomson 4	Earth Mound
7627-0196	Thomson 5	Earth Mound
7627-0197	Thomson 6	Earth Mound
7627-0198	Trethewie 1	Burial
7627-0199	Dunstan 1	Earth Mound
7627-0200	Dunstan 2	Earth Mound
7627-0202	Elcoe 1	Earth Mound
7627-0203	Elcoe 2	Earth Mound
7627-0204	Elcoe 3	Earth Mound
7627-0205	Elcoe 4	Earth Mound
7627-0206	Elcoe 5	Scarred Tree
7627-0207	Wilkie 1	Earth Mound
7627-0208	Wilkie 2	Earth Mound
7627-0212	Thomson 7	Earth Mound
7627-0213	Thomson 8	Earth Mound
7627-0216	Luke 1	Earth Mound
7627-0222	Blackfella's Oven Burial	Burial
7627-0223	Frank Tucker Swan Hill Pioneer Settlement Collection	Artefact Collection
7627-0224	Swan Hill Technical School Burials	Burial
7627-0251	Pental Island Burial 2	Burial
7627-0252	Pental Island Burial 3	Burial
7627-0253	Laughlin Mound 1	Earth Mound
7627-0254	Little Murray 1	Earth Mound
7627-0255	Little Murray 2	Earth Mound
7627-0256	Hudson 1 (Burial)	Burial
7627-0257	Little Murray River 1	Shell Midden
7627-0258	Pental 1	Earth Mound
7627-0259	Pental 2	Earth Mound
7627-0270	Swan Hill Levee Bank	Artefact Scatter
7627-0271	Swan Hill Levee Bank 5 - A1	Earth Mound
7627-0272	Swan Hill Levee Bank 4 -A2	Earth Mound
7627-0273	Swan Hill Levee Bank 4 -A3	Earth Mound
7627-0274	Swan Hill Levee Bank 4 -A4	Earth Mound
7627-0301	Pental Island Levee Bank 1	Fireplace/Hearth
7627-0307	Little Murray Weir 1	Shell Midden

APPENDIX 4 – 1750 ECOLOGICAL VEGETATON CLASSES

DESCRIPTION

96	Ridged Plains Mallee (1.3)	Open, quite grassy mallee woodland to 10m tall, typical of the gently undulating plains of the Wimmera and Southern Mallee. Soils are somewhat variable but are typically duplex with grey or brown sandy clay loam or clay loam topsoils of Aeolian origin. Typical tree species comprise Dumosa Mallee (<i>Eucalyptus dumosa</i>), Bull Mallee (<i>Eucalyptus behriana</i>), Black Mallee Box (<i>Eucalyptus porosa</i>) and Buloke (<i>Allocasuarina luehmannii</i>) at 15 per hectare. Typical smaller plants known to have been exploited by Aboriginal groups include Ruby Saltbush (<i>Enchylaena tomentosa</i>).
97	Semi-arid Woodland (1.3)	Non-eucalypt woodland or open forest to 12 m tall, of low rainfall areas. Occurs in a range of somewhat elevated positions not subject to flooding or inundation. The surface soils are typically light textured loamy sands or sandy loams.
98	Semi arid Chenopod Woodland (1.3)	Sparse, low non-eucalypt woodland to 12 m tall of the arid zone with a tall open chenopod shrub-dominated understorey or a treeless, tall chenopod shrubland to 3 m tall. This EVC may occur as either a woodland (typically with a very open structure but tree cover >10%) or a shrubland (tree cover <10%) with trees as an occasional emergent.
103	Parilla Mallee (1.3)	Eucalypt woodland to 15 m tall with a diverse shrubby and grassy understorey occurring on most elevated riverine terraces. Confined to heavy clay soils on higher level terraces within or on the margins of riverine floodplains (or former floodplains), naturally subject to only extremely infrequent incidental shallow flooding from major events if at all flooded.
104	Lignum Swamp	Typically treeless shrubland to 4 m tall, with robust (but sometimes patchy) growth of lignum. Widespread wetland vegetation type in low rainfall areas on heavy soils, subject to infrequent inundation resulting from overbank flows from rivers or local runoff.
295	Riverine Grassy Woodland	Occurs on the floodplain of major rivers, in a slightly elevated position where floods are rare, on deposited silts and sands, forming fertile alluvial soils. River Red Gum woodland to 20 m tall with a groundlayer dominated by graminoids and sometimes lightly shrubby or with chenopod shrubs.
816	Sedgy Riverine Forest	Eucalypt forest to 25 m tall with understorey dominated by larger sedges. Understorey composition indicative of at least occasional shallow flooding and a tolerance of gaps between floods of several years. Typically on heavy soils which can become wet in winter. Sedgy Riverine Forest has some floristic affinities to Red Gum Swamp. It is considered to occupy areas infrequently flooded and in which flood duration may be short, for example, higher ground surrounding the box ridges or occurring along the river levee in a position remote from the channels from which the forest first floods. These areas are therefore the last to flood and the first from which floods quickly recede. Soils are typically heavy clays. The major understorey species Carex tereticaulis is intolerant of total immersion (at least in turbid water).
824	Woorinen Mallee	Widespread mallee woodland to 12 m tall, associated with the east-west orientated calcareous dunefields of the Woorinen Formation with a low, open chenopod dominated shrub understorey. A diverse array of sub-shrubs, herbs and grasses are also present. Typically occurs on fine textured red-brown sandy loam and clay loam soils.

EVC

NAME

APPENDIX 5 – SUMMARY CVs

ANDREA MURPHY

Andrea Murphy is the owner and director of Archaeology At Tardis Pty Ltd which has been in operation in Victoria for over 13 years. Andrea has more than 23 years industry experience and has qualifications in both indigenous and non-indigenous cultural heritage. She has managed a wide variety of heritage projects including EES and EIS heritage studies, major indigenous and historic archaeological excavations, desktop assessments, place surveys, monitoring and production of place management strategies.

QUALIFICATIONS & AWARDS		AREAS OF EXPERTISE
Qualifications	>	Residential subdivisions
Bachelor of Arts	>	Industrial subdivisions
(Prehistory)	>	Wind farms
La Trobe University	>	Transmission powerlines
Master of Arts	>	Gas infrastructure
(Historic Archaeology) La Trobe University	>	Water infrastructure
,		Waterway rehabilitation works
AFFILIATIONS	>	Freeway, highway and road infrastructure
Australian Society of	>	Rail infrastructure including urban and regional fast rail
Historic Archaeology	>	Optical fibre cable routes
Australian Association of	>	Local government advisor and project manager
Consulting Archaeologists	>	Defence advisor and project manager
Australian Anthropological and Archaeological Association	>	Parks Advisor and project manager
Historic Gardens Society		
National Trust		
Royal Historical Society		
AWARDS		
Winner of the 2003 UNESCO Asia-Pacific Cultural Heritage Conservation Award		

REBEKAH KURPIEL cultural heritage advisor

Rebekah Kurpiel is a cultural heritage advisor with six years experience in commercial indigenous and non-indigenous cultural heritage projects. She is also a PhD candidate at La Trobe University and has contributed to the Mungo Archaeological project in southwest NSW. She has expertise in research, survey, archaeological excavation, artefact analysis and report production.

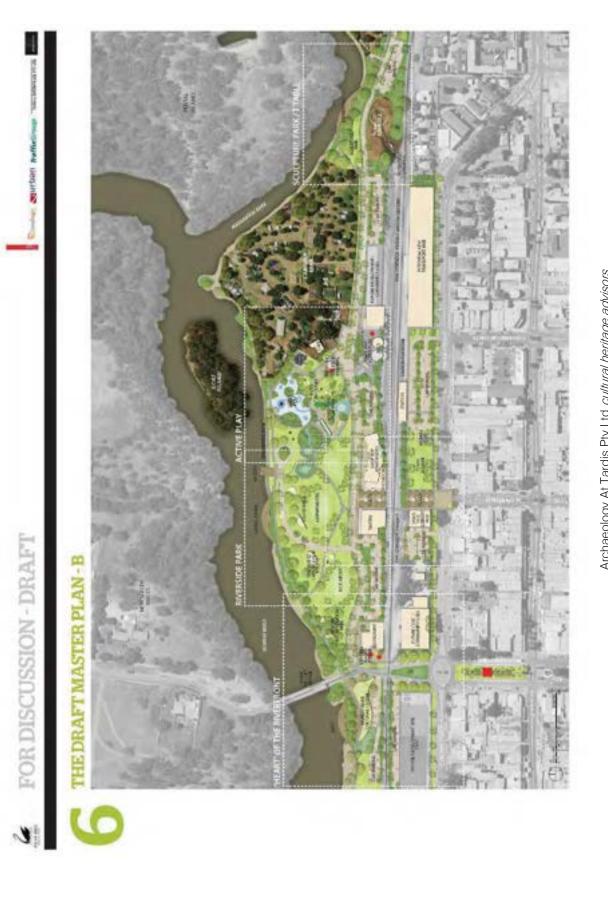
QUALIFICATIONS

& AFFILIATIONS	EXPERIENCE PROFILE
QUALIFICATIONS	MAJOR PROJECTS
BSc./BA La Trobe University, 2009	 Mungo Archaeological Project Eynesbury township development Melbourne Water Stream Rehabilitation Project
BA (Hons. Archaeology) La Trobe University, 2010	GENERAL
AFFILIATIONS	Residential subdivisionsRetail and commercial premises
Australian Archaeological Association	Artefact analysisContractor training
Australasian Quaternary	AWARDS
Association	Golden Key International Honour Society Graduate Scholar Award

APPENDIX 6 - DRAFT MASTER PLANS A - D

Murra Warra Wind Farm Desktop Cultural Heritage

Archaeology At Tardis Pty Ltd cultural heritage advisors



Murra Warra Wind Farm Desktop Cultural Heritage Assessment



Swan Hill Riverfront Masterplan - Desktop Cultural Heritage Assessment

FOR DISCUSSION - DRAFF

6



Tardis Pty Ltd *cultural heritage advisors*

Murra Warra Wind Farm Desktop Cultural Heritage Assessment

REFERENCES

Allom Lovell & Associates	2001	Rural City of Swan Hill Heritage Study Stage II
Australian ICOMOS	1999	The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance. (The Burra Charter) Sydney, Australia ICOMOS.
Ballinger R	2001	Rural City of Swan Hill Heritage Study (Stage One): Thematic Environmental History, prepared by Robyn Ballinger in association with Andrew Ward & Associates and TBA Planners, November 1998, amended by Allom Lovell & Associates.
Beveridge. P	1883	'Of the Aborigines inhabiting the Great Lacustrine and Riverine Depression of the Lower Murrumbidgee, Lower Lachlan, and Lower Darling' in <i>Journal and Proceedings of the Royal Society of New South Wales, 17:19-74.</i>
Beveridge. P	1889	The Aborigines of Victoria and Riveria, M.L. Hutchinson, Melbourne.
Billis RV and AS Kenyon	1974	Pastoral Pioneers of Port Philip, 2nd Edition.
Binford LR	1964	A Consideration of Archaeological Research Design. <i>American Antiquity</i> 29 (4): 425-441.
Bird CFM	1984	Aboriginal Land Use in the Wimmera. Prepared by the Division of Prehistory, La Trobe University for the Land Conservation Council.
Bird E	1993	The Coast of Victoria: the Shaping of Scenery. MUP
Blake L	2013	Swan Hill Riverfront: A Historic Report. Prepared by Blake Hyland Group for Archaeology At Tardis Pty Ltd.
Brown C M, Stephenson A E	1991	Geology of the Murray Basin, Southeastern Australia. Bureau of Mineral Resources, Australia. Bulletin 235.
and Clark	1990	
Cameron, A.L.P.	1899	On some tribes of Western New South Wales' in <i>Science of Man and Australasian Anthropological Journal, Vol 2, No 11, pp217-219.</i> And map (1900) in <i>Science of Man Vol 2, No 12, p221.</i>
Clark. I.D	1990	Aboriginal Languages and clans An historical Atlas of Western and central Victoria , 1800-1900. Monash Publications in Geography.
Curr. E.M.	1887	The Australian Race; its origin, languages, customs, places of landing in Australia, and the routes by which it spread itself over that continent, 4 vols, Victorian Government Printer, Melbourne.
Cupper M L	2005	Last Glacial to Holocene evolution of semi-arid rangelands in southeastern Australia. <i>The Holocene</i> . 15 (4), 541-553.

74

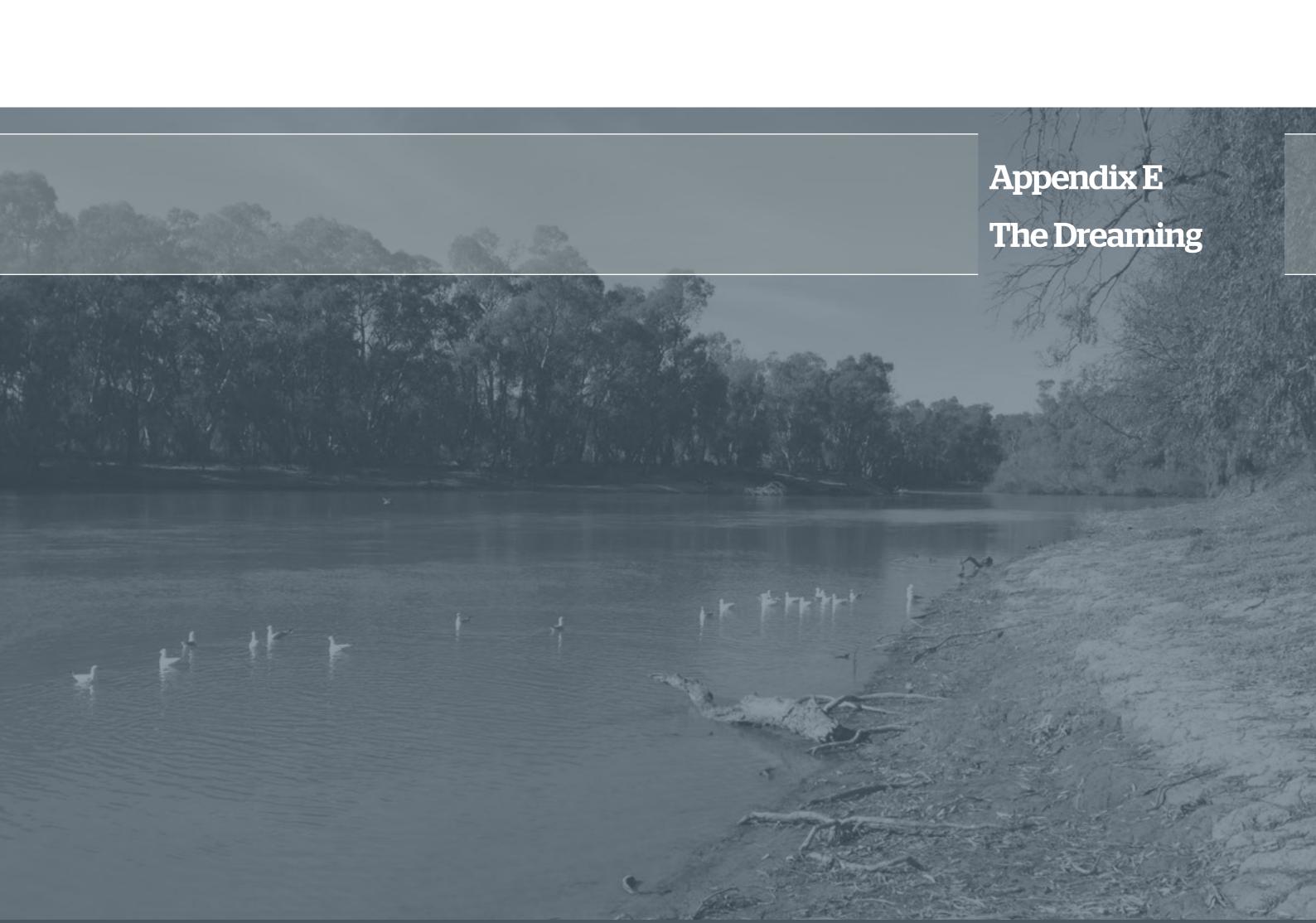
Archaeology At Tardis Pty Ltd *cultural heritage advisors*

-		
Cupper M L, White S & Neilson J L	2003	Chapter 11: Quaternary: ice ages – environments of change. In: <i>Geology of Victoria</i> . Edited by Birch W.D. Sydney: Geological Society of Australia (Victorian Division), Geological Society of Australia, Special Publication 23, 337-360.
Cusack F	1979	Squatters' choice: a history of the Swan Hill District Hospital, Melbourne VIC: The Hawthorn Press.
Dickinson J A, Wallace M W, Holdgate G R, Gallagher S J & Thomas L	2002	Origin and timing of the Miocene-Pliocene unconformity in southeast Australia. <i>Journal of Sedimentary Research.</i> 72 (2), 288-303.
Dingle T	1984	The Victorians. Settling. Fairfac, Syme & Weldon Associates: McMahons Point.
Douglas JG & JA Ferguson	1993	Geology of Victoria. Victoria Division, Geological Society of Australia, Melbourne.
DPI	2013	Biodiversity Interactive Map accessed July 2013. http://mapshare2.dse.vic.gov.au/MapShare2EXT/imf.jsp?site=bim
Duddy I R	2003	Chapter 9: Mesozoic: a time of change in tectonic regime. In: <i>Geology of Victoria</i> . Edited by Birch W.D. Sydney: Geological Society of Australia (Victorian Division), Geological Society of Australia, Special Publication 23, 240-287.
Edmonds V	1998	An Archaeological Survey of the Proposed No. 1 Pipeline at Nyah and the Woorinen Pumping Station and Rising Main, near Swan Hill. A report to Goulburn-Murray Water.
	2006	Indigenous Heritage Assessment: The Pental Island Water Saving Project, Swan Hill, Northwest Victoria. A report to Goulburn-Murray Water.
Edwards J, Wohlt K E, Slater K R, Olshina A & Hutchinson D F	1998	Heathcote and parts of Woodend and Echuca 1:100,000 geological map report 108. Victoria: Geological Survey of Victoria.
Feldtmann A	1973	Swan Hill, Rigby.
Fried A W	1993	Late Pleistocene river morphological change, southeastern Australia: the conundrum of sinuous channels during the Last Glacial Maximum. <i>Palaeogeography, Palaeoclimatology, Palaeoecology.</i> 101 , 305-316.
Gardner G	2000	Traces of the past: a pictorial history of Swan Hill and district from Federation to the present 1901-2001, Swan Hill VIC.
	2006	Yesterday and Today: the changing face of the Swan Hill region, Swan Hill VIC.
Gilding J	2009	Beverford Boat Ramp, Beverford, Victoria (CHMP 10925). Time Capsule Earth.

-		·
Heritage Concepts	2009	
Hercus. L.A	1986	Victorian Languages: A Late Survey, Pacific Linguistics Series B-No. 77, Department of Linguistics, Research School of Pacific Studies, The Australian National University, Canberra.
Heslop A & N Heslop	2011	A Pioneering Community, Swan Hill VIC: Albert and Norma Heslop.
Hill J & R Attwood	2012	Fish Point Aggregation Project, Lake Boga, Northwestern Victoria (CHMP 12079). Sinclair Knight Merz, Melbourne.
Hills E S	1975	Physiography of Victoria. Whitcombe & Tombs. Melbourne.
Hiscock P & V Attenbrow	2004	A Revised Sequence of Backed Artefact Production at Capertee 3, New South Wales. <i>Archaeology in Oceania</i> 39: 94-99.
Holdgate G R & Gallagher S J	2003	Chapter 10: Tertiary: a period of transition to marine basin environments. In: <i>Geology of Victoria</i> . Edited by Birch W D. Sydney: Geological Society of Australia (Victorian Division), Geological Society of Australia, Special Publication 23, 289-335.
Hyett J	2001	Pental Island Levee Bank Project: Archaeological report. A report to North Central Catchment Management Authority.
Isbell, RF	2002	The Australian Soil Classification. CSIRO: Melbourne.
Jones J G & Veevers J J	1982	A Cainozoic history of Australia's southeast highlands. <i>Journal of the Geological Society of Australia</i> . 29 , 1-12.
Joyce E B, Webb J A, Dahlhaus P G, Grimes K G, Hill S M, Kotsonis A, Martin J, Mitchell M M, Neilson J L, Orr M L, Peterson J A, Rosengren N J, Rowan J N, Rowe R K, Sargeant I, Stone T, Smith B L & White S (with material by the late Jenkin J J).	2003	Chapter 18: Geomorphology: the evolution of Victorian landscapes. In: <i>Geology of Victoria</i> . Edited by Birch W D. Sydney: Geological Society of Australia (Victorian Division), Geological Society of Australia, Special Publication 23, 533-561.
Kershaw PA	1995	Environmental Change in Greater Australia. <i>Antiquity</i> 69 Special Edition 265: 656-675.
Kingham R	1998	Geology of the Murray-Darling Basin: simplified lithostratigraphic groupings. Australian Geological Survey Organisation, record 1998/21.

		1 1
Lawrence C R & Abele C	1979	Chapter 8: Tertiary: Murray Basin. In: <i>Geology of Victoria</i> . Edited by Douglas J G & Ferguson J A. Victoria, Geological Society of Australia, Victorian Division, Special Publication 5, 191-198.
Lawrence C R, Macumber P G, Kenley P R, Gill E D, Jenkin J J, Neilson J L & McLennan R M	1976	Chapter 9: Quaternary. In: <i>Geology of Victoria</i> . Edited by: Douglas J G & Ferguson J A. Victoria, Geological Society of Australia, Victorian Division, Special Publication 5, 275-325.
Marsden MAH & H Mallet	1975	Quaternary Evolution, Morphology and Sediment Distribution, Western Port Bay. <i>Proceedings of the Royal Society of Victoria</i> 87: 107-138.
McKenzie N & D Jacquier, R Isbell, K Brown	2004	Australian Soils and Landscapes: An Illustrated Compendium. CSIRO Publishing.
McNab RF	1944	The early settlement and water supply of the Wimmera and Mallee, State Rivers and Water Supply Commission, Melbourne.
Miranda J A, Wallace M W & McLaren S	2009	Tectonism and eustasy across a Late Miocene strandplain: The Loxton Sands, Murray Basin, southeastern Australia. <i>Sedimentary Geology.</i> 219 , 24-43.
Mitchell Sir T	2013	Three Expeditions into the Interior of Eastern Australia, Vol. 2. http://gutenberg.net.au/ebooks/e00036.html
Nelson P and L Alves	2009	Lands Guide: A guide to finding records of Crown Land at Public Record Office Victoria, Public Record Office Victoria (in association with Gould Genealogy and History), Melbourne.
Nicolson O	1997	An Archaeological Investigation of Proposed Levee Banks in Swan Hill, Victoria. A report to Swan Hill Rural City Council.
Parkinson C, P Howard, L Sciusco, D Jordan & G Oakes	2009	Historic Heritage Assessment: Technical Study – Swan Hill Bridge Planning Study. A report to VicRoads & NSW Roads and Traffic Authority.
Phillips G N, Hughes M J, Arne D C, Bierlein F P, Carey S P, Jackson T & Willman C E	2003	Chapter 13: Gold: Historical wealth, future potential. In: <i>Geology of Victoria</i> . Edited by Birch W D. Sydney: Geological Society of Australia (Victorian Division), Geological Society of Australia, Special Publication 23, 377-433.
Robson T C & Webb J A	2011	Late Neogene tectonics in northwestern Victoria: Evidence from the Late Miocene-Pliocene Loxton Sand. <i>Australian Journal of Earth Sciences.</i> 58 , 579-586.

Rural City of Swan Hill Heritage Study	2001	
Schiffer MB	1972	Archaeological Context and Systemic Context. <i>American Antiquity</i> 37(2): 156-165.
Scholes L	1989	A History of the Shire of Swan Hill: public land, private profit and settlement, Swan Hill VIC: Shire of Swan Hill
	1976	Behavioral Archaeology. Academic Press: New York.
Schiffer MB & GJ Gumerman	1977	Conservation Archaeology: A Guide for Cultural Resource Management Studies. Academic Press, New York.
Shaw AGL	1996	A History of the Port Phillip District: Victoria Before Separation, Carlton South VIC: The Miegunyah Press.
Spreadborough R and H Anderson	1983	Victorian Squatters, Ascot Vale VIC: Red Rooster Press
VandenBerg, A H M	1997	1:250,000 Swan Hill geological map. Victoria: Department of Natural Resources and Environment.
VandenBerg A H M, Willman C E, Maher S, Simons B A, Cayley R A, Taylor D H, Morand V J, Moore D H, Radojkovic A	2000	The Tasman Fold Belt System in Victoria. Geological Survey of Victoria Special Publication, 134-154.
Wallace M W, Dickinson J A, Moore D H & Sandiford M	2005	Late Neogene strandlines of southern Victoria: a unique record of eustasy and tectonics in southeastern Australia. <i>Australian Journal of Earth Sciences</i> . 52 (2), 279-297.
Walsh FJ	1987	The Influence of the Spatial and Temporal Distribution of Plant Food Resources on Traditional Martujarra Subsistence Strategies. Australian Archaeology 25: 88-101.
Wasson R J & Donnelly T H	1991	Palaeoclimatic reconstructions for the last 30,000 years in Australia – a contribution to prediction of future climate. Technical Memo No 91/3, CSIRO Division of Water Resources, Canberra.
White S & Mitchell M M	2003	Chapter 19: Palaeoclimates: the influence of continental drift and latitude change on climate. In: <i>Geology of Victoria</i> . Edited by Birch W D. Sydney: Geological Society of Australia (Victorian Division), Geological Society of Australia, Special Publication 23, 563-571.



1. THE DREAMING

1.1 The Dreaming Story of Milloo- Murray River

Elder Florence Madge Brabham, nee Stewart Born 12 July 1922 entered the Dreaming 22 July 2009

Here I stand on the banks of the Milloo
I see the traffic on her waters go by
I see in memory her waters once clean
And all I can do is sigh.

Our once beautiful wandering river
Where my Ancestors of old did live
I see in her waters their reflections
And their homes she once did give

Through the sun still dapples her waters

And we are told life must go on just the same

But our memories flow like her waters

And like us 'she' is chastened and tame.

Her free streaming way so now chastened

Sluggish and brown now she does roam

Unlike to the ocean who clasped her

To its welcoming bosom of foam.

I see the gaunt trees beside her

They once flourished greenly as they grew

Tall, giving shelter to my Ancestors

But like them now ancient and few

Since the invaders.

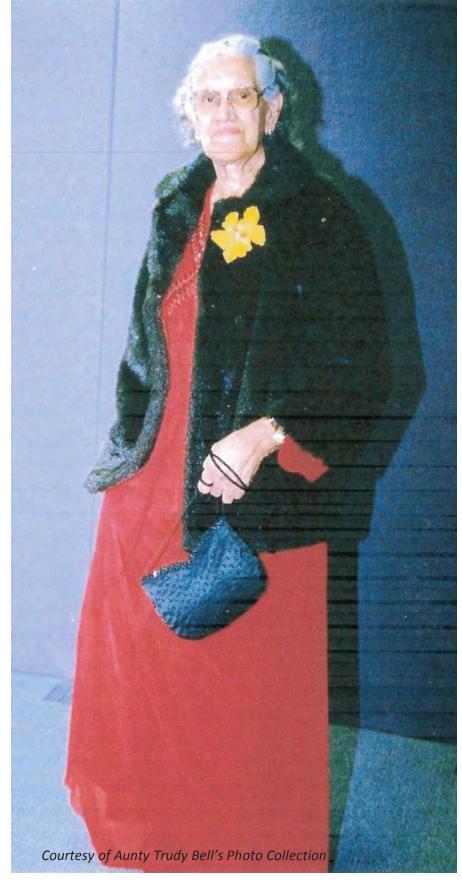
But now with motorised toys

Will use her, her waters to plunder

Roaring and ruining her waters

Attacking her like thunder

And tearing her bosom asunder



1.2 The Red-tailed Black Cockatoo

To My Spiritual Ancestors

Ngapus Bas

My Derrill

Connected to the land, Like blood in the ground

I am the Milloo, softly flowing
Singing our song on the land
One of my Spirit's is the Red-tailed Black
Cockatoo

That dances and sings in the wind
I am the rain, the wind and the river too
I am part of the rock and the red soil plains
Like the blood that flows in my veins

I am the Pelican, a plover that is my Spirit too Flying swiftly with the Red-tailed Black Cockatoo Like the trees that cling to the morning dew

We were awakened here when the earth was so new

So this is my land and the land is me And my Spirits will constantly remind me.



I am the child of the Derrill Mobs (Dreaming)

Written by Trudy Bell, nee Brabham

1.3 The Tale of the Kangaroo

Copyright Aunty Florence Madge Brabham, nee Stewart (mother wrote this on the 14 February 1996)

This story is told from out of the Demyerr (Dreaming).

- The Kangaroo was once a man who lived in a tribe of Koories who were a fun loving tribe, who loved to sing and dance.
- 2. Kangaroo was a funny fellow who was always playing tricks on other people, mocking them and laughing at them behind their backs.
- 3. One evening when the moon was shining brightly, the men gathered around and decided that they would have a corroboree. So after the men painted and decorated themselves they began to form a circle.
- 4. Kangaroo fell in behind a very important man of the tribe, but because the important man could not dance very well. Kangaroo began to mock the way he was dancing he looked so funny that the women and

- the children began laughing and clapping loudly.
- 5. The old men of the tribe became very angry and stopped the corroboree, and pointing at Kangaroo and made him go out in front of them all and dance the strange dance that he was doing behind the back of the very important man. So he put his hands up to chest and hopped on his two legs.
- 6. Around and around the Old Men made him dance until he could dance no longer. The Old men of the tribe, then told him to go from the tribe never to come back, and that no longer would he walk like people again.
- 7. Kangaroo made himself a long tail out of grasses and reeds to help his legs from getting tired and that is why he hops around, his punishment for making fun of people behind their backs.
- 8. Moral of the story: Don't laugh at other people or something unpleasant could happen to you. Remember to be

kind always, we are all on this planet together and we need to respect each other

1.4 The Kangaroo Poem

The Kangaroo

Hopping and leaping

Over the red sand

Go our big Kangaroo

Right across our land

Out and about

Over grasses green always to be seen

Resting a while 'neath

A tall gum tree

Roaming our Country

Forever free

1.5 We will celebrate

'Wallunganduk goola djaaguwa giwa ba barrapoo ba waanyups dappelung'

Wamba Wamba language

'We will celebrate right now and tomorrow and keep the fires burning'

We will celebrate

Wallunganduk goola djaguwa

Right now and tomorrow

giwa ba (berbug/barrapoo)

And keep the fires burning

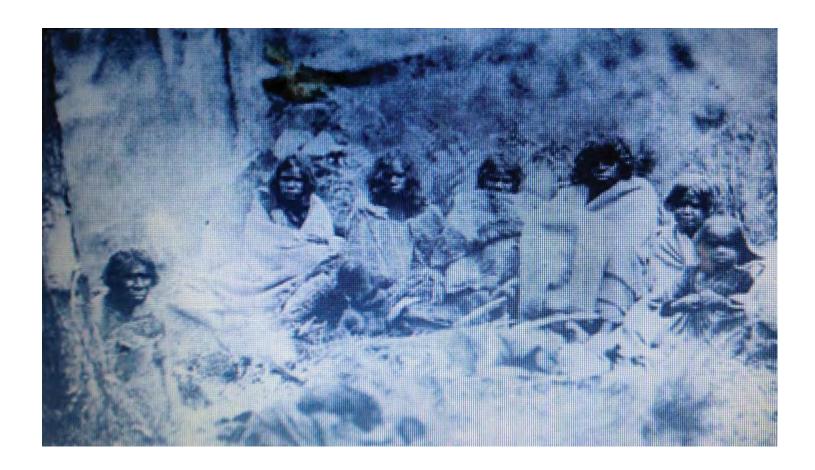
ba waanyups dappelung

Meaning

"We will celebrate right now and tomorrow and keep the fires burning"



1.6 Traditional Photos along the Wamba Wamba land





Above and above right - Traditional Camp on the banks of the Murray River Swan Hill, Wamba Wamba Country

Courtesy of Aunty Trudy Bell's Photo Collection