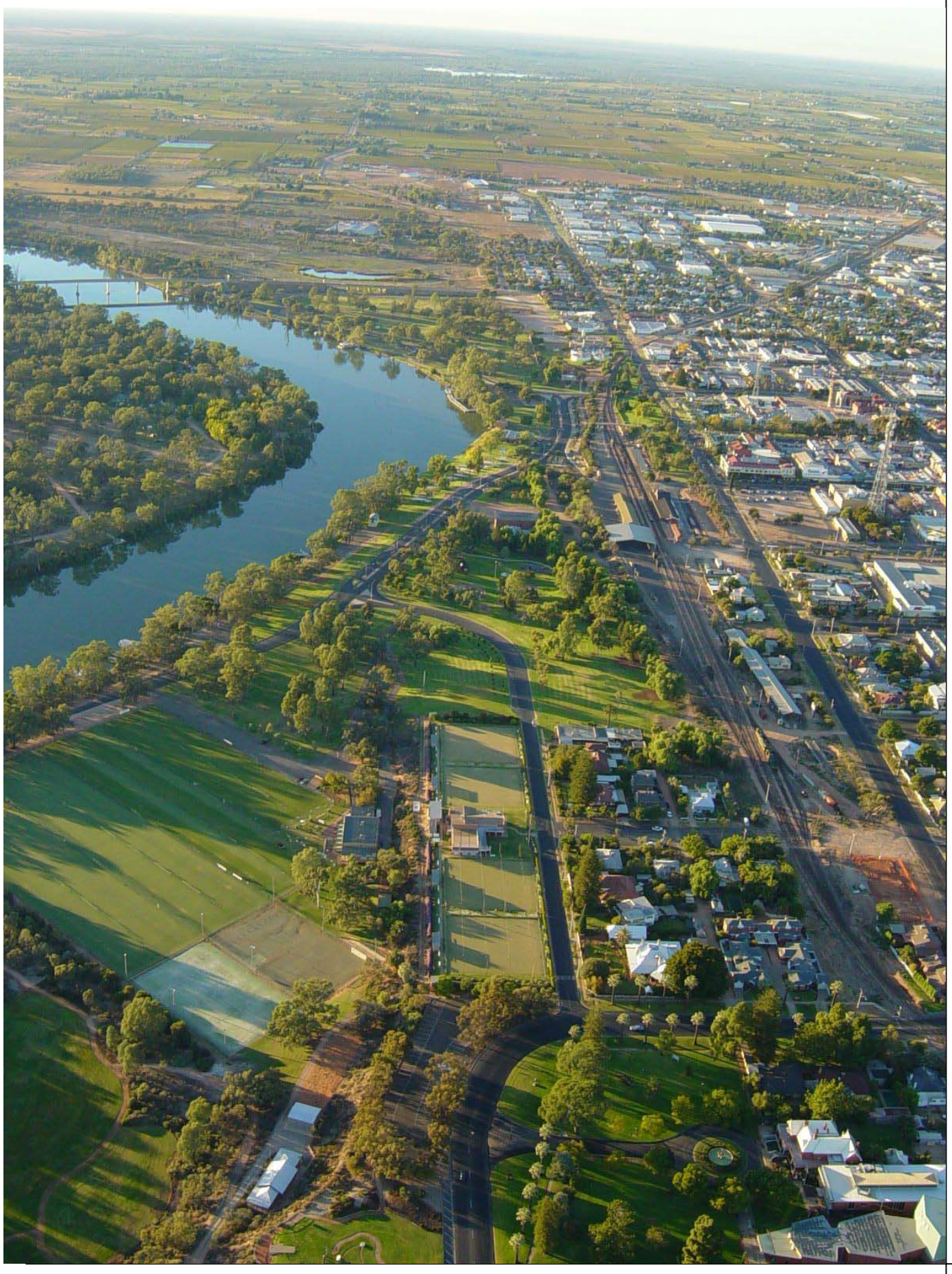
Mildura Riverfront Masterplan

March 2005

Prepared For:
Mildura Rural City Council



FINAL

Daryl Jackson Pty Ltd Architects

KLM Gerner Consulting Group



CONTENTS

		Page
	Table of Contents	i
	The Design Team	iii
	EXECUTIVE SUMMARY	1
1.0	**DESCRIBING THE MILDURA RIVERFRONT MASTERPLAN**	3
1.1	**USING THE MASTERPLAN**	3
2.0	**STORYLINE**	4
3.0	**THE CONTEXT OF MILDURA**	5
4.0	**EXISTING ASSESSMENT**	6
4.1	THE RIVER AND THE CITY	6
4.1.1	Activities and uses	6
4.1.2	Visual Assessment	6
4.1.3	Vehicle Traffic and Parking	7
4.1.4	River Traffic and Mooring	8
4.1.5	Pedestrian and Bicycle Access	8
4.1.6	Landscape Character	8
4.1.7	Sustainability	9
4.1.8	Precinct Issues	10
4.1.9	Land Tenure & Development Controls	11
4.1.10	Supporting Documents	15
5.0	**AIMS AND OBJECTIVES**	16
5.1	INTEGRATION AND VISUAL CHARACTER	16
5.2	ECONOMIC OBJECTIVES	16
5.3	ENVIRONMENTAL OBJECTIVES	17
5.4	COMMUNITY CONSULTATION	18
5.5	MANAGEMENT OBJECTIVES	18
5.6	OPPORTUNITIES AND CONSTRAINTS	19
5.6.1	Opportunities	19
5.6.2	Constraints	19
6.0	**THE VISION**	20
6.1	THE PRECINCTS	22
6.1.1	Mildura Wharf Waterfront	22
6.1.2	Games and Entertainment Precinct	25
6.1.3	The Art and Lock Precinct	26
6.1.4	Chaffey Water Gardens Precinct	27
6.1.5	The Marina Precinct	28
6.2	MASTERPLAN ASSESSMENT	30
6.2.1	Access and Identity	30
6.2.2	Visual and Physical Connections	31
6.2.3	Vehicle Traffic and Parking	32
6.2.4	River Traffic and Mooring	33
6.2.5	Pedestrian and Bicycle Access	34
6.2.6	Landscape Character	35
6.2.7	Land Tenure & Development Controls	37
6.2.8	Environmental Study	39
6.3	URBAN DESIGN GUIDELINES	41
6.3.1	Building Form	41
6.3.2	Streetscape	42
6.3.3	Parking and Vehicle Accessways	43
6.3.4	Landscape	43
6.3.5	Paving	43
6.3.6	Furniture	44



6.3.7	Public Art	44
6.3.8	Signage	44
6.4	SUSTAINABLE DEVELOPMENT GUIDELINES	45
6.4.1	Energy	45
6.4.2	Water	45
6.4.3	Materials	45
6.4.4	Indoor Environmental Quality	45
6.4.5	Construction and Demolition	46
6.4.6	Transport	46
6.4.7	Social	46
7.0	**THE BENEFITS**	47
7.1	ECONOMIC BENEFITS	47
7.2	ENVIRONMENTAL BENEFITS	53
7.3	COMMUNITY BENEFITS	53
8.0	**DETAILED ACTIONS**	54
8.1	FACILITATION	55
8.2	STAGING OF WORKS AND ACTIONS	55
8.3	INDICATIVE COSTS	57
9.0	**APPENDICES**	60

Schedule of Diagrams

SK000 EXISTING CONDITIONS

SK001 VICTORIA MAP

SK002 MILDURA PRECINCT

SK003 PRECINCT'S PLAN – EXISTING CONDITIONS

SK100 ANALYSIS DIAGRAMS

SK101 EXISTING CONDITIONS

SK102 OPPORTUNITIES AND CONSTRAINTS

SK103 EXISTING TRAFFIC AND CARPARKING
(INCLUDES WATER TRAFFIC)

SK104 EXISTING LAND TENURE CONDITIONS – By KLM

SK200 PROPOSED MASTERPLAN

SK201 PROPOSED MASTERPLAN DRAWINGS

SK202 PRECINCT 1: WATERFRONT WHARF

SK203 PRECINCT 2: GAMES AND ENTERTAINMENT PRECINCT

SK204 PRECINCT 3: THE LOCK

SK205 PRECINCT 4: CHAFFEY WATER GARDENS

SK206 PRECINCT 5: MARINA

SK300 PROPOSED MASTERPLAN ANALYSIS DIAGRAMS

SK301 ADDRESS AND IDENTITY

SK302 SIGNIFICANT VIEWS AND VISUAL CONNECTIONS

SK303 PROPOSED TRAFFIC AND CARPARKING

SK304 WALKING AND CYCLING – THE CHAFFEY TRAIL

SK305 LANDSCAPE CHARACTER

SK306 PROPOSED LAND TENURE CONDITIONS

SK307 ENVIRONMENTAL STUDY

SK401 SITE SECTIONS



The Design Team

In April 2003 the Mildura Rural City Council selected a team led by renowned Architect and Urban Designer **DARY JACKSON** to prepare this Masterplan study. The study required a team of highly experienced professionals to cover a broad number of disciplines and included:

Project Leader, Urban Designer and Architect	**Daryl Jackson Pty Ltd Architects and Urban Desginers**
Town Planning and Landscape Architect	**KLM Gerner Consulting Group**
Feasibility Assessment	**Essential Economics**
Environmental Consultants	**Enviroplan**
Quantity Surveyors	**Davis Langdon**
Traffic Engineers	**Ratio Consultants**

The team have worked diligently to ensure each aspect of the Masterplan is considered and resolved, resulting in this document outlining the potential for the growth of Mildura as Victoria's foremost riverfront city, and gateway to the Outback experience.



EXECUTIVE SUMMARY

A new large riverfront park and gardens for the City of Mildura is a critical regional initiative. Designed to be an overlay across the existing 2.5km long riverbank setting, the scope of the **Mildura Riverfront Master Plan** project may be seen to be of scale similar to Melbourne's Southbank or Adelaide's North Terrace.

The Riverfront Park area edges the river on its south bank for some 400-800 meters back to the cliff escarpment that defines the northern face of the city's grid. The plan provides guidelines for the design's five 500-meter precincts, which together comprise Mildura's riverfront. Commissioned by the Mildura Rural City Council, Tourism Victoria and the Department of Sustainability and Environment the Plan structure incorporates the proposed Mildura Marina previously submitted to Council. Specific provisions covering the Mildura Marina are now included in the Mildura Planning Scheme and the proponent is proceeding with detailed design.

This Master Plan is required to bridge the gap between previous strategies and development plans, and the State Government policy to provide a coherent action plan for a revitalised forward looking Mildura Riverfront Park.

The Master Plan is an holistic detailed design focussed response to the site and its setting. It includes guidelines for each riverfront precinct which, taken together, will produce an integrated, harmonious park and river environs of great interest and value to both residents and visitors.

The intent is to realise Mildura's potential as a City by the River, to provide a quality environment and built structures that complement each other and integrate well with the surroundings. The result will be community focussed with a range of existing activities retained and intensified to further celebrate and express the richness of the heritage, environment, culture, leisure, entertainment and particular identity of Mildura as Victoria's most significant inland river city.

The design celebrates this relatively modern history, draws attention to the riverboat past whilst including all existing uses; yet importantly seeks to signify a new beginning for Mildura as Victoria's foremost northern river city.

The riverfront is therefore seen as a cohesive and grand landscape element, through which a number of defined activities and opportunities are found and developed, stimulating the **Riverfront Park** as a lively and integrated part of the city. As a part of the City, the connections back to the Mildura CBD are a key component of the success of the Riverfront Park.

The major focus to the new riverfront park will be the **Mildura Wharf Waterfront**. This pivotal urban structure will provide the main physical connection to the river, and will bring the historic paddle steamers and public craft romantically close to the urban activity of the City. Access by riverboats travelling the Murray will be possible, bringing them into a lively and animated urban area with opportunities for food, wine, art, produce and people, each brought together in a unifying gesture of the City, centred about the extension of Deakin Avenue as a plaza extending to the river.

With relocation of the freight terminal, land will become available for other uses and better integration between the City and Riverfront Park. A new Cultural Centre will be a central focus for tourists and should incorporate an Indigenous Interpretative Centre. Located in Mildura, on the edge of the Outback, such a centre will enable tourists to conveniently and safely explore the Outback experience, as well as gain a better understanding of Pre- white settlement in Mildura and the history of Aboriginal Culture and legends in this area. The centre would include scientific and research facilities in conjunction with specific Aboriginal Cultural displays and events. This development will be unique in Australia (and the world), since it will draw on regional characteristics and experiences and in this way would generate nation wide interest, thus significantly stimulating tourism to this region. This centre could be known as the "**First Australians Centre**" however this name would need to be further reviewed in detailed feasibility work.

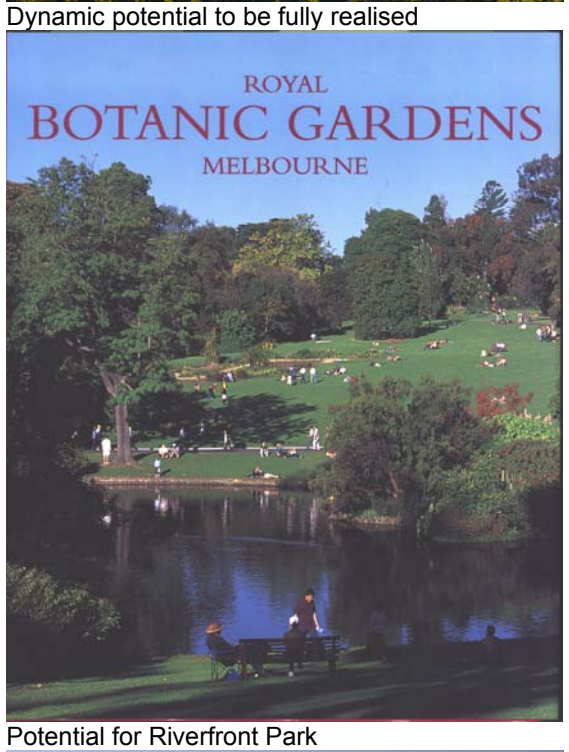
Some distance away, the new conservatory and function centre will provide a new level of service to the community, enjoying the surrounds of the river precinct

Some residential development in the form of townhouses, holiday units and apartments can provide a strengthening to the edge of the Park. The urban edge of the City along Seventh Street can likewise be further developed and strengthened with landscaping and suitable commercial and residential development of vacant sites, whilst within the Waterfront Park opportunities that encourage greater patronage should be fully realized.

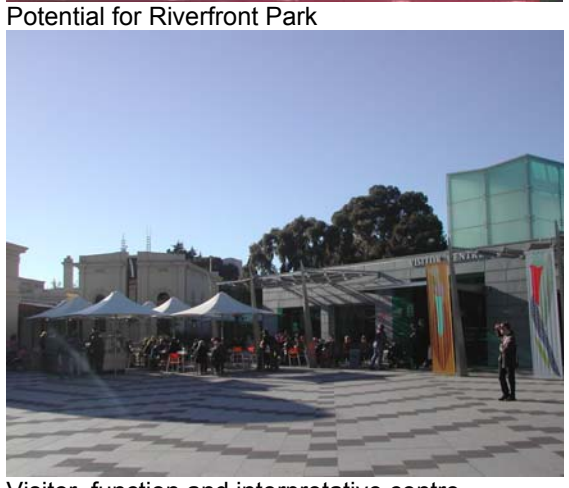
Open parkland is an attribute of the riverfront park to be enjoyed. The new Chaffey Water Gardens provide a themed large open space, available for hosting public outdoor events ranging from Balloon Events to New Years Eve Celebrations.

Connections with areas outside of this study area should not be overlooked. It is intended that the **Chaffey Trail** be resurrected and formalized throughout the riverfront area in the form of a walking and cycling discovery trail. It will connect other areas, including Lock Island, Apex Park, The Old Mildura Homestead, and the Wetlands Area and indeed to other areas further a-field such as Red Cliffs. The tracks will encourage movement along the river, and will assist the protection of the natural landscape through defined walking and cycling areas, whilst also providing encouragement for the embellishment of existing activities and the creation of new opportunities.

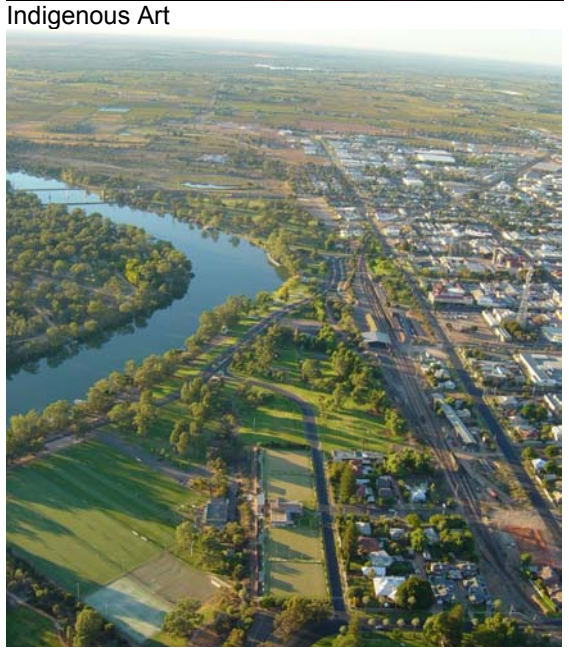

Dynamic potential to be fully realised



Potential for Riverfront Park


Visitor, function and interpretative centre


Indigenous Art





The activity generated by the new functions within the grand park setting will be of great environmental, social, economic benefit to the community. It will yield increased patronage and extended tourist visits, not to mention the improved amenity for residents to enjoy everyday.

The Benefits

The **economic benefits** that are expected to be generated from the Masterplan are as follows:

1. **Entertainment and Functions** – Provision of a number of new sensitively designed and carefully integrated facilities including: Commercial and Cultural Centre including 4,500 sqm of multipurpose exhibition, boutique tourist retail, information, arts, cafes and waterfront restaurants; a Function centre at the Garden Conservatory, enhanced riverfront facilities to support river traffic, improved and increased open space for outdoor events at the Chaffey Water Gardens including a sound shell, a defining "Mildura Citrus Gardens" of state significance at the heart of the proposal, an improved transport interchange including commercial and retail development, and new residential housing in the form of townhouses, apartments and various modes of visitor accommodation.

2. **Residential Housing and Resident Spending** - Residents in the new dwellings would support the local economy through annual retail spending of approximately $840,000 pa (June 2003 dollars).

3. **Visitor Accommodation and Visitor Spending, including tourism** - $7.4 million in spending by some 16,750 visitors staying on average 3.4 nights/visitor in the Riverfront visitor accommodation; and, $1.8 million of the visitor spending (25% of total spending) is likely to be on meals, shopping, gifts and souvenirs, thereby supporting local retailers.

4. **Employment generation** - The implementation phase of the Riverfront Masterplan will involve investment of approximately $122 million, including both private and public investment in Riverfront components; Construction of the various components included in the Masterplan is estimated to generate a total of 1,190 job-years over the fifteen-year implementation phase. Most of these jobs are likely to be filled by workers living in the Mildura region. On-going employment generated through resident and tourism retail spending and in servicing visitor accommodation would be approximately 120 direct, on-going jobs. Additional flow-on jobs would be generated through the employment multiplier effect. Approximately 275 jobs pa over the initial fifteen-year implementation phase plus 145 jobs pa on an on-going basis are likely to be generated in the local, State and national economies through the effects of the employment multiplier.

Overall, development of the Riverfront Masterplan area is expected to generate considerable economic and employment benefits for the Mildura economy and for the community. Consideration of the several components (residential, retail and visitor) in terms of size of each component suggest that the forecast outcomes are achievable. This includes contribution of the overall development to the residential market; additions to local employment; and creation of new local spending for Mildura retailers.

Many **social benefits** to be enjoyed by the community will result from the Master Plan in addition to those already appreciated by the community. These include:

- A more vibrant and active waterfront precinct, as an attractive urban place to visit for tourists and residents alike.
- An exciting marina focus for recreation and holiday makers
- A safer park environment with better lighting and more activity at all times during the day or night
- A broader understanding, both in the Community and to visitors, of the rich indigenous history of the area, through the new Indigenous Interpretative Centre.
- Passive overlooking with neighbouring residential buildings providing an unobtrusive façade that overlooks the Park
- Greater usage of the Park with lighting enabling it to operate well into the evening
- The pride of place, with the legacy of Mildura a key component of the Master Plan
- New facilities for dining, relaxing, playing and entertaining
- Expansion of art themes and movements in the area, particularly with respect to indigenous art.
- Eliminate the undesirable element from the Park through sound planning and lighting of new spaces
- A new rowing club and associated facilities
- A more pedestrian oriented waterfront, with walking and cycling trails inviting intimate contact with the landscape and less cars.
- Better connections to NSW and other areas of Victoria
- A range of garden themes that run through the precinct, ranging from the Mildura Citrus Gardens to the Chaffey Water Gardens

Ultimately, the opening up of visual and physical connections to the City will again link Mildura with its tremendous waterfront, creating the potential for a natural riverfront park with great opportunities realised, as a catalyst for patronage and activity, to be enjoyed by residents and visitors alike.

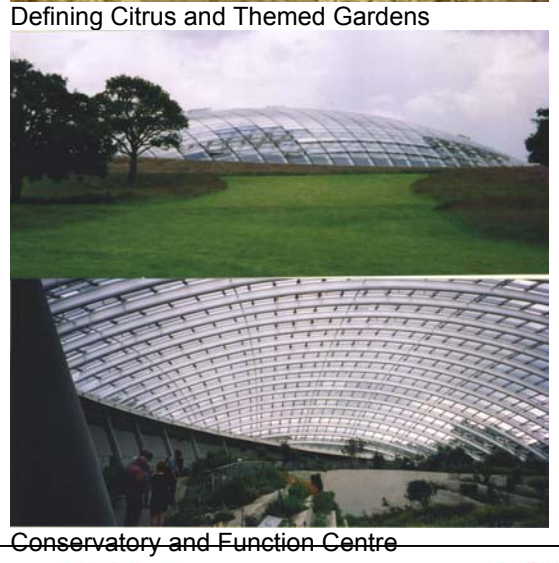
The Mildura Riverfront Master Plan will enable a range of **'sustainability benefits'** to be achieved, addressing a broad range of issues including: Energy, Water, River Environment, Materials, Health and Comfort, Awareness, Strategic Support.


Paddle steamers and waterfront activity


dynamic landscape elements


Market showcasing Mildura Produce


Defining Citrus and Themed Gardens


Conservatory and Function Centre



Finally, **Urban Design Guidelines** contained within this Master Plan ensure that the ongoing development of the riverfront achieves the Master Plan vision in a unified manner over time. The guidelines will ensure the Mildura riverfront, from the proposed Mildura Marina to Lock 11 and the Arts Precinct will read as one integrated design vision. These guidelines seek to protect and enhance the economic, environmental and social attributes of the Mildura Riverfront. They will also provide some certainty to the proposed Riverfront Advisory Committee, stakeholders and potential developers of the level of design expected for this special area.

The Urban Design Guidelines address the design objectives, desired character, and general guidelines that must be achieved in order to satisfy the principle objectives listed above. They are not intended to be prescriptive, but instead will be linked to the Mildura Planning Scheme as a reference document that offers a performance-based system of control.

1.0 DESCRIBING THE MILDURA RIVERFRONT MASTER PLAN

This Master Plan was commissioned to ensure that riverfront development is consistent with the vision of '*a state significant precinct that is a destination in its own right*'.

Sections 2.0 and 3.0, which follow, discuss how the Mildura Riverfront arrived in its present form and outline its catchment potential and regional importance.

The critical juxtaposition of the riverfront to the City is recognised and reinforced. Based upon an analysis of the natural and physical attributes of the riverfront and its urban context, the Plan builds upon previous strategies and development plans (Section 4.0).

Section 5.0 outlines the aims and objectives of the study including identified opportunities and constraints. This forms the basis for the recommendations illustrated in Section 6.0 'The Masterplan Vision'. This provides the framework upon which the urban design outcomes demanded for each precinct are based.

Section 7.0 outlines the economic, environmental and social benefits of the proposals to the city, while Section 8.0 suggests actions, which enable the master plan to be implemented over time.



1.1 USING THE MASTER PLAN

This Master Plan provides guidance for private developments, as well as public spaces on the riverfront. It should be used by:

- Council staff when briefing or monitoring developers and their representatives on the design requirements for any land parcel within the Mildura Riverfront;
- Public or private sector agencies and their representatives to clearly understand the Council's intent for the river front;
- Consultants engaged on Council's behalf;
- By Council and agencies so that a rationalised and improved management structure and development control mechanism can be implemented;
- Any future riverfront authority or managing agency overseeing development proposals for the Waterfront Park.
- As the basis for referencing the Urban Design Guidelines in the Mildura Planning Scheme.
- Authorities in conjunction with other planning policies and strategies that exist.

It is envisaged that the Masterplan will be given status in the Mildura Planning Scheme by reference in a Mildura Riverfront Plan Local Policy, the introduction of a Design Development Overlay to key sites and some zoning modifications



2.0 STORY LINE

Regional archaeological record indicates a semi-continuous Aboriginal occupation of the Mid-Murray floodplain area dating back as far as 60, 000 years, and variously provides evidence of shell fish gathering and processing, bark removal, tool manufacture and use, and mortuary practices.

The World Heritage areas of the Willandra Lakes and Lake Mungo are only 110kms to the north. Couple this together with the local significance of the Murray River – it was used as a link by the Aborigines for carrying information and produce, and intersections with tributaries were important (sometimes sacred) meeting places – this area has an amazing breadth of Aboriginal history and legends upon which to draw.

Mary Woorlong was the last full blood member of the Latji Latji tribe to live in the Mildura area. After her death in 1942, she was buried at the Mildura Cemetery signified by a memorial stone, still seen to this day.

Mary's father, Chief Woorlong was leader of the Latji Latji tribe and is renowned for his boomerang throwing demonstration to Queen Victoria in England in 1900. However, having been taken from Australia, Mary was likewise taken from her natural environment as a child and trained as a servant. She was nonetheless well liked in the community and affectionately remembered.

A number of places nearby should also be considered in understanding the quality of the Indigenous history in this area:

Hattah – Kulkyne National Park- Lake Mournpool was a primary occupation site of the Latji Latji people and includes scar trees and middens around the Lakes, and is rich in plant and animal specimens.

Red Cliffs- The scenic reserve along the Murray River showcases evidence of the culture and heritage of aboriginal communities.

Walpolla Island and Lindsay Island – were occupied by the Barkinji tribe along the Merbein Mail Route. Lindsay Island has the largest collection of Middens, burial sites and artefacts in North Western Victoria.

Merbein Common is an ancient site that has Midden Specimens that date back to 16,000 BC.

Mungo National Park, part of the Willandra Lakes region, is included on the World Heritage List.

In this regard, Mildura may be considered to be a gateway to the Outback and the Aboriginal experience

Early European settlers had stated that there was a large number of Aboriginal people on both sides of the river when the original squatting station, Mildura Station, was first established in 1846, as the Murray River corridor supported some of the densest Aboriginal populations in Australia. The effects of European settlement on the Aboriginal population were devastating however, and by 1862 the Aboriginal population in the Mildura area was listed as only 49, and by the 1880's the number had been further reduced to 25-30. Connections between the local Aboriginal Community, the land and traditional resources are still maintained in the region nevertheless, and further acknowledged within the Indigenous Land Use Agreement between the Latji Latji Peoples, the Wergaia Peoples and Mildura Rural City Council, signed under the Native Title Act as part of the approval process to the Mildura Marina amendment.

It is thought that the site area was occupied by the Keramin Aborigines before white settlement. The first European in the vicinity was probably Charles Sturt who passed the townsite on his journey along the Murray in 1830.

In the early 1880s, the Victorian Government began examining the possibility of establishing irrigation colonies on the Murray River. A Royal Commission chaired by Alfred Deakin the then Chief Secretary and Minister for Water Supply was held to examine Victoria's water resources, and in 1884 Deakin led a delegation to the USA where he met the Canadian born brothers George and W.B. (Ben) Chaffey. They had established irrigation colonies at Ontario and Etiwanda, east of Los Angeles.

After a promising report in 1885 from Stephen Cureton (the Chaffey Brothers manager), George Chaffey visited Victoria in 1886 and decided on the Mildura Run as a suitable location for an irrigation colony. Psyche Bend Pumphouse contains the steam engines that pumped water from the river to the fledgling settlement via open irrigation channels.

Prospective settlers or investors could purchase irrigated blocks for 20 pounds per acre. A minimum of 10 acres and a maximum of 80 acres could be purchased by any individual.

By 1890 the colony had 3600 acres planted to horticulture. In these early years trees were usually preferred to vines, with a typical block planted to 25% vines and the rest taken up by apricots, peaches, lemons and oranges. By 1894 there were 700 acres of oranges, 750 acres of lemons, 900 acres of peaches and 1650 acres of apricots.

The Chaffeys, especially George, invested in other business ventures in Mildura and elsewhere. These included a brickworks, an engineering company, a timber mill and in 1888



The River Murray Navigation Company. The original Chaffey family home, Rio Vista, is today a museum and art gallery. In the early years of settlement, favourable conditions meant Mildura could rely mostly on river transport with freight and passengers going downstream to Morgan for a railway connection to Adelaide and upstream to Swan Hill and Echuca, for connections to Melbourne.

The Mildura Wharf opposite the end of Madden Avenue is a pick-up point for paddle steamers and showboats, recalling the days before the railways when the inland river trade was a major means of intra-national transport. The Melbourne (1912) is still run by steam power and you can watch the original boiler being stoked. Among its services, the Rothbury (1881) makes weekly trips to Golden Zoo Park and Trentham Winery. The showboat Avoca (1877) offers lunch and dinner, with music and dancing while the Coonawarra (1894) undertakes cruises of 3-5 nights with accommodation.

A railway line through to Melbourne was completed in 1903, which greatly aided produce transportation, and the town slowly crawled its way to prosperity with the help of the various governments. The 1920's were a time of considerable consolidation. 1000 soldier settlers were granted land here after World War I, leading to the establishment of Merbein and a general expansion.

3.0 THE CONTEXT OF MILDURA

Situated on the northwestern tip of Victoria, Mildura sits within the *Murray Outback Experience* tourism region. The town edges the bank of the Mighty Murray River and, despite its remote location, is well served by transport connections to major capital cities.

Mildura's Central Business District serves a wide regional catchment covering the city of Mildura and its satellite townships, and extends into New South Wales and South Australia to serve a population approaching 50,000 residents, within a 1-hour travel distance by car.

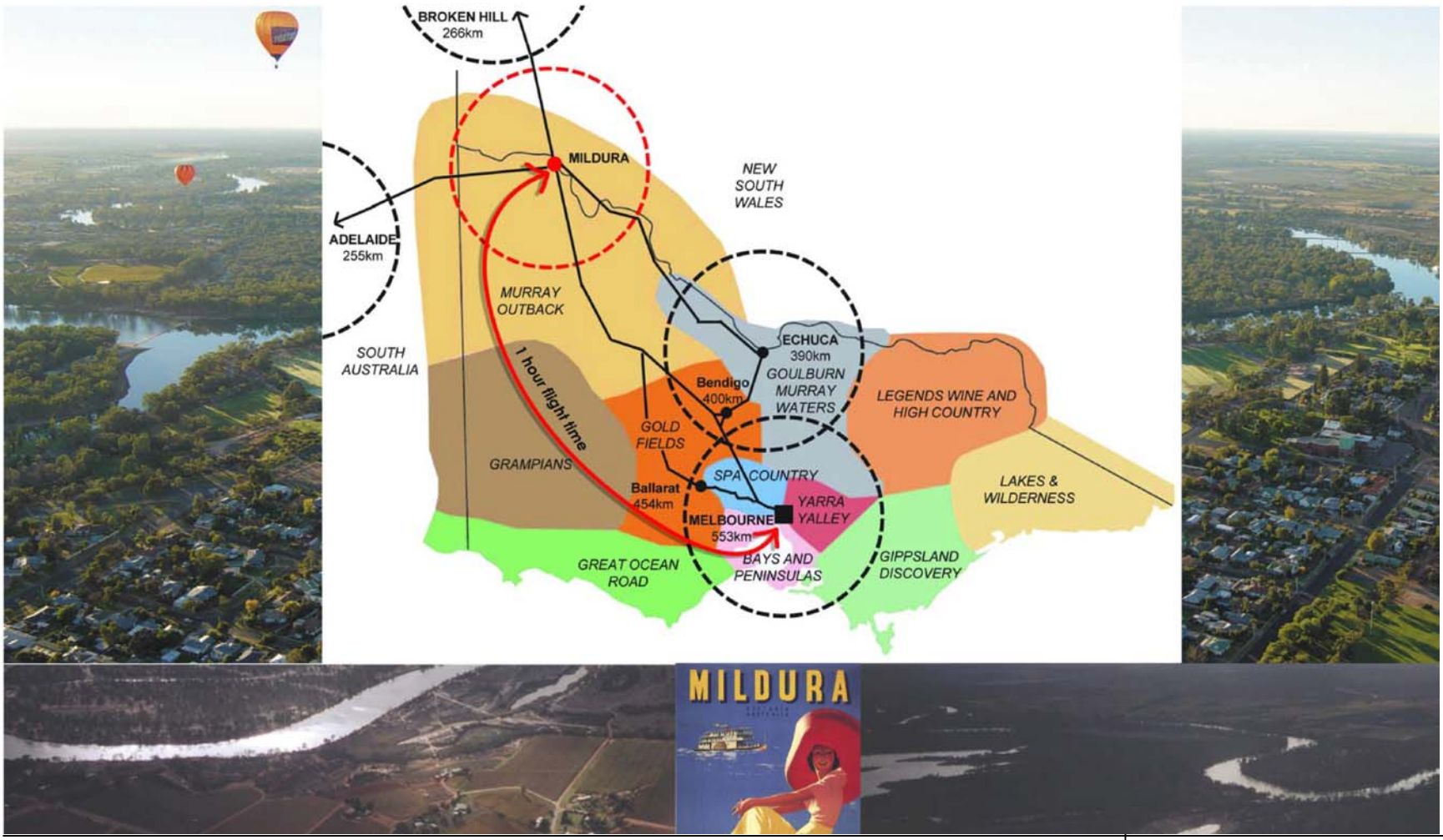
In 1887 this region was the first irrigation colony to be established in Australia by the Chaffey Brothers to create a diverse economic base focussed upon agricultural and horticultural production. Today a gross value of $300 million per annum comprises the regional economy.

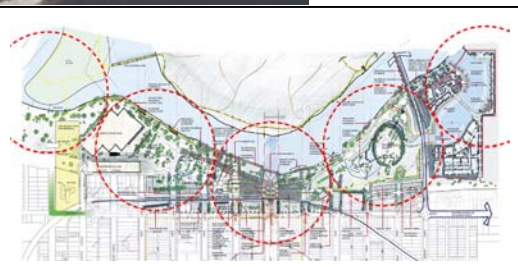
A retail sector driven by a growing population (predicted to be 57,000 in 2021 [1]), with tourism bringing approximately 918,000 tourists per annum to the region is significant.

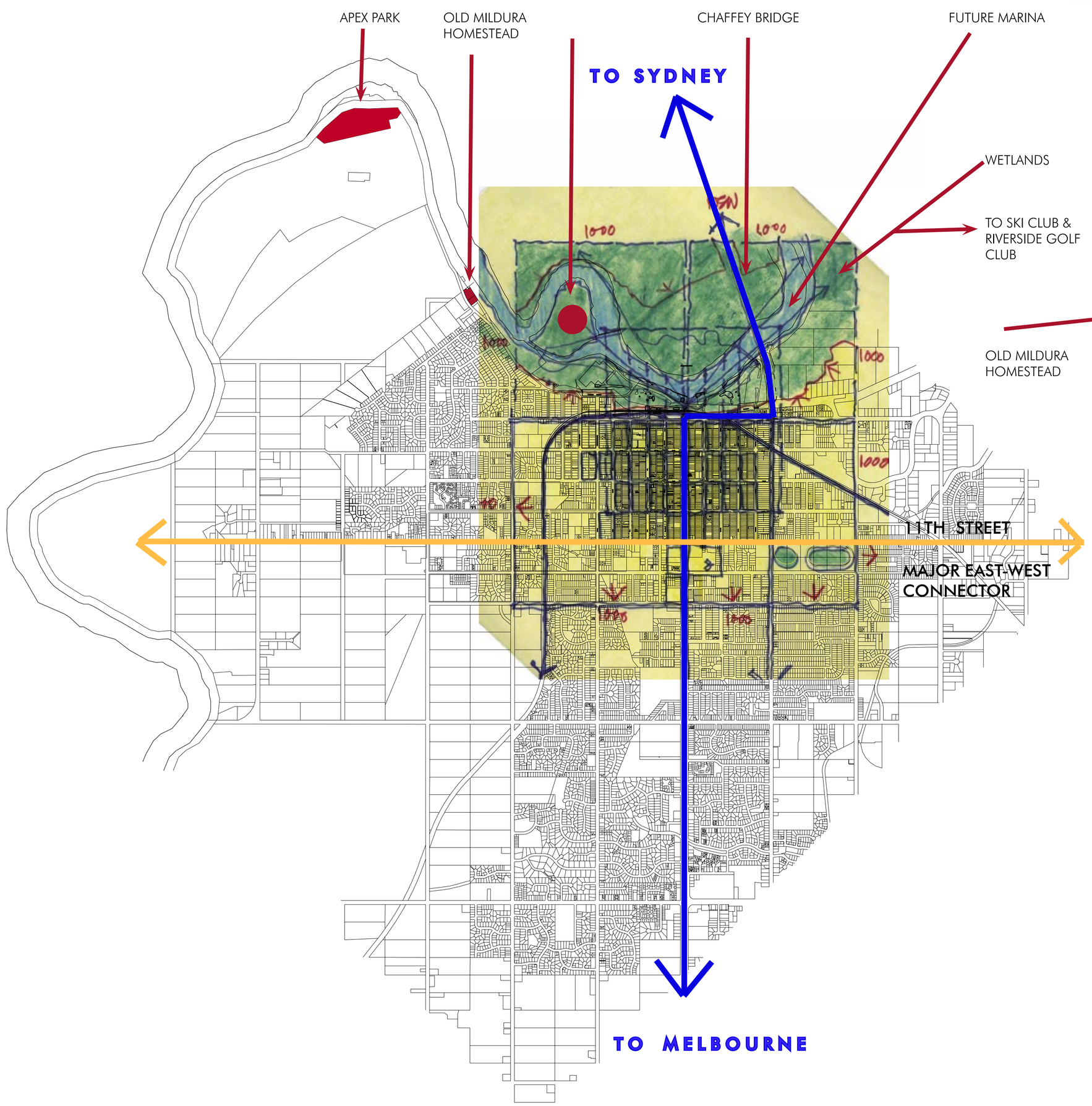
A regional population catchment (representing a 2 hour drive, refer SK001) demonstrates that the Mildura catchment within the Murray Outback tourism region is distinct from the Echuca catchment within the Goulburn Murray region; Adelaide is a 4 hour drive and Broken Hill a 2 ½ hour drive from Mildura; a 1 hour flight delivers the tourist from Melbourne to Mildura airport.

The Mildura Airport has recently been upgraded to accommodate Boeing 737 aircraft. Passenger Rail services are on the State Government agenda to return to the Mildura district by 2004, however confirmation of this has yet to be received.

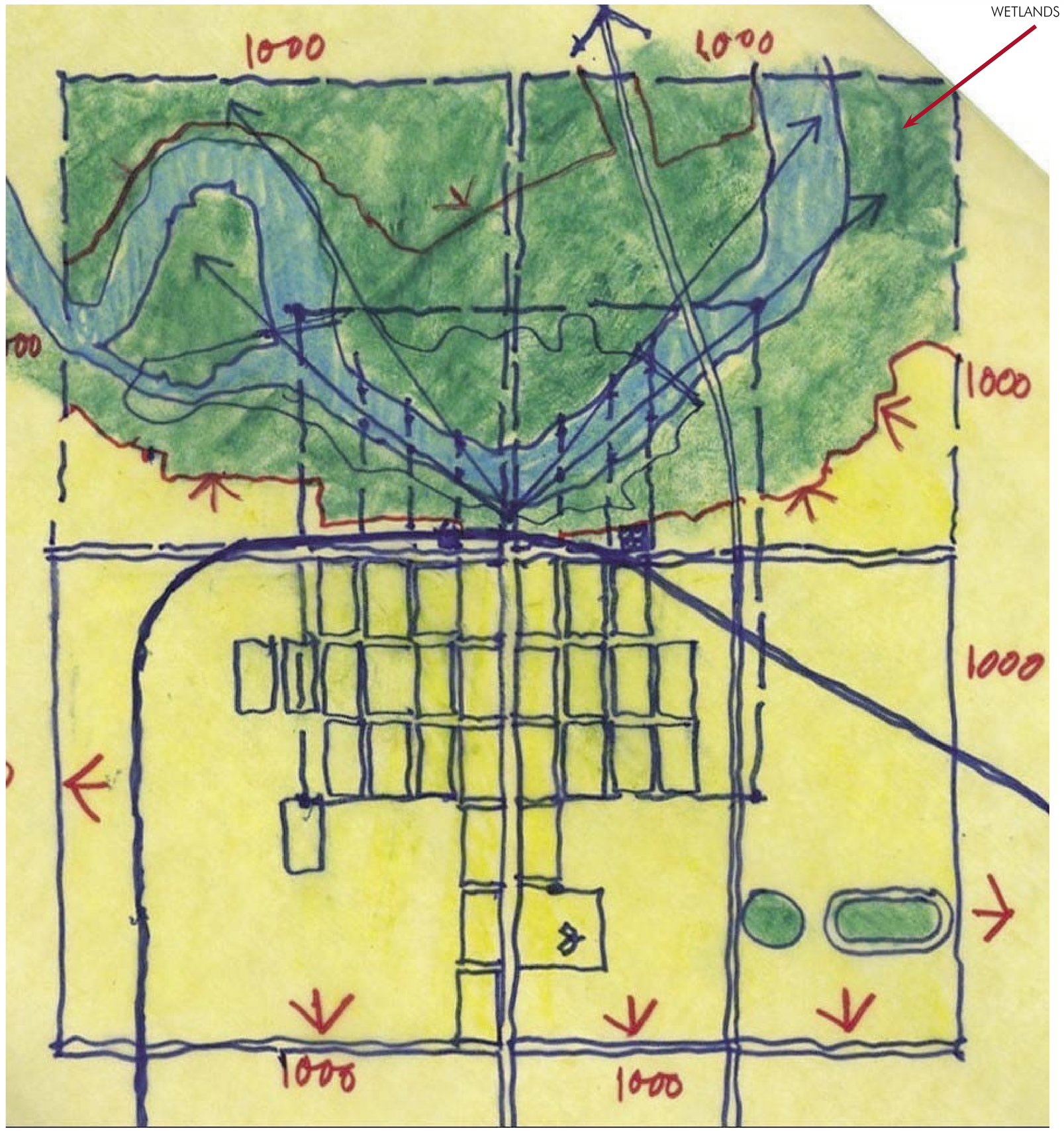
It needs to be remembered that the Murray River represents a key symbolic environmental, economic and social asset to the township. However, broken connections to the river from the City and the lack of a specific or unique riverfront park/ garden, currently undermine the potential for Mildura to achieve its innate potential to become a key destination icon for the regional community and incoming Australian and International tourists.







MILDURA CITY PLAN 1:20000



MILDURA CITY SKETCH 1:8000

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MILDURA RIVERFRONT MASTER PLAN

MILDURA PLAN

Scale: 1:20000 / 1:8000

Dwg No.: SK 002

N

4.0 EXISTING ASSESSMENT

4.1 THE RIVER AND THE CITY: Rail and Riverboat

The Mildura Riverfront Reserve extends from the George Chaffey Bridge connecting Victoria to New South Wales across the Murray River, to Lock Island that acts as a Murray River water level regulator. The infrastructure in this area includes the Weir, and a Lock mechanism (Lock 11) to allow river craft to traverse the two differing water levels. The proposed Marina development east of the George Chaffey Bridge is to be integrated with the riverfront site to produce a cohesive design that will function as a whole across its 2500 metre length.

The existing rail infrastructure slices through the site impeding physical access and visual connection between the City and the river. Rail freight activity for the region is centred here presenting a significant constraint to achievement of the Master Plan. This Master Plan strongly endorses Council's resolution to support relocation of the rail freight terminal to the proposed new Freight Gate in line with the recommendations of the North West Freight Transport Strategy.

The river itself presents a unique opportunity for Mildura to capitalise upon riverboat activity. Currently there are four paddle steamers operating from the Mildura Wharf, facilitating tours along the Murray River. Private Houseboats are moored along the riverbank, as are houseboats for hire, presenting greater tourist potential. This river craft activity is however creating environmental problems with degradation of the riverbank due to designated mooring sites having inadequate provision for passenger alighting and disembarking. The proposed Marina will address some of these issues.

The riverfront is host to a number of active sporting pursuits and community uses. The leasing arrangements between Council and these clubs should continue into the future to provide sporting and cultural activities to the local population. Open space areas should also be retained and enhanced for passive activities occurring on the riverfront such as walking and cycling, picnicking and ball games, and nature appreciation.

A significant number of agencies and stakeholders have an interest in the riverfront precinct. This presents Council with a complex application and resolution process. Coupled with a number of different ownership and lease rights, issues of land tenure and development controls is paramount to the success of the Master Plan vision.

The riverfront is currently a series of separate spaces, each with separate functions connected only by Hugh King Drive, a physically dominant road, and the river itself. Each of these separate functions is integral to the effective operation of the riverfront and the City. They should be retained, consolidated or relocated to better service the visual and physical connectivity of the riverfront. Further detail has been discussed in the below sub-sections.

4.1.1 ACTIVITIES AND USES

The Mildura riverfront accommodates a number of uses varying from active sporting facilities to passive recreation opportunities, from community groups to city infrastructure.

The Clubs and Groups currently utilising the riverfront are:
- Mildura Lawn Tennis Club
- Mildura Rowing Club
- Mildura Bowls Club
- Mildura Art Club
- Mildura Little Theatre
- Red Cliffs Musical Society
- St Johns Ambulance

Infrastructure currently in use on the riverfront:
- Mildura Rail Yards and associated infrastructure
- Mildura Railway Station (transport interchange)
- George Chaffey Bridge to New South Wales
- Lower Murray Water Pump House on river bank (town water)
- Lower Murray Water Treatment Facility (town water)
- Amenity blocks at Ornamental Lakes and Jaycee Park
- Old Power House (community use)
- Lock 11 and the Weir to maintain water levels for river traffic
- Jaycee Park playground
- Skate Park
- Rowing Clubrooms
- Rio Vista House
- Art Gallery with Elliot Collection beside Rio Vista
- Mildura Theatre and Ampitheatre

4.1.2 VISUAL ASSESSMENT

The riverfront at Mildura has experienced significant European settlement since the late 19th century. Originally a working port for cargo delivered by river craft and transferred to rail, the Riverfront is a highly modified landscape that retains little trace of its natural state. It is visually and functionally disjointed.

Stately River Red Gums provide glimpses of the water and create a visual buffer between the urban parkland and the river. However, utilitarian structures litter the parkland, providing



Lock 11 infrastructure with Lock Island in the background



Paddle steamer 'PS Melbourne' docked at Mildura Wharf



Rio Vista House at Walnut Avenue and Cureton Avenue intersection



River Red Gum character



sporting clubrooms, ageing infrastructure and amenity blocks. Community groups use some converted historic buildings, and these too are in need of reparation and representation.

Large expanses of lawn dotted with both Eucalypts and European trees characterise the riverfront from the Chaffey Bridge past the Mildura Lawn Tennis Club to Lock 11, providing a well maintained landscape setting. Hugh King Drive, a four-lane bitumen road, cuts through this grassed area visually dominating the site, as well as inviting unwanted use as a micro drag track from time to time.



Mildura Rowing Club Lawns and Hugh King Drive from elevated pedestrian walkway

The potential to capture river views from the City edge is impeded by the main rail line and freight gate located at the top of a terraced crib wall escarpment planted with succulents. This is a visual blight on the reserve.

East of the Chaffey Bridge is the site of the proposed marina. A highly modified low-lying scrubland surrounds a retention basin, yet to be created.

4.1.3 VEHICULAR TRAFFIC AND PARKING

(Refer Figure SK104 – Existing traffic and carparking)

The existing vehicular usage of the riverfront has been researched, focussing on road networks, local access and traffic management, carparking and bus access and parking.

(a) Road Network

The Riverfront area is currently separated from the Mildura CBD by:

- The reservation and traffic lanes of Seventh Street;
- The railway line and freight yards.

Between Deakin Avenue and San Mateo Avenue, Seventh Street is classified as the Sturt Highway. As such, it is signed as a major interstate traffic route and it is used in that way, especially by trucks. This through/truck traffic role increases the severity of the barrier that Seventh Street creates between the CBD and the riverfront.

The railway line cuts the northwest extension of Seventh Street. This means that CBD access traffic from the north-west must deviate around the "missing link" of Seventh Street, either:

- Along Cureton Avenue, in between the Rio Vista Mansion and Rio Vista Park; or
- Along Eighth Street on the southern side of Mansell Reserve.

There are prospects of these major traffic/transport barriers being removed in the near future, as part of road/rail infrastructure changes, as follows:

- The impact of through-traffic, particular truck traffic on the amenity of Deakin Avenue could be reduced if Benetook Avenue were to be designated as a Truck Route;
- The railway line may be cut back, terminating at a point south of the CBD.

These two changes would allow a more direct and convenient functional linkage between the CBD and the Riverfront, and re-establishment of the full road grid (i.e. Seventh Street) north-west of the CBD.

(b) Local Access and Traffic Management

The main vehicular access for the riverfront is available via Hugh King Drive, which is connected:

- Into Madden Avenue (under the railway line at a level crossing);
- Into Cureton Avenue at the western end.

There is little data available relating to existing access and traffic management characteristics of the riverfront area. The following summary data provides a partial description:

- There are some roads in the riverfront precinct with excessively wide pavements, such as Hugh King Drive and the road serving the rail freight loading areas;
- The western part of Hugh King Drive (Madden Avenue to Hodges Way) carries about 1,000 vehicles per day; surveys in August 2003 show that about half of the traffic exceeds the 40km/h limit, with the maximum observed speed being 86km/h;
- The eastern part of Hugh King Drive (Madden Avenue to the bridge) carries about 500 vehicles per day; surveys in August 2003 show that about one third of the traffic exceeds the 40km/h limit, with the maximum observed speed being 105km/h;
- Tourist bus access to the Port of Mildura wharf area can only be achieved from the western end of Hugh King Drive.



Vehicular parking at the Mildura Wharf takes up prime riverfront land



On street parallel parking on Seventh Street



Madden Avenue entrance (under rail line)



(c) Car Parking

There are numerous areas of off-street public parking in the Riverfront Precinct, namely:

- Mildura Wharf 63 spaces
- Arts Centre 57 spaces)
- Lock Island 70 spaces
- Riovista Park 39 spaces
- Jaycee Park 31 spaces
- Riovista Park Lookout 63 spaces

These areas, plus on-street parking along Hugh King Drive and overflow areas near the tennis courts, provide sufficient parking for current needs.

(d) Bus Access and Parking.

Buses require access to the wharf (and associated parking) for groups of people boarding River Murray paddle steamer tours; up to five buses are parked at the wharf at peak tourist times, within the designated wharf carpark.

Vicroads have advised that a detailed traffic impact assessment will be required as part of the development of the project, and will need to address both vehicular and pedestrian movements.



Sealed car park at Rio Vista Park lookout on Cureton Avenue

4.1.4 RIVER TRAFFIC AND MOORING

The Mildura Port activities are one of the defining elements of the waterfront area, unique to Mildura. The wharf caters for:

- Paddle Steamer Cruises
- River Cruise Boats

The existing wharf incorporates the historic wharf, which is spread over 3 levels, 1 of which has been submerged since the introduction of the Lock and Weir has raised the river level. The historic wharf should remain and be protected as it is of great interest for those occasions when the water does recede sufficiently.

The wharf is located at this position in the river primarily because the width is greatest, and it is a good distance from the Weir. This facilitates the large turning circle of the paddle steamers and gives them sufficient time to correct and regain control, should they stall. Historically, it was also the highest piece of ground at the riverfront, in close proximity to the City.

The major paddle steamers using the river and wharf facilities include both independently geared paddle steamers as well as rudder steering only steamers. The turning circle of both differs, with the rudder requiring a greater turning circle arc. As such, the natural river current is relied on to assist the steering, and therefore they currently turn in an anti-clockwise direction.



Mildura Wharf catering for paddle steamers and river cruisers

4.1.5 PEDESTRIANS AND BICYCLES

The Chaffey Trail established along the Three Chain Reserve on the riverfront provides linear access to the water. Currently a shared gravel trail up to 2.4 metres wide is used by pedestrians and cyclists, extending well beyond the riverfront park in each direction. The trail connects Apex Park to the west to the Old Mildura Homestead, Lock 11, the Rowing Club Lawns and beneath the Chaffey Bridge to connect the proposed Marina site to the key urban waterfront area.

North-south connections are fragmented and often difficult to negotiate. There are footpath connections from the City to the riverfront along Madden Avenue under the rail overpass and Chaffey Avenue at an at-grade rail crossing.

A pedestrian bridge crosses over the rail line at Deakin Avenue affording views of the river and City edge. This bridge contains steps to negotiate the succulent garden embankment to arrive at the wide bitumen roadway of Hugh King Drive and the Rowing Club Lawns beyond. This does not facilitate effective pedestrian and bicycle access particularly disability and aged persons' access.

Visitors currently engage in a drive – park – explore experience. The number of parking spaces provided along Hugh King Drive demonstrates this. The site is not conducive to direct pedestrian and bicycle access from the City.



Chaffey Trail in bushland character between Tennis Club and Lock 11

4.1.6 LANDSCAPE CHARACTER

Seventh Street provides a distinctive landscape character with an established avenue of Palms. Council has undertaken works to infill this avenue to provide a continuous edge to the street. This is a positive improvement to the interface between the City and the Waterfront Park.

The two defined entrances to the riverfront at the Madden Avenue rail underpass and the north west Cureton Avenue entrance do not display 'Gateway' qualities befitting the resource that lies behind it.





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MILDURA RIVERFRONT MASTER PLAN

PRECINCTS PLAN - EXISTING CONDITIONS

Scale: 1:4000

Dwg No.: SK 003

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The site itself displays five landscape characteristics and land use patterns that can be defined as:

1. Degraded bushland and river level management– Lock 11, the outdoor theatre and reconstructed Mallee flora planting;

2. Active recreation / structured grassland – the Tennis and Bowling Clubs and Jaycee Reserve;

3. Semi-developed urban – adjacent to Mildura CBD, with the existing wharf, riverboat presence and Rowing Club

4. Grassy informal open space – Ornamental Lakes and picnic area, concert, games and circus venue;

5. Natural character - highly disturbed stormwater retention basins – the proposed Marina site.

The Mildura Riverfront is dissected by Hugh King Drive and the rail line with little (or no easily apparent) connection from the City to the riverfront, some 10 meters below and up to 400 meters away. Similarly, the landscape character is fragmented across the site with no theme to connect useable spaces. The river bank itself has some riparian species and remnant tree species such as Eucalyptus camaldulensis (River Red Gum), that should be protected and enhanced.

Species selection across the remainder of the site is not consistent with undefined patches of exotic trees within a predominant Eucalyptus upper canopy. Large expanses of lawn serving as passive open space provides a consistent ground treatment. However irrigation requirements are high. Council has identified that in Council managed reserves the total amount of lawn should be reduced to 60%. This is related to Council's strategy for all new developments.

The concrete crib wall that negotiates the level transition between the rail yards and the riverfront reserve contains succulents planted more than thirty years ago that now look tired and out of character. This concrete wall is failing and will require replacement. This creates an opportunity to improve the transition and create a notable new and exciting pedestrian connection from the city to the riverfront, with ramped pathways and appropriate "Mildura Inspired" planting and gardens.

Council has fenced the concrete edged Ornamental Lakes due to safety concerns during times of inundation. This is out of character with the open grassy plains feel of this space, as well as out of scale with the concept for a great urban park. A safer water body could be sculptured here that does not conflict with the use of the area for large informal events. The vision demands a scale and quality more akin to Adelaide's Torrens River parkland or Melbourne's Botanic Gardens, than to a suburban inspired streetscape.



Mildura Marina site: degraded bushland



Ornamental Lakes: established Eucalypts and irrigated lawn



Succulent plantings in concrete retaining wall on embankment between Hugh King Drive and the rail line

4.1.7 SUSTAINABILITY

The study area includes five different precincts, each of which possesses identifiable qualities and characteristics. Much of the natural environment is highly modified, having been cleared and degraded, particularly for past industrial uses and, in some instances, ill informed and ugly physical infrastructure requirements.

The uses within the study area have over time become less utilitarian and more focussed on community activities and intrinsic values: hence the concern about its sustainable state. Degraded natural and habitat values, water quality and land use issues, current management and maintenance arrangements all contribute to this existing condition.

The Mildura Riverfront Masterplan provides the opportunity to address sustainability issues across environmental, social and economic realms; and demands a management intention and organisation to bring about the desired result.

General IssuesBased on an inspection of the study area and public consultation exchanges and outcomes, a number of general principles and sustainability issues are identified.

Riparian Strip
The south-western bank of the Murray River is significantly degraded. Much of the embankment is devoid of vegetation, which leaves soil exposed to rain and wind erosion. These areas also contain little remnant under-storey and middle-storey vegetation, so there is inadequate vegetation to provide habitat for many fauna species. Where the ground-storey is degraded the role of vegetation in filtering stormwater prior to it entering the river is also diminished.

An additional element affecting the Murray River embankment areas is the mooring of boats. This activity is causing erosion due to people engaged in boating activities tying up directly to the riverbanks and walking up and down the embankments. This appears to be quite an ad hoc, informal arrangement.

Erosion
A significant embankment is located along much of the western side of the Study Area. Various treatments and approaches have been applied to retain the embankment and prevent erosion, which has met with varying levels of success at both functional and aesthetic levels. In parts the embankment is subject to erosion, caused both by exposed soil, steep batters, and informal paths.



Ad-hoc licensed moorings of houseboats have degraded the riverbank edge



POTENTIAL LINK TO APEX PARK

OLD MILDURA HOMESTEAD

SUN

MORNING SUN

LINK TO WETLANDS

Bushland Character Visually Enclosed

WEIR

Lock

Bushland Character Visually Enclosed

Bushland Character Visually Enclosed

Unexciting Bridge

Degraded Riverfront

Tennis

Attractive Parkland

Physical Barriers

Intrusive Traffic & Parking

Potential Visual Connections

Physical Barriers

Intrusive Traffic & Parking

Themeless Vegetation
Unstructured Spaces
Miscellaneous Buildings
Degraded Vegetation

Degraded Vegetation

1000

Degraded Vegetation

Urban Edge

Bowls

Jaycee Park

Physical Barriers

Water Treatment

Urban Edge

Visual Barriers

Physical Barriers

Physical Barriers

Weak Urban Edge

AFTERNOON SUN

400

100

500

7 wks

1000

1000

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MASTER PLAN

EXISTING CONDITIONS

Scale: 1:4000 (A1) 1:8000 (A3)

Dwg No.: SK 101

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Weeds
Weeds including willows, that are displacing opportunities for indigenous vegetation affect parts of the site. This is particularly the case in degraded areas also affected by erosion.

Effects of the Weir/Lock
The presence of the weir/lock structures at the north-western side of the study area has obviously had impacts on River Murray water levels, flows, the river banks and aquatic life. This includes its functioning as a barrier for migratory fish species and other aquatic-life. A characteristic of this area is brought about by the variability of levels and flows in the weir pool, which can occur on a daily, weekly, monthly and seasonal basis.

The weir also provides Lower Murray Water with access to the river to supply water for the Mildura Township.

Stormwater
Stormwater is generated from run-off within the study area, from roofs, paved and grassed areas. It is also generated from urban properties outside the study area (in Mildura's CBD), which drain into the study area by overland flow or subsurface drains. While main drains have been fitted with gross pollutant traps, there is no other filtration or treatment of stormwater prior to it entering the river.

Floods
The study area is subject to periodic flooding. Floods of the nature of the 1 in 100 year 1956 flood form an important part of the character of the area and will occur again at some time, with the potential to inundate large sections of the river frontage for several weeks.

It is important to recognise this natural characteristic in the Master Plan from an historical and environmental perspective, and any development in the area will need to satisfy the flood constraints. The existing Flood Awareness Trail on Lock Island provides and opportunity for interpretation as part of the overall trail and interpretive system.

The Murray River Frontage Action Plan presents the broad aims and objectives for development along the river frontage from Robinvale to Merbein and the Masterplan provides the opportunity to address these in the Study Area.

Non-indigenous Bird-life
Substantial numbers of non-indigenous bird species can be observed in the study area. These may fulfil a scavenging role, feeding on waste and scraps originating from human activities both within and outside the study area, but the birds may also take food from natural sources. There is likelihood that other bird species could be displaced because of the large populations of these birds.

There are problems associated with pigeons inhabiting Pheonix Canarensis. This particular palm is favourite for pigeons locally, which cause significant problems throughout Urban Mildura. This particular palm is therefore to be avoided for this project. Other palm species such as Jubaea, Chilensis, Washington Robusta and Filifera should be used in preference.

Anti-Social Behaviour
Parts of the riverbank are used as a "hang-out", and feedback from consultation sessions suggests that alcohol-related, anti-social behaviour occurs at various locations throughout the study area.

Communication with User Groups
The study area is divided between many different owners and types of tenure. This makes communication between the public, community groups and landowners and managers a complex exercise.

4.1.8 PRECINCT ISSUES

Whereas the above issues apply across precinct boundaries, other issues are particular to precincts. These are described below.

1 The Arts and Lock Precinct
In comparison to other precincts, the Lock Precinct has many natural qualities. There is a significant amount of tree cover. However the under-storey and middle-storey is quite degraded or absent in parts. At present many paths are quite informal, and this has contributed to disturbance of vegetation and local erosion.

This precinct also contains the Lock and Weir. These obviously modify the river's water levels and flow regime.

2 Games and Entertainment Precinct
This precinct is dominated by the presence of Mildura Lawn Tennis Club, Mildura Bowling Club and Jaycee Park. Substantial lawn areas are maintained and irrigated for these facilities and the Park has been developed with playground equipment and passive/informal recreation areas. Another prominent activity is the mooring of boats along the bank of the Murray, which in this location has contributed to bank erosion and poor vegetation quality. Another contributing factor to this is the unrestricted and fully informal access to the riverbank.

Consequently, the precinct is highly modified, with little native vegetation. This is evidently also due to the site's industrial past.



Aerial photography of the Arts and Lock Precinct with significant tree cover but little understorey vegetation for wildlife habitat



Degraded landscape of the proposed Mildura Marina site



One of the major issues for this precinct is the environmental management of the operation of facilities. Stormwater runoff (quantity and quality), use of fertilisers and chemicals, energy and water use, weed and erosion control are some of the matters that (if they are not already being considered) should be addressed in environmental management plans.

3. Port of Mildura Precinct

The Port of Mildura Precinct is and will continue to be the most 'urbanised' of the riverfront precincts. Any natural qualities have been overtaken by development of paved areas, buildings and non-indigenous landscaped areas. This has generated stormwater runoff issues, particularly in terms of the quality of water.

4. Chaffey Water Gardens Precinct

This precinct mainly comprises an undulating grassed area bounded by Hugh King Drive and the river to the north and embankments, crib walling to the south-east and south-west. It is currently known as Ornamental Lakes Park due to the existence of a dated, concrete "water feature". The sustainability issues for this area include the extent of watering, mowing required for the grassed areas, and the lack of any practical ecological function for the "water feature".

5. Marina Precinct

Plans for the Mildura Marina have been developed over a long period of time, prior to commencement of the Mildura Riverfront Masterplan project. Issues are therefore centred on integration with the surrounding area, and in particular with the Chaffey Gardens Precinct. These matters include stormwater runoff and water quality, and consistency in sustainability objectives or guidelines applied to other built form and development in the study area.

Central Business District Precinct

It is considered that the primary sustainability issue arising from the Central Business District (CBD) precinct is its role as a contributing source for stormwater runoff. The extent of roofs and paved areas creates substantial runoff in rainfall events, and the stormwater also carries litter and pollutants away from the CBD. While gross pollutant traps have been installed on main drains, fine litter and pollutants still flow into the Murray River.

4.1.9 LAND TENURE AND DEVELOPMENT CONTROLS

(Refer Figure SK 105 – Existing Land Tenure Controls)

General Comment

The land tenure arrangements and development control provisions that apply to the study area are complex. This section summarises the existing situation and highlights the main issues related to managing potential changes to the existing use and development in the area.

The information that is outlined is based on an assembly of information from several sources. It is possible that there are inaccuracies in the comments that are made. It is noted that, at present, there is no consolidated up to date accurate data base with information about existing physical conditions (including contours, critical levels, site features), location of the NSW-Victorian border, leases, sub leases and licences, responsibilities of different agencies involved in managing or controlling activities in the study area.

There are several areas within the study area that will require significant investigation and potentially legislative amendments to simplify coordinated management of the riverfront area. The establishment of a single land manager could address many of the complexities that exist as a result of the overlapping responsibilities and roles of the various agencies.

It will be necessary for full title searches to be undertaken to determine the ownership of several of the freehold titles.

Agencies include:

- Mildura Rural City Council – Planning Authority, land owner and manager.
- Lower Murray Water – Water supply agency.
- Goulburn Murray Water – Land manager.
- VicRoads – Sturt Highway.
- Mallee Catchment Management Authority (Vic).
- Wentworth Shire Council.
- Department of Infrastructure and Natural Resources (NSW) – Murray River access and works.
- Murray Darling Basin Commission – Murray River.
- NSW Waterways – Murray River access and boat use.
- Sunraysia Rural Water Authority – Water supply.
- VicTrack – Rail land.
- Department of Sustainability and Environment

State Boundary

The border between NSW and Victoria is defined as the high water mark in 1859. It is understood that the top of the bank as it exists now may not correspond with the original bank position. This has created some confusion about the jurisdiction of controls that apply to the mooring of vessels and the construction of works along the bank and into the river.

Some survey work has been undertaken by Mildura Rural City Council to define the current bank edge but this has not been completed or integrated with other survey information. Liaison with the Surveyor General (Victoria) will be required to confirm the definition of the



development control
250 m from river edge
(Mildura Planning
Scheme 22.03.1)

Three Chain Reserve

GMW Vested Lanc

Three Chain Reserve

MURRAY RIVER

Leased to
Mildura Rural
City Council

Leased to
Mildura Rural City Council

Sub Leased
by Mildura Lawn
Tennis Club

car park

Road Reserve occupied
by Mildura Bowls Club

car park

Leased to
Mildura Rural City Council

Leased to
Mildura Rural City Council

Leased to
Mildura Rural City Council

car park

Three Chain Reserve

Mildura Marina site

Three Chain Reserve

WATER SUPPLY
RESERVE

BASKETBALL
STADIUM

OWNERS

- Mildura Rural City Council (Freehold Title)
- Victrack (Freehold Title) - leased by Freight Aust
- Victrack (Freehold Title) - leased by private agreement
- Victrack (Freehold Title) - unleased
- Victrack (Freehold Title) - access rights to Freight Aust & V-Line
- Crown Land - leased by Mildura Rural City Council
- Crown Land - SRWA/Goulburn Murray Water
- Crown Land - Dept of Sustainability & Environment
- Crown Land - Lower Murray Water
- Unknown or Road Reserve
- 1 in 100 FLOOD HEIGHT RL 39.26

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MILDURA RIVERFRONT MASTER PLAN

SK 105 - EXISTING LAND TENURE CONDITIONS

0 20 50 100 200

SCALE 1:4000 AT A1
SCALE 1:8000 AT A3

State boundary and the dimensions of the sixty metre permanent public purpose reserve (ie 'Three Chain Reserve'). This is also referred to below.

It is understood that there have been discussions between various agencies aimed at reaching agreement about a contemporary definition of the bank and the border.

The location of the bank shown on the accompanying maps is based on information provided by Council and Department of Sustainability and Environment and may not be the final location that is established by survey.

Mooring Licences
These were issued to individual boat owners by NSW Department of Land and Water Conservation and allow permanent mooring against the southern bank at defined locations. The Department may agree to the relocation of these to another part of the Study Area consistent with the Master Plan.

About 12 licences remain. Once surrendered by the current holders they will not be renewed. They are not transferable.

Short Term Mooring Rights
There are also several positions where boats may moor for a short time (a few hours) to provide owners with access to the shore.

Constructions within River
The approval of several NSW agencies is required for structures within the Murray River in NSW.

Land Tenure
Figure SK105 shows the various categories of land tenure in the study area. Most of the study area is Crown Land, administered by the Department of Sustainability and Environment (DSE), leased to various agencies. With the exception of some freehold titles that face roads at the edge of the Study Area the whole of the study area is Crown Land, most of which has been delegated for management to other agencies.

However, the area around the Weir and Lock is Crown Land vested in control of State Rivers and Water Supply Commission (or its successor, namely Goulburn Murray Water. SRWA has no role in land tenure or management here.)

It is intended that the area to be developed for the Mildura Marina Resort, which is currently freehold title owned by Mildura Rural City Council, will be sold to the Marina developer.

Murray River Permanent Public Purpose Reserve
There is a permanent reserve for a depth of 60 metres ('Three Chain Reserve') along the southern edge of the Murray River. The exact location of the edge of the reserve is dependent on the definition of the southern bank. The approximate definition of the reserve is shown on Figure SK105 (shown in red hatch). As noted above, consultation will be required with the Surveyor General (Victoria) about the definition of this reserve.

No structures may be constructed within the reserve without approval from DSE.

A site has been leased to the Mildura Rowing Club at the centre of the Study Area.

Mildura Rowing Club
The Club is located within the Public Purposes Reserve. Whether the Rowing Club is relocated or not, its occupation should be formalised by a lease under Section 17D of the Crown Land (Reserves) Act 1978.

Ministerial approval will be required for any relocation and will be subject to conditions.

Commercial activity is not encouraged on the reserve and this would apply to the club house, if relocated.

Design restrictions may be applied through the issue of a planning permit and approval of the Mallee Catchment Authority will be necessary if the club house is relocated.

Flood Line
Much of the study area forms part of a flood plain comprised of two distinct forms. The first is floodway land, which is the component of the floodplain that is generally the high hazard portion that should remain free from obstruction during major flood events in order to provide adequate flood conveyance.

Significant development restrictions apply to the floodway land, which is designated Urban Floodway Zone (UFZ) for freehold land and Floodway Overlay (FO) for public land areas in the Mildura Planning Scheme.

The second part of the flood plain is the flood fringe area, which is subject to fewer hazards than the floodway and generally floods to depths less than 500mm. A Land Subject to Inundation Overlay under the Mildura Planning Scheme affects this area.

Flooding restrictions usually involve the requirement for residential or commercial development (other than a Class 10 building) to be constructed 300mm above the 1% flood level (or the 100 year Average Recurrence Interval (ARI) level, which is commonly referred to as a 300mm freeboard. This level is identified in Figure SK105 at RL39.26 and is defined as the 1956 flood level.



The flood capacity of the area between the river and this line must be maintained. This would require removal of an equivalent volume of ground material to that lost by the result of any construction within the flood level.

In both cases, any development proposals in the floodplain would need to address flooding risk to life, health and property and impacts to the floodplain including flood storage and the free passage of floodwaters.

VicTrack Land
VicTrack is owner of all rail land within the study area and has leased the majority of this land through the Director of Public Transport to the Rail Operator, Freight Australia for rail related purposes. The land that has not been included in the Rail Operators Infrastructure Agreement is privately leased to various leaseholders including Mildura Rural City Council. VicTrack holds all railway land within the riverfront area as freehold title. Details are:

- The areas shown coloured pink have been leased to Council for park related purposes. A small area at the between Olive and Pine Streets is leased to a private entity.
- The areas shown green are unleased.
- The areas shown yellow are leased through the Director of Public Transport to Freight Australia. Approximately 43 years of the lease remains. Part of this area contains the freight yard, which has been recommended for relocation. If this area is to be incorporated into the Waterfront Park or used for access to it access rights will need to be arranged with Freight Australia or ownership arranged from VicTrack.
- The grey areas indicate rights of access to V-Line and Freight Australia for access to the station facilities.

VicTrack has advised that any railway land to be acquired to achieve the Master Plan outcomes would need to be purchased from VicTrack at the Valuer General's rate as per the Government Guidelines.

VicTrack has also advised that any rail land that is to be re-zoned for a more sensitive use could be contaminated, possibly requiring an Environmental Audit Overlay. Any contamination would need to be identified and remediated as a pre-requisite to rezoning.

Any proposal to relocate the freight yards and acquire land leased to Freight Australia will need its consent.

Rail Crossings
A major constraint to the enhancement of pedestrian access between the City and the riverfront is the lack of appropriate crossings over the rail lines. This could be achieved by two alternatives, viz.:

- A plaza over the rail lines. Sufficient clearance will be required to allow the passage of freight trains and approval to utilise air rights will be needed from Freight Australia, through the Director of Public Transport.

- At grade crossings could provide access. However the Government in 2002 the Government introduce into Section 18.01-2 of the State Planning Policy in the Mildura Planning Scheme (and into all planning schemes) a policy precluding at grade crossings without the consent of the Minister.

Discussions with the Department of Infrastructure Safety Branch indicate that the Minister has discretion to approve an at grade crossing but that a special case will need to be made for this to be considered.

SRWA/GMW
The western part of the study area is Crown Land vested in control to Goulburn Murray Water. Part of this area is subleased from these authorities to the City of Mildura, which in turn has sub-leased parts to the Mildura Lawn Tennis Club and the Mildura Bowls Club. Lock Island and fenced area adjacent to the Lock remain under direct GMW control. The Three Chain reserve on Lock Island remains under direct control of DSE. It is not included in the selection of frontage for which MRCC has been appointed the Committee of Management.

Mildura Rural City Council
A substantial portion of the study area is leased to the Mildura Rural City Council from the Crown.

'Unknown'
The ownership/lessee status of two small areas is unknown.

Three Chain Reserve

The area infront of the river, known as the Three Chain Reserve, is under the direct control of the Department of Sustainability and Environment, and it is noted that this reserve is to be preserved for public enjoyment, and as such DSE do not support any initiatives for Commercial development within this zone.

Indigenous Land Use Agreement (ILUA)
The Planning Framework clause 15.11-1 Heritage requires Planning and Responsible Authorities to conserve and protect places of natural or cultural value from inappropriate development including places of Aboriginal cultural heritage significance and sites associated with the European settlement Victoria. Detail planning and development will need to take into account he Indigenous Land Use Agreement to ensure that Aboriginal cultural heritage values are recognised.



VicTrack owned rail yards



The ILUA – between the Latji Latji Peoples, the Wergaia Peoples and Mildura Rural City Council, signed under the Native Titles Act as part of the Approval Process to the Mildura Marina Amendment, applies to all land in the Three Chain Reserve for the length of the Study Area.

Mildura Planning Scheme
Whilst there is a large number of zones and overlays that apply to the study area the Mildura Planning Scheme does not contain specific provisions that would encourage the development of the vision that is presented in the Master Plan.

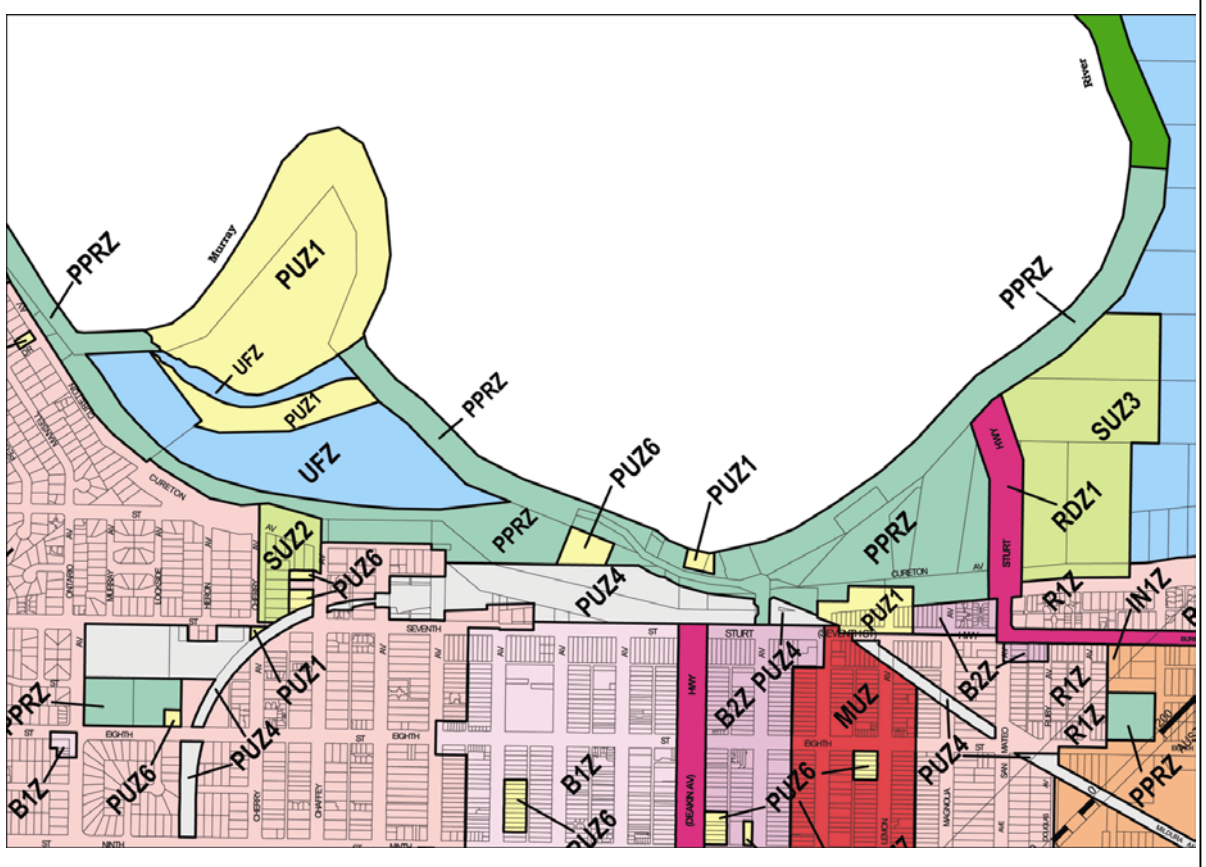
Clause 22.03-1 Murray River Management outlines general policies aimed at protecting the land within 250 metres of the River from the impacts of development. It does not outline any provisions that would provide support for the implementation of the Master Plan or any vision for the Park.

The zones that apply to the study area and its periphery include:

- The Public Use Zone, which recognises land that is used for public purposes and provides for uses that are consistent with the intent of the reservation. There are 3 Public Use Zones in the study area:
  - Public Use Zone 1 – Service and Utility – applies to the area adjacent to the loch, the area that contains the water treatment facilities opposite Lemon Avenue and to the water pump opposite Deakin Avenue. The Planning Scheme does not include schedules that set specific requirements for this or the following two zones.
  - Public Use Zone 4 – Transport – applies to the rail land.
  - Public Use Zone 6 – Local Government – applies to the area that contains the Pump House.
- Public Park and Recreation Zone – recognises area for public recreation and open space and applies to most of the study area.
- Urban Flood Zone – applies to two freehold titles in the western part of the study area where there is a high flood hazard. It is intended to protect the capacity of this part of the area to handle floodwaters.
- Special Use Zone 2 – Tourist Precincts – applies to the Arts Centre precinct. It is intended "to provide for a range of tourist experiences which help to reinforce the role of Mildura as a popular tourist destination"… and … " to encourage development which compliments the Mildura Art Centre and Rio Vista Park as cultural, tourist and entertainment facilities, and which takes advantage of and enhances the Murray River".
- Business 2 Zone - A mixed-use zone that is intended to encourage offices and commercial uses. It applies to a small portion of land between Seventh Avenue and the road opposite Magnolia Avenue.
- Special Use Zone 3. This is a site-specific zone that applies to the Mildura Marina. It was gazetted in August 2003.
- Residential 1 Zone. Applies to residential land surrounding parts of the study area.

Overlays that apply to the study Area include:
- Land Subject to Inundation Overlay – affects a small flood fringe area near the PUZ6 zone.
- Floodway Overlay – affects high hazard public land including the riverfrontage, Lock Area and Chaffey Water Gardens.
- Heritage Overlay. Applies to several areas, in particular the Lock area and items within the study area.
- Design Development Overlay 1 – extends along Deakin Avenue to the edge of the Murray River. Its focus is Deakin Avenue rather then the parkland.

Environmental Significance Overlay 1 – applies to most of the study area and aims to protect the environmental attributes of the Murray River.





Summary
While in some parts of the study area some works may be exempt from the need to obtain a permit the effect of these provisions would be to require a permit for most of the developments and works outlined in the Master Plan. A clear policy statement in the Mildura Planning Scheme to back up the vision would be desirable and it is likely that some changes to the zoning and overlays will be required to facilitate development and guide its standard.

4.1.10 SUPPORTING DOCUMENTS

The following development plans and strategic planning document s have been reviewed during the course of the study:

- North West Freight Transport Strategy – DOI – May 2002
- Mildura Urban Design Framework, David Lock – July 1999
- Sunraysia 2000 Mildura Riverfront Development – BSM – July 1997
- Mildura Marina – Response to Panel Directions – Final – October 2001
- Mildura Planning Scheme Amendment C11 – Panel report – Environment Effects Statement – Feb 2002
- Mildura Planning Scheme Amendment C11 – Environment Effects Statement – Report of the Independent Panel, August 2003
- Mildura Retail Strategy 2000 – October 2000
- Mildura Strategic Bicycle Plan – Draft Report – June 2002
- Mildura and Murray Outback: One Year Action Plan 2002/03
- Mildura Outback Tourism Business Plan for a Food and Wine joint action Group
- Mildura City Precinct – Landscape Master Plan Report
- MRCC Public Open Space Strategy – SGL Consulting Group – August 2003
- Mildura Council CBD Traffic and Parking Study
- Rio Vista Park 1988 – Bruce McKenzie and Associates
- Murray River Landscape Recreation Study
- MRCC – Industrial Land Use Strategy – Planning Scheme Amendment
- MRCC – Urban Residential Stormwater Drainage and Detention
- Planning Study for A20 Sturt Highway, Mildura, November 2002
- Murray River Frontage Action Plan, CMA

The issues that relate to this Mildura Riverfront Master Plan have been recognised and incorporated into the findings and recommendations within this report.

Analysis reports of the most significant documents are contained in Appendix A.



5.0 AIMS AND OBJECTIVES

A detailed design response has been prepared for the riverfront precinct as a whole. It aims to achieve Mildura Rural City Council's vision and to address the recommendations of the independent Panel appointed to review the planning scheme amendment for the Mildura Marina proposal. The aims and objectives below outline the broad intent of the Master Plan study and the resultant positive outcomes.

5.1 INTEGRATION AND VISUAL CHARACTER

The undertaking this study is intended to assure stakeholders that visual and physical integration will be addressed for the riverfront and the Marina. Approval of the Mildura Marina development is conditional upon the developer Transtate Limited, identifying details for the future design of the proposal to the satisfaction of Mildura Rural City Council. The Urban Design Guidelines are to apply across the whole riverfront precinct to provide design certainty and to ensure a cohesive whole site response for future development. These guidelines will address:

- built form and architectural character
- façade articulation, materials and colours
- open space, streetscapes
- landscape character and themes
- furniture, public art and signage

To ensure that the Marina is visually 'integrated' with the rest of the riverfront precinct, these guidelines should apply not only to the Marina site but also to the riverfront precinct where applicable. Any structures proposed for the riverfront will maintain the same contemporary character as structures within the Marina. Similarly, open space provision should visually integrate and physically connect with open space within the whole riverfront precinct.

Furniture types such as seating, bollards, bins, drinking fountains, etc. as well as lighting, pedestrian pathways, roadways and parking provisions should have a same 'type'. Public art should flow through the whole precinct and extend into the Marina. Further details of the proposed Urban Design Guidelines are contained in Section 6.3.

Visually the Riverfront precinct will connect with the City by inclusion of direct sightlines along key City streets such as Deakin Avenue and Langtree Avenue to capture views of the waterfront. Intrusive development should be precluded via a Design Development Overlay on alignment with these roads and mature trees should frame views to the river. The Mildura Planning Scheme may require an amendment, DDO or DPO to ensure that this is maintained. Pedestrian access should be facilitated with an at grade or elevated crossing of the rail line on the Deakin Avenue axis when the current Freight Gate is relocated, as per the *North West Freight Transport Strategy, Dept of Infrastructure May 2002*.

5.2 ECONOMIC AND TOURISM OBJECTIVES

The economic objectives of the proposed Masterplan are to generate **strategic net benefit** flowing to the local community, visitors to Mildura and the wider economy from the proposed improvements and new investments.

The Riverfront has been recognized as a major potential attraction for the City and region, with very significant potential for contributing to the economic well-being of the local community, businesses and labour force through tourism development and the attraction of new investment, new businesses and new jobs.

The riverfront development will be very important in contributing to Mildura's tourism profile as a place to visit and spend some time. Its development is expected to provide a special attribute for the city and region, attracting people to visit and to prolong their stay in this oasis in Victoria's far northwestern region.

It is important to be able to demonstrate the economic value of undertaking the tasks outlined in this Masterplan, taking into account the investment required, the development opportunities for new and expanded businesses and the anticipated creation of new employment and income opportunities for local people. There will be flow-on effects for other businesses and workers in Mildura. The Masterplan also includes an array of facilities and services that local people and visitors can enjoy.

The aim of the Master Plan is to identify measurable economic benefits that should result from the implementation of the Riverfront Masterplan. The economic objectives include, but are not limited to achieving the following:

- Increased investment in the Precinct in both civil works and buildings
- Increased employment in construction and development to implement the plan
- Increased on-going employment in retail, visitor accommodation, restaurants etc.
- Flow-on employment effects on the wider economy as a result of the activities included in the Masterplan
- Contribution to Mildura's tourism profile through new projects and increased visitation, especially with respect to the new exposure the Indigenous Interpretative Centre could stimulate
- Contribution to Mildura's economic base through new investment, businesses and jobs
- Contribution to reduction of Mildura's unemployment
- Contribution to Council rates income
- Contribution to further integration/consolidation of tourism and other activities in Mildura



The measurable economic benefits of the proposed Riverfront Masterplan are outlined in Section 7.1 of this report.

Tourism Benefits

There are a number of tourism benefits that will emerge as a result of the implementation of the masterplan. The riverfront area will be invigorated with many varied activities and functions. The construction of the facilities in the area will make it easier for tourists to find each of these functions and activities. The connections of the city with the river will likewise assist the natural movement of tourists from the town to the river. Historical assets to the area are rich with information and can lead storey line unique to the area. This includes indigenous history, the Chaffey Brothers right through to the current day irrigation systems still operating in the area.

There will also be particularly significant benefits from the Central Interpretative Centre. Visitors are drawn towards and fascinated by the ancient past and the evolution of mankind to present day. Currently there is limited ability to experience a detailed and complete account of Aboriginal history and evolution. The placement of such a centre in Mildura, together with a research base, is appropriate and will contribute to tourism in Mildura as well as areas further afield, including: Swan Hill, Robinvale, Wentworth, Broken Hill, Glossop/Berri amongst others. The tourism industry should be united in pursuing this centre and promoting various Outback experiences. Such a united front will assist more visitors to finding the experience of their choice, as easily as possible.

Ultimately, the Masterplan harnesses the inherent qualities of the site, and maximises them for the benefit of all. This will result in greater patronage of the area and longer visits by tourists, both in Mildura and abroad.

5.3 ENVIRONMENTAL OBJECTIVES

The Murray River has great environmental significance to Victoria, New South Wales and South Australia. Its environs suffer degradation as a result of insensitive rural and urban development for over 100 years. With the development of the Mildura Riverfront Park there is the opportunity to demonstrate environmental best practice at an important interface between a major urban area and the river, to contribute to improved community understanding and to improved environmental conditions along this part of the river.

There is a number of environmental objectives that should be considered in the overall Master Plan and in the detailed design and implementation of development. The environmental objectives of the masterplan quite deliberately link to the environmental objectives of the " Robinvale to Merbein Murray River Frontage Action Plan (FAP- Mallee CMA, 2003), and these include:

Energy
- To harness energy from renewable sources, maximising the use of solar technologies.
- To ensure that new development is energy efficient.

Water
- To harvest water on site and promote reuse of stormwater in the Ornamental Lakes and citrus gardens area to reduce demand for mains water.
- To ensure best practice stormwater management to protect the aquatic ecosystems of the Murray River.
- To landscape predominantly with indigenous flora or drought tolerant species to reduce irrigation demands.
- To demonstrate use of recycled and retained water for maintenance of exotic species that form part of the structured areas of the Park.
- Ground Water and Salinity, especially as a result of development around this area, must not have an adverse affect on River Murray Water Quality. Infact objectives of such development should ensure the River Murray Water quality is maintained or improved.

River Environment
- To protect and enhance the remnant foreshore vegetation and to continually improve the ecological condition of the Murray and riparian zone
- To ensure setbacks from the foreshore development are sufficient to protect the river bank from erosion and rehabilitate riparian areas and restrict vegetation clearance along the river
- To protect and enhance the remnant foreshore vegetation and to continually improve the ecological condition of the Murray and riparian zone

Materials
- To re-use or recycle the maximum amount of existing materials on site.
- To maximise the use of recycled and/or recycled content products.
- To avoid use of materials which generate high source impacts or any detrimental off-site impacts.
- To avoid use of toxic materials in the construction of buildings.

Social
- To ensure that the regional and local character of the area is reflected in the development and Aboriginal and European sites and relics are protected
- To maximise opportunities for social interaction among residents within the development.
- To maximise accessibility for people with limited mobility.
- To provide links to Mildura's history in foreshore development.





The second community consultation session held 11th & 12th August, 2004



5.4 COMMUNITY CONSULTATION

Two consultation sessions have been undertaken during the formulation of the recommendations contained within this master plan report.

The first of these sessions was carried out on the 7th & 8th of July 2003. This session was to inform relevant authorities, community groups, key stakeholders and the general public of:

- Project Status
- Structure, Objectives & Outcomes
- Understanding Mildura
- Existing Site Appraisal
- Opportunities and Constraints
- Comparable Examples
- Framework Plan
- Interpretative Ideas

The second session was carried out on the 11th & 12th of August 2003. This follow-up session was to incorporate insight gained from the first consultation session into the masterplan, and explain further developed design concepts to relevant authorities, community groups, key stakeholders and the general public.

The main issues and ideas that emerged from the consultation sessions were:

- Promote pedestrian activity and perhaps the Chaffey trail.
- Floodlighting the Chaffey Bridge.
- Extending the study area to include other nobble assets such as Apex Park, the Historic Homestead, Wetlands, Ski Club etc.
- Retain House Boat moorings where possible.
- Importance of open space for large events such as exhibitors, circus, New Year celebrations, Carols by Candlelight.
- Traffic 'hoon' problems with Hugh King Drive.
- Desire to maximise number of paddle steamer moorings.
- The intrusion of the cactus concrete wall and the railway, both impeding access to the precinct.
- Need for tourist buses, parking and manoeuvring.
- The dark nature of the park, and that it feels unsafe at night.
- Retention of heritage structures such as the wharf and powerhouse.
- Problems with the use of the carpark at the Powerhouse.
- Revegetate unsightly embankments.
- Remove through traffic, especially trucks from Deakin Avenue.

The final 'DRAFT' masterplan was submitted to the Council on 6th November 2003 and was then put into the council website for comment.

On 26th November 2003, the masterplan was presented to the Mildura Rural City Council, from which it has then be finally modified and placed on public exhibition.

Following the Public Consultation, a number of thoughtful submissions were received. The Council forwarded these submissions to the Project Consultant for final resolution and adoption of the masterplan.

Through this careful, thorough and consultative approach, the Masterplan has evolved as a document that unites the views and aspirations of all interested parties to this magnificent waterfront area.

5.5 MANAGEMENT OBJECTIVES

The management of land use activities and development along the riverfront is complicated by the proliferation of land managers, government agencies, legislation, title arrangements, lessees and licencees, and controls. The successful implementation of the Master Plan will be assisted by action to achieve the following objectives:

- To simplify, rationalise and clarify the management arrangements and responsibilities for public and private land;
- To simplify the land title and leasing arrangements throughout the area;
- To reduce the number of administrative bodies having control over use and development and, if possible replace these with or delegate responsibilities to a single land manager;
- To adopt the Master Plan as the basis of all development, use, management activities in the area;
- To establish an accurate data base covering all land use and management information for the area and to establish a single set of management requirements for the riverfront;
- To ensure that all development complies with the intent of the Master Plan.

5.6 OPPORTUNITIES AND CONSTRAINTS

Refer Diagram SK102 – Opportunities and Constraints

The site is blessed with an attractive landscape and outlook that has been developed over the years for a variety of purposes. It is evident that it has great potential, not only for the riverfront, but also for what the riverfront can be for the broader community including residents and tourists. Realising the inherent opportunities can provide a clear basis to begin to understand the potential of the site.



5.6.1 OPPORTUNITIES

A number of key opportunities are noticeable in the site:

- The arrangement of the city gird against the free form of the river sets up an interesting and unfolding land form
- The city is perched high on an escarpment offering potentially stunning views to the river
- Deakin Avenue is a grand urban gesture and a strong signature of the urban fabric of Mildura. It has the potential to be extended to the river as a pedestrian link, providing a culmination to the end of such a major boulevard
- The potential of waterfront activity is stimulated at the waters edge
- A number of attractive features through the landscape offer further potential: the tennis club, bowling club, rowing club, Jaycee Park and the gum tree lined river front
- Northern exposure to the sun
- Attractive views up and down stream
- Neighbouring facilities including the Historic Homestead, Apex Park, wetlands to the east
- An interesting weir and lock arrangement that invokes interest from tourists
- A rich heritage and history to the area that offers opportunity to be extended and learn from.
- A well developed arts culture and facility that neighbours the study area
- A greater understanding and exposure of the rich Aboriginal history of the area, known to be dating back 60,000 years.
- Encourage further scientific research in conjunction with the improving knowledge and understanding of aboriginal history, culture and evolution.

Sustainability
The master plan provides several opportunities to promote sustainable development along the foreshore, including:

- Interpretation and education relating to native fauna – fish, birds, mammals etc.
- Promotion of freshwater ecology.
- Improved environmental performance through up-graded weirs and locks.
- More revegetation along the riverbank.
- Sustainable design of facilities, buildings, etc.
- Composting and recycling facilities for picnickers.
- Showcasing of the natural environment.
- Solar lighting.
- Water-efficient design (buildings and landscape).
- Reducing the extent of irrigated, grassed areas.
- Implementation of Water Sensitive Urban Design principles.
- Public art, involving and drawing on the local arts community.
- Fostering involvement of and engaging with the Mildura community.
- Facilitating development opportunities that provide funding for opportunity's implementation.
- Encourage pedestrian access and usage through the study area (bringing visitors to car parking points from which they walk).
- Improving lighting, surveillance, and increasing levels of activity to improve security.
- Use of local materials

5.6.2 CONSTRAINTS

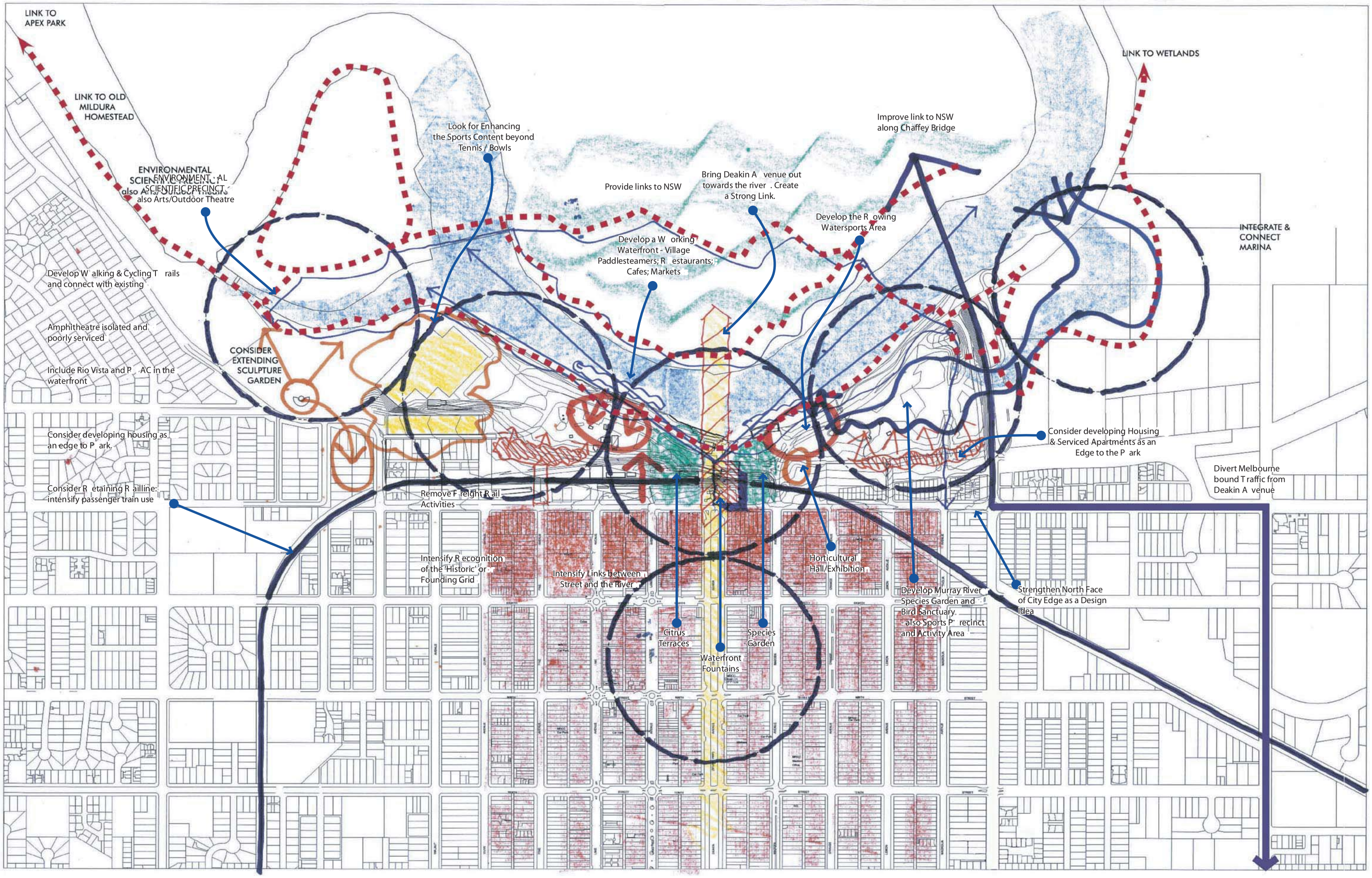
As with all sites, a number of constraints also need to be contended with and addressed to ensure a correct direction is taken with design and development potential. The constraints observed include:

- Access fro the city to the river needs to negotiate the significant drop in level, therefore necessitating the potential use of ramps and stairs
- A number of forgotten areas are apparent, particularly the wasteland site of the marina, and the area used for parking near the Ornamental lakes.
- The view of the railway freight activities is prohibitive to connecting the city back to the river
- Themeless vegetation – to both the Ornamental Lakes and the area near the Lock
- The Indigenous species within this area are encouraged and should be extended as much as possible
- The scale of the ornamental Lakes is hardly ornamental, and the detail of a concrete surround is not in keeping with the natural feeling of the area
- The Chaffey bridge whilst providing good access to NSW does not offer a symbolic gateway statement to Mildura
- Seventh Street has developed in a piecemeal fashion and could benefit from better integration and co-ordination
- The view of the northern bank, i.e. NSW, should be considered of importance to the outlook of this precinct
- The Concrete retaining wall is dangerous and unsightly.

Sustainability
The achievement of sustainability-focussed opportunities will not always be straightforward. Obstacles and difficulties can present themselves. These constraints include:

- Commitment to some current and habitual management practices, 'ways of doing things' that may not be in the best long-term sustainability interests.
- Decisions based on a lack of knowledge or understanding of benefits of sustainable design and development.
- Need to factor in long term, life-cycle considerations.
- Groups or individuals who may not consider sustainable alternatives to be in their interests.





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MASTER PLAN

OPPORTUNITIES AND CONSTRAINTS

Scale: 1:4000 (A1) 1:8000 (A3)

Dwg No.: SK 102

N

6.0 THE VISION

The riverfront at Mildura is an attribute of significant potential to the City. Part of its value is the working Port, that part of the river closest to the City where goods and people embarked or landed; to be transported uphill to a rail or coach station on the escarpment above. Its industrial activities and humble beginnings once connected the City with major freight rail activities the last remnant of the agricultural and industrial past.

Today the City is somewhat separated from the river, having lost its traditional functional connection. Because of this, the rail line with its long goods train activity appears as a barrier that inhibits pedestrian contact. In addition to this, the City is perched high on an escarpment, providing a further vertical separation, yet offering key views to the Murray that could be stunning.

Upon venturing past the rail lines, one comes across an unfolding landscape of distinct activities and undifferentiated identity, each well established over time and providing valuable clues as to the directions ahead. **Clearly the potential of such an attractive waterfront is waiting to be fully realized.**

The redesigned riverfront precinct is seen as a cohesive and grand landscape element, through which a number of defined activities and opportunities are found and developed, stimulating the Park as a lively and integrated part of the City. As a part of the City, the connections back to the Mildura CBD are a key component of the success of the Mildura Waterfront Park.

It is intended to allow a visual (and in some cases accessible) continuation of the grid of Mildura to the river. This will be in the form of visual open space and pedestrian access points at each of the four avenues either side of the Deakin Avenue axis (ie. from Olive to Magnolia Avenue). These visual and physical connections along the Seventh Street edge provide a sense of connection with the historic grid of Mildura Avenues, whilst also providing direct and regular links between both sides of Seventh Street.

This will be actively realised on the riverbank with feature lighting at each avenue axis point, enabling the Park to be used for longer periods whilst also making it safe and accessible at night. The Chaffey Bridge too can be lit with feature uplighting to its massive concrete structure, the light a colour that perhaps changes with the seasons.

The major focus to the new Waterfront Park will be the **Mildura Wharf Waterfront**. This pivotal urban structure will provide the main physical connection to the river, and will bring the historic paddle steamers and public craft romantically close to the urban activity of the City. Access by riverboats travelling the Murray will be possible, bringing them into a lively and animated urban area with opportunities for food, wine, art, produce and people, each brought together in a unifying gesture of the City.

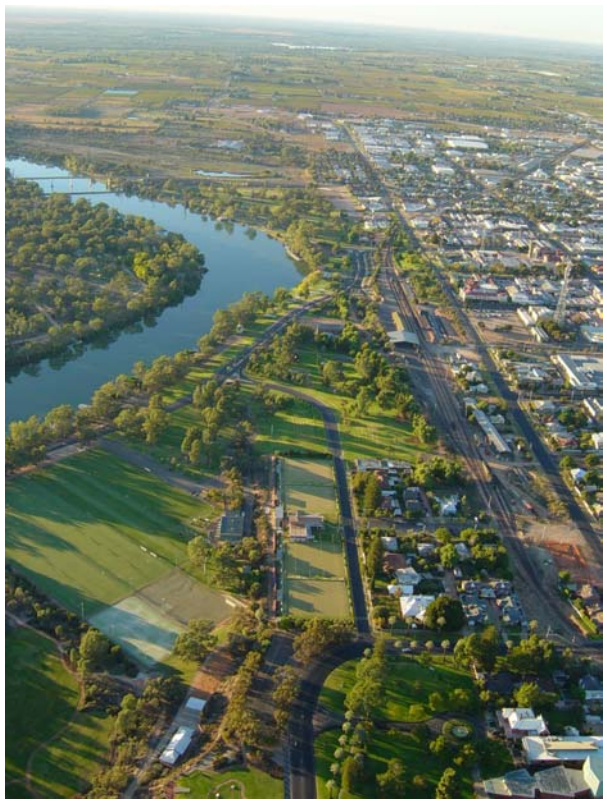
Such an objective can be realised with the operative rail line remaining, even enhanced or renewed for passenger traffic. The plan envisages atleast 2 crossing points, preferably each at a grade level with the existing tracks at Langtree Avenue, and one at Deakin comprising a new 60 urban square the full width of Deakin Avenue and entitled **Deakin Plaza**.

The effective operation of this Master Plan is not dependent upon the rail line being removed, but rather the opposite. The arrival of the train, the possibility of a heritage steam train, even a diesel "quick car" would bring an interesting object to the precinct and a unique yet historic point of contact would be sustained with the Paddle steamers. Matters of safety could be addressed through management of the train speed in this area, as well as warning lights, no different to those used elsewhere in Mildura where roads and footpaths cross the line in an open setting.

It is envisaged that the freight railway will be down graded to a single through track plus a line to service the station platform, and that in the process the freight activity in the heart of the park will be relocated to a new 'Freight Gate' at Thurla in accordance with Council's resolution and the recommendations of the North West Freight Transport Strategy. The relocation of the freight is necessary to fully realise the potential of the riverfront area, and to enhance the connections that bring the river to the City.

With the reduction in freight area and activities, land will become available for other uses. Some housing in the form of townhouses, holiday units, apartments and other forms of visitor accommodation can provide a strengthening to the edge of the park. The urban edge of the city along Seventh Street can likewise be further developed and strengthened with landscaping and suitable development of vacant sites, whilst within the Park, opportunities that encourage greater patronage with day and night activity should be encouraged.

It is intended that the **Chaffey Trail** be resurrected and formalised throughout the riverfront area in the form of a walking and cycling discovery trail. Connections with other areas beyond this study should be enhanced, including Lock Island, Apex Park, The Old Mildura Homestead, the Wetlands Area and indeed into NSW via connections over the Chaffey Bridge and Lock Island. The profile of this path will change as it progresses through different areas: a more urban boardwalk in the heart of the riverfront precinct to a more natural crushed rock path to the natural landscaped areas. The tracks will encourage movement along the river, and will assist the protection of the natural landscape through defined walking and cycling areas, whilst also providing encouragement for the embellishment of existing activities and the creation of new opportunities.





Potential for lights on north bank of the Murray reflecting off the water surface



The prospect of a tourist steam train would complement paddle steamer activities on the Murray



Potential Riverfront Activities



It is intended that the Chaffey Trail will be themed along certain intervals. The Arts precinct will link to a historic trail, taking in the Old Mildura Homestead and the graveyards of the first settlers and the Chaffey brothers, an indigenous, natural, nautical and finally urban theme.

It should also be noted that there is a strong indigenous heritage in the area, very unique to Mildura. When taken into account with the location of Mildura at the doorstep to the outback, a reinforcement of this heritage can promote Mildura as a Gateway to the Outback discovery and aboriginal experience.

Infact the masterplan envisages the creation of the "**First Australians Centre**". This could bring together the display of Aboriginal history, art & culture, together with a scientific research and testing facility. Mildura's location as a gateway to/from the Outback would enable visitors to easily and safely embark on Outback Adventures, and a location strategically in the riverfront area is entirely appropriate. Such a centre is seen as a real drawcard to the area and will significantly assist in bringing to Mildura inducing new visitation.

Whilst many unifying elements link the riverfront park together, there remains strength in the clear precincts that have emerged with existing uses over time. Each precinct has its clear focus and potential in the riverfront park, offering the users a diverse range of exciting opportunities and activities. The 5 precincts identified are:

1. **Mildura Wharf Waterfront**
2. **Games and Entertainment Precinct**
3. **The Arts and Lock Precinct**
4. **The Chaffey Water Gardens**
5. **The Marina**

Off significance is the sixth precinct, the city of Mildura itself, which can be brought back into focus with its river front status and its historic origins. Strengthening ties back into the city will ensure it is connected and a part of the riverfront area.

The masterplan builds off the collective strengths in each of these precincts as it guides the future development of the entire riverfront area.



Existing facilities provide the backbone for the masterplan



Indigenous art has strong origins in Mildura and can further be developed



The strong axial arrangement of the city subtends on the arc in the river. The potential to draw the 2 opposite yet complimentary functions together is waiting to be fully realised



LOCK ISLAND
NEW PONTOON WEIR
ACCESS TO LOCK ISLAND FROM NORTH BANK
FEATURE LIGHTING TO NORTHBANK
CHAFFEY TRAIL WALKING & CYCLING PATH
ENHANCED RIPARIAN BANK
THE LOCK
PERMANENT HOUSE BOAT MOORINGS
FEATURE SOUTHBANK LIGHTING
FIRST AUSTRALIANS CENTRE/ COMMERCIAL AND CULTURAL CENTRE RESTAURANTS, RETAIL, AND BICYCLE HIRE
PADDLEBOAT MOORINGS
INDIGENOUS THEME PERFORMANCE AND MARKETPLACE
BOARDWALK PROMENADE
PEDESTRIAN PROMENADE
DEAKIN BATHS
EXISTING WHARF SHORT TERM MOORING
ROWING CLUB BOATHOUSE RIVERFRONT CAFE CLUB HOUSE FUNCTION ROOM
PEDESTRIAN ACCESS TO BRIDGE
FEATURE UP-LIGHTING TO BRIDGE
PERMANENT HOUSEBOAT MOORINGS
PUBLIC PARKLAND WITH WALKING AND CYCLING TRACK TO CONNECT TO MARINA + SKI CLUB RIVERSIDE GOLF COURSE
BOAT RAMP
PADDLEBOAT MOORING
CONVENTION CENTRE & HOTEL
RIVERVIEW APARTMENTS
MARINA BERTHS
FEATURE LIGHTING TO NORTH BANK
SOUNDSHELL AND BACKSTAGE FACILITIES
PERMANENT HOUSEBOAT MOORINGS
WATERGARDENS THEMED LANDSCAPE
VILLAS AND TOWNHOUSES
LINK TO WATERGARDENS
LINK EXISTING TRAILS WITH PROPOSAL
ART GALLERY
ACT WITH THEATRE
CHANCE ESCARPMENT
EXISTING TENNIS CLUB
BALLOON LAUNCHING
JAYCEE PARK
EXISTING BOWLS CLUB
CORETON AVENUE
P.A.C.
RIO VISTA
NEW INTERCHANGE
RIVERFRONT PARK TOWNHOUSE SITES
TOWNHOUSE SITES
OUTDOOR EATING/ DINING & ENTERTAINMENT
BBQ AREA
MARINA ENTRANCE
MARINA ENTRANCE
PROPOSED BYPASS FOR MELBOURNE TRAFFIC
TOWNHOUSE SITES
PRIME COMMERCIAL DEVELOPMENT SITE
TOWNHOUSE SITES
VISITOR ACCOMMODATION
TRANSPORT INTERCHANGE
COMMERCIAL AND CULTURAL PRECINCT - EXHIBITION, GALLERY, CELLAR DOOR, PRODUCE MARKET AND INTERPRETATIVE CENTRE
LANGTREE PEDESTRIAN CONNECTION OVER RAIL TO RIVER FRONT
VEGETATION SCREENING TO RAIL
CITRUS GARDENS
CITRUS GARDENS AND CHAFFEY WATER-WAYS
DEAKIN PLAZA PEDESTRIAN ACCESS AND WATER FEATURE
FEATURE GATEWAY ENTRANCE
CONSERVATORY RETAURANT/CAFE AMMENITIES 5 STAR FUNCTION CENTER
STREET TREE ENHANCMENT
WATER TREATMENT FACILITY
PEDESTRIAN ACCESS
VISITOR ACCOMMODATION
VISITOR ACCOMMODATION
MAJOR EVENT CAR PARKING
CHAFFEY AVENUE
WALNUT AVENUE
PEDESTRIAN INTERSECTION
MRCC Car Park

Main Vehicle Access
Public Parking
Pedestrian & Vehicular Acce
Pedestrian Access / Link
Chaffey Trail
Feature Pavement to Intersect
Minor Vehicle Acce

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MILDURA RIVERFRONT MASTER PLAN

MASTERPLAN

0 20 50 100 200

Scale: 1:2500 (A1) 1:5000 (A3)

Dwg No.: SK 201

N

6.1 THE PRECINCTS

The Master Plan is structured around the identification of five main precincts. While each will have a different role and character, each will be designed and planned to contribute towards an integrated riverfront. The precincts are:

- Mildura Wharf Waterfront.
- Games and Entertainment Precinct.
- The Art and Lock Precinct.
- The Chaffey Water Gardens
- The Marina.

6.1.1 MILDURA WHARF WATERFRONT

(Refer to Figure: SK202 – Mildura Wharf Waterfront

The Mildura Wharf Waterfront is the pivotal centrepiece both physically and symbolically of the entire riverfront Park, if not Mildura itself. It is an exciting precinct that sees the meeting of the City grid with the river. Here the central business district of Mildura is at its closest point to the river, and the potential to draw the two together is dwarfed only by the monumental way that this today is not realized. It is also the central precinct in the composition that therefore links it closely to the remainder of the riverfront Park.

Deakin Plaza

A major urban connection is to be created at the junction of Deakin Avenue and Seventh Streets. The newly created Deakin Plaza will stretch across the remaining railway line. Designed the full 60 meter width of Deakin Avenue, it will incorporate the existing memorial fountain, and will in a grand manner lead down over the railway line to the boardwalk. Together with the removal of the existing footbridge, views from this pivotal part of the City will suddenly be opened up and realised. It will serve to tie the City to the river, drawing people from the City to the park and river.

The path to the waterfront from this point must take into account a significant drop in level, from the City down to the river. Rather than impede the design of this space, it is envisaged that a series of gently ramping walkways criss-cross to bring one gently down to the waters edge. Water channels are intended to be incorporated within the landscape design, and are seen as a historic reference to the legacy of the Chaffey brothers.

There are two options for the Deakin Plaza link:

(1) A raised pedestrian plaza over the railway line.
(2) A pedestrian plaza at the same grade as the railway line (Refer to SK401, Sections attached).

Whilst both options are possible, Option 2 is preferred since it would provide easier access (in terms of the vertical height to be transgressed), and the grading down of the landscape will have the consequential effect of opening up magnificent views from 7th Street up and downstream to the Murray.

Currently, government policy requires that any at grade crossing over a railway obtains ministerial approval. The two options are therefore noted as solutions to ensure the masterplan can be implemented regardless of the political decision that was made.

Mildura Citrus Gardens

Flanking either side of the Deakin Plaza pedestrian link is the newly defined Mildura Citrus Gardens. Planted with durable Citrus and grape vine varieties with their application derived from their historic origins on surrounding farms in the region, they will provide a unique landscape element that showcases Mildura for which it is so well known. The water channels from the plaza will find their way into these gardens and serve them practically and in a literal physical display of the famous Chaffey Irrigation system.

The gardens will be arranged over staggered levels, connected by accessible ramped walkways containing level terraces at their apex for the establishment of temporary traders, displays and places to eat and rest. It is envisages that the terraces will provide a perfect venue for 'al fresco' eating areas that exploit the Mediterranean climate of Mildura and allow the food of the region to be presented and enjoyed.

The ramps will be accessed from the gradual inclined walkway of Deakin and Langtree Avenue connections. The ramps will provide easy grades for all people to stroll from the City to the riverfront.

It is noted that the suitability of this specific site for citrus needs to be confirmed as part of the design exercise for implementation of this component of the masterplan.
Horticultural crops- particularly Citrus – are grown on certain soil types throughout the district- mainly loamy ridges. The intent of the masterplan is to see this central feature landscape be expressive of the Mildura region and unique and original because of this.

Langtree Pedestrian Extension

The second significant connection of the Waterfront Park with the City is the creation of the Langtree pedestrian extension. The natural gradient level at this point provides a simple path of travel from the main shopping street of Langtree Avenue down to the river. This







Mildura Citrus Gardens



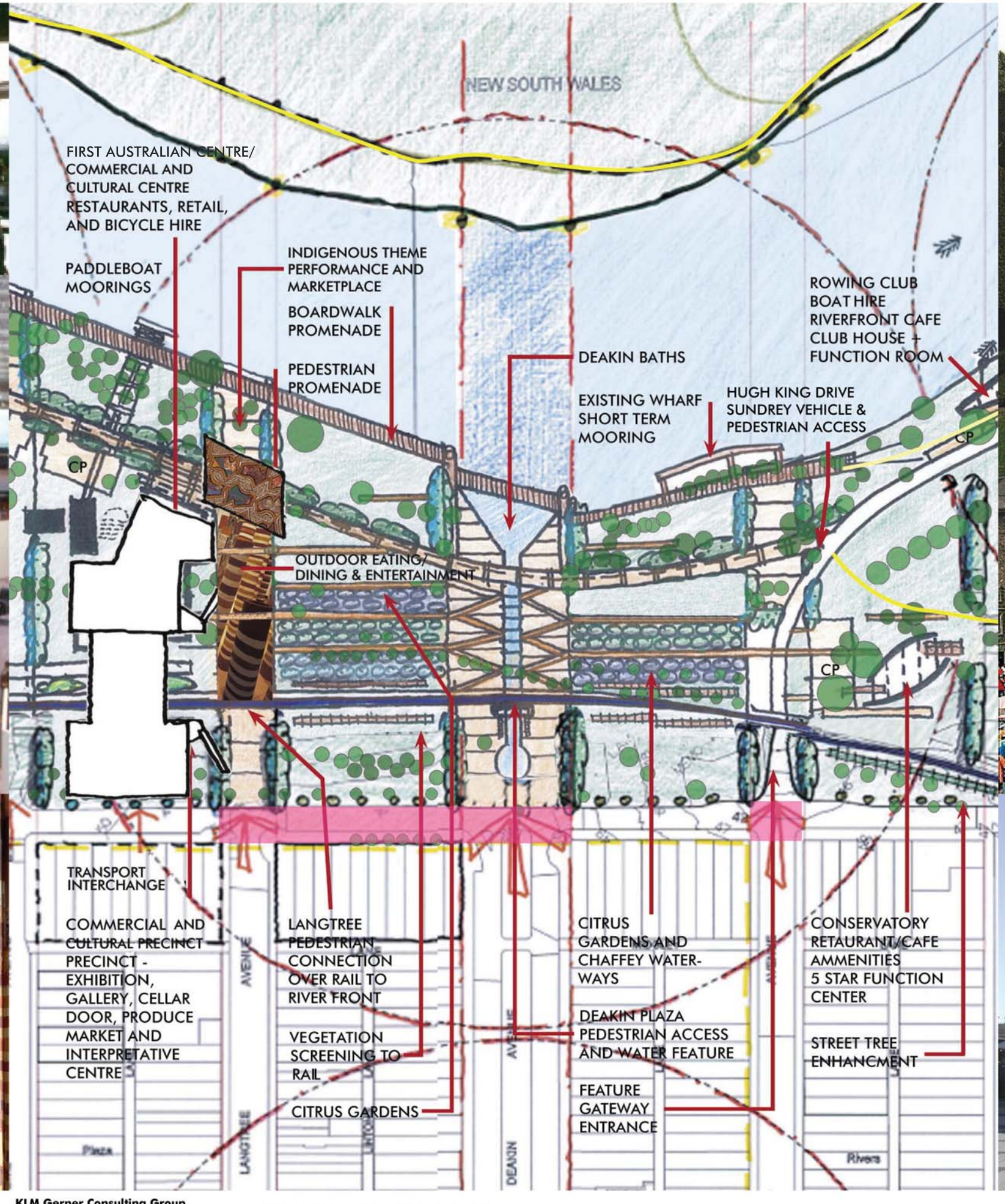
Freight activity to be removed




Riverfront Dining


Gallery / Exhibition


Indigenous Theme
Performance and Marketplace




Dramatic Landscape Potential


Market Stalls


Function Centre

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MILDURA RIVERFRONT MASTER PLAN

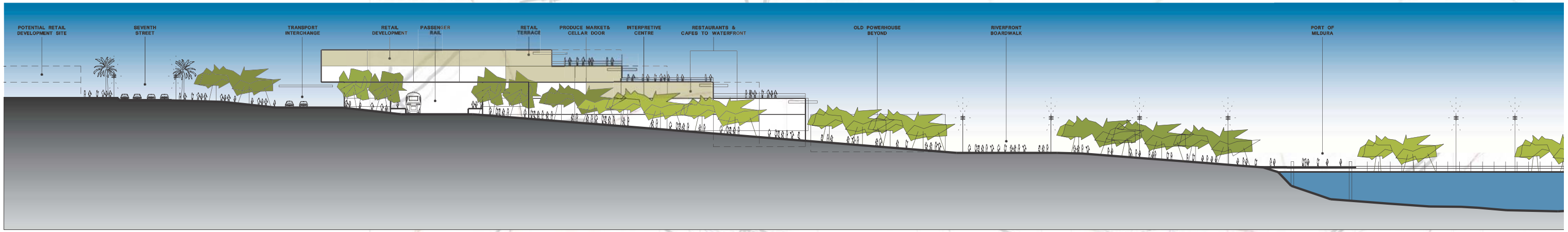
WATERFRONT WHARF PRECINCT

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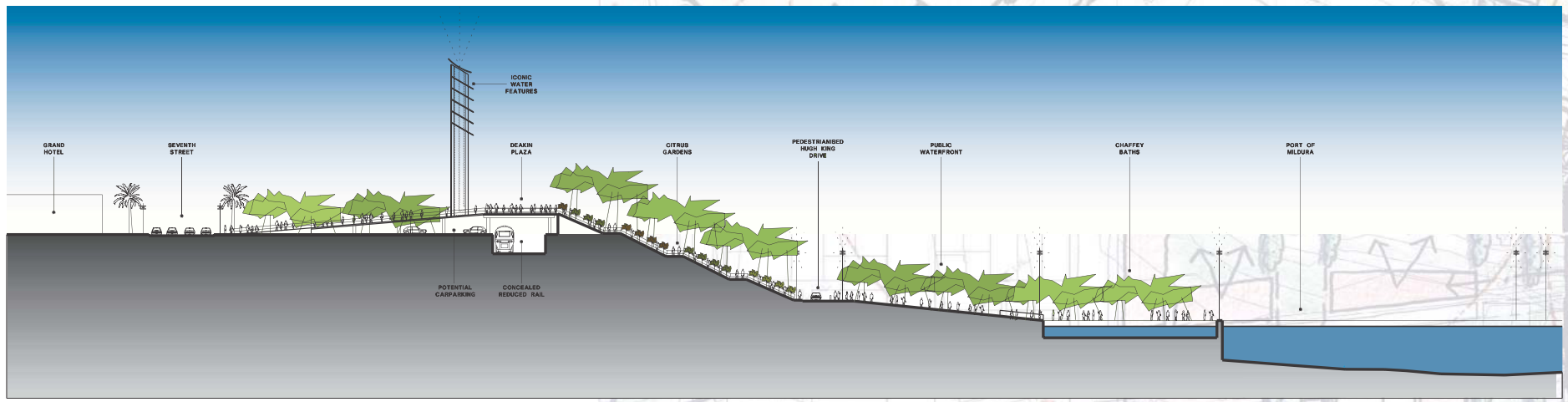
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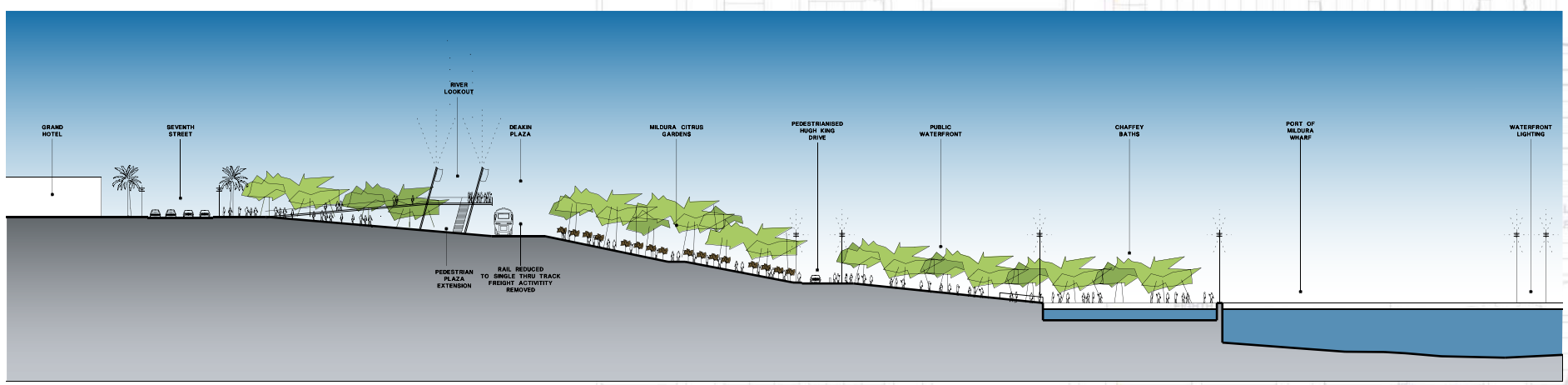
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LANGTREE AVENUE



DEAKIN AVENUE - OPTION 1



DEAKIN AVENUE - OPTION 2 PREFERRED OPTION (SUBJECT TO MINISTERIAL APPROVAL OF AT-GRADE CROSSING)

CROSS SECTION THROUGH LANGTREE AVENUE CONNECTION

CROSS SECTION THROUGH DEAKIN AVENUE CONNECTION

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MILDURA RIVERFRONT
MASTER PLAN

Dwg No.: SK 401

SITE CROSS SECTIONS

connection is seen as one that has the potential to stimulate significant movement between the City and river, since it connects to the vibrant Langtree precinct and shopping mall.

Again, such a connection at grade over the railway will be subject of ministerial approval.

Should this be deemed not possible, a bridge link could feasibly be included as part of the Transport Interchange and Commercial and Cultural Centre.

Transport Interchange and Commercial Development

Accordingly, it is appropriate that the transport interchange is located close to the shopping precinct. Combined with the existing railway station, it can facilitate the bus, taxi and possibly returned passenger rail service if that were ever resurrected. Considering the size of the Riverfront Park, a shuttle bus may also be a viable venture in the future, and could introduce tourists to the irrigation network developed by the Chaffey brothers.

There are a number of commercial possibilities that could be associated with the Transport Interchange, including fast food, boutique shops, booking and travel agencies, commercial offices that support the tourist functions, and the like. Such functions will be complimentary to the Commercial and Cultural Centre.

Freight Rail Activities

The removal of the freight is already foreseen in previous reports prepared for Council, particularly the North West Freight Strategy and the Sunraysia 2000 documents. Whilst a number of options have been reviewed and assessed, it would appear that the reports stipulate the removal of the freight with the following qualifications:

- A single through track will be maintained
- Two side tracks are intended for manoeuvring and passing of trains
- The turntable located close to Seventh Street is retained
- The station and its operation is retained

The removal of the freight activity is seen as a critical step in the realisation of connections between the river and the City. Major truck activity and access to this area would greatly hamper the potential connection of the City with the river, not to mention the amenity of the area.

Whilst the train line removed enhances access to the area, if left running through the precinct it can be seen as a positive solution. It would be desirable however, that only a single through track remain, and that another area outside of the CBD be used for the passing of trains. The consequences to the Master Plan of 3 train lines remaining together with the turntable and associated line, however, is not too great. Development options around the train line are reduced in scale as a result.

Discussions have been held with Department of Public Transport and Department of Infrastructure. It is understood that achievement of the concept of reducing the number of rail lines and replacing the freight terminal will need the approval of Freight Australia and the Director of Public Transport. It is recommended that Council initiate these negotiations as a matter of priority. Comment has been made in Section 4.1.9 about issues involved in incorporating railway land into the Park.

Commercial and Cultural Centre

This area contains the main tourist facilities. It is located between the waterfront and station, offering several different functions over a sympathetic 2-3 level structure providing approximately 4500 sqm. The functions proposed include:

- Cellar Door
- Produce Market
- Related Retail and Boutique Retail
- Interpretative Centre and Tourist information (Refer also The First Australians Centre)
- Multifunctional exhibition and display area
- Riverfront restaurants and cafes
- Administration Offices
- Public facilities
- Indigenous themed Public open space for concerts and performance
- A strong physical link to the adjoining Visitor accommodation

With its position beside the Mildura Citrus Gardens, the location of Cellar Doors and a Produce market showcasing the regions excellent wineries and foods seems logical. An Interpretative and Tourist Information Centre is proposed to ensure tourists cannot miss the great discoveries of the Riverfront Park, as well as the very significant stories of the community, its creation, indigenous history and settlement history. The location of a tourist information office here may be as a secondary facility to that already located in the Deakin Centre, but it ensures the visitors can easily broaden their knowledge of the area, and plan their stay. Within the complex is a multipurpose exhibition space that can serve the local community and tourists alike. It can be used for travelling trade shows, exhibitions, art shows and corporate functions. Associated administrative offices would be located in the less public sides of the building. The complex will culminate with riverfront restaurants and cafes over 2 levels, spilling out onto the boardwalk and raised balconies, offering views of the Mighty Murray River and Mildura Riverfront Park.

Beside the Commercial and Cultural Centre, an indigenous themed outdoor performance space is envisaged. This can incorporate themed pavement and street furniture, and will provide a setting for outdoor functions, exhibitions, displays and performances.



Rail into the heart of the precinct would be attractive feature



An example of a successful street market: Salamanca Market, Hobart TAS



A excellent example of a small-scale Function and Interpretive centre: Observatory Visitor Centre, Melbourne BotanicGardens





On the western side of the Centre, the visitor accommodation may be linked directly to the Commercial and Cultural Centre, thereby complimenting its potential commercial and corporate uses.

The First Australians Centre

Located in conjunction with the Commercial and Cultural Centre, the First Australians Centre could be a major showcase of Australia's Indigenous history, culture and evolution. It will bring together a number of areas of attraction as well as research and education: Visitor friendly display, exhibition and performance spaces will be co-located with research and testing laboratories, as well as sophisticated artefact storage.

The centre would include a mix of 3 main components:
Scientific Research, Museums and Tourism. The types of functions housed under each would include:

Scientific Research

- Laboratories to support research and education
- Research Facility for measuring artefacts, matching bore tools, examination of midden remains, soil investigation etc.
- Library available to researches, academics and public.
- Aboriginal keeping place for the safe storage of precious items.

Museum

- Interpretation Centre including large display areas
- Lecture theatres and seminar spaces
- Public Theatre
- Administration Theatres
- Art Gallery

Tourism

- Aboriginal/Australian Bush Food Restaurant
- Tourist Information Desk
- Koori Tour Desk- Local and outback adventures
- Gift shop
- Outdoor performance space

The specific siting of this facility should relate strongly to the Murray River (noting the legend of Murray Cod and its waiving tail forming important bends in the river) and should encompass external performance and display areas, in addition to those inside.

Internally, the building displays would need to reveal to the visitors the significant evolution of Australia: the changing climate, extinction of indigenous fauna, the changing meandering patterns of the Murray and the drying up of the land, the Prehistoric human population evidenced in the area, and even, perhaps, how this has been affected by White settlement.

The centre could even extend to foster the continuance of aboriginal art, through galleries, lectures and sales of local artists work.

It would also seem that such a large centre would require an Aboriginal Restaurant to compliment the full experience, and covers all major Aboriginal Influences.

It is recommended that further feasibility work be done on this concept to scope the business case, interpretive opportunities and built form proposals.

Mildura Wharf and Boardwalk

It is here that one can access the water physically: The Mildura Wharf provides the setting for all major wharf activities including a stopping point for Paddle Steamers and public Craft, a home base for river restaurants such as the Avoca, and the potential for public activities on the wharf including performances, craft market, music and buskers.

The wharf is intended to be multi functional and can accommodate large and small boats. Dedicated areas along the wharf shall be reserved for the regular paddle steamer journeys, and a small area for short-term houseboats will also enable them to gain access to the heart of Mildura, close to this source of replenishing their supplies before departing.

Running through this precinct will be a reconfigured Hugh King Drive. Made of a coarse paving material to slow through traffic and eliminate the "hoon" element, vehicles will be restricted to a slow moving dual carriageway with a dedicated pedestrian path beside, separated with lighting bollards. This will create an urban feature of the path that changes during the course of the day. The boardwalk will be coordinated and link with the Chaffey Trail.

Servicing of the wharf will be required as an encouragement of use by floating restaurants (such as the Avoca), without affecting the river and environmental quality as a consequence.

Mildura Rowing Club

The existing Rowing Club is located almost on axis with Deakin Avenue and is contained in a solid brick building, single level with potential for a second level to be added. It has been positioned here for several reasons:



Mildura Rowing Clubrooms (left of image) on axis with Deakin Avenue



- Access to the river at this point is possible, as water depth allows the simple launching of boats
- The river bed is more solid and supports rowers as they embark
- A large grass area beside the club is used for laying the boats out and preparing them for departure or storage

However, in the global scheme of things for the Mildura Riverfront Park, the Rowing Club position on axis with the City's major avenue, Deakin, is not ideal. The Riverfront Master Plan realises the importance of the Deakin Avenue axis and proposes a major pedestrian link to the City, one of the main connections between the city and riverfront. As such, the Rowing Club is in a pivotal and grand position, not quite fitting its function.

It is therefore proposed to relocate, subject to Ministerial approval, the Rowing Club to a new facility further east on leased land. In this position the Rowing Club will:

- Gain good access to the waters edge, perhaps with the use of a new launching deck.
- Sufficient grass area beside for setting out of boats and the like
- Improved and increased car parking close by
- Priority to the straight stretch of water to the east, avoiding the conflict that currently exists between riverboats and rowing boats
- Increased distance from the riverboats, improving safety
- Potential to develop a function Club room as part of the Club, located on the waters edge
- Potential to develop a café to service the Chaffey Water Gardens Precinct

The new Rowing Club building is seen as having the potential to become a main community facility that can generate more activity and interest along the waterfront, with the rowers providing a visual display as they go about their sport. This is encouraged with the Club and café offering the passers-by the option to stop and watch the show, as well as providing a casual function venue on the waters edge.

Conservatory and Function Centre

Set deeper into the park off Madden Avenue is the proposed Conservatory Garden and adjoining Function Centre. The conservatory will provide a controlled environment internally that can showcase a broad array of species to become a central focus of the City. Since the climate of Mildura is so amenable to plant growth, some outdoor space is also seen as a desirable part of the complex.

Associated with the conservatory and parkland, it has been realized that the market for a quality Function Centre in Mildura exists. This has been arranged alongside the conservatory, but oriented privately towards the Chaffey Water Gardens. The surrounds of the Gardens, river and conservatory provide the perfect setting for formal occasions such as weddings and engagement photos and celebrations.

The vibrancy of The Mildura Wharf Precinct will in turn stimulate all neighbouring areas, not only along the riverfront but also into the CBD of Mildura itself. The physical connections back into the city along Deakin and Langtree Avenue will act as conduits of encouragement to this flow of activity and movement.

Sustainability

The redevelopment of this precinct also provides the opportunity to make a highly visible, prominent 'statement' for sustainability. Water can be one of the key elements with the collection and use of stormwater, bio-filtration of run-off water, and efficient use of water for buildings and irrigation.
New construction also provides the opportunities to highlight energy efficiency and sustainable materials use, link to positive social outcomes, and also interpretive and environmental education initiatives that draw on Mildura's history and the issues that it now faces.



A bold vision for a greenhouse, realised in Wales

Note: The Function Centre could also operate as an upmarket restaurant venue to ensure commercial viability.

6.1.2. GAMES AND ENTERTAINMENT PRECINCT

(Refer to SK203 – Games and Entertainment Precinct)

This precinct is suitably named since it provides the home base for:

- Mildura Lawn Tennis Club
- Mildura Lawn Bowls Club
- Jaycee Park
- The old Power station home to Amateur Theatre, musical society, field naturalists and Art Group

Large expanses of open space are often used for the launching of hot air balloons, and for casual family oriented activities and sports.

Each of these functions is well established and positioned within the context of the Park. They provide the backbone to this area and its future possibilities. In this respect a number of surrounding areas have significant potential to compliment these established activities.

Permanent Houseboat Moorings

An important issue relates to the houseboat moorings at the river edge. The loosely managed mooring practice has had a detrimental effect on the integrity of the riverbank, which now shows severe signs of degradation. It is proposed that the scattered houseboat mooring positions in this area is addressed: 12 Permanent mooring licenses exist and will be accommodated along the river edge.



Note: Permanent Houseboat moorings are to be consistent with the District Mooring Management Plan.



NEW PONTOON WEIR

FEATURE LIGHTING TO NORTHBANK

CHAFFEY TRAIL WALKING & CYCLING PATH

ENHANCED RIPARIAN BANK

PERMANENT HOUSE BOAT MOORINGS

FEATURE SOUTHBANK LIGHTING

FIRST AUSTRALIAN CENTRE

CULTURAL COMMERCIAL TOURIST PRECINCT - RIVER FRONT RESTAURANTS, RETAIL, AND BICYCLE HIRE

PADDLEBOAT MOORINGS

EXISTING TENNIS CLUB

BALLOON LAUNCHING

JAYCEE PARK

CP

CP

EXISTING BOWLS CLUB

CURETON AVENUE

RIVERFRONT PARK TOWNHOUSE SITES

TOWNHOUSE SITES

NEW ACCESS ROAD

TRAIN LINE

TOWNHOUSE SITES

COMMERCIAL ZONE



Managed Houseboat Mooring



Residential Potential in Park Setting



Established Gardens & Facilities

Daryl Jackson Pty Ltd
Architects, Interior Designers

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MILDURA RIVERFRONT MASTER PLAN

GAMES & ENTERTAINMENT PRECINCT

0 20 50 100

Scale: 1:1250 (A1) 1:2500 (A3)

Dwg No.: SK 203

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This will be done in controlled jetty areas on axis with the street grids at Pine, Olive and Lemon Avenue. All remaining houseboat mooring activity will then be based within the marina environment, or for very short-term stays (a few hours) at the Mildura wharf. Attention will be given to the riverbank, and is addressed in the environmental section of the report.

Visitor Accommodation

The junction of this precinct with the railway needs to be sensitively considered. It could be improved with a row of housing and Visitor accommodation that form an attractive backdrop to the park. The introduction of residential uses here is seen as appropriate to provide a sense of passive supervision of the park. Serviced by a road at the rear of Cureton Avenue, the residential use will assist in providing a core of activity for longer periods in the day than would otherwise be apparent.

The following potential has been identified bordering with the Park:

- Garden townhouses over 2-3 levels for either permanent residents or visitor accommodation, dependent on commercial viabilities
- Serviced Apartments, motel or other form of visitor accommodation over three levels to compliment the Exhibition/ convention space of the Tourist commercial building.

Vacant and (after the relocation of freight activities) unused land between the railway and Seventh Street is proposed for further residential uses such as townhouses and/or visitor accommodation.

Rail Functions Retained

A number of rail functions are proposed for retention in prior reports prepared by Council, particularly the North West Freight Strategy. The items noted for retention in this precinct includes the engine turntable located adjacent Seventh Street and its additional sideline for access.

The Master Plan proposal has currently assumed the retention of these items, but also recommends that the turntable be relocated to a less sensitive area. Should this be possible, other benefits would be realised in the development proposal including:

- Additional townhouse and visitor accommodation sites
- Increased open space around Jaycee Park as the development proposal could be moved closer to Seventh Street
- Simplified visual connection to the waterfront area

Ultimately, this would ensure that the Park is the dominant element of the waterfront, through which the single rail line is a minor element only. Site development potential beside would also be enhanced with greater amenity.

It should be noted that should the rail be relocated completely, the functioning of the masterplan remains, but other benefits would be appreciated including: improved and increased numbers of access points to the river, and increased parkland area.

Sustainability

The Games and Entertainment Precinct appears to have the highest proportion of irrigated grass area. It therefore presents good opportunities to investigate reductions of these areas, where possible, in favour of tree/shrub planting, and also other measures to improve water-efficiency. It also provides the opportunity to establish a buffer of riparian vegetation that links into the Lock Precinct.

6.1.3. THE ART AND LOCK PRECINCT

(Refer to SK204 – The Art and Lock Precinct)

The Art and Lock Precinct is named after its main defining function: The Lock. The area is characterized by:

- A narrowing of the river at the location of the Lock
- The Lock itself, providing potential access to Lock Island
- A natural landscape setting of River Red Gums and other Eucalypts
- Excellent garden trails that meander through the natural setting
- The Rio Vista Historic House, sculpture garden and Performing Arts Centre
- The Old Mildura Homestead
- The Existing Gallery and Art Collection
- Rio Vista Park
- The Amphitheatre

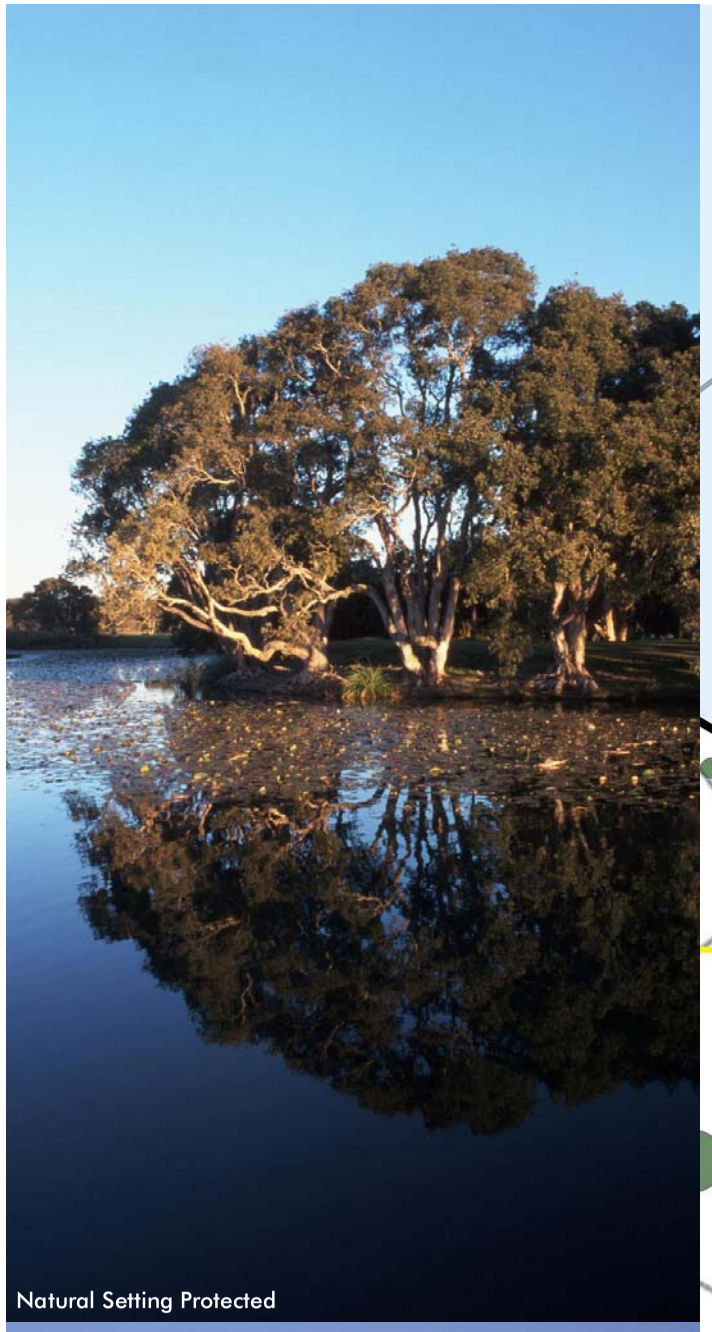


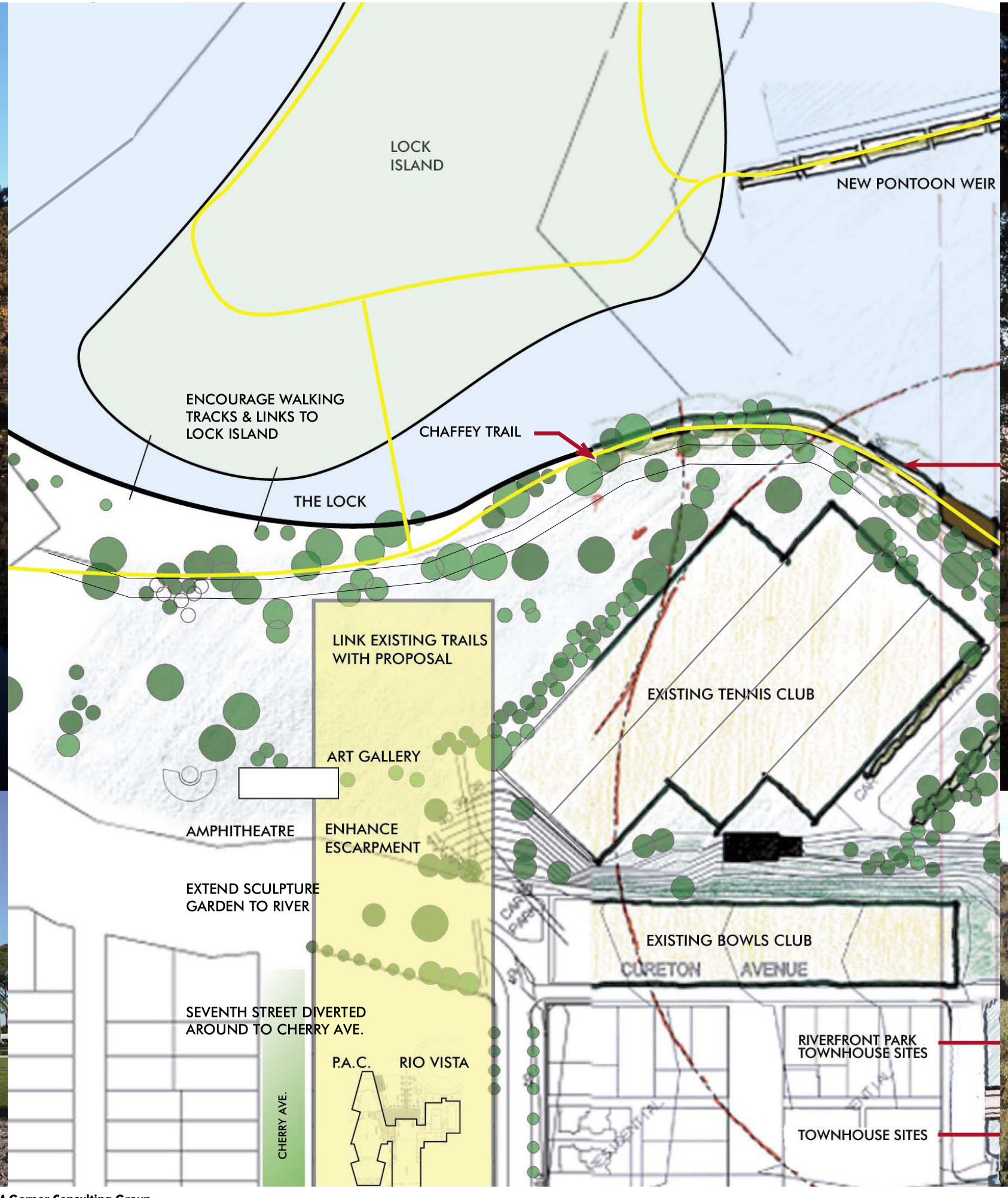
Rio Vista

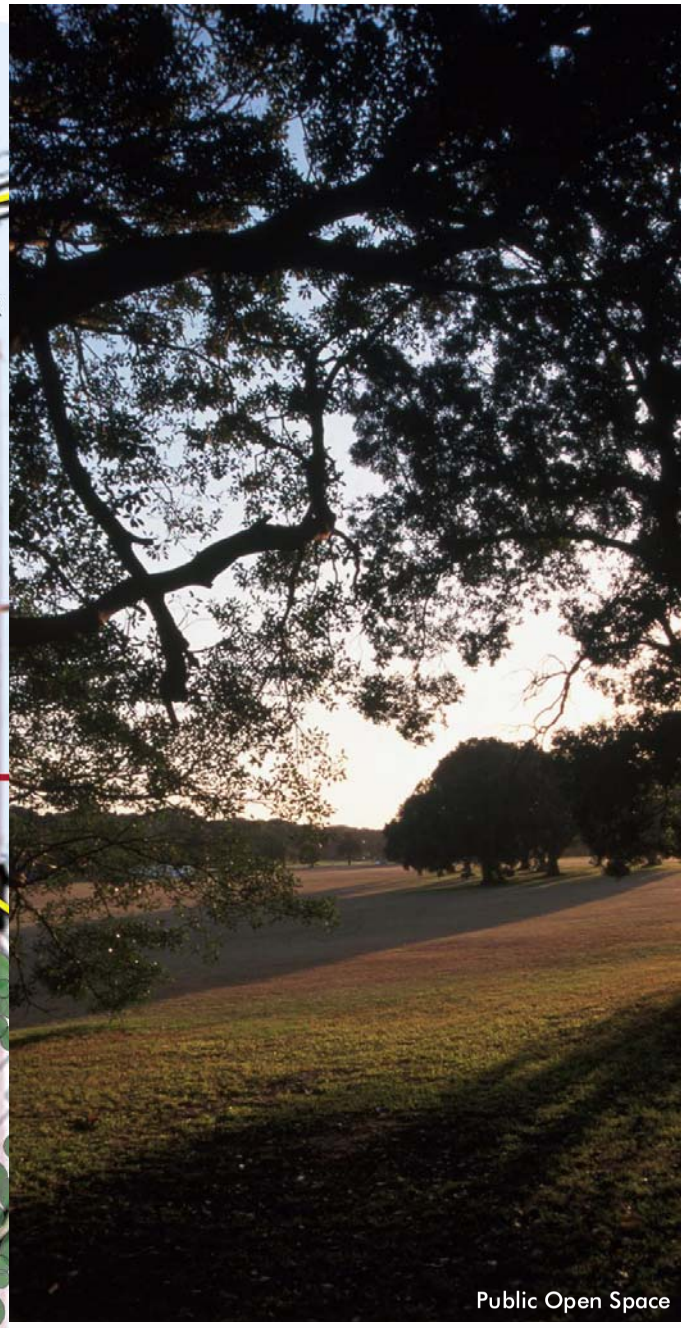
This area should build on these existing assets to further realise the potential:

The walking trails should be connected to the Chaffey Discovery Trail to encourage greater enjoyment and use of the water edge. The Chaffey Trail at this point should take on an 'Arts' theme. Access to Lock Island and the Old Mildura Homestead should be improved (from both sides of the river) so that this area can be integrated with the walking trails and the river. This would be encouraged to be a historic component of the trail, taking in the Chaffey graves and the graves of the Early Settlers. The new trail could provide better access, and access points from the river would also help to generate greater patronage.

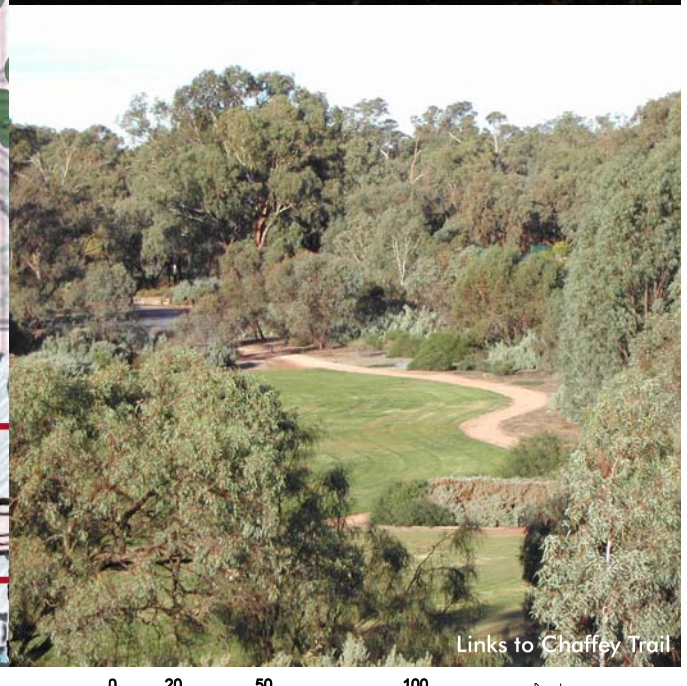












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MILDURA RIVERFRONT MASTER PLAN

THE 'LOCK' PRECINCT

0 20 50 100

Scale: 1:1250 (A1) 1:2500 (A3)

Dwg No.: SK 204

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It seems the functioning of the Lock is admired by all who visit, yet details on how it operates and even seeing it in operation are not easily available. Some greater exposure and timetabling of regular boat passages through the Lock would embellish this functioning tourist draw card along the river.

Diversion of Seventh Street – Connection of the Arts

The Rio Vista Historic House should be integrated with the riverfront precinct. The diversion of Seventh Street around the back of the Homestead, across a new railway crossing and up Cherry Avenue would enable the sculpture forecourt to be extended in front of the historic complex. The re-routing of traffic would also disperse local traffic, providing greater options to residents, rather than the current channelling of all vehicles along the waterfront at Cureton Avenue.

Rio Vista Historic House and New Gallery of Art

The Rio Vista Historic House is intended to become dedicated Chaffey brothers' historic museum, focused on the legendary history of the Chaffey's. This would then better compliment the Old Mildura Homestead, which could focus more on the 'Pre- Chaffey' Early Settlers period, and therefore be complimentary to it. The new gallery should be built on the escarpment overlooking the riverfront, complete with artist's studios and public facilities as a dedicated and complimentary function to the amphitheatre. The gallery could provide greater exhibition space for "The Elliot Collection", and could add to the increasing artistic movements to which Mildura is becoming increasingly well known for, including "The Palimpsest", the writers festival and exhibitions of Indigenous Art are all possible examples. A new gallery building shows a commitment towards these events and activities, as well another point of interest along the riverfront.

The potential for indigenous and local art to be showcased through this new facility and would help to promote Mildura as a strong, Arts sensitive area and tourist destination.

Outdoor Amphitheatre

The existing ampitheatre is well designed and works well as an outdoor acoustic venue. The condition of the amphitheatre itself could be improved with landscaping and pavement treatments. However, the lack of support facilities such as back of house areas, change rooms and toilets currently minimises its potential.

The construction of the new gallery/exhibition centre beside could rectify this problem and enable it to share these facilities. Other required services could be installed so that stage lighting and sound systems are also available broadening the appeal base of the venue.

The amphitheatre location is seen as suitably removed from the public through fare, so that ticketing and containment for events is possible. It will relate well to the already established Arts Precinct that centres on the Rio Vista Homestead and PAC.

During the preparation of this document interest has already been raised to see the amphitheatre used annually as an Open Air (Moonlight) Cinema.

Sustainability

It is considered that the natural qualities that exist in the precinct provide a good basis for further environmental restoration and enhancement work. This could focus on riverbanks, middle and under-storey vegetation, and aim to provide habitat for indigenous fauna. The opportunity that arises from such action is to interpret and educate visitors about Murray River ecology, showing how individual species rely on each other.

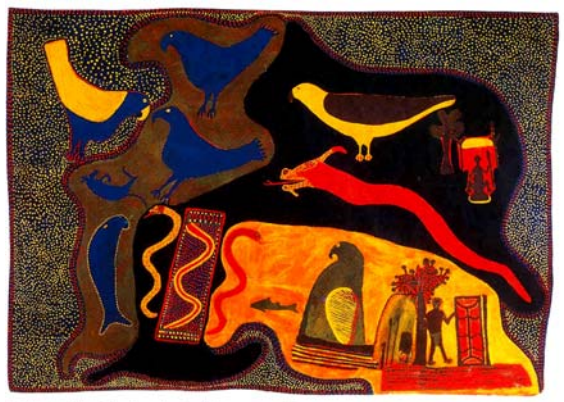
It will be important to restrict access away from sensitive areas, including riverbanks, to allow habitat with high environmental quality to establish.



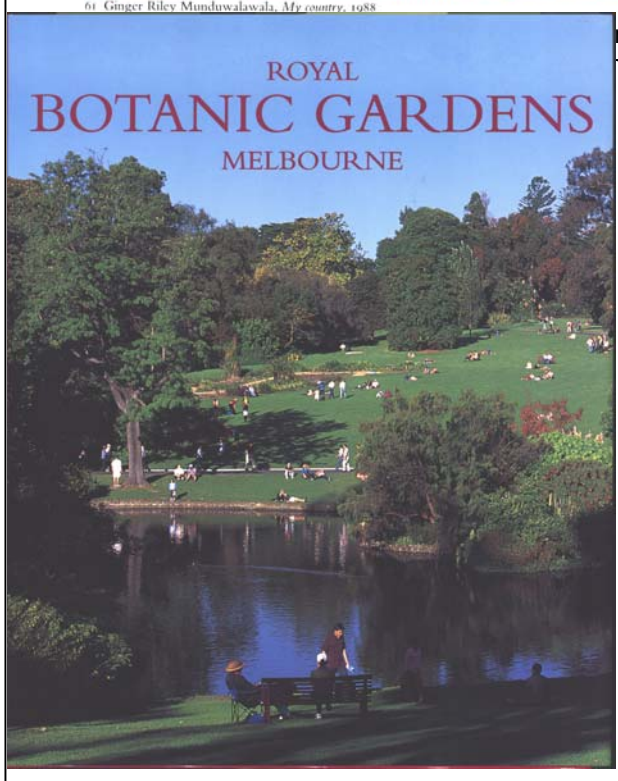
Outdoor sculpture in the Art Lock Precinct



The Existing Amphitheatre: Whilst it functions well acoustically, support facilities would assist its use



61 Ginger Riley Munduwalawala, *My country*, 1988



There is great-unrealised potential for the Chaffey Water Gardens

6.1.4. THE CHAFFEY WATER GARDENS

(Refer SK205 – The Chaffey Water Gardens)

The existing Ornamental Lakes precinct is intended to remain the focus for, and the main space in not only the riverfront, but in Mildura. The large open space of the park will continue to facilitate the many uses that currently occur and others that may be introduced.

However, the existing Ornamental Lakes is sadly fenced off following issues around its safety due to the significant depth at its waters edge. The themeless vegetation that surrounds it also dwarfs the scale of the lake. However, the water in this area is seen as a positive element that can better serve to establish a theme for the gardens, and also an element that can help to connect the Garden visually and physically with the marina precinct beside.

In this sense it is envisaged to connect the water visually from the Marina to the Chaffey Water gardens, but to separate it physically with an accessible Weir.

A large open space in the centre of the precinct will provide a venue for many different types of events: ballooning, outdoor performances, theatre, cinema, New Years Eve and other celebrations, exhibitions, circus performances and casual recreation.

A new sound shell in this area could provide a stronger focus for these events. It should incorporate amenities and back of house facilities, to help to promote the active use of the park for such events. The area infront of the sound shell needs some minor landscaping





Events



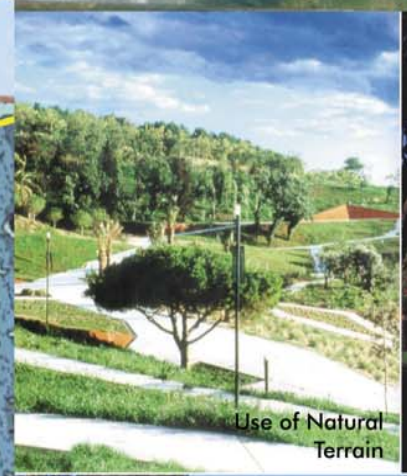
Holiday Units



Dramatic Conservatory Space



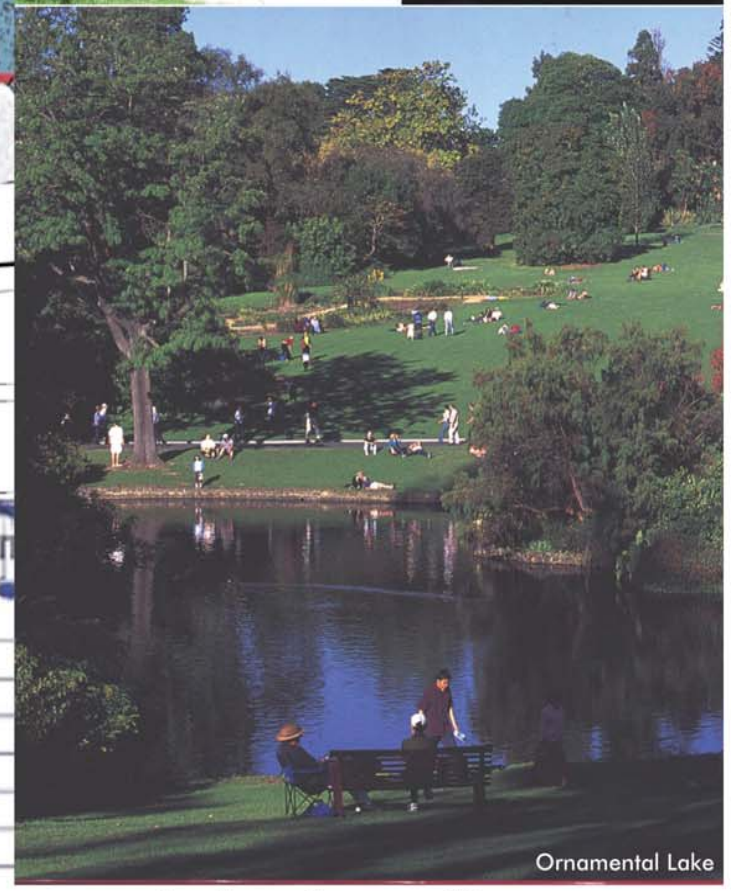




Use of Natural Terrain



Picnics



Ornamental Lake

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MILDURA RIVERFRONT MASTER PLAN

CHAFFEY WATER GARDENS PRECINCT

0 20 50 100

Scale: 1:1250 (A1) 1:2500 (A3)

Dwg No.: SK 205

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treatment, and should be left as a large grass field suitable for accommodating seating for the outdoor events. With the amphitheatre used as an open-air cinema, the sound shell provides another venue for temporary, changing and roving acts, such as Carols by Candlelight and New Years Eve Celebrations.

A thin body of water will define the grassed open space on the river side, but be detailed to be shallow, rock filled and vegetated for eliminate risk. The channel of water will facilitate the management of events that are charged in helping to separate the paying patrons from the non-paying. At the same time, the water will be a visual feature within the Park, a small billabong created by the meander of the river, and a reference to its context. As such it will assist the definition of a theme to the large expanse of landscape.

Existing river Red Gums along the rivers edge are intended to be retained, as outlined in the schedule to the Heritage Overlay in the Mildura Planning Scheme.

Residential Edge

The interface of this precinct with the City is currently extremely poor. Unused land borders the backs of housing to the south, although the water treatment plant is currently well concealed by established landscaping around its entire perimeter.

It is envisaged that a face of housing in the form of higher density terraces and/or holiday units (as is commercially viable) will form a backdrop to the park, whilst enjoying the outlook over the park to the river. At the same time, the introduction of some housing to this edge will assist the passive overlooking and consequential safety of the park. Furthermore, car-parking requirements to serve both the Marina and larger events will be concealed between the new housing and existing.

The following are proposed:

- 60- No holiday units, average 100 sqm (located over 3 levels, incorporating swimming pool and recreation facilities overlooking the park)
- Associated car parking and car parking for major events in the Water Gardens (180 car spaces)

Chaffey Bridge Pedestrian Path

The current footpath across the bridge is frightening and uninviting to walk across. At modest expense, a lightweight steel structure could be cantilevered off the western side of the bridge to provide the access to NSW, and develop stronger links with the walking and cycling trails on this side of the river.

The new structure will provide a more interesting visual icon of the bridge as a gateway to Mildura. The side of the bridge would be further animated with light to dramatise the structure, creating a visual feature at nighttime. This should be fully integrated with the steel structure.

Access through the park to this pedestrian bridge needs to be provided in the form of a pathway alongside the Sturt Highway, to a point where it reaches the bridge. This path should be an integrated part of the Chaffey Discovery Trail.

Sustainability

The precinct offers a range of opportunities, partly because the precinct is so open and largely free from buildings and structures. The opportunities include reducing the extent of grass, demonstrating principles of water sensitive urban design, capturing and using stormwater, and creating a functional wetland that results in positive environmental outcomes. The creation of such a wetland will require detailed consideration of matters such as the water source (whether this is derived from town stormwater, on site drainage etc.), on-going water quality, prevention of excessive algal growth, salinity implications, public safety, risk and avoidance of negative impacts on the Murray River.

Of course, the precinct also provides a space that can continue to be used by the community for events, adding to the social benefits of the study area as a whole.

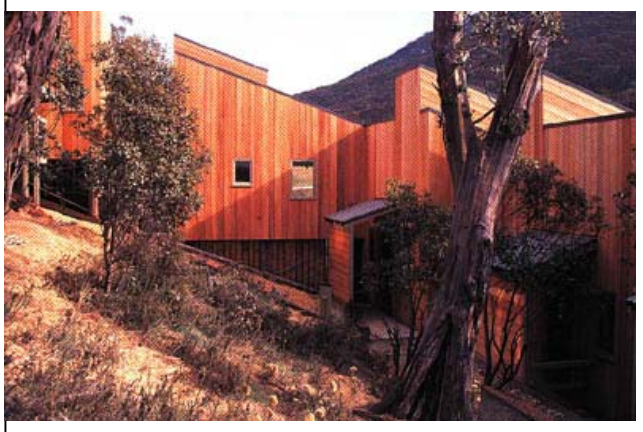
6.1.5. THE MARINA

(Refer Figure SK206 – Marina Precinct)

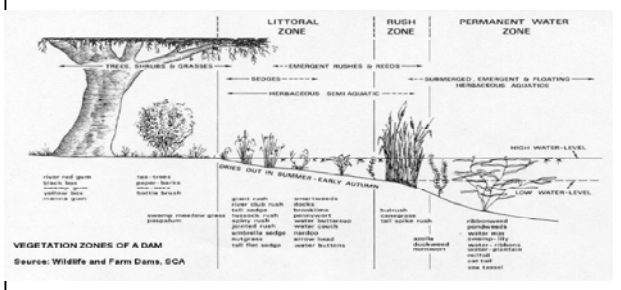
The Marina is an exciting development proposal that will transform a derelict piece of forgotten landscape beside the city into a major water focused precinct. The feasibility design of the marina has already been prepared prior to this report, and the knowledge of it has been obtained primarily from the Panel Report to the Mildura Planning Scheme Amendment C11, which was gazetted by the Minister in August 2003.

The main functions currently proposed in the marina include:

- 100 berths for houseboats and other craft
- 4 paddlesteamer berths
- Marina related land based activities (boat maintenance, launching and fuelling)
- Waterfront retail (1500 sqm)
- 3 star hotel with 120 rooms (2 level)
- Convention Centre catering for up to 300 people (2 level)
- 24 waterfront townhouses (2 level)
- 46 No Riverview Townhouses (2-3 levels)
- 18 Riverside units beside the hotel (2 level)
- 24 Waterfront Apartments (9 level, maximum 28 meter height)



Residential edge to parkland will help to improve safety through passive overlooking



Water Edge Detail of a sustainable working water environment. This will assist in defining an attractive and informative theme for the riverfront park











Appropriate Rural Waterfront Development



Public Recreation, Access & Waterfront



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MILDURA RIVERFRONT MASTER PLAN

MARINA PRECINCT

0 20 50 100

Scale: 1:1250 (A1) 1:2500 (A3)

Dwg No.: SK 206

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- Public Parking facilities
- Bus Terminal
- New Boat Ramp and retention of the existing boat ramp
- Public parkland and passive recreation

Current Marina Proposal

A large body of water will be introduced as the central focus to the scheme, and will be the base for most houseboat activity. At the junction with the river, a large public wharf will provide berthing opportunities for 4 paddle steamers at any one time. This will be another designated stop for the paddle steamer cruises, taking the opportunity to take on board more passengers as they cruise upstream.

Additional paddle streamer berths will be required at Mildura Wharf to accommodate the number of vessels that operate.

The waterfront to the Marina is envisaged to be accessible to public, and will therefore also provide good access to the boat moorings located therein. It will be integrated with the Chaffey Discovery Trail.

Integration with the Riverfront

Links between the Marina and riverfront are critical to its integration as part of the Riverfront Park. The current position of the Sturt Highway and Chaffey bridge acts as somewhat as a barrier, although there are 2 possibilities for access under to physically link the precincts.

The first is along the waterfront where the existing road will continue to the boat ramp. It will be joined by the Chaffey Discovery Trail that works its way up alongside the waters edge and around the marina basin. Centrally within the site is another potential link beneath the Sturt Highway, and it is through this point that water is intended to appear to flow from the marina and into the Chaffey Water Gardens. The water will however, be physically separated by a weir type structure that appears more like a bridge between the 2 bodies of water. In this way, the treated water in the marina can be kept independent of the parkland water, yet still give the visual allusion that the water runs through providing another sense of integration between the 2 precincts.

Chaffey Trail

The Chaffey Trail should continue through the Marina precinct and on to the wetlands and Ski Club located further upstream. In this location it could take on a nautical focussed theme around the marina, whilst onto the wetlands, a more environmental theme would be appropriate. This will then continue the discovery nature of the trail, and integrate with a regional tourists trail that could connect with other areas beyond Mildura.

Sustainability

The Marina Precinct provides the opportunity to apply sustainable development guidelines to specific built form components within the development (as will be applied to all other development within the study area). This will ensure that the sustainability performance of built form elements within the marina are enhanced.



The site of the marina



6.2 MASTER PLAN ASSESSMENT

6.2.1 ADDRESS AND IDENTITY

(Refer SK301 – Address and Identity)

The many varied activities and uses identified in the existing riverfront area are to be retained. These have provided the catalyst for other complimentary activities and uses to be introduced to assist the full realization of the potential of the Riverfront Park.

Each of the proposed developments within the riverfront precinct is intended to have a clear sense of address and identity befitting its function. The integration of new uses and developments has been carefully considered to ensure that they complement the recreational nature of the precinct.

Riverfront Boardwalk
The riverfront boardwalk will provide a large point of contact with the river, including the functions of the Mildura Wharf. It will stimulate pedestrian activity and provide a clear point of reference from the river as the gateway to Mildura. Its link with the Chaffey Discovery trail will further animate activity along its length in the form of walking, cycling, market day stalls, buskers, band performances and the like.

The water-based functions accommodated at the Wharf are covered in more detail in Section 6.2.4

The accessibility of the waterfront area is to be maximized. The entire waterfront is to remain accessible to the public, including the boardwalk wharf structure and Hugh King Drive.

The Riverfront Precinct will be animated with lights on the river bank that are aligned with the street edges of the avenues of Mildura, thereby providing another visual link to the fabric of the City. The lighting will benefit the area in terms of encouraging night time activity and making it safe, whilst also providing a defining theme along this section of the waterfront.

Tourist Precinct
The Commercial and Cultural Centre is intended to have a strong pedestrian oriented face to the Langtree and Riverfront facades. This will assist the retail function of the centre as casual pedestrians may meander their way into the complex and through to the riverfront. In terms of deliveries and the collection of heavy items from say the Cellar Door, a service road to the rear would facilitate this collection and drop off. Car parking also must be close by and is located immediately off High King Drive to ensure patrons can easily access the complex.

Residential Developments – Apartments, Townhouses, Motels and Holiday Units
One of the major reasons for proposing housing edges along some perimeters of the Park is to provide an attractive face that overlooks the Park. This will provide good passive security, as well as an attractive outlook for inhabitants.

Car access to these developments will be concealed from the Park and be to the south of the housing modules, thereby keeping them out of sight, yet very easily accessed.

Function Centre and Conservatory
The Function Centre and Conservatory will have a clear address to Madden Avenue and be serviced by a large car park at this point. The buildings themselves look into the Chaffey Water Gardens, and out to the river beyond.

Transport Interchange
The location of the transport interchange is suitably central yet concealed from the riverfront by the Tourist Precinct. In this position it serves the riverfront as well as the retail centre of Mildura, and makes good use of already established infrastructure at this point. It should provide an active street frontage to Seventh Street, from where it can offer access to the cultural Tourist Precinct and the Langtree Pedestrian connection. As such, commercial opportunities present themselves, with a large number of passing people envisaged.

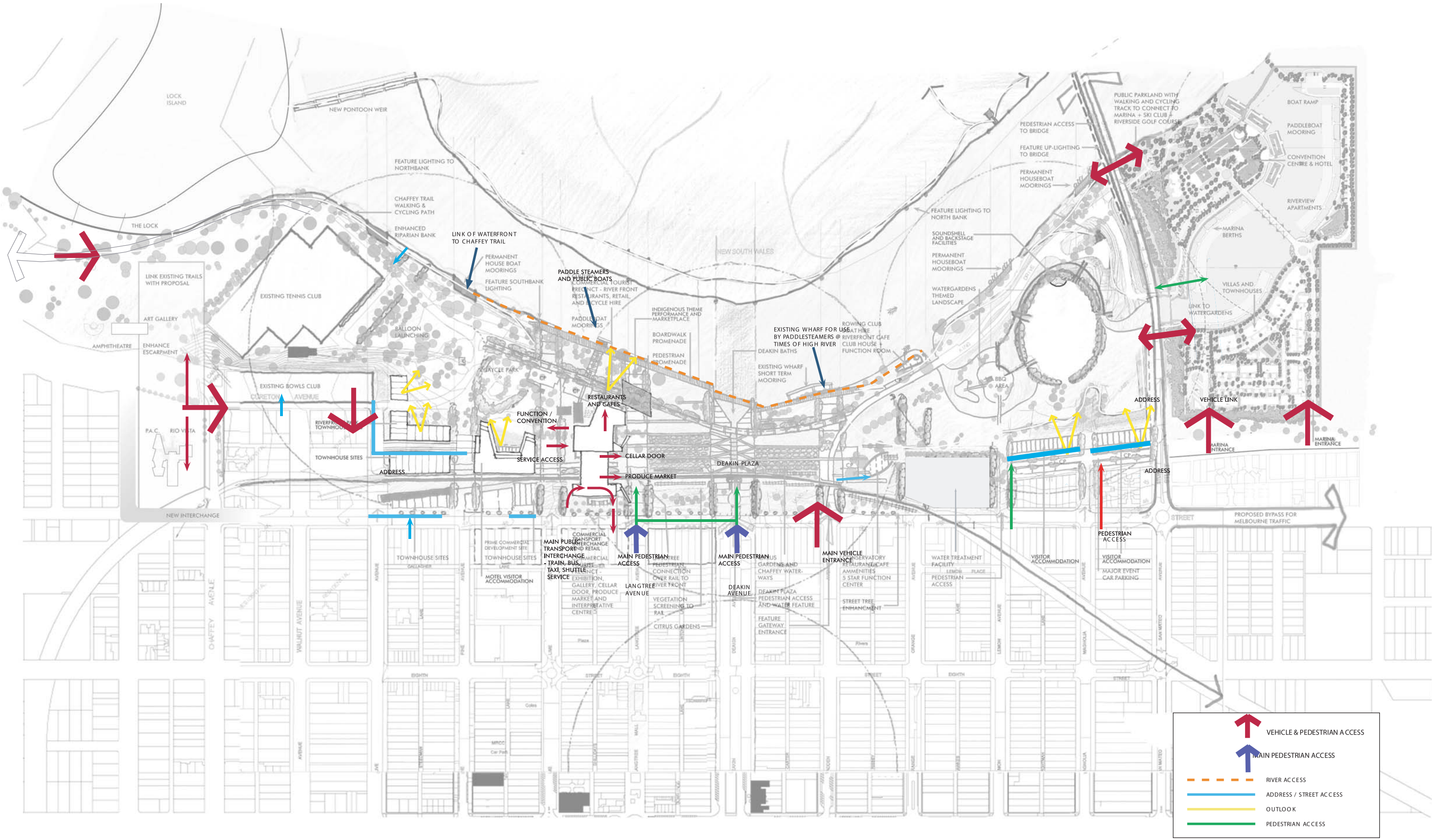
Chaffey Water Gardens
The Chaffey Water Gardens provides the setting for many varied types of performances and events. A large grassed area is to be retained as a multipurpose focused venue for outdoor entertainment. The events to be catered for include:

- Circus
- New Years Eve Celebrations
- Casual recreation and sports (not a dedicated sports field)
- Outdoor performances, such as large scale musicals and theatre
- Hot air balloon launches.

Access to the area remains as it is currently from both the waterfront side and also directly from Seventh Street along Orange, Lemon and Magnolia Avenues. The area to the north of this site, currently barren unkempt land, is used as car parking for such events, and this is intended to be formalized. This car parking will also double as the required overflow car parking for the Marina development (as noted in the Planning Scheme Amendment C11).

Marina
The Marina will have a significant influence to ones perception of the riverfront area and Mildura on approach from NSW. It has the potential to act as a kind of gateway as one crosses the Murray by car. However, the address of the Marina needs to be clear. Primary vehicle access from the south west corner, off Cureton Avenue seen as desirable.





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MASTER PLAN

ADDRESS AND IDENTITY

Scale: 1:2500 (A1) 1:5000 (A3)

Dwg No.: SK 301

N

6.2.2 VISUAL AND PHYSICAL CONNECTIONS

(refer SK302 – Significant View and Visual Connections)

The opening up of vistas of the riverfront from the City is a critical element in the connection of the city with the Riverfront Park.

The grid of Mildura provides a structure for connection with the riverfront. Four streets either side of Deakin Avenue are to form the structure for physical and visual links to the river. The links can be seen as one of 3 categories:

1. Primary Pedestrian Connections
2. Secondary Pedestrian Connections
3. Pedestrian and Vehicle connections

Primary Pedestrian Connection: Deakin Avenue

The most significant connection to the river will be at the Deakin Avenue junction. This is for two reasons: Firstly, Deakin Avenue is the major boulevard in the urban structure of the City and provides a grand civic gesture of connection with the riverfront park. Secondly, it provides a link to the most active CBD area of the City, and in this sense provides greatest opportunity to draw people from the City to the river and vice versa.

A number of proposals for access over the railway lines at this point have been explored including:

- Bridging over the railway, creating a grand elevated plaza
- Cross overs at track level

Both of these options are possible and viable, and either could be adopted out of this report.

However, considering the downgrade of freight activity together with the infrequent passing of trains, it could be that a level crossing with the railway be adopted. The main reasons for this are:

- The natural fall of the land is down in this direction, resulting in minimal earthworks to achieve the crossings
- The grading down of the land over the railway to the river will have the consequential effect of opening up greater views and vistas of the river from Seventh Street, particularly form the open space flanking either side of Deakin Avenue
- The cost of bridging is significantly higher and if it could be avoided, would be desirable.

(Refer to SK401 – Cross Sections) attached

The direction for which of these options is to be realised will come out of a detailed feasibility of the connections sought to the waterfront area, and the obtaining of relevant ministerial approval for an at grade crossing. The maintaining of physical views and linkage to the river are critical aspects for the implementation of the Masterplan proposal

Secondary Pedestrian Connections – Langtree Avenue

A Secondary connection is proposed at Langtree Avenue. This connection is made simply at grade but requires:

- Ministerial approval for an at grade crossing
- Relocation of the train platform that currently crosses it.

The length of platform required can be accommodated further west.

Should an at grade crossing not be possible, it would also be feasible to provide access over the railway as part of the Commerccial and cultural Centre and Transport Interchange

Rio Vista Sculpture Garden Extension

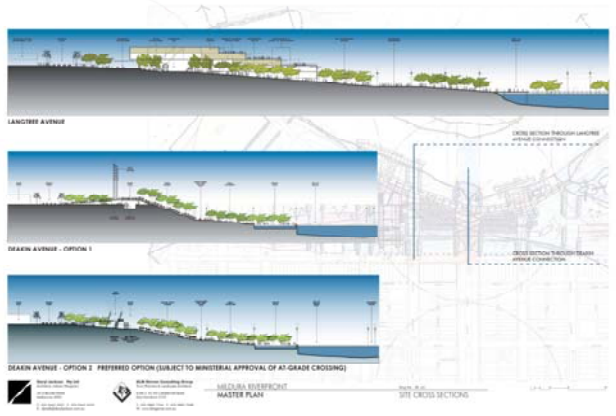
The extension of the sculpture garden in front of Rio Vista will reinvigorate this area as a dedicated arts precinct. Local and indigenous art should continue to contribute to the gardens. The diversion of traffic over a new interchange at Seventh Street, and its extension to Cherry Avenue, will enable the forecourt of Rio Vista to again be returned to overlooking the river and parkland. This physical link will incorporate Rio Vista and the PAC directly with and as part of the riverfront park.

Access for All

The gradient along both primary connections is intended to be at a maximum of 1 in 20. The Langtree connection could comfortably achieve this an indirect link to the river, since the level of the land at this point is naturally lower, and the distance to the river is further.

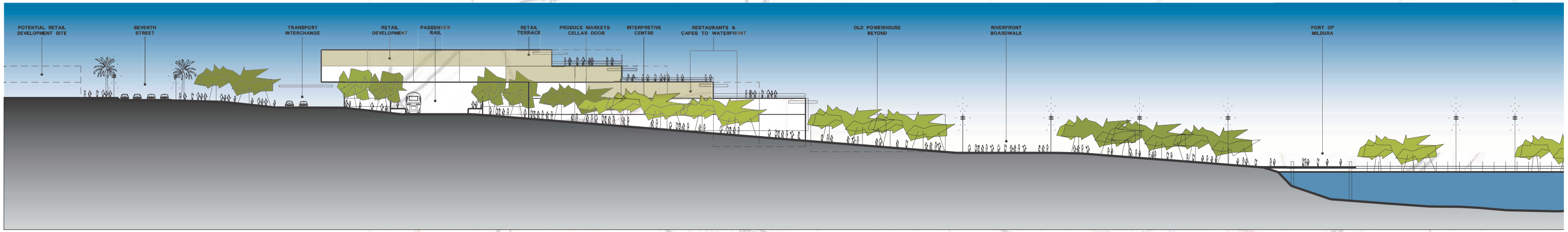
The Deakin link is more creative, and responds to the greater height difference and reduced length to the river. Thus it is proposed that these links be created diagonally offering an interesting journey that links with the terraced Citrus Gardens on each side, as well as a visually intriguing urban structure.

In this way both primary pedestrian links will cater for people of all abilities, and will ensure there is no need for disabled ramp details, since gradients are kept evenly shallow.

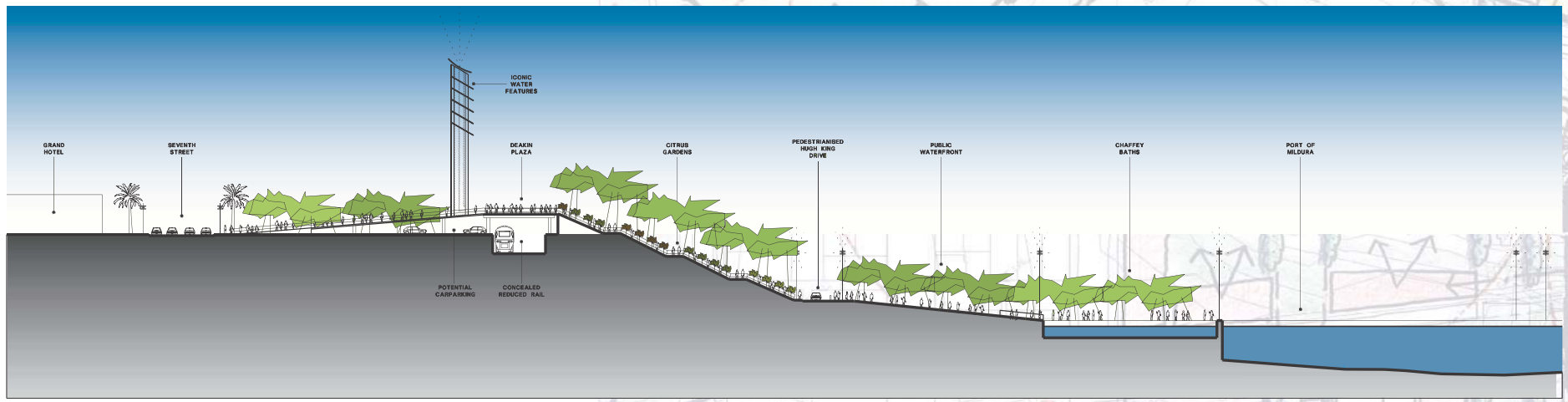


Cross Sectio studies through Deakin and Langtree Avenues

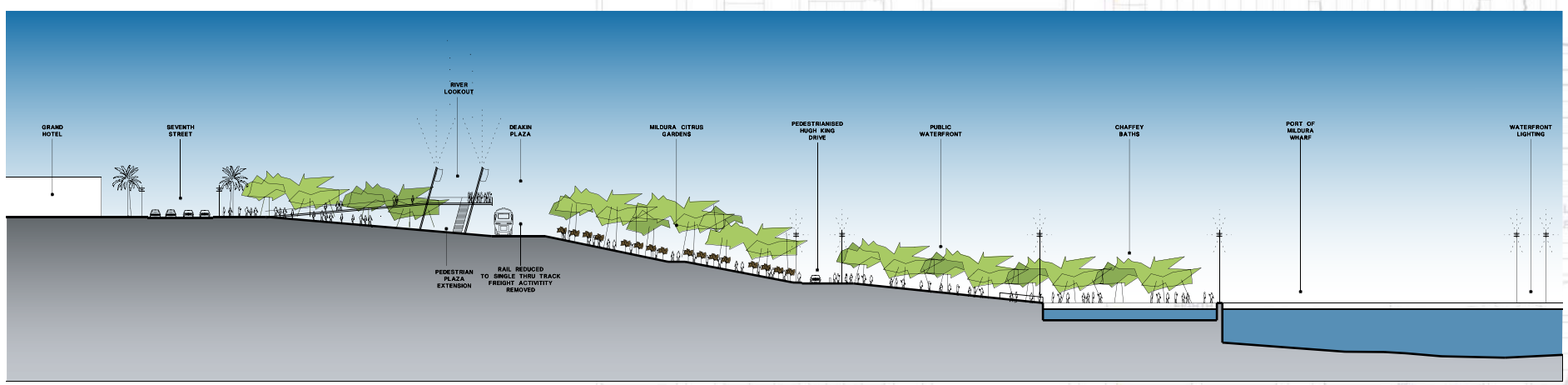




LANGTREE AVENUE



DEAKIN AVENUE - OPTION 1



DEAKIN AVENUE - OPTION 2 PREFERRED OPTION (SUBJECT TO MINISTERIAL APPROVAL OF AT-GRADE CROSSING)

CROSS SECTION THROUGH LANGTREE AVENUE CONNECTION

CROSS SECTION THROUGH DEAKIN AVENUE CONNECTION

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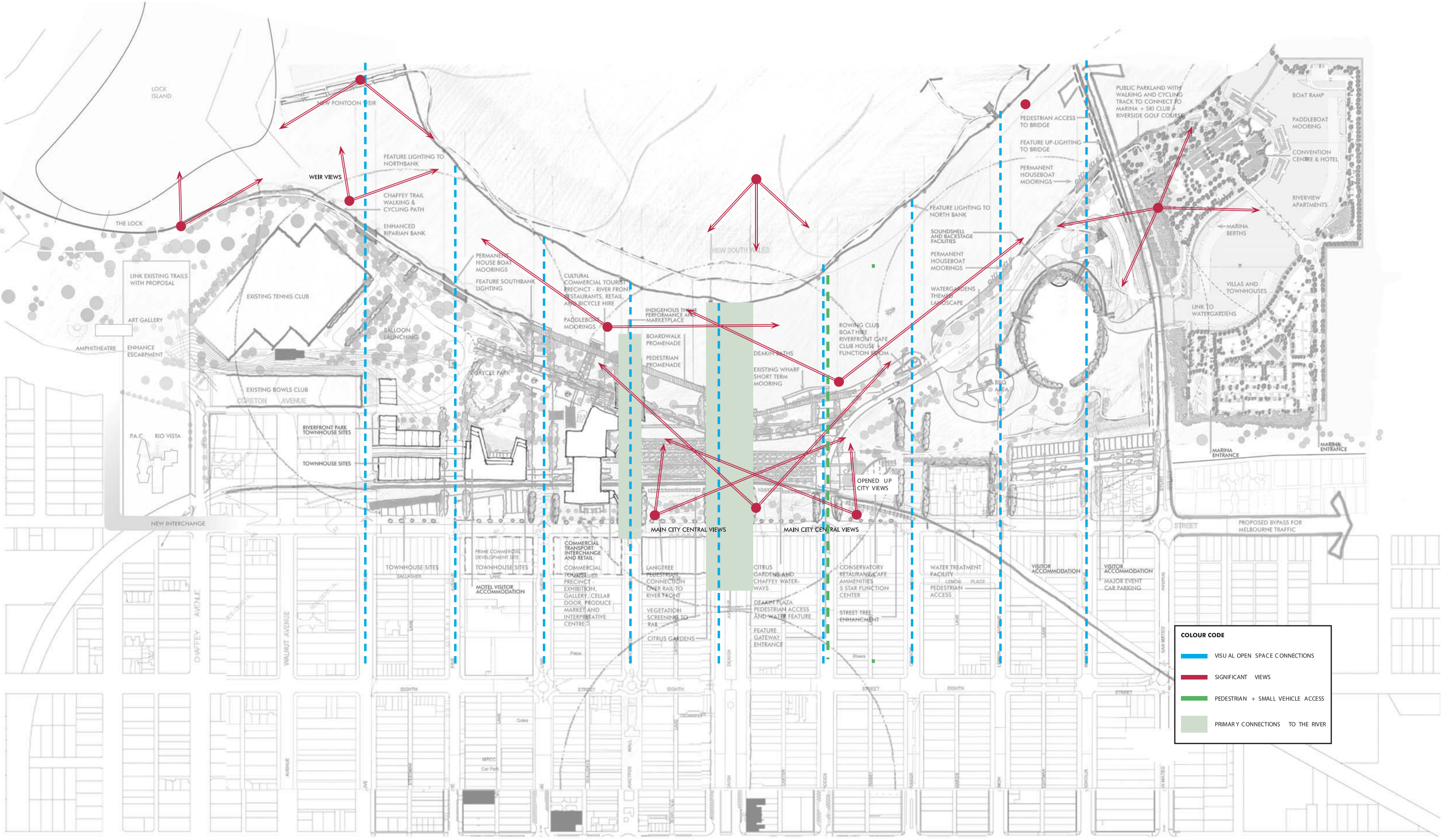
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MILDURA RIVERFRONT
MASTER PLAN

Dwg No.: SK 401

SITE CROSS SECTIONS



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MASTER PLAN

SIGNIFICANT VIEWS & CONNECTIONS

0 20 60 100 200

1:2500 (A1) 1:5000 (A3)

Dwg No.: SK 302

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Visual Connection

Visual connections should be maintained along all other remaining avenue lines.

The retention of the exiting train turntable is an inhibitor to exploring further physical connections along Olive and Pine Avenues.

Pedestrian and Vehicle Connections

Madden Avenue currently provides pedestrian and small vehicle access to the riverfront beneath the height restricted clearance of the railway bridge. This access is to be maintained, but is intended to be enhanced as a main entrance gateway. This will be achieved in a number of simple ways:

- The Palm trees along Seventh Street should continue around the corner to mark the entrance to the site
- The bridge could simply be beautified with some architectural treatment and feature lighting
- With the creation of the boardwalk, views to the river can be created under the bridge to the waterfront and existing jetty structure.

Train Management

With a train line still running through the precinct, some controls over the speed of the train need to be enforced in this section of the track. It is proposed that the train travel at an extremely slow speed through the entire area north of Seventh Street, to maximise safety of pedestrians.

Significant Views

The most significant views that are to be realized from the City will come from Deakin Plaza. The curve of the river seems to radiate out from this point, and provides long axial views both up and down stream. The creation of Deakin Plaza and the open parkland flanking either side will serve to reveal this to great effect. The Murray will be visible from the centre of Mildura at Deakin Avenue, serving as another conduit between each part of the City.

The Mildura Wharf Waterfront

The Mildura Wharf will provide a visual statement along the rivers edge in the broader context of the Murray River as the gateway to Mildura. The wharf itself will be an extension on the existing wharf, but made in the form of a large linking boardwalk that enables craft of all sizes to moor temporarily along its edge. It will provide the direct link of water traffic to the heart of the city.

The wharf will be seen with a backdrop of Citrus gardens either side of Deakin Plaza, a sincere statement of the locality's famous and significant contribution over time, and a legacy for which it is well known.

Chaffey Water Gardens

The use of recycled water within the Chaffey Water Gardens provides a 'sustainability' theme (currently missing in that area) to expand on for the landscaping of the area. It further assists the reduction of irrigated areas, whilst providing a visual connection under the Sturt Highway with the marina water basin.

Marina

The Marina proposal will transform a derelict landscape into a water-focused centre of activity. Setbacks from the river will ensure public foreshore access is maintained along its front, together with any significant vegetation.

6.2.3 VEHICLE AND TRAFFIC PARKING

(Refer to Figure SK303 – Proposed Traffic and Car Parking)

(a) Road Network

The Riverfront Masterplan would be strongly advantaged by the diversion of regional through-traffic, especially trucks, away from Seventh Avenue (eg. to Benetook Avenue). This would allow safer and more convenient pedestrian and local traffic linkages across Seventh Avenue between the CBD and the Riverfront.

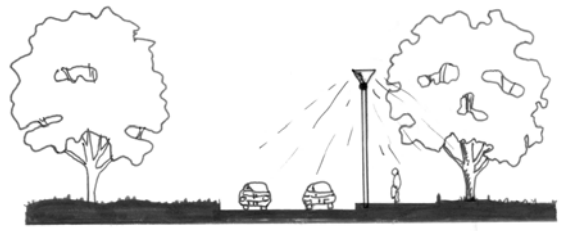
(b) Local Access and Traffic Management

The road network in the Riverfront Precinct will be modified as follows:

- Hugh King Drive will be reduced in width and connectivity to the east and west, so as to reduce its usage by vehicles at excessive speed, and making it more compatible with the overall style of development and use in the precinct; it will have the potential to be closed of for festivals and other special functions.
- Seventh Street will be re-connected to the north-west, allowing better integration of Rio Vista with the Riverfront parkland areas, and improved traffic options to access the residential areas west of the City centre;
- The diversion of the Seventh Street link around the rear of the Rio Vista block
- Access to Marina will be provided from Cureton Avenue
- The main wharf area will be designed so that there is safe and convenient access and parking for tourist buses.

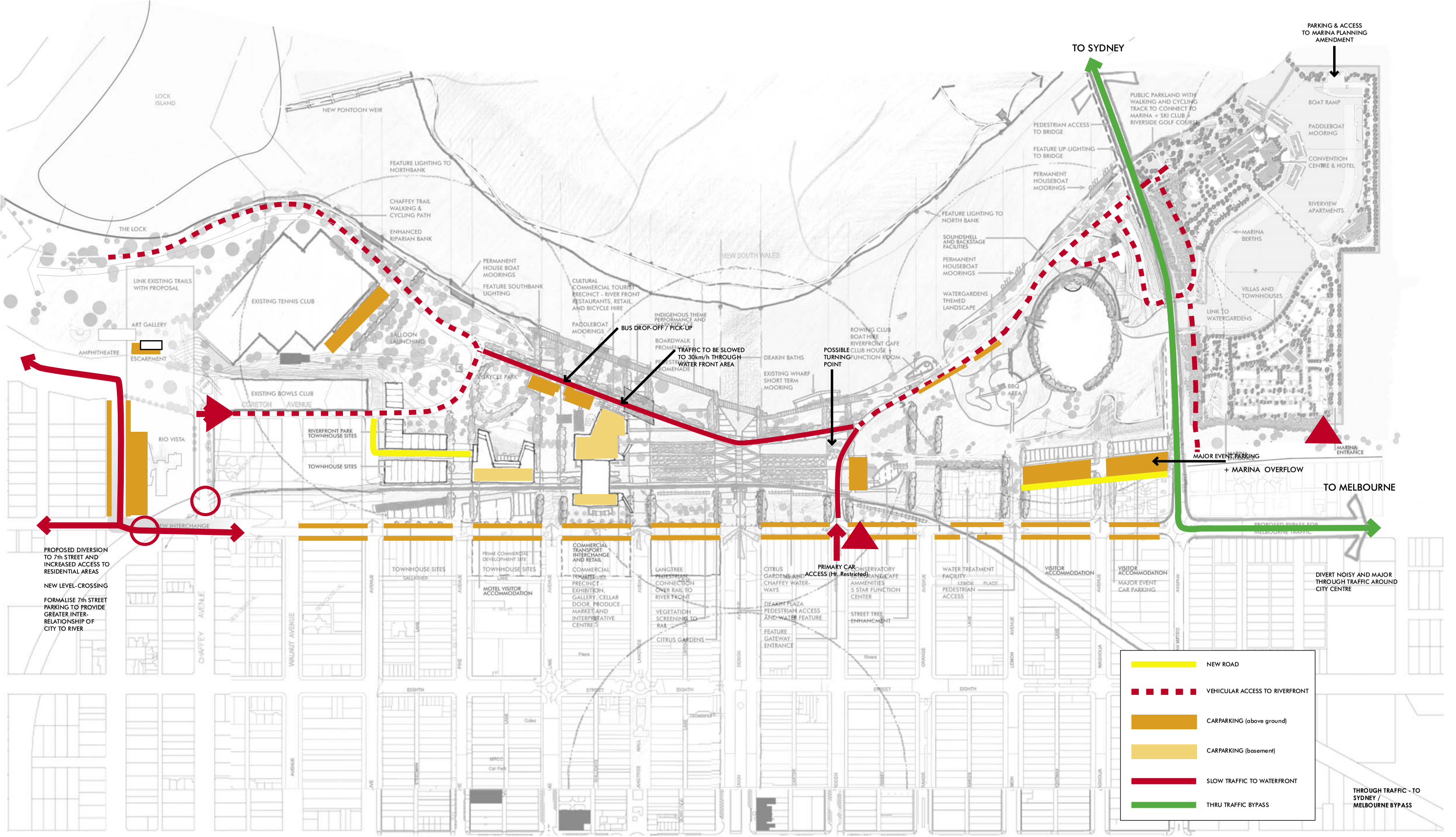


The existing gateway entrance to the waterfront is well concealed



Detail of Hugh King Drive – A pedestrian focussed precinct





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MILDURA RIVERFRONT MASTER PLAN

PROPOSED TRAFFIC AND CARPARKING

Scale: 1:2500 (A1) 1:5000 (A3)

Dwg No.: SK 303

N

When the detailed aspects of the Riverfront development are planned, a more detailed traffic assessment should be prepared.

(c) Car Parking

The proposed development in the Riverfront Precinct involves commercial, recreational and residential components as follows:

- In the central part of Mildura Wharf area will be function and tourist facilities with a total person capacity of about 3,000 persons.
- In the adjacent areas, close to Seventh Street, there will be townhouse and serviced apartment accommodation (about 88units in total).

Applying a standard provision rate of 0.3 parking spaces per person, the commercial and recreational components would generate parking demands of up to 900 spaces. Current parking areas provide over 300 spaces, and the extra 600 spaces could be accommodated as follows:-

- 300 extra permanent parking spaces in the following areas:
  - A new carpark beside Jaycee Park
  - the basement area under the proposed function centre
  - A new carpark beside the conservatory and function centres
  - Improved Seventh Street carparking (and access from there)
  - New carpark area beside the Rowing Club
- 300 extra temporary/overflow areas, to provide for seasonal peak demands (ie. as per the tennis court carparks).
- 180 additional car spaces located in the southern section of the Chaffey Water Gardens. These carparks are included in response to the requirement for overflow parking to the marina development, as outlined in the Amendment to the Planning scheme.

The overall Masterplan can therefore provide ample opportunities for public parking for visitors to the new commercial and recreational facilities.

The townhouses, apartments and holiday units will have their own private on-site parking.

The south-east corner of the Riverfront precinct will have an area providing about 180 parking spaces, available for use at large crowd events in the Chaffey Water Gardens, or as overflow parking from the Marina project further east.

The Marina is currently required to provide parking at the rate of 0.4 spaces per berth, which is in excess of the industry standard of 0.3 spaces per berth. This, in part, gives rise to the extra 180-space requirement, which may not be necessary.

(d) Bus Access and Parking

The viability of the riverfront commercial and recreational/tourist facilities will rely heavily on convenient and high-capacity access for tourist buses. New local traffic access and parking areas will be configured so that buses have highly accessible drop-off and pick-up areas for passengers, possibly with remote bus parking areas so that parked buses do not provide barriers to passenger pedestrian routes.

Bus facilities should be planned in detail in close consultation with bus operators as the design for these areas is developed when they proceed. The carpark adjacent the wharf may be designed to accommodate up to 5 buses for short periods of times, together with a bus drop off/pick up zone in the immediate vicinity.

Vicroads have advised that a detailed traffic impact assessment will be required as part of the development of the Masterplan. The assessment will need to address both vehicular and pedestrian movements, current and envisaged.

(e) Bicycles

Bicycle trails and shared paths (such as The Boardwalk and waterfront Promenade) should meet the recommendations of Austroads Part 14-Bicycles and Vicroads Cycle Notes 12. Areas for bicycle parking and storage should be provided throughout the Riverfront area, including as part of developments within the Precinct.

6.2.4 RIVER TRAFFIC AND MOORING

The Master Plan proposal has discussed with the riverboat operators, an option to relocate the paddle steamers to a new boardwalk facility closer to the Tourist Precinct. This is felt to be possible at all times except at times of high river flow. Therefore the proposal looks at establishing a continuous timber boardwalk structure from the Tourist Centre around the bend in the river to the position of the existing wharf.

Existing Wharf

The retention of the existing wharf is proposed as a solution for the paddle steamers operators desire to moor there at times of high river flow. At all other times it is preferred for them to be moored closer to the Langtree connection with the City. This is because

- The wharf is small and does not provide for the numbers of riverboats that could be moored close to Mildura.



- The wharf is located a considerable distance from the main core centre of the City and the consequential centre and heart of the proposed scheme.

The flexibility of the proposed structure therefore accommodates all possibilities.

New Waterfront boardwalk and Jetty

With the development of the waterfront and relationship to the main centre of the City along Deakin and Langtree Avenues, the greatest waterfront activity centre is proposed to be related close by to this well established and thriving part of Mildura. Accordingly, the idea of relocating the riverboats to this vibrant area is seen as bringing them into the heart of Mildura. (refer to diagram attached)

The river widths along this section of riverbank can accommodate the riverboats, although it has been noted that at times of high river flow, the existing wharf position is preferred.

The proposed new location has a number of other advantages:
- The structures capacity could be increased to allow for more riverboat access to the wharf. This in turn would compliment the riverfront activity and help to draw people from the city down to the river, particularly along Langtree Avenue.
- The structure could be included as part of the Chaffey Discovery Trail.

Ultimately the most significant advantage is that the riverboats are integrated and brought romantically close to the heart of the City, their whistles blowing loudly up Langtree Avenue, and their position so close that you can smell and feel them. This will help to attract people from the main shopping precinct of Langtree Avenue to the river, fulfilling an important connection between the two.

The new jetty will manage all craft, large and small, in designated areas. A zone will be allocated for short term visits by houseboats and the like (maximum 4 hours). Any longer term stay would require mooring in the marina in dedicated berths. (Refer also to Section 6.1.6 – Marina Precinct, for details of mooring in the Marina)

6.2.5 PEDESTRIAN AND BICYCLE ACCESS

(Refer Figure SK304 – The Chaffey Trail)

Pedestrian and cycle paths are intended to be enhanced through the Master Plan proposal. The paths provide the mechanism for connecting not only Mildura to the riverfront, but also in defining an integrated link between many significant areas of Mildura. It is intended that the path should extend out of this study area and incorporate:
- Apex Park
- Old Mildura Homestead
- Rio Vista Historic House
- Wetlands
- Ski Club
- Riverside Golf Course
- Links into NSW trails

The established pedestrian connections along the avenue axes to the waterfront will provide a stimulus to pedestrian activity in the Riverfront Park. This will be further encouraged with the downgrade of Hugh King Drive, replaced with a defined pedestrian precinct as well as a riverfront boardwalk structure. Car parking located at the ends of this precinct will encourage cars to be parked and the precinct to be covered on foot.

The Chaffey Trail

The Chaffey Trail is currently not well known to visitors. The Riverfront Master Plan proposes to revitalize and clearly define it within this region as a main discovery trail. With several themes, these include:

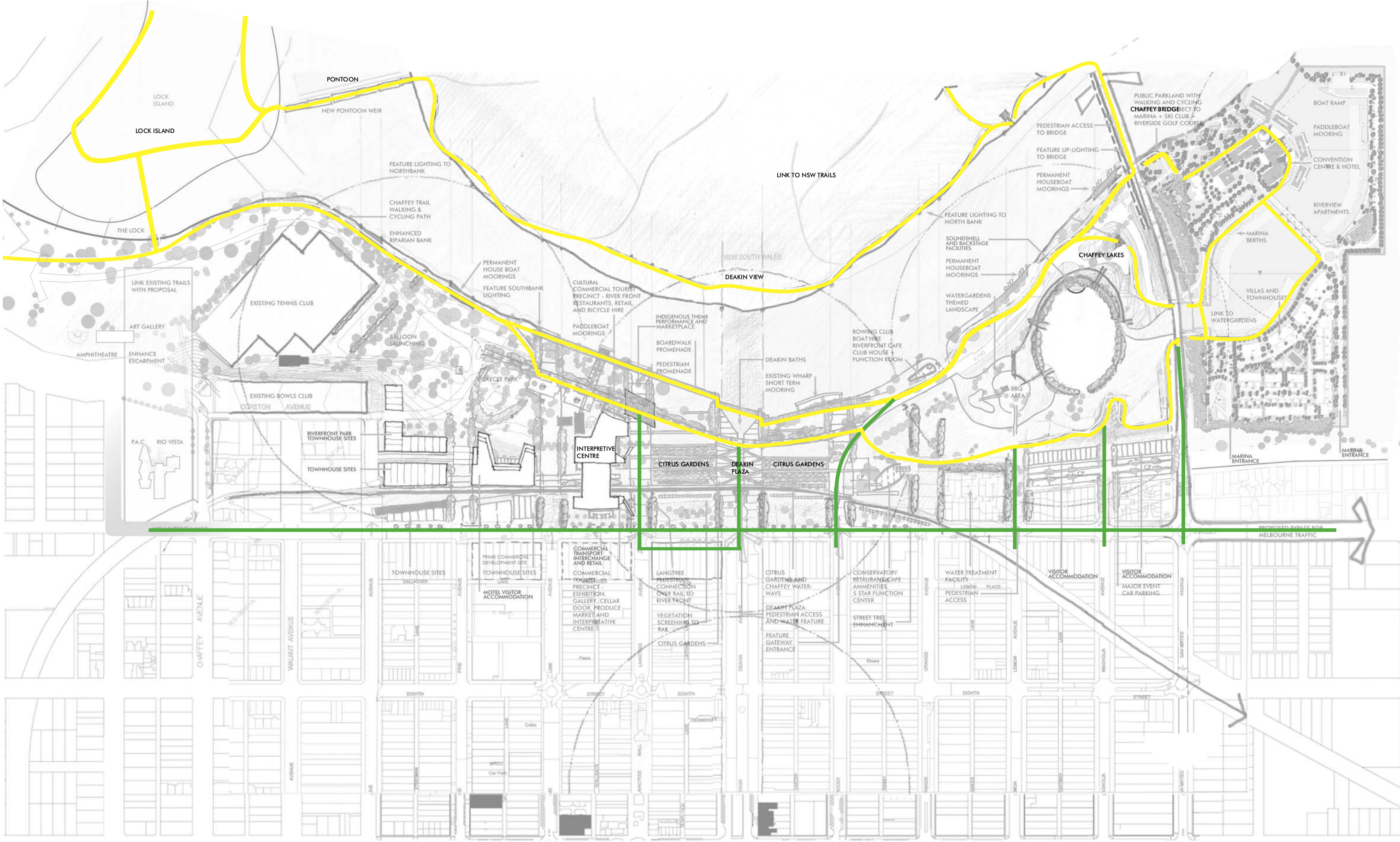
- Environmental – Wetlands
- Natural Flora and Fauna
- Arts
- History
- Produce – Citrus and Vines
- Nautical – The Marina
- Scientific – The Lock and Weir
- Landscape – Indigenous Species

It will travel alongside the river and can take in major attractions along the way including the Interpretative Centre, Citrus Gardens, Deakin Plaza, the existing Deakin Lookout, the Weir and Lock, Rio Vista and any other significant point of interest along the way. Tourist maps at the Information Centre could clearly define the path and points of interest for curious visitors.

Bicycle Paths

The Riverfront Park itself is a very large area, and coupled with the opportunities outside of the study area, the opportunity for increased bicycle usage seems strong. Defined bicycle paths should be made alongside footpaths and/or roads and provide another experience of Mildura, whilst also creating another commercial opportunity.





WALKING & CYCLING

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MILDURA RIVERFRONT MASTER PLAN

WALKING AND CYCLING - THE CHAFFEY TRAIL

Scale: 1:2500 (A1) 1:5000 (A3)

Dwg No.: SK 304

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The potential for mountain bike trails in the more natural areas is also proposed. As such, car usage whilst still possible may be reduced, as another viable sustainable alternative to explore the area is provided.

6.2.6 LANDSCAPE CHARACTER

(Refer SK305 – Landscape Character)

Mildura Wharf Waterfront Precinct

The newly created Deakin Plaza will stretch across the remaining railway line to a width of 60 meters. This plaza will encompass 360 deg views extending from the Marina site, the New South Wales river edge, the proposed function centre, and to the frontage of Seventh Street.

The paving material will be high quality concrete or stone pavers to set a palette of consistency and cohesiveness to the riverfront design. Paving insets could used to provide visual interest on the plaza providing a hierarchy of paving styles.

Advanced Palms (Washingtonia spp.) will frame the view to the river along the plaza reinforcing the existing Seventh Street character. To each side of the plaza, trellis will run along the face of the rail line to provide a visual buffer to this remaining infrastructure. This trellis will be planted with local grape varieties providing a subtle screen.

To negotiate the embankment the pedestrian will be brought down a set of easily traversable ramps incorporating the Mildura Citrus Gardens and interpretative water channels. These channels, using recycled water, are intended as a heritage reference to the Chaffey Irrigation Scheme upon which the Mildura Produce Region was established. The ramped walkways will contain level paved areas for the establishment of temporary traders, such as coffee carts or sandwich vendors, art and/or produce displays, and places to rest. Trellised grape vines will frame the walkways with the level paved areas at the extents surrounded by Citrus species listed opposite. These plants will need to be planted in prepared beds integrated with the walkways.

The Riverfront Board walk will provide structured pedestrian access to the river. The material of this boardwalk is to be reclaimed timber with a contemporary design character. It will provide a link to the Chaffey Discovery Trail in granitic sand encouraging activity along its length in the form of walking, cycling, market day stalls, buskers, band performances and the like.

A pedestrian connection from Langtree Avenue to the 'shared zone' Hugh King Drive is proposed to provide a plaza frontage to the function centre within the precinct. Outdoor dining, exhibitions and produce markets will spill out onto this plaza providing an activity zone for visitors.

Games and Entertainment Precinct

Home to a number of well established sporting clubs and community groups, the landscape character in the activity precinct will be retained and enhanced. Significant stands of trees occupy the precinct providing much needed shade. The riparian vegetation along the riverbank (reeds and indigenous grasses) will be enhanced to provide bank stabilisation and improved habitat for wildlife and fish species.

The Chaffey Trail will be demarcated with directional and interpretative signage. The lower and middle canopy (shrubs, grasses and groundcover) of the trail landscape will be enhanced and revegetated.

The north-western active edge of the function centre will have a high quality paved terrace over a split-level to define seating areas for visitors. Ramps and stairs providing access will negotiate the levels. Soft landscaping will be provided in these areas. A mix of specimen indigenous and native trees is to be planted, such as Eucalypts and Angophora costata.

The Art and Lock Precinct

The Lock Precinct should build on the existing environmental, cultural and social assets to further realise the potential of this area.

The walking trails should be link to the Chaffey Discovery Trail to encourage increased pedestrian and cycle use. The trail should be clearly marked with a common suite of signage (refer 6.3.7). The landscape through which the trail passes should be enhanced and vegetated with indigenous shrubs, grasses and groundcovers to improve visual amenity and wildlife habitat.

Revegetation initiatives already underway on Lock Island should be continued and ongoing planting and maintenance regimes be conducted to enhance the natural bush amenity of the island. In the past this island was a wildlife sanctuary for koalas but due to its size was not sustainable. Eucalyptus d should still be progressively included in revegetation operations in order to maintain the natural Australian theme.

The diversion of westbound Seventh Street vehicle traffic along the riverfront to Cherry Avenue will extend the Rio Vista gardens to the existing amphitheatre. This would create the opportunity to physically connect the arts facilities in this precinct. The gardens will retain the existing exotic landscape character. The escarpment down to the amphitheatre will be revegetated with indigenous species enhancing the series of timber walkway structures down to the open-air performance facility. Permanent public art or travelling sculptures could be placed along the trail in this area.

Deakin Plaza

Phoenix canariensis should not be further encouraged







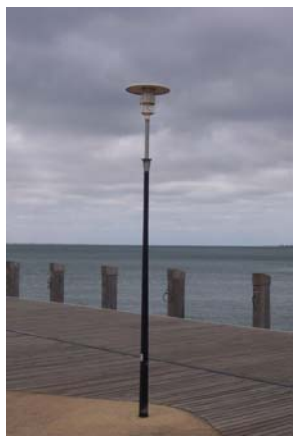
Mildura Citrus Gardens

Ramped walkways

Citrus sinensis *(Navel Orange)*
Citrus reticulata 'satsuma' *(Mandarin)*
Citrus aurantiifolia *(Lime)*
Citrus X limonia *(Rangpur Lime)*
Grape vine varieties



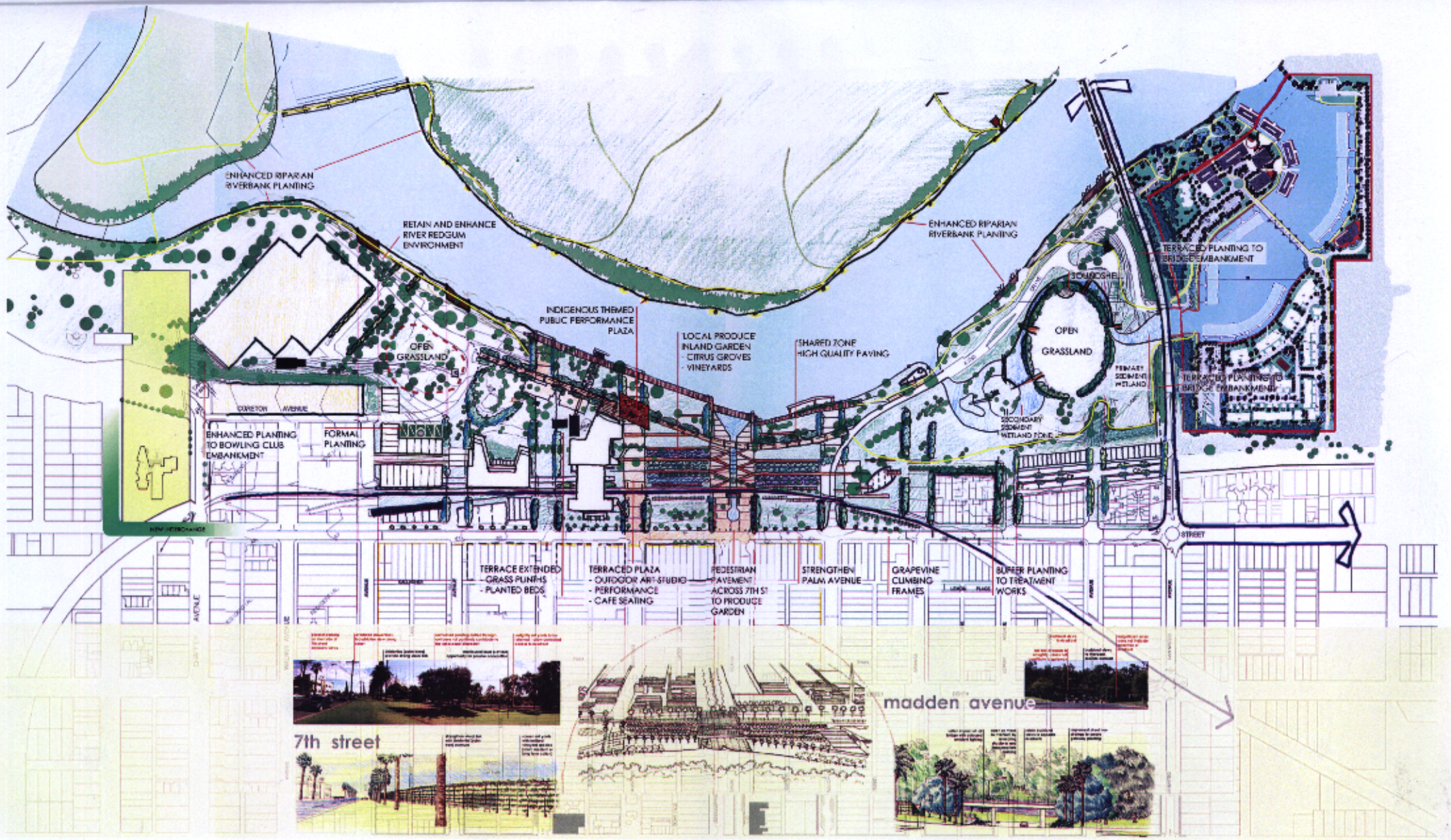
Riverfront Boardwalk



Indigenous Species
(Subject to further review by MRCC)

Eucalyptus camaldulensis – River Red Gum
Eucalyptus largiflorens – Black Box
Eucalyptus leucoxylon – Yellow Gum
Allocasuarina luehmannii
Acacia stenophylla
Acacia pendula – Weeping Myall
Acacia verticillata – Prickly Moses
Callistemon sieberi – River Bottlebrush
Eremophila maculata – Emu Bush
Eleocharis acuta – Common Spike Sedge
Lomandra filiformis – Wattle Mat Rush
Lomandra longifolia – Spiny Headed Mat Rush
Stipa scabra – Spear Grass





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LANDSCAPE MASTER PLAN

Scale: 1:2500 (A1) 1:5000 (A3)
Dwg No.: SK 305

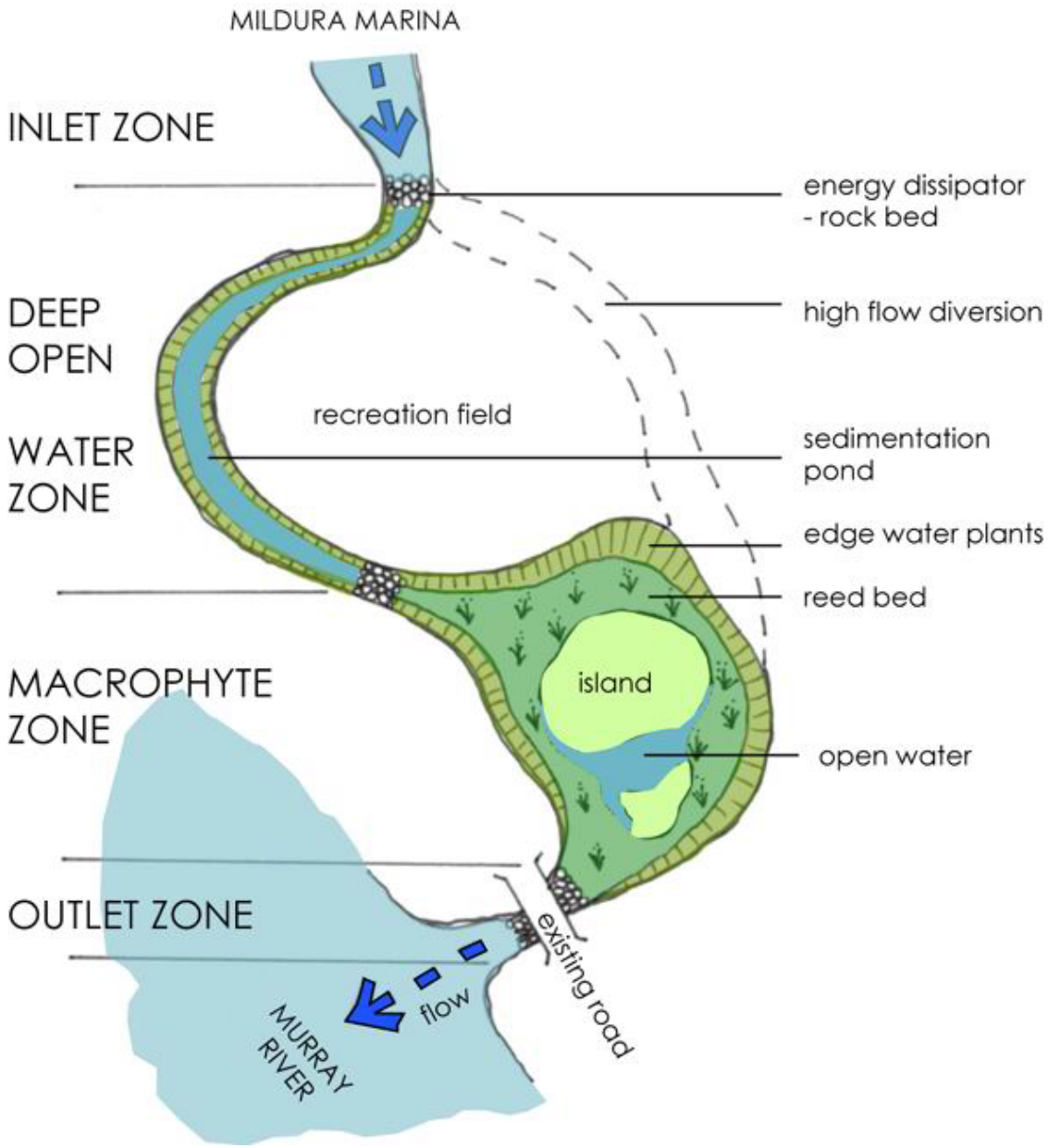
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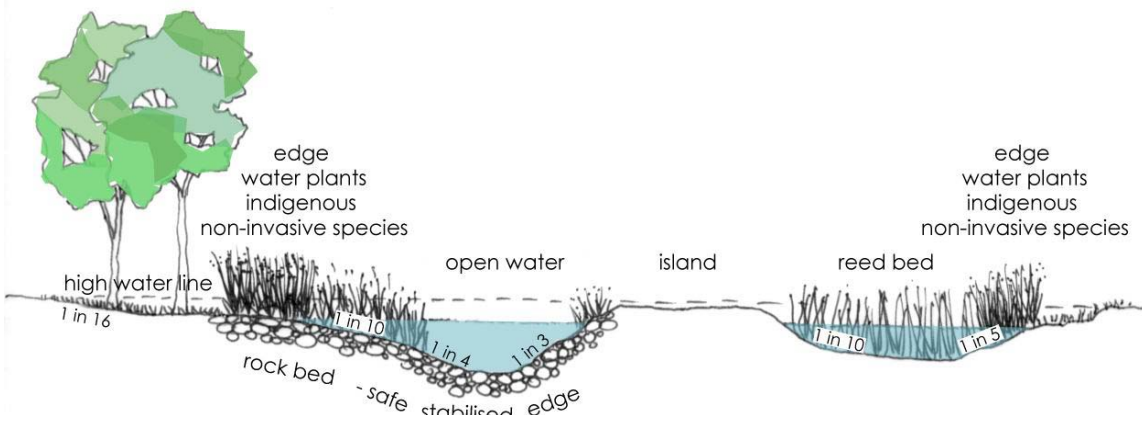
The Chaffey Water Gardens Precinct

The existing Ornamental Lakes precinct will undergo some earthworks and land sculpting to facilitate the existing uses of the area and visually connect the marina with the riverfront. The concrete Ornamental Lakes and associated fencing will be removed to create an open billabong that will capture any surface water runoff and act as a retarding basin for minor inundation events.

A thin body of water will border the riverside of the grassed open space, but be detailed to be shallow with gently graded edges; rock filled and planted with low ephemeral (wet and dry) wetland species.

The diagrams below represent concepts for water edge treatments that will provide safe and maintainable conditions





The resolution of the design and safety standards should be consistent with recognised contemporary standards such as the *Constructed Wetlands Manual* published by Department of Land and Water Conservation, NSW.

Additional screen planting around the perimeter of the Water Treatment Facility will provide a visual buffer to this infrastructure, as will tree and shrub plantings on the western embankment of the George Chaffey bridge. This 'softening' of the bridge embankment will provide a landscape edge to the precinct.



Landscape detail of parkland water

Wetland Species (subject to further review with MRCC)
Also to Council Guidelines

Bolboschoenus medianus
Phragmites australis
Typha orientalis
Carex appressa
Carex tereticaulis
Eleocharis acuta
Isolepsis nodosa
Juncus caespiticius
Lomandra filiformis – Wattle Mat Rush
Lomandra longifolia – Spiny Headed Mat Rush
Philydrum lanuginosum

Screen Planting (subject to further review by MRCC)

Eucalyptus camaldulensis – River Red Gum
Eucalyptus largiflorens – Black Box
Eucalyptus leucoxylon – Yellow Gum
Allocasuarina luehmannii
Angophora costata – Sydney Apple Gum
Banksia marginata – Silver Banksia
Callistemon sieberi – River Bottlebrush
Dodonaea viscosa – Wedge-leaf Hop Bush
Grevillea rosmarinifolia – Rosemary Grevillea

LEFT: Conceptual Plan that illustrates the technical landscape concepts to ensure a safe water theme is integrated with the landscaping of he area

LEFT: Conceptual Cross Section showing landscape treatment of the waters edge to achieve a



The Marina Precinct

The proposed marina development has been subject to a number of investigations and recommendations by consultants with various expertise. The recommendations that apply to landscape provision include:

- Continuous pedestrian access along the riverfront
- The Three Chain Reserve is to be retained and planted with indigenous species
- Ensure that future development…is landscaped to prevent visual dominance.

A pedestrian and cycling path will continue along the retained Three-Chain Reserve, which will be revegetated with indigenous species when the earthworks are complete. It will be integrated with the Chaffey Discovery Trail extending to the Etiwanda Wetlands to the east.

All public open space areas are to be landscaped to provide visual amenity, and defined intimate spaces within the precinct. Designated car parks are to incorporate large shade trees. All roadways are to be planted with trees at regular spacings on both sides to exhibit a boulevard style of gateway entrance.

Apartments are to be screened by vegetation to provide privacy to residents and break up the visual bulk of proposed buildings. The Cureton Ave boundary and George Chaffey Bridge embankment is to be heavily planted to prevent headlight glare entering the apartment complex.

6.2.7 LAND TENURE AND DEVELOPMENT CONTROLS

(Refer SK307 – Proposed Land Tenure Controls)

Implementation of the Master Plan including extension of the park into the area currently occupied by the rail freight area will require several changes to land tenure arrangements. These are shown on Figure SK307 and include:

Area 1

A small VicTrack freehold title leased to Freight Australia land that is zoned Residential 1. If surplus to rail needs could be used for residential development, as it is not essential to park use.

Area 2

Ownership status of this area is not known, but is possibly a road reserve. Title to this area could be transferred to or leased to Mildura Rural City Council as part of the Park.

Area 3

The Master Plan shows this area, which is comprised of freehold titles owned by VicTrack and leased to Freight Australia and Mildura Rural City Council as having potential for residential development that could form an edge to the park. To achieve this the land will need to be packaged as a single title, free of the current lease arrangements.

Access would be available from Walnut Street.

Area 4

This site is freehold title owned by VicTrack and has potential for development.

Area 5

The Master Plan shows this area, which is freehold title owned by VicTrack and leased to Freight Australia as having potential for development as part of the Park. It is pivotal to the Mildura Wharf Waterfront precinct containing uses such as exhibition facilities, gallery, tourist information and interpretation, restaurants, bicycle hire and craft markets.

To achieve this the land will need to be sold as freehold titles to investors or added to the area that is currently leased by VicTrack to Mildura Rural City Council.

Area 6

The Master Plan shows a link across this area from Seventh Street, opposite Langtree Avenue to the Park at the eastern end of the station.

To achieve this rights of access across the land will need to be arranged with Freight Australia.

Area 7

The Master Plan shows a link across this area from the end of Deakin Avenue across Seventh Street.

To achieve this rights of access across the land or air rights will need to be arranged with Freight Australia. If the access is to be via an at grade crossing rather than the plaza over the track, approval from the Minister will be required.



OWNERS

- Mildura Rural City Council (Freehold Title)
- Victrack (Freehold Title) - leased by Freight Aust
- Victrack (Freehold Title) - leased by private agreement
- Victrack (Freehold Title) - unleased
- Victrack (Freehold Title) - access rights to Freight Aust & V-Line
- Crown Land - leased by Mildura Rural City Council
- Crown Land - SRWA/Goulburn Murray Water
- Crown Land - Dept of Sustainability & Environment
- Crown Land - Lower Murray Water
- Unknown or Road Reserve
- 1 in 100 FLOOD HEIGHT RL 39.26 (proposed re-grade)
- 14 Refer to changes in land tenure arrangements section 6.2.7

Three Chain Reserve

Leased to Mildura Rural City Council

Leased to Mildura Rural City Council

Leased to Mildura Rural City Council

Sub Leased by Mildura Lawn Tennis Club

Road Reserve occupied by Mildura Bowls Club

MURRAY RIVER

Three Chain Reserve

Leased to Mildura Rural City Council

Leased to Mildura Rural City Council

Leased to Mildura Rural City Council

WATER SUPPLY RESERVE

Three Chain Reserve

BASKETBALL STADIUM

1 2 3 4 5 6 7 8 9 10 11 12

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MILDURA RIVERFRONT MASTER PLAN

SK 307 - PROPOSED LAND TENURE ARRANGEMENTS

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SCALE 1:4000 AT A1
SCALE 1:8000 AT A3

Area 8

This area is a road reserve, which is no longer needed. It could be included as part of the 'Three Chain Reserve.

Area 9

The Master Plan shows this area as a conservatory, restaurant/cafe, and 5 star function centre. The status of the area as a road, or title or leasehold details of the area are unknown. The balance of the area is leased to Lower Murray Water but is not used as part of the water treatment facility.

To achieve the proposed use title or lease of the part of the land not occupied by Lower Murray Water will need to be sold/leased to Council.

Area 10

The Master Plan shows the area as the new site for the Mildura Rowing Club.

To achieve the existing lease arrangements will need to be transferred to this location. This will require the approval of the Minister under Section 17D of the Crown Land (Reserves) Act 1978.

Area 11

The Master Plan shows this area, which is part of a freehold title owned by the Mildura Rural City Council, developed for residential accommodation that will form an edge to the park.

To achieve this it will be necessary to create a separate title to this area of land so that it can be sold.

Area 12

Some adjustment to the location of the 1-% flood line will be required. This will require earthworks that include cut to balance any fill that is involved the residential development shown for this area.

Land Manager

Given the complexity of approvals and scope of works that will be involved in achieving the Master Plan Vision, it is suggested that a single body should have the management role for the whole of the Park area, excluding the Marina. This body would be responsible for undertaking works liasing with all relevant groups and authorities, seeing that all relevant approvals and permits are sought and obtained, and administering leases.

In the interests of simplicity it is suggested that the Mildura Riverfront Park Management Board should be constituted as a separate body.

Amendment C11 requires the establishment of a 'Mildura Marina Advisory Committee. It is recommended that a similar Mildura Riverfront Park Advisory Committee be established to cover the whole of the Park area to the west of the Chaffey Bridge. This Committee would provide advice to the Mildura Waterfront Park Management Board and to Council on all development and works proposals.

Refer Figure SK307 – Proposed Land Tenure Controls

Mildura Planning Scheme

Several amendments will be required to facilitate implementation and to control development. These include:

MSS
Inclusion of additional material that highlights the intended development and uses for the park.

Local Policy
Modification of Clause 22.03.01 to cover the intent of the Master Plan. The policy should be prepared in accordance with the requirements of Department of Sustainability and Environment Practice Note, 'Writing Local Planning Policy'.

It is suggested that a specific Mildura Riverfront Plan Local Policy be introduced, referring to the Mildura Riverfront Masterplan, to give its intent status when approvals for development are considered.

Master Plan
Identification of the Master Plan as a "Reference Document" within the Mildura Riverfront Plan Local Policy.

Zoning Changes

(Areas refer to those noted on Figure SK307 and can be seen in colour on map below)

- Area 3 – rezone to Residential 1 Zone.
- Area 4 – Rezone to Business 2 Zone.
- Area 5 – Rezone in part to Public Use Zone 6 to cover the development of the Mildura Wharf Waterfront and in part to Public Park and Recreation Zone.



- Rezone strip along frontage to Seventh Street to Public Park and Recreation Zone to reflect its parkland use.
- Area 9 – rezone to Public Use Zone 6 to cover the development of the function centre.
- Area 10 – Relocate Public Use Zone 1 to accommodate the relocation of the water pump if required.
- Area 11 – Rezone to Residential 1.
- Area between Seventh Street and Area 11 – rezone to Business 2 Zone as an extension of the existing Business 2 zone.



Overlays

Consideration should be given to including schedules in the overlays to complement the zone provisions and to support the intent of the Mildura Riverfront Masterplan. The introduction of a Design Development Overlay (DDO) to PUZ6 areas will ensure development is appropriate for the setting. An Environmental Audit Overlay may be required on parts of the Public Use Zone land that are identified for rezoning to Residential 1.

6.2.8 Environmental Study

(Refer SK308 – Environmental Study)

Each of the precincts of the waterfront Park has been reviewed as part of an encompassing environmental study highlighting the following for each of the precincts:

The Wharf Waterfront

The redevelopment of this precinct provides the opportunity to make a highly visible, prominent 'statement' for sustainability. Water can be one of the key elements with the collection and use of stormwater, bio-filtration of run-off water, and efficient use of water for buildings and irrigation.

New construction also provides the opportunities to highlight energy efficiency and sustainable materials use, link to positive social outcomes, and also interpretive and environmental education initiatives that draw on Mildura's history and the issues that it now faces.

The Games and Entertainment Precinct

The Games and Entertainment Precinct appears to have the highest proportion of irrigated grass area. It therefore presents good opportunities to investigate reductions of these areas, where possible, in favour of tree/shrub planting, and also other measures to improve water-efficiency. It also provides the opportunity to establish a buffer of riparian vegetation that links into the Lock Precinct.

The Art and Lock Precinct

It is considered that the natural qualities that exist in the precinct provide a good basis for further environmental restoration and enhancement work. This could focus on riverbanks, middle and under-storey vegetation, and aim to provide habitat for indigenous fauna. The opportunity that arises from such action is to interpret and educate visitors about Murray River ecology, showing how individual species rely on each other.

It will be important to restrict access away from sensitive areas, including riverbanks, to allow habitat with high environmental quality to establish.

The Chaffey Water Gardens

The precinct offers a range of opportunities, partly because the precinct is so open and largely free from buildings and structures. The opportunities include reducing the extent of



grass, demonstrating principles of water sensitive urban design, capturing and using stormwater, and creating a functional wetland that results in positive environmental outcomes. The creation of such a wetland will require detailed consideration of matters such as the water source (whether this is derived from town stormwater, on site drainage etc.), on-going water quality, prevention of excessive algal growth, salinity implications, public safety, risk and avoidance of negative impacts on the Murray River.

Of course, the precinct also provides a space that can continue to be used by the community for events, adding to the social benefits of the study area as a whole.

The Marina

The Marina Precinct provides the opportunity to apply sustainable development guidelines to specific built form components within the development (as will be applied to all other development within the study area). This will ensure that the sustainability performance of built form elements within the marina are enhanced.



FISH LADDERS IN ANY REDEVELOPMENT.

NATURAL AREAS TO BE ENHANCED, TO OFFER EDUCATIONAL / INTERPRETIVE FACILITIES FOR:

- MURRAY RIVER HABITAT
- FLORA
- FAUNA (INC. BIRDS, FISH, MAMMAL SPECIES)
- THE LOCK AND WEIR.

CESSATION OF BOAT MOORING ALONG EMBANKMENTS.

ENHANCED / RESTORED RIPARIAN BUFFER PROVIDES FILTRATION FOR STORMWATER RUN-OFF, BANK STABILISATION + HABITAT.

CAR PARKING / PAVED AREA TO INCORPORATE PERVIOS SURFACE TO MINIMISE RUNOFF.

CENTRAL INTERPRETIVE FACILITY COULD HIGHLIGHT:

- PRE-EUROPEAN / MURRAY'S NATURAL ECOSYSTEM
- EXPLORER / SETTLEMENT ERA
- AGRICULTURE / IRRIGATION ERA
- THE FUTURE

CAN COMMUNICATE ISSUES FACED BY THE REGION, DESIRED FUTURE SCENARIOS, ACTIONS REQUIRED.

STORMWATER DRAINS DIRECTED TO WATER STORAGE TANKS FOR IRRIGATION.

EMBANKMENT STABILISATION AND EROSION CONTROL.

CESSATION OF BOAT MOORING ALONG EMBANKMENTS

POTENTIAL TO DRAW TREATED STORMWATER FOR IRRIGATION

WETLANDS SYSTEM (SUBJECT TO INVESTIGATION) DESIGNED FOR WATER TREATMENT CAPABILITY

STORMWATER FROM MARINA DEVELOPMENT (SUBJECT TO FURTHER INVESTIGATION)

LOCAL STORMWATER FROM NEW DEVELOPMENTS

ALL NEW DEVELOPMENT TO ACCORD WITH ESD GUIDELINES

ALL NEW DEVELOPMENT TO ACCORD TO ESD GUIDELINES COVERING ELEMENTS DEALING WITH:

- ENERGY EFFICIENCY
- WATER EFFICIENCY
- MATERIALS SELECTION
- ACCESS AND ADAPTABILITY
- NATURAL ENVIRONMENT
- INDOOR ENVIRONMENTAL QUALITY

WORK WITH LOCAL ARTS COMMUNITY TO DEVELOP PUBLIC ART THEMES AND CONCEPTS

WATER FEATURE SUPPLIED WITH COLLECTED RAINWATER AND DRIVEN BY SOLAR AND/OR MICRO TURBINE POWERED PUMP

WATER - EFFICIENT IRRIGATION

PUBLIC TRANSPORT INTERCHANGE TO ENCOURAGE USE OF BUSES, (TRAIN), TAXIS

AT SOURCE IMPROVEMENT OF STORMWATER QUALITY, COLLECTION AND REUSE OF STORM WATER ACROSS CBD

DEVELOPMENT TO INCORPORATE GENERALLY:

- REDUCTION IN IRRIGATED GRASS AREAS
- OPPORTUNITIES FOR SOLAR LIGHTING
- PEDESTRIAN - FRIENDLY ENVIRONMENTS
- BICYCLE FACILITIES
- ENVIRONMENTAL MANAGEMANT PLANS FOR NEW AND EXISTING FACILITIES
- COMPOSTING AND RECYCLING FACILITIES FOR ALL USERS AND VISITORS
- COMMUNITY INVOLVEMENT, OWNERSHIP
- CONTROLLED ACCESS TO THE MURRAY RIVER
- MAXIMISED UTILISATION OF SOLAR ENERGY
- MINIMISED ENVIRONMENTAL IMPACTS OF MATERIALS

COLOUR CODE

- EMBANKMENT
- PARKING AREAS

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MILDURA RIVERFRONT MASTER PLAN

ENVIRONMENTAL STUDY

Scale: 1:2500 (A1) 1:5000 (A3)

Dwg No.: SK 306

N

6.3 URBAN DESIGN GUIDELINES

The purpose of these Urban Design Guidelines is to ensure that the ongoing development of the riverfront achieves the master plan vision outlined in Section 6.0 *The Vision* and Section 6.1 *The Precincts*. These guidelines seek to protect and enhance the social, cultural, ecological and economic attributes of the Mildura Riverfront as they are and will continue to be the main attractions of the area.

The principal objectives for the Mildura Riverfront are:

- To ensure the progressive improvement of the riverfront as an integrated whole that reads visually and physically as one design.
- To exhibit an identity as a city by the river, ensuring consistency of scale, built form, material selection, landscape elements, and access requirements.
- To create opportunities for safe and varied habitation of open space areas that accommodate the needs of residents and visitors for both passive and active recreation.

The following Urban Design Guidelines address the design objectives, desired character, and general guidelines that must be achieved in order to satisfy the principle objectives listed above. They are not intended to be prescriptive, but instead offer a performance based system of control.

The advantage of these guidelines is that they provide some certainty to the advisory committee on what improvements are acceptable while allowing for diversity and flexibility in their implementation.

6.3.1 BUILDING FORM

TYPE 1: ACTIVE FRONTAGE

objectives
- Promote Retail / Restaurant, Café/ Entertainment frontage to vehicle and pedestrian access ways
- Ensure provision for shelter from the weather – rain, sun and wind protection for pedestrians

character
- Plaza type entries with pedestrian amenity – seating, bins, lighting, decorative pavements
- Continuity of built edges & consistency of scale
- Development provides a unified streetscape that reflects any consistent urban elements of the town centre

guidelines
- Blank walls to public spaces and arcades / plazas will not be permitted
- Ground level retail must provide at least 80% clear glazed windows to street frontage
- Pedestrian entries into buildings must be clearly defined and directly face the street
- Upper level accommodation should provide active uses, such as balconies and/or living areas overlooking public areas for increased surveillance
- Balconies must not project into public space
- Awnings and verandahs are encouraged to provide weather protection and reduce visual bulk of the building
- Services such as ventilation systems, do not visually intrude onto the public realm
- Building design to be energy efficient and reflect the climate of Mildura
- Will conform with Rescode requirements

TYPE 2: VILLAS AND APARTMENTS greater than 3 storeys

objectives
- Limit direct views into private open space areas and habitable rooms of adjacent dwellings
- Positively contribute to the urban character of the precinct
- All buildings should be part of a coherent urban fabric with additional height accommodated on corners

character
- Continuity of built edges & consistency of scale
- Development provides a unified streetscape that reflects any consistent urban elements of the town centre
- Building bulk is to be distributed to minimise any adverse impact upon neighbouring properties in terms of solar access and privacy
- Corner buildings provide a sense of address and overlook two street frontages

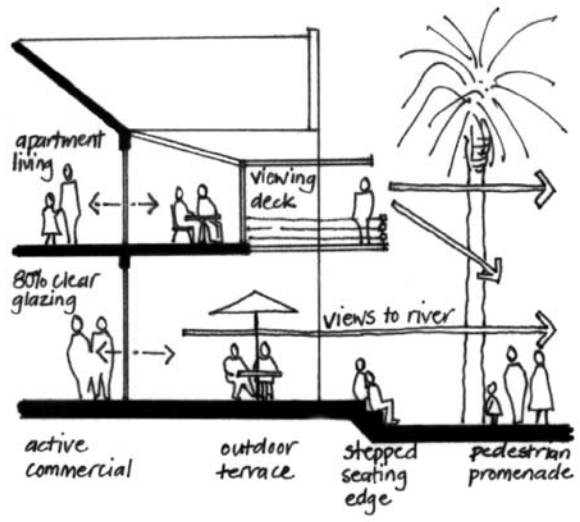
guidelines
- High-rise developments are to be designed to minimise the detrimental effects of overshadowing, overlooking and wind tunnelling
- Vehicle parking, including garages do not dominate building facades
- Basement car parking is to be provided within the building footprint and is to project no more than 1200mm above ground level
- Upper levels should provide active uses, such as balconies and/or living areas overlooking public areas for increased surveillance
- Building setbacks are to ensure that there is adequate separation between development and the public domain / site boundaries to facilitate mature landscaping
- Development preserves the skyline and views to natural features such as the river
- Services such as ventilation systems, do not visually intrude onto the public realm
- Building design to be energy efficient and reflect the climate of Mildura
- Will conform with Rescode requirements

ACTIVE FRONTAGE

location



guideline

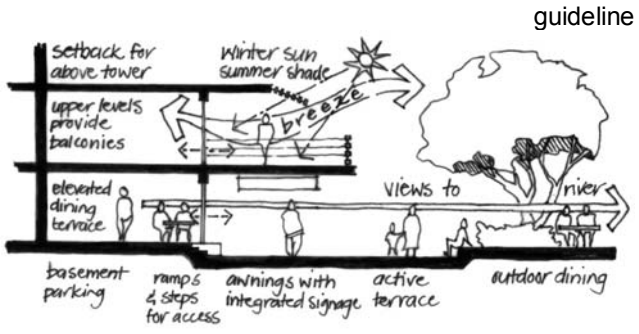


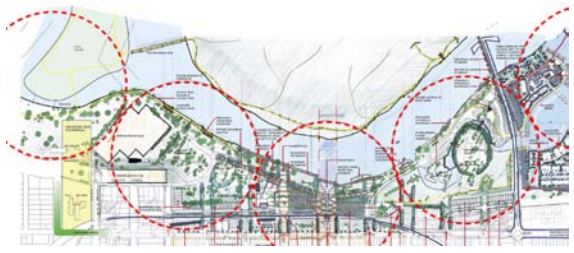
VILLAS AND APARTMENTS less than 3 storeys

location



guideline





TYPE 3: VILLAS AND APARTMENTS LESS THAN 3storeys

objectives
- Limit direct views into private open space areas and habitable rooms of adjacent dwellings
- Positively contribute to the urban character of the precinct
- All buildings should be part of a coherent residential scale fabric.

character
- Continuity of built edges & consistency of scale
- Development provides a unified streetscape that provides high quality contemporary architecture that responds to the unique landscape quality of the area.
- Building bulk is to be distributed to minimise any adverse impact upon neighbouring properties in terms of solar access and privacy
- Corner buildings provide a sense of address and overlook two street frontages

guidelines
- Vehicle parking, including garages do not dominate building facades
- Upper levels should provide active uses, such as balconies and/or living areas overlooking public areas for increased surveillance
- Development preserves the skyline and views to natural features such as the river (maximum height 10m)
- Rooflines are to have varied angles to ensure that blank roofs do not visually dominate
- Services such as ventilation systems, do not visually intrude onto the public realm
- Building setbacks are to ensure that there is adequate separation between development and the public domain / site boundaries to facilitate mature landscaping
- Building design to be energy efficient and reflect the climate of Mildura
- Will conform with Rescode requirements

6.3.2 STREETSCAPE

TYPE 1: STREETS PERPENDICULAR TO RIVER

objectives
- to enhance views and vistas to the Mildura Riverfront and its facilities
- establish a theme of 'Mildura by the riverside' to provide a catalyst for positive redevelopment on the riverfront
- improve pedestrian permeability and safety: traffic calm, increased lighting, provide shade

character
- retain and enhance views towards the river and the skyline
- visually extend streets to the water
- a quality riverside streetscape character should be created using natural materials where practical
- build upon the existing streetscape strategy for streets that intersect with Seventh Street with continuous and uniform street tree planting and furniture elements
- enhance the pedestrian environment by the inclusion of pedestrian scale light fixtures, street furniture and decorative paving
- Provide a clear sense of arrival to the riverfront through distinctive use of landscaping and special entry features to the riverfront

guidelines
- ensure views to river are unobstructed by not introducing street tree planting in the centre median (excluding Deakin Avenue that has a very wide road carriageway to facilitate visual connection to the river whilst maintaining median planting)
- provide street tree avenue planting either side of the road carriageway for shaded parking and framing views towards the river
- provide corner paving outstands with pedestrian seating and complementary street furniture; ie bins, safety bollards (if required), directional signage, lighting poles and street trees

TYPE 2: STREETS PARALLEL TO RIVER

objectives
- to enhance and complete the river corridor link between Etiwanda Wetlands, Mildura Marina, the Mildura Riverfront, Apex Park, the northern bank of NSW and the Mildura CBD
- establish a theme of 'Mildura by the riverside' to provide a catalyst for positive redevelopment on the riverfront
- improve pedestrian permeability and safety: traffic calm, increased lighting, provide shade

character
- reduce the visual dominance of road carriageway
- Hugh King Drive to be downgraded to one double carriageway with 'shared zone' road between Orange Avenue and Pine Avenue
- a quality riverside streetscape character should be created using natural materials where practical
- build upon the strong River Red Gum character with large tree avenue planting
- enhance the pedestrian environment with activity and interest by the inclusion of pedestrian scale light fixtures, street furniture and decorative paving
- provide a series of spaces connected physically and visually along the riverfront promenade
- significant views of the river and skyline are to be maintained

VILLAS AND APARTMENTS LESS THAN 3 STOREYS

location



guideline

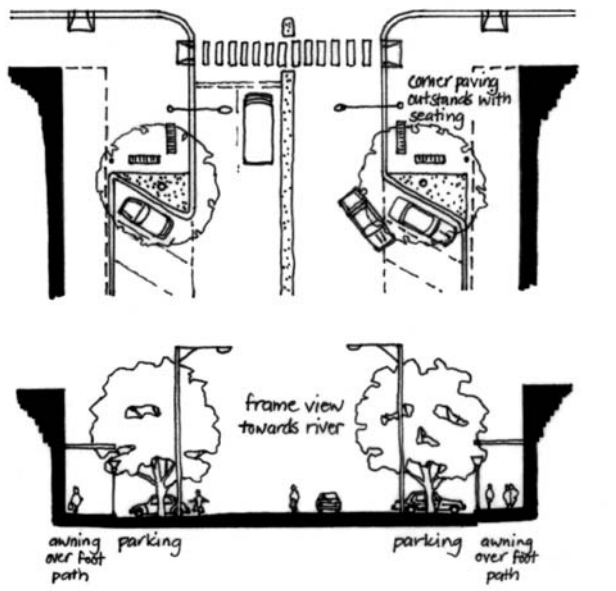


STREETS PERPENDICULAR TO RIVER

location



guideline



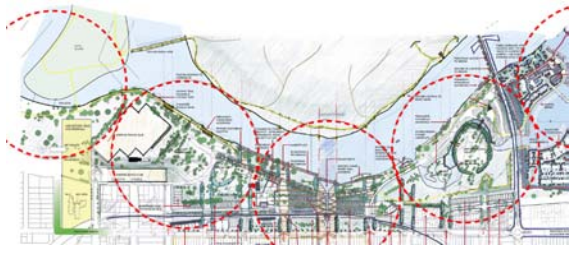
STREETS PARALLEL TO RIVER

location



guideline





guidelines

- ensure high quality materials are used in 'shared zone' areas to provide visual interest and indicate to drivers a changed traffic condition (decorative concrete, recycled timbers, a promenade lighting scheme, cohesive street furniture suite)
- ensure tree avenues are evenly spaced along the promenade with clear trunk species to allow views to the river
- limit on street parking to disability users and short term drop off only, encourage vehicles to utilise consolidated parking areas

6.3.3 PARKING AND VEHICLE ACCESS WAYS

objectives
- provide frontage and access to adjoining development
- provide cluster group parking and discourage parallel on street parking for maximum amenity
- reduce visual and physical dominance of vehicles

character
- cohesive / continuous design to reflect riverfront character with large shade trees and mix of hard stand surfaces
- 'shared zones' to have a predominantly pedestrian nature
- edges and medians to be softened with indigenous planting
- retain visual permeability to the water
- improve pedestrian permeability and safety: traffic calming, reduced roadside parking

guidelines
- Marina access to be gained principally from Cureton Avenue
- Marina provides sufficient area for 500 parking spaces, 180 of which are informal and located west of George Chaffey Bridge
- Parking areas to be consolidated to rectify vehicle sprawl across the site
- roads and parking areas to provide large shade trees and appropriate vegetation for visual amenity
- roads and parking areas to provide adequate lighting for the safety & comfort of users
- overflow parking areas to have permeable surfaces and be designed to capture run off for landscaping purposes
- roads are to be constructed in bitumen, except in 'shared zones' where decorative concrete/paving is to be provided for traffic calming and pedestrian amenity
- accommodate bus traffic with adequate parking and turning provisions
- must comply with Provision 56.07 Street Design of Mildura Planning Scheme

6.3.4 LANDSCAPE

objectives
- Provide places to sit, rest and overlook river activity – include BBQ and picnic facilities
- Provide shelter from the weather
- Provide a state significant riverfront space for the community and visitors

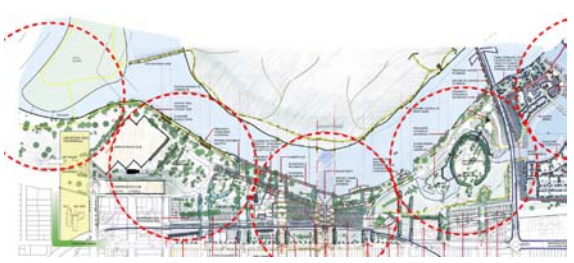
character
- Promote a 'River Craft' quality
- Promote a vibrant public space that is pleasant and safe during day and night

guidelines
- Provide a range of experiences from intense activity to more restful space - canopy of trees within part of the space, simple open landscape treatment, grass and paving with specimen shade trees
- Use of level changes to define active edges, the boardwalk, and passive activities – also provides protection from minor inundation
- Maintain and enhance the riparian vegetation on river edge in non-urban precincts
- Tree and shrub species will be tolerant to local weather conditions, full sun, frost tolerant, wind tolerant
- Ensure the pedestrian progression from city level to river level seems leisurely and easy – calm the abruptness of the escarpment
- Provide interpretive opportunities throughout drawing upon Chaffey Irrigation Scheme, Horticulture / Produce, Mediterranean Climate
- The use of mounds and / retaining walls to define intimate spaces to be people friendly with opportunities for informal seating
- Have regard to Council's Landscaping Policy

6.3.5 PAVING

objectives
- Paving should be durable, robust and provide visual interest

character
- Should help provide visual cohesiveness across the site and a riverfront identity
- Pavements should be economical in construction, with feature paving in designated high-use areas
- Special treatments at intersections and kerb crossings



- Reflect the natural palette on the area (granitic sand, exposed aggregate or coloured concrete)

guidelines
- Ensure that all pedestrian pavements or accessible for user groups
- Provide a unifying palette to give cohesiveness and consistency to the riverfront
- Primary pathway networks are to be of high quality pavement materials (decorative concrete)
- Secondary pathway networks, connections to primary networks and pathways passing through bushland character are to be granitic sand
- High-use Area pathways are to have feature paving such as decorative concrete or unit pavers with banding / patterning / pavement art incorporated

6.3.6 FURNITURE

objectives
- Furniture should be contemporary in design and read as a complete suite or package
- Should be robust and withstand weather conditions and rough treatment

character
- Should help provide visual cohesiveness and riverfront identity
- Finishes should age gracefully, reflect the materials of the region and not be too hot in summer
- The use of one-off pieces to define special places

guidelines
(sketches/images of paving types, retaining walls, seats, bins, bollards, drinking fountains, bike racks, signage, lighting to be included)

6.3.7 PUBLIC ART

objectives
- create a sense of local ownership and Mildura identity
- Should add liveliness, cultural richness and visual entertainment to special places and gateways
- Encourage contributions from local artists, including indigenous art

character
- Public art should be physically involving (touchable, possible to use as seating), human in scale, safe and easily maintained
- Elements should reinforce the character of their placement, and interpretive works will highlight local heritage and produce, the working port theme, indigenous heritage and other
- Public Art could relate to the areas history and culture including Pre historic, White Settlement, the Chaffey Brothers and the like.
- Local activity and events

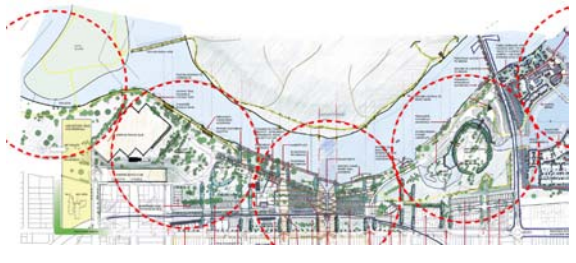
guidelines
- public art pieces could take the form of:
  - sculpture
  - pavement inserts
  - furniture elements in special places
  - water features
  - Murals or wall art on public facilities
  - Street furniture including chairs, tables, bins, street signs, light poles etc
- Materials used should age well, especially permanent pieces
- public art should relate to the context in which they are sited
- commissioned pieces should be placed in high profile locations such as the Wharf Waterfront Precinct, and be complimented with local art from school children along the proposed Chaffey Trail

6.3.8 SIGNAGE

objectives
- to highlight local attractions and provide clear guidance and way-finding to visitors and the local community
- The special character of the Mildura riverfront is to be strengthened and enhanced by outdoor signage of a contemporary nature

character
- distinctive and memorable identity
- ‘Murray River craft’s character

guidelines
- ensure that all forms of signage do not dominate the landscape
- signage should not intrude into residential areas
- ensure that all advertisement signage does not conflict with, obscure, or take attention from any traffic control signage
- outdoor advertising should have respect for and complement buildings and the context
- Signs above the roofline or parapet should not be permitted
- Interpretative signage to display information on local activities, connections within the site and wider area, heritage interest and local produce



- Ensure that all signage fixtures are robust and age well with the character of the riverfront, i.e./ exposed timbers, exposed steel,

6.4 SUSTAINABLE DEVELOPMENT GUIDELINES

The achievement of sustainable development requires substantial change from the conventional approach to development. It will also require commitment from Mildura Rural City Council and other authorities and stakeholders.

Underpinning the sustainable development approach is the establishment of a Mildura Sustainable Design Taskforce; a multi-disciplinary team of sustainability-focussed design and development professionals drawn from the Mildura community, and further abroad if necessary skills are not available locally. The role of this Taskforce will be to:

- Work with proponents of specific developments from the earliest possible stage to encourage sustainability objectives and considerations to be incorporated;
- Through working with proponents, maximise the extent to which sustainability has been a positive influence in designs lodged for planning approval;
- Perform an advisory role to Council (it would not approve or refuse applications); and
- Provide a forum for inter-disciplinary knowledge transfer.

The following sections provide a structure for Sustainable Development Guidelines for the Study Area. An action flowing from this Masterplan is the development of a detailed set of Sustainable Development Guidelines, and the reference to relevant provisions into the Mildura Planning Scheme.

6.4.1 Energy

Objectives for energy include:

- To maximise the energy efficiency of new development;
- To minimise the production of greenhouse gases; and
- To maximise reliance on energy generated from renewable sources.

Development should address considerations such as:

- The demonstration of new benchmarks for low energy consumption and greenhouse gas emission;
- Design features that achieve the above objectives;
- Incorporation of renewable energy sources; and
- Star ratings for residential apartments.

6.4.2 Water

Objectives for water include:

- To maximise the water efficiency of new development; and
- To achieve best practice in water-sensitive urban design.

Applications should accommodate considerations such as:

- The methods used to reduce water consumption;
- Measures employed to improve or enhance water quality of water leaving the site;
- How the development compliments other water sensitive urban design initiatives;
- Collection and reuse of rainwater; and
- Treatment of grey water.

6.4.3 Materials

The objective for materials is:

- To minimise the environmental impacts of materials.

Development should address considerations such as:

- Whether the material is recycled, recyclable;
- Whether the material is hazardous, toxic, allergenic;
- Material manufactured from sustainable sources;
- The amount of the material required, efficient use, minimisation of waste;
- Durability;
- Recycling and waste disposal facilities; and
- Life-cycle impacts.

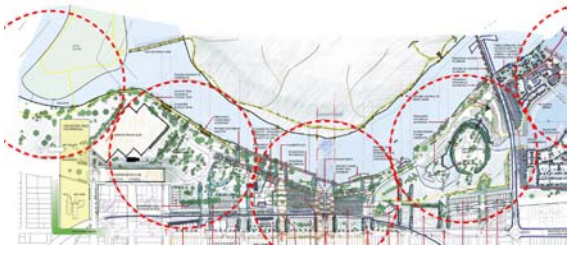
6.4.4 Indoor Environmental Quality

The objective for indoor environmental quality is:

- To achieve healthy indoors spaces.

Development should include considerations such as:

- Natural cross ventilation;
- Minimising indoor air contaminants;
- Provision of attractive external views; and
- Avoiding toxic materials, products.



6.4.5 Construction and Demolition

The objective for this element is to:

- Minimise environmental impacts of construction and demolition.

Applications should address considerations such as:

- Site management, minimising pollution of storm water;
- Reuse and recycling of materials; and
- Noise, litter, disruption, nuisance.

6.4.6 Transport

The objective for this element is to:

- Minimise environmental impacts of all transport related infrastructure, processes and practices.

Development should address elements such as:

- Pedestrian and bicycle access;
- Minimising impacts of vehicular transport and car parking;
- Access; and
- After trip facilities.

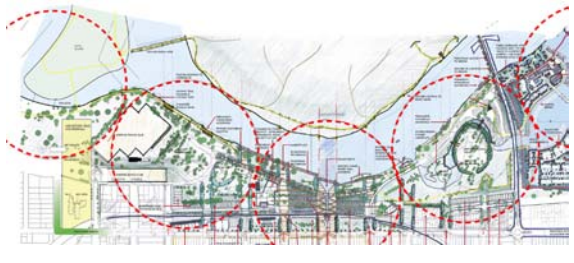
6.4.7 Social

The objectives for this element are:

- To maximise access to development for all people;
- To maximise safety; and
- To encourage human interaction.

Applicant should consider elements including:

- Access for disabled persons;
- Safety, security;
- Adaptability of dwellings for people who acquire a disability;
- Opportunities for people to interact, meet.



7.0 THE BENEFITS

7.1 ECONOMIC BENEFITS

The economic benefits which are expected to flow from the proposed components of the Riverfront Masterplan include employment benefits, improved amenities, retention of the younger population, and an enhancement of Mildura's tourism image.

Summary of benefits

The facilities and improvements that generate the economic benefits can generally be divided into four areas:

1. Entertainment, Retail and Commercial
2. Residential Housing and Resident Spending
3. Visitor Accommodation and Visitor Spending, including tourism
4. Employment generation

The economic benefits estimated to flow from the components in each of these four areas are:

Entertainment, Retail and Commercial

- Provision of approximately 4,500 m² of multipurpose Commercial and Cultural Centre floor space over 2-3 levels, accommodating cellar door, gallery, crafts market, produce market, tourism information and cafés and restaurants.

- Provision of 4,000 m² within the Transport Interchange and Commercial Centre, able to accommodate fast food, retail, commercial offices and the like.

- Provision of 800 m² of function space at the conservatory

Resident Housing and Spending

- Provision of 43 townhouse dwellings in choice locations close to the riverfront and the CBD. New townhouses would easily be taken up as part of the housing demand as it would only account for approximately 6.4% of annual demand.

- Residents in the new dwellings would support the local economy through annual retail spending of approximately $840,000 pa (June 2003 dollars).

Visitor Accommodation and Spending

- Provision of new visitor accommodation in choice locations near the commercial/cultural/tourist centre.

- $7.4 million in spending by some 16,750 visitors staying on average 3.4 nights/visitor in the Riverfront visitor accommodation.

- $1.8 million of the visitor spending (25% of total spending) is likely to be on meals, shopping, gifts and souvenirs, thereby supporting local retailers.

Employment Generation

- The implementation phase of the Riverfront Masterplan will involve investment of approximately $122 million, including both private and public investment in Riverfront components.

- Construction of the various components included in the Masterplan is estimated to generate a total of 1,190 job-years over the fifteen-year implementation phase. Most of these jobs are likely to be filled by workers living in the Mildura region.

- On-going direct employment generated through new resident and tourism retail spending and in servicing visitor accommodation would be approximately 120 direct, on-going jobs.

- Additional flow-on jobs would be generated through the employment multiplier effect. Approximately 130 jobs pa over the fifteen-year implementation phase plus 150 jobs pa on an on-going basis are likely to be generated in the local, State and national economies through the effects of the employment multiplier.

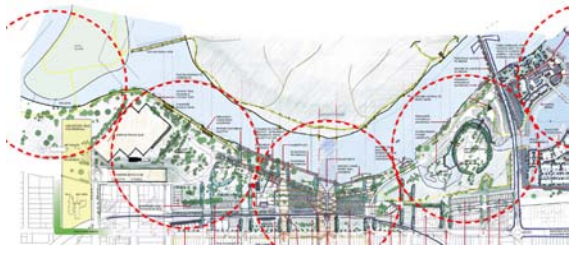
Summary

Overall, development of the Riverfront Masterplan area is expected to generate considerable economic and employment benefits for the Mildura economy and for the community. Consideration of the several components (residential, retail and visitor) in terms of size of each component suggest that the forecast outcomes are achievable. This includes contribution of the overall development to the residential market; additions to local employment; and creation of new local spending for Mildura retailers. The proposed residential component, for example, will account for just 6.4% or so of the annual residential market, while the proposed visitor units are reasonable in number and should prove popular in this premier location associated with the Murray River and in close proximity to the CBD.

The economic benefits which are expected to flow from the proposed components of the Riverfront Masterplan include employment benefits, improved amenities, retention of the younger population, and an enhancement of Mildura's tourism image

The implementation phase of the Riverfront Masterplan will involve investment of approximately $122 million, including both private and public investment in Riverfront components

Construction of the various components included in the Masterplan is estimated to generate a total of 1,190 job-years over the fifteen-year implementation phase. Most of these jobs are likely to be filled by workers living in the Mildura region



7.1.1 Entertainment, Retail and Commercial

The proposed Riverfront Masterplan includes a number of entertainment, retail and commercial facilities.

Table 7.1 Entertainment, Retail and Commercial Facilities

Component	Location	Size m²
Multi-functional Commercial Cultural Tourist Facility (2-3 level structure)	West of Citrus Gardens	4,500 m²
Transport Interchange and Commercial Centre (2-3 level structure)	Incorporates old railway station	4,000 m²
Conservatory Garden and Function Centre	East of Citrus Gardens	800 m²
New Rowing Club Building	Waterfront near Citrus Gardens	800 m² on two levels
Rio Vista Artist Studios	Western perimeter	1,200 m² on two levels
Chaffey Water Gardens and Oval	Eastern perimeter	-

The main role of the proposed entertainment, retail and commercial facilities is to provide the infrastructure for events and commercial enterprise, and thereby facilitate economic and community activity. By providing an improved framework for events and recreation, the impediments (in terms of infrastructure) to hosting, for example, a festival, an art exhibition or a touring theatre company, are reduced. This increases the likelihood of organisers choosing Mildura as the location for their events, and for community and business groups to initiate activities such as craft markets, produce markets or festivals.

In terms of economic benefit, any new construction will generate jobs during the construction phase, while on-going employment and economic benefit will flow from the activities and the events that the facilities will be used for, as later discussed in more detail.

1. Commercial and Cultural Centre (including First Australians Centre)

The Commercial and Cultural Centre will provide the framework for a range of mainly tourism and commercially focused activities, including:

- Produce market
- Cellar door
- Related retail
- Riverfront restaurants and cafés
- Cultural interpretative centre – First Australians Centre
- Tourist information centre
- Multi-functional exhibition/gallery/display space
- Administration offices
- Public facilities

The Commercial and Cultural Centre would relate to and strengthen the role of the town centre and the retail precinct at Langtree Avenue. The facility will provide a destination for visitors to Mildura and will form part of an activity triangle which would include the new Marina, Langtree Avenue and the Riverfront.

The First Australians Centre is a unique concept celebrating Australia's Indigenous history, culture and evolution. The Centre will act as a main drawcard for the region, and will exchange greater patronage of Outback Experience Trails though greater exposure and access to both visitors, researchers and other interested parties.

The Commercial and Cultural Centre facility will provide the framework for a range of mainly tourism and commercially focused activities

The First Australians Centre celebrates Australia's Indigenous history, culture and evolution…and will encourage greater patronage of many Outback Experience Trails…

2. Transport Interchange and Commercial Centre

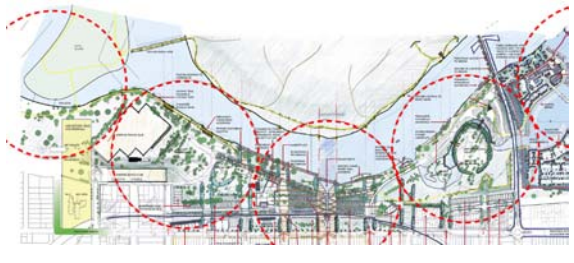
The new Transport Interchange provides a new base for public transport, close to the retail area of Mildura. Complimentary to this is related retail including fast food, book stores, travel agents, coffee shops and restaurants

3. Rowing Club

The new Rowing Club is proposed to comprise a club function room, café and storage space for boats. As the new Club will replace the existing rowing club, it is estimated that this facility would not generate significant additional economic benefit, apart from employment during the construction phase, although the new Club would provide improved amenity in terms of location and fit with overall vision for the Riverfront.

4. Conservatory and Function Centre

A function centre and conservatory garden is envisaged to cater for weddings, birthdays and community functions. It will supplement existing facilities in Mildura, including Mildura Grand Hotel, Club Da Vinci and Mildura Arts Centre, in providing a modern 'garden-themed' facility near the riverfront in a private, but accessible location.



5. Chaffey Water Gardens

The Chaffey Water Gardens will replace the ornamental lakes and provide a large open space, facilitating the many uses that currently occur and others that may be introduced.

7.1.2 Residential Housing and Resident Spending

The Riverfront Masterplan includes allotments for some 43 dwellings, all of which are townhouses with small gardens and/or courtyards overlooking or close to the riverfront and providing an interface between the parklands and the town.

The Riverfront Masterplan includes allotments for some 43 dwellings, all of which are townhouses with small gardens and/or courtyards overlooking or close to the riverfront and providing an interface between the parklands and the town

Housing/Accommodation Component

Component	Number of units/houses	Location	Size per unit/house	Total floor space
Garden townhouses	32	West edge	300 m²	9,600 m²
Townhouses	11	7th Street	300 m²	3,300 m²
Total Resident Accommodation	**43**			**12,900 m²**

The population of the Rural City of Mildura – Part A is growing at 2.0% pa and equivalent to some 930 new residents pa. Population in adjacent rural areas is declining as the population consolidates in the urban Mildura. The growth rate of 2.0% is high for regional Victoria and reflects Mildura's role as an expanding regional centre.

Building activity levels in Mildura are set to continue at the same level or even strengthen. In 2002, 944 domestic building permits were granted, according to Building Commission of Victoria data, and another 589 domestic permits have been granted through the seven-month period January-July 2003. This is an increase of approximately 11% compared with the January-July 2002 period when 529 domestic building permits were granted. These permits include new dwelling units as well as renovations and additions.

The proposed 43 dwellings would easily be accommodated within the forecasts for new dwelling demand, and would provide a very attractive dwelling choice with the park/riverfront location.

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The Marina development already includes a proposed residential component of 112 dwellings, comprising 88 townhouses and 24 apartments. In total, the Riverfront Masterplan and the Marina, together, provide some 155 dwellings over, say, a seven-year development period; this would be equivalent to approximately 22 dwellings pa. This number of dwellings per annum would easily be absorbed by new or relocating residents in Mildura and would only constitute an estimated 6.4% of the annual demand for new dwellings in Mildura.

An estimated 115 people (approximately) would reside in the 43 new dwellings included in the Riverfront Masterplan, based on Mildura's current average household size of 2.7 persons.

Retail spending by these residents would amount to approximately $840,000 pa. This estimate is based on an average spend of $7,300 per person (2001 spending indexed to June 2003 CPI) which is the average for residents in Mildura-Part A using Market Info and population forecasts.

In summary, the proposed residential component of 43 townhouses would readily be accommodated within the population growth and demand for new housing as evidenced by the development's share of forecast building permits granted in Mildura.

The townhouses would accommodate approximately 115 residents based on an average household size of 2.7 persons. These residents would contribute an estimated $840,000 pa (2003 dollars) in retail spending to the local economy annually, based on spending of $7,300 per person per annum.

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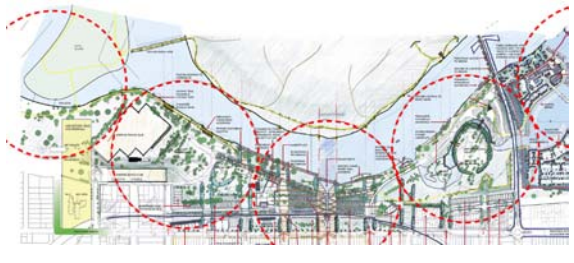
7.1.3 Visitor Accommodation and Visitor Spending

For the year ending March 2003, Mildura and Murray Outback Tourism Region received 929,000 overnight visitors staying some 3,011,000 nights at an average of 3.2 nights per person (refer table A). As the overnight visitation numbers indicate, tourism to the region appears to be recovering, following setbacks in 2001 and 2002 (and which affected the tourism industry in general).

Table A Tourism Visitation to Mildura/Murray Outback Tourism Region

	1998	*1999*	*2000*	*2001*	*2002*	*12 months to March 2003*
Overnight Visitors	913,000	853,000	920,000	827,000	859,000	929,000
Total Visitors	2,854,000	2,450,000	2,945,000	2,591,000	2,879,000	3,011,000
Total Nights	3.1	2.9	3.2	3.2	3.4	3.2
Average Stay (nights)						
Day Trip Visitors						
Total Visitors	845,000	732,000	931,000	853,000	738,000	749,000
International Visitors	20,000	22,000	22,000	22,000	18,000	28,000
Total Visitors						

Source: Tourism Victoria based on BTR National Visitor Survey and International Visitor Survey



The Riverfront Masterplan and the activities/events that would flow from the construction of the gardens and other infrastructure along the riverfront, combined with the adjacent Marina development, will enhance the image of Mildura from a tourism perspective.

Mildura is currently a Level 2 Regional Destination according to Tourism Victoria's Strategic Plan 2002-2006. A level 2 destination is defined as a destination that currently attracts strong interstate and intrastate visitation and demonstrates national and/or international appeal potential.

With the implementation of the Riverfront Masterplan, it is likely that tourism will benefit in terms of increased visitation and an increase in both the average length of stay and the daily spend. The following figures provide three scenarios showing different rates of growth in visitor numbers.

Table B Accommodation Demand Scenarios in Mildura

	Increase in visitors to Mildura staying in hotels	Staying 3.2 nights (unchanged from 2003)	Staying 3.4 nights (as for 2002)
4% increase in visitation (as from 2001 to 2002)	5,600 visitors	17,920 visitor nights	19,040 visitor nights
8% increase in visitation (as from 1999 to 2000)	11,200 visitors	35,840 visitor nights	38,080 visitor nights
10% increase in visitation	14,000 visitors	44,800 visitor nights	47,600 visitor nights
20% increase in visitation	27,900 visitors	89,280 visitor nights	94,860 visitor nights

The scenarios are based on the following:

- 12-month visitation to region to March 2003 of 929,000 overnight visitors
- Approximately 50% of this visitation is to Mildura i.e., 465,000 overnight visitors
- Approximately 30% stay in hotels (28% overall for region) i.e., 140,000 visitors

An increase in overnight visitors staying in hotels would generate additional tourism spending. Based on an average spend per night of $130, the scenarios outlined above would generate between $2.3 million pa (17,920 visitor nights) and $12,3million pa (94,860 visitor nights).

Note that BTR expresses some reservations about regional statistics on visitation due to survey methods over time, and so growth figures should be interpreted with care.

Daily expenditure of overnight visitors to Mildura is approximately $130 per night, so annual spending of approximately $7.4 million would be attributable to visitors staying in the proposed accommodation

New Visitor Accommodation

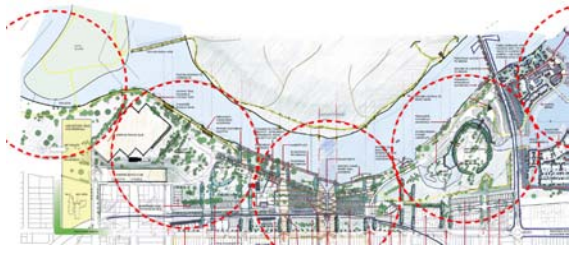
The visitor accommodation proposed as part of the Riverfront Masterplan includes a motel/serviced apartment complex located close to the Transport Interchange and the Commercial/Cultural/Tourism, and a hotel/townhouse/holiday unit development that provides an interface between the eastern edge of Mildura's riverfront and the town.

Table CVisitor Accommodation included in Riverfront Masterplan

Component	Number of units/houses	Location	Size per unit/house	Total floor space
Hotel/Serviced Apartment Complex	100	Beside Cultural Tourist Centre	100 m²	10,000 m²
Holiday units/townhouses	60	Near Oval and Marina	100 m²	6,000 m²
Total Visitor Accommodation	**160 units**	**-**	**100 m²**	**16,000 m²**

A total of 160 units would be available for visitor accommodation in the Riverfront Masterplan. In addition, a 120-room hotel is proposed as part of the Marina development. In total, therefore, an additional 280 rooms would be offered along the riverfront.

The 160 units in the Riverfront development would potentially provide 58,400 room nights pa. With an occupancy rate of 65% (which is adopted as a benchmark for viable operation) there would be 37,960 room-nights pa in the hotel/serviced apartment complex and holiday-units included in the Masterplan, corresponding to approximately 56,940 visitor-nights pa (at 1.5 visitors per room). Allowing for an average stay of 3.4 nights/visitor (which is the average for the Mildura region in 2002), the estimated total number of visitors accommodated in these 160 units would be approximately 16,750 persons pa.



The 120-room hotel in the Marina development would attract approximately 12,560 visitors, based on 43,800 room nights pa, same occupancy rate of 65% (28,470 rooms occupied), 1.5 person per room (42,700 visitor nights) and staying 3.4 nights.

Daily expenditure of overnight visitors to Mildura is approximately $130 per night, so annual spending of approximately $7.4 million would be attributable to visitors staying in the units with an additional $5.6 million for Marina hotel guests.

Wider tourism benefits will flow from the added attraction of the enhanced Riverfront and proposed Marina development. Increase in overnight visitation of hotel-accommodated visitors could range from $2.3 million pa upwards of additional spending, depending on the extent to which visitation levels to Mildura can be increased as a result of the development. The increase in overnight visitors of hotel-accommodated (units and Marina hotel) would amount to approximately a 21% increase, compared to present levels (refer Table B).

7.1.4 Project Investment

The implementation of the proposed Masterplan is estimated to involve a total investment of approximately $122 million, including approximately $19 million in a mix of public sector development projects and approximately $103 million in private sector projects. The various components are summarised in Table D below. These figures exclude land cost.

Wider tourism benefits will flow from the added attraction of the enhanced Riverfront and proposed Marina development

Table D Construction Cost Estimate for Riverfront Masterplan Components

Component	Public/ Public& Private or Private	Total Floor space	Total Public Cost	Total Private Cost	Total Cost
Commercial and Cultural Centre	Private	4,500 m²		$11,100,000	$11,100,000
Transport Interchange and Commercial Centre	Private	4,000 m²		$12,100,000	$12,100,000
Rowing Club	Public/ Private		$700,000	$650,000	$1,350,000
Chaffey Water gardens	Public		$3,000,000		$3,000,000
Citrus Gardens	Public		$4,500,000		$4,500,000
Conservatory and Function Centre	Private	800 m²		$3,200,000	$3,000,000
Rio Artist Studio	Public	1,200 m²	$500,000		$500,000
Resident & Visitor Accommodation	Private	22,500m²		$73,500,000	$73,500,000
Other Public Infrastructure	Public		$10,398,000		$10,398,000
Other Private Infrastructure	Private			$2,619,000	$2,619,000
Total			**$19,098,000**	**$103,169,000**	**122,267,000**

Implementation of the Riverfront Masterplan will generate employment through civil works involved in the establishment of the public gardens and parklands and the construction of building

On-going employment would also be directly generated

7.1.5 Employment Generation

Implementation of the Riverfront Masterplan will generate employment through civil works involved in the establishment of the public gardens and parklands and the construction of buildings, including the multipurpose facility, the residential components, visitor accommodation and the relocated rowing club.

On-going employment would also be directly generated in restaurants, market trade, organising and holding events and festivals, retail trade and services to visitors and residents alike.

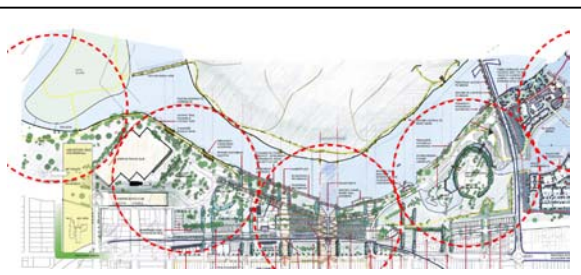
Virtually all of these direct jobs in construction and retailing etc would be taken-up by people living in Mildura and the surrounding region

In addition, the employment multiplier effect – which measures the flow-on effects throughout the economy – means that further employment will be created, and some of these flow-on jobs would also be located in the Mildura region.

These aspects are described below.

Construction Employment

A total of some 1,160 job-years would be created during the construction phase, and over a 15-year construction period these jobs would average approximately 75 jobs pa.



The implementation is proposed to be staged over a fifteen-year period with focus during the first year on setting the scene for the implementation and undertaking minor infrastructure projects such as walking trails, feature lighting on Chaffey Bridge and finalising the design of remaining components.

This employment estimate is based on the allowance of one construction job for every $100,000 in construction costs of buildings etc and one job for each $150,000 in civil construction, infrastructure and the establishment of parklands. These amounts are broad industry benchmarks for assessing job creation in construction activities.

Estimated generation of construction jobs is shown in Table E. These construction jobs would exist for the duration of the implementation phase.

Table E Construction Job Creation

Component	Total Cost	Cost per Job Generated	Direct Jobs (rounded)
Multipurpose Commercial/Cultural/Tourist facility	$11,100,000	$100,000	110
Transport Interchange and Commercial Centre	$12,100,000	$100,000	120
Rowing Club	$1,350,000	$100,000	13
Chaffey Water gardens	$3,000,000	$150,000	20
Citrus Gardens	$4,500,000	$150,000	30
Conservatory and Function Centre	$3,200,000	$100,000	32
Rio Vista Gallery and New Artists Studio	$500,000	$100,000	5
Resident & Visitor Accommodation	$73,500,000	$100,000	735
Other Public Infrastructure	$10,398,000	$150,000	70
Other Private Infrastructure	$2,619,00	$100,000	25
Total	**$122,267,000**	**-**	**1160 jobs**
Implementation period of 15 years			**75 jobs pa (rounded)**

On-Going (Retail/Service) Employment

Employment generated through retail spending by residents and visitors and associated with the servicing of visitor accommodation would generate approximately 120 on-going jobs.

Retail spending by the 115 new residents would amount to approximately $840,000 pa. This estimate is based on an average spend of $7,300 per person (2001 spending indexed to June 2003 CPI) which is the average for residents in Mildura - Part A using Market Info and population forecasts.

Retail spending by visitors to Mildura staying in the Riverfront visitor accommodation is estimated at approximately $1.8 million pa on meals, shopping, gifts and souvenirs. These expenditure items comprise approximately 25% of total spending of $7.4 million according to BTR studies (BTR Occasional Paper No. 31).

Total addition retail spending would therefore be $2.64 million consisting of $1.8 million from visitors and $840,000 from new residents. This total does not include spending by visitors and residents in the Marina complex. The additional retail spending would support approximately 740 m^2 of retail floor space which in-turn would sustain 20 or so jobs in retail and restaurants. This estimate is based on an average turnover of $3500/$m^2$ and one job for every 35m^2 of retail floor space.

Another 100 or so jobs would be generated in accommodation provision (160 units), based on an industry average of 0.64 jobs per room (ABS Tourist Accommodation VIC 8635.2.40).

Employment generated through the employment multiplier

In addition to direct jobs during the implementation phase and generated through retail spending and visitor accommodation, there would also be a considerable number of indirect or flow-on jobs created through the operation of the employment multiplier. This is shown in Table F.

The employment multiplier is derived from National Accounts data (refer ABS Cat. No. 5209.9), and this measures the flow-on effects that result from the initial rounds of economic investment and activity. In some instances these indirect or multiplier jobs are to be found in the local area, in this case in Mildura township, but are normally spread around the wider municipal, State and national economies, thus reflecting the inter-industry links that exists.

Employment generated through retail spending by residents and visitors and associated with the servicing of visitor accommodation would generate approximately 120 on-going jobs

Retail spending by the 115 new residents would amount to approximately $840,000 pa

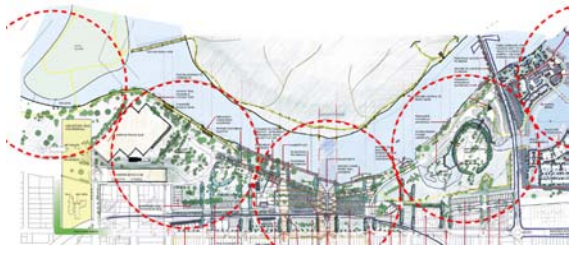


Table F Estimated Indirect (or Flow-on) Jobs

Job Type	Direct Jobs	Indirect Jobs	Total Jobs	Multiplier
Civil works and infrastructure (over 15 years)	120	275	395	3.3
Building construction and design (over 15 years	1,040	1,665	2,705	2.6[1]
Total Construction jobs	**1,160**	**1,940**	**3,100**	**-**
Per year for 15 years	**77 jobs pa**	**129 jobs pa**	**206 jobs pa**	
Rounded	**75 jobs pa**	**130 jobs pa**	**205 jobs pa**	
Retail Trade Jobs (pa, on-going)	20	18	38	1.9
Accommodation Services jobs (on-going)	100	130	230	2.3
Total on-going jobs	**120 pa**	**148 pa**	**2658 pa**	
Rounded	**120 jobs pa**	**150 jobs pa**	**270 jobs pa**	

Note: The multiplier for Building and Construction is the multiplier for 'Other Construction' that is lower than the multiplier for 'Residential Construction'.

Overall, the proposed Riverfront Masterplan is an important project in terms of the employment benefits associated with the construction of the recreation facilities, accommodation and other components included in the Masterplan. It is expected that the majority of the direct jobs (with the exception of some design jobs) would be filled by workers from Mildura and region, and this would also be true for a share of the indirect or flow-on jobs created through the employment multiplier effect.

Other Benefits

Additional economic benefits which would flow from the implementation of the Masterplan include the flow-on generation of investment opportunities for private investors, which support and are in concert with the proposed Masterplan. The investment opportunities can be elsewhere in the town in areas such as additional visitor accommodation, food and services, retail and provision of tourism services. These activities will help create more jobs in Mildura, encourage people to remain in or move to the town, and strengthen its economic basis.

There would also be wider benefits to the community through the provision of improved town amenities (as all of the new amenities would be available for existing residents to enjoy) and the enhancement of the image of Mildura. This will assist with sustaining Mildura as a vibrant regional centre.

Summary

Overall, development of the Riverfront Masterplan area is expected to generate considerable economic and employment benefits for the Mildura economy and for the community. Consideration of the several components (residential, retail and visitor) in terms of size of each component suggest that the forecast outcomes are achievable. This includes contribution of the overall development to the residential market; additions to local employment; and creation of new local spending for Mildura retailers. The proposed residential component, for example, will account for just 6.4% or so of the annual residential market, while the proposed visitor units are reasonable in number and should prove popular in this premier location associated with the Murray River and in close proximity to the CBD.

7.2 ENVIRONMENTAL BENEFITS

The Mildura Riverfront Masterplan will enable a range of 'sustainability benefits' to be achieved. These are summarised under the following headings:

Energy

Buildings will be designed to use less energy, and contribute far lower amounts of greenhouse gases. Buildings will be designed to harness passive solar energy, contributing to improved comfort levels and also lower operating costs. Buildings will also incorporate the latest solar power technology, which will support this developing industry and move away from total reliance on fossil fuel based energy. This will also be achieved through the use of green electricity.

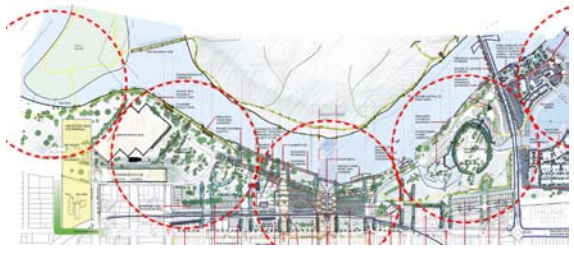
Water

Water is an increasingly scarce resource, and the Masterplan, by requiring water recycling, water sensitive urban design and water efficient buildings will ensure that water is used wisely. The Master Plan will ensure that irrigation demands across the study area are reduced. Collection and reuse of water will lessen stormwater runoff into the Murray River, and contribute towards improved water quality. Improved water quality will also be an outcome of riparian strip enhancement along sections of the river embankment.

Additional economic benefits that would flow from the implementation of the Masterplan include the flow-on generation of investment opportunities for private investors

There would also be wider benefits to the community through the provision of improved town amenities (as all of the new amenities would be available for existing residents to enjoy) and the enhancement of the image of Mildura. This will assist with sustaining Mildura as a vibrant regional centre

Development of the Riverfront Masterplan area is expected to generate considerable economic and employment benefits for the Mildura economy and for the community



River Environment

The Master Plan will result in the enhancement of natural qualities within the study area. This will contribute to an improvement in local biodiversity, habitat, and the ecological functioning of the river, including the provision of 'wildlife links'. Control of erosion will improve water quality and prevent soil loss.

Materials

Use of materials that incorporate recycled content, that are recyclable, reused, or that are derived from renewable sources will generate many off-site benefits. These include a reduction in the life-cycle impacts of materials including the use of non-renewable resources, energy used in mining, harvesting, production, manufacturing and transport of materials. These benefits extend to reduced impacts on natural environmental qualities. Other benefits include support for industries fostering the 'take-up' of new materials and innovative building and development approaches.

Health and Comfort

Actively reducing the use of materials that off-gas toxic fumes will improve indoor environmental quality and human health. Users or occupant's health and comfort will also be enhanced through good passive ventilation, heating and lighting.

Awareness

Many of the Masterplan initiatives are 'high profile', and will be used, visited and seen by many people. The showcasing of environmental features – such as energy-efficiency, water-efficiency and enhancement of natural qualities – will increase awareness of the benefits of these initiatives throughout Mildura and beyond. This will in turn translate to people making choices to adopt sustainable design and development approaches for themselves.

Strategic Support

The Mildura Riverfront Masterplan supports a range of other strategies from different levels of government. For example, The Living Murray strategic initiative, the Murray River frontage Action Plan and Sunraysia Drainage Strategy are examples of policies, strategies that are supported through this Masterplan.



7.3 COMMUNITY AND TOURISM BENEFITS

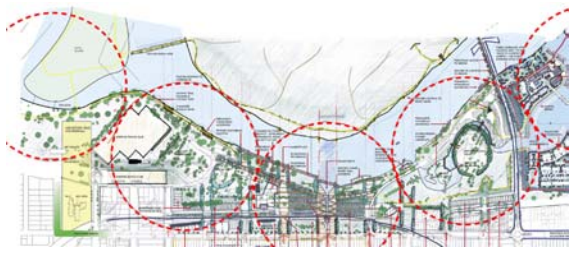
There are many social benefits to be enjoyed by the community out of the master plan proposal in addition to those already appreciated by the community. These include:

- A more vibrant and active waterfront precinct, as an attractive urban place to visit for tourists and residents alike.
- An exciting marina focus for recreation and holiday makers
- A safer park environment with better lighting and more activity at all times during the day or night
- Passive overlooking with neighbouring residential buildings providing an unobtrusive façade that overlooks the park
- Greater usage of the park with lighting enabling it to operate well into the evening
- The pride of place, with the legacy of Mildura a key component of the plan
- New facilities for dining, relaxing, playing and entertaining
- Improved exposure and access to the rich history of the area, especially Aboriginal pre-historic times, Indigenous culture and evolution to current times.
- Improved patronage to both Mildura and areas related to Outback Experiences
- Eliminate the undesirable element from the park through sound planning and lighting of new spaces
- A new rowing club and associated facilities
- A more pedestrian styled waterfront, with walking and cycling trails inviting intimate contact with the landscape
- Better connections to NSW and other areas of Mildura
- A range of garden theme that run through the precinct, ranging from the Mildura Citrus Gardens to the Chaffey Water Gardens

The riverfront park will provide a clear and strong focus for tourism in the region. The improved linkages between the riverfront and existing tourist facilities and the city will help tourist s to easily find their way to each. Other benefits to tourism include:

- Increased duration of stay in the area, coupled with the increase in attractions
- Potential to link this masterplan with others being prepared by MRCC (including Red Cliffs and Ouyen Urban Design Studies) are seen as complimentary to the Riverfront Masterplan.
- Such a regional view of tourism would see the continued development of the Sunraysia tourist trail, similar to that found in the Yarra Glen or Rutherglen.

Ultimately, the opening up of visual and physical connections to the city will again link Mildura with its tremendous waterfront, creating the potential for a natural riverfront park with great opportunities realised, as a catalyst for patronage and activity, to be enjoyed by residents and visitors alike.



8.0 DETAILED ACTIONS

8.1 FACILITATION

Given the complexity of land tenure arrangements and the many agency responsibilities it will be essential that Council pursue a structured facilitation program. This should aim to fast track approvals and tenure restructuring upon which the successful implementation of the development and works will depends. The facilitation program should include:

Actions unless noted otherwise are by the Mildura Rural City Council

- Adoption by Council with the support of agencies of the Master Plan.
- Establish the Mildura Riverfront Park Management Board to coordinate management and development decisions within the Riverfront Park Area consistent with the intent of the Masterplan
- Liaison arrangements with and support of NSW agencies and Shire of Wentworth, including approval of modified boat mooring.
- Ongoing liaison with various government agencies, in particular to achieve rationalised lease and title arrangements.
- Ongoing liaison with VicTrack and Freight Australia about:
  - Relocation of freight terminal;
  - Arrangements for implementing the Deakin Avenue and Langtree links;
  - Reassignment of parts of the VicTrack land to Council;
  - Sale of surplus land.
- Liaison with DSE about processing Planning Scheme amendment, modifying leases, creating titles and land sales.
- Establishment of Waterfront Advisory Committee to advise the Mildura Riverfront Park Management Board and Council.
- Formalisation of charter, role, funding of Waterfront Management Committee and the Mildura Riverfront Park Management Board.
- Liaison with VicRoads to redirect truck route away from the centre of the City.
- Liaison with agencies to establish funding arrangements.

8.2 STAGING OF ACTIONS AND WORKS

The implementation of the project should see a number of primary initiatives endorsed to ensure the continued and focused development of the water over the next 15 years. The strategy for implementation is to focus initial development around the Langtree Connection and radiate from this point. This is proposed because the connection is the simplest to be made in the masterplan, and it then enables the initiation of the Cultural Tourist Centre, which when seen together with the waterfront activities, will be a major stimulus to the area, and connection to the city.



Implementation Strategy: Initial Developments focus on the central part of the site, and as these are completed, works then move outwards along the riverfront.

The waterfront development is also seen as a critical early step to ensure success of the implementation of the plan. The downgrading of Hugh King drive to a more pedestrian feel will help the area to become more amenable and approachable. This is seen in context with the waterfront boardwalk, which acts as a focus point for all riverfront activity

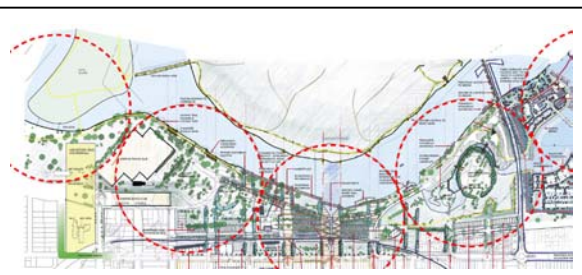
It is envisaged that a separate management and advisory committee be formed (refer Section 6.2.7) to oversee the approval, planning, endorsement and initiation of all aspects of the projects. This group should be made up of senior Council planning members, and dedicated staff focused on this task.

The development proposal can be seen to fall into a number of distinct categories:

- Local Council Projects
- State Government Projects
- Private Development Opportunities

The anticipated costs associated with each of these stages are covered in detail in section 8.2 of the report.

The following stages are proposed to guide the programming of the Riverfront Master plan Implementation:



MILDURA WHARF AND PUBLIC FOCUS ACTIVITIES

DEAKIN PLAZA AND CITRUS GARDENS AND WATERFRONT PROMENADE

CONSERVATION AND ACTIVE WATERFRONT

CHAFFEY WATER GARDENS

BRIDGE LINK AND WALKING / CYCLE TRACKS

MARINA DEVELOPMENT

RESIDENTIAL AND HOTEL

RESIDENTIAL EDGE AND HOLIDAY UNITS

NEW SOUTH WALES

CORETON AVENUE

O'HAFFEY AVENUE

WALNUT AVENUE

EIGHTH STREET

LEMON PLACE

IMPLEMENTATION STRATEGY

- STAGE ONE
- STAGE TWO
- STAGE THREE
- STAGE FOUR
- STAGE FIVE
- STAGE SIX

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MILDURA RIVERFRONT MASTER PLAN

PRIORITY STRATEGY FOR COMPLETION OF MAJOR WORKS

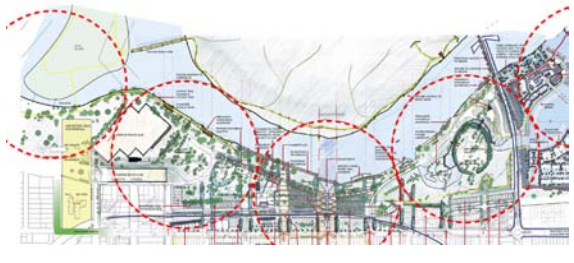
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Stages of Implementation:

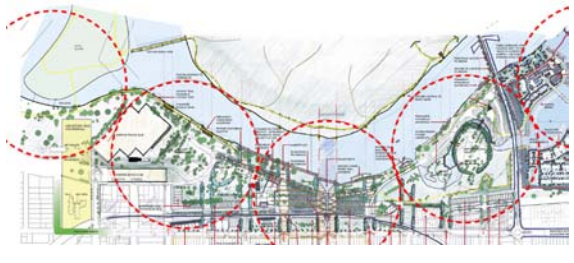
	Anticipated Action By:
1. Years 1 – 2	
▪ Establishment of the Waterfront Management Committee (Council) to oversee development and ongoing management.	• **MRCC, DSE, DOI**
▪ Establish Mildura Riverfront Advisory Committee to advise on development and works approvals to Mildura Riverfront Management Committee and to Council as planning authority.	• **MRCC, DSE, DOI**
▪ Council arrangement of leases and ownership/purchase of land	• **MRCC, DOI**
▪ Planning Scheme Amendment adopted	• **MRCC, DOI**
▪ Commence negotiations with NSW, Freight Australia and all government agencies to facilitate implementation including relocation of freight terminal	• **MRCC, Freight Australia, DPT, DSE**
▪ Relocate Freight Activities	
▪ Initiate approvals from Minister and Freight Australia to construct Deakin Plaza and Langtree Connections	• **MRCC, Government, Freight Australia, Victrack**
▪ Modification to Hugh King Drive - Pedestrian amenities added to road, focus new carparking beside existing Jaycee Park and to Madden Avenue	• **MRCC, Vicroads**
▪ Compliment new river activities with river bank lighting on axis with city grid (south bank only)	• **MRCC**
▪ Commence negotiations with rail authorities for access	• **MRCC, Victrack, Freight Australia**
▪ Finalise commercial arrangements for Marina site	• **MRCC, Transtate**
▪ Initiate and complete Marina documentation for endorsement and approvals	• **Transtate**
▪ Complete modifications to Hugh King Drive	• **MRCC**
▪ Continue Enhancement of Palm Tree planting to Seventh Street	• **MRCC**
▪ Sell off available land for development along Seventh Street and develop town houses	• **MRCC, Private Developer**
▪ Complete detailed feasibility work on the Redevelopment of the Commercial Cultural precinct and First Australians Centre Concept	
2. Years 3 - 5	
▪ Construct Langtree Avenue connection to the waterfront, including stabilization of banks for Citrus Gardens	• **MRCC**
▪ Extend Walking trails along waterfront (south bank only)	• **MRCC**
▪ Construct Commercial and Cultural Centre including First Australian Centre	• **MRCC, Tourism Vic, DSE, Private Dev.**
▪ Construct new access road west of Cultural Centre	• **MRCC, Vicroads**
▪ Develop Visitor Accommodation beside Cultural Centre	• **MRCC, Private Developer**
▪ Create new waterfront boardwalk and wharf for paddle steamers and private craft	• **MRCC**
▪ Construct new Rowing Club east of Langtree	• **MRCC, Rowing Club, Private Dev.**
▪ Finalise the documentation and building approvals for the Marina	• **Transtate**
▪ Documentation for marina to be completed, commence construction	• **Transtate**
3. Years 6 - 10	
▪ Develop Park town Houses west of Cultural Centre	• **Private Developer**
▪ Construct Deakin Avenue Extension including eastern side of citrus gardens	• **MRCC**
▪ Relocate short-term houseboat activity to Marina precinct	• **MRCC, Transtate, LMW, GMW**
▪ Create new permanent house boat moorings along river	• **MRCC, LMW, GMW**
▪ Riparian Strip enhancement to riverbank	• **MRCC, LMW, GMW**
▪ Develop waterfront floating craft and farmers market	• **MRCC, LMW, GMW**
▪ Develop Transport Interchange and boutique retail	• **MRCC, Tourism Vic, Private Dev.**
▪ Develop marina carparking and access road within the Chaffey Water Gardens Precinct	• **MRCC, Transtate**
▪ Create Chaffey Water Gardens and facilities	• **MRCC, LMW, GMW, DOI**
▪ Install feature lighting to bridge	• **MRCC, LMW, GMW, DOI**
▪ Initiate Residential Edge west of Langtree – serviced apartments/ holiday units	• **MRCC, Private Dev.**
▪ Relocate Skate Park to Jaycee Park and create regional standard playground	• **MRCC**
4. Years 11 - 15	
▪ Construct New Conservatory (incl. Amenities, restaurant, café) and Function Centre	• **MRCC, Tourism Vic, DSE, Private Dev.**
▪ Develop pedestrian bridge link affixed to Chaffey Bridge Develop Residential edge to Park (east and west of Deakin)	• **MRCC, LMW, GMW, DOI**
▪ Initiate new floating pontoon to Lock Island	• **MRCC, LMW, GMW, DOI**
▪ Lights to illuminate north bank on axis with city grid (to complement South bank)	• **MRCC, LMW, GMW, DOI**
▪ Divert Seventh Street traffic south of Rio Vista along Cherry Avenue	• **MRCC, Vicroads**
▪ Extend Sculpture forecourt	• **MRCC**
▪ Construct new gallery and artists studios in front of Rio Vista	• **MRCC, Private Dev**



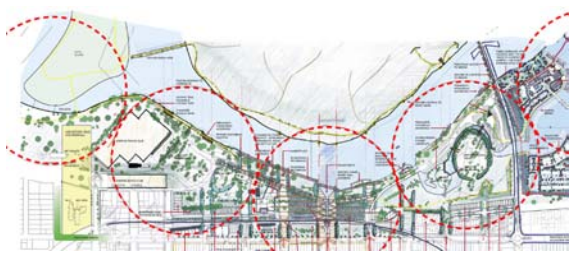
8.3 INDICATIVE COSTS

The cost plan has been prepared from the Masterplan drawings and a schedule of building areas supplied by the Architect. Indicative rates per square metre have been used for both buildings and hard and soft landscaping. Allowances have also been made for those items of work that cannot be quantified at this stage. Costs have been apportioned between the public and private sector, as can commercially be reasonably expected.

No.	Item	Qty	Unit	Anticipated Public Investment	Anticipated Private Investment	Comments / Assumptions
	Years 1 - 2					
1	Relocation of Freight Activity			4,000,000		As outlined in the North West Freight Strategy
2	Modification to Hugh King Drive - Pedestrian amenities added to road, focus new car parking beside existing Jaycee Park and to Madden Ave	6,300	m²	1,200,000		Allowance for coloured asphalt with bands of rough paver with trafficable sub base, includes allowance for lighting and surrounding landscape
3	Continue enhancement of palm tree planting along 7th Street	56	No.	71,000		Based on 7 trees per 100m city block
4	Develop Townhouses to Seventh Street		m²		5,800,000	Allowance for medium quality domestic construction by private developer – 11No townhouses at 300 sqm each
	Sub Total - Year 1 - 2			**$5,271,000**	**$5,800,000**	
	Years 3 - 5					
5	Construct Deakin and Langtree Avenue Connection and citrus gardens and embankment walls and outdoor plaza	2,0000	m²	4,500,000		Develop connection into the city to encourage immediate area developments to take place. Includes allowance for growth of vines etc. Also allowance included for indigenous art in public areas
6	Construct Commercial and Cultural Tourist Centre	4,500	m²		11,100,000	Includes landscape and outdoor commercial space links with the Citrus Gardens, and the Langtree connection
7	Develop Transport Interchange and commercial development	4,000	M²		12,100,000	Includes possible connection over railway to Cultural Tourist Precinct
8	New access road to rear of Commercial and Cultural Tourist Centre	8,000	m²	756,000	756,000	Allowance for new road surface and sub base, costs shared by developer/investor and public
9	Develop Visitor Accommodation beside Cultural Tourist Centre	3,600	m²		38,700,000	Allowance for up to 200 motel style rooms, medium quality construction over 3 levels by private developer. This will work together with the Exhibition function of the Cultural Tourist Precinct. (Includes car parking.)
10	Create new waterfront boardwalk and wharf for paddle steamers and private craft	1,600	m²	1,200,000		Allowance for timber framed construction and retention of existing wharf
11	Extend walking trails along waterfront (South bank Only)	1,500	m²	189,000		Allowance for gravel tracks 4m wide
12	Compliment new river activities with river bank lighting on axis with city grid (South Bank only)	18	No.	45,000		Allowance for architecturally designed light poles
13	Develop Marina car parking	7,200	m²		1,800,000	Car park cost by Marina Developer
14	Create new rowing club east of Langtree and river café/function room	800	m²	700,000	650,000	Rowing shed replacement cost offset with potential commercial riverfront café and function centre
	Sub Total - Year 3 - 5			**$7,390,000**	**$65,106,000**	



	Year 6 - 10					
15	Develop Park Town Houses to west off Cultural Tourist Centre, off Cureton Avenue				16,900,000	32 No x 300sqm each townhouses, half with park views, each ideally located
16	Create new permanent house boat moorings along river	4	No.	60,000		Allowance only
17	Riparian strip enhancement to river bank		Item	50,000		Allowance only
18	Create Chaffey Water Gardens landscape & facilities	20,000	m²	3,000,000		Retain existing landscaped areas and trees, and develop water theme as a focus for the space, incorporating sound shell and amenities area
19	Install feature lighting to bridge		Item		63,000	Allowance only – assumes some commercial sponsorship from the private sector to cover finance
20	Relocate skate park to Jaycee Park and create regional standard playground		Item	100,000		Replacement of existing envisaged
21	Visitor Accommodation to Chaffee Water Gardens	6,000	m²		12,100,000	Allowance for medium quality construction by private developer
	Sub Total - Years 6-10			**$3,210,000**	**$29,063,000**	
	Years 11 - 15					
22	Construct new Conservatory and Function Centre (incl. Public Amenities, restaurant, café)	800	m²		3,200,000	
23	Construct pedestrian bridge affixed to Chaffey Bridge	640	m²	645,000		Suspended steel structure cantilevered off existing bridge structure
24	Construct pontoon to Lock Island		Item	250,000		Allowance only
25	Lights to illuminate north bank on axis with city grid (to compliment south bank)	18	No.	57,000		Allowance for architecturally designed light poles, to provide lighting of walking trail on NSW side of the river
26	Divert 7th Street at Rio Vista, New Car Park (50 cars)	5,600	m²	1,680,000		Allowance to create hard landscaping
27	Extend sculpture forecourt to river		Item	95,000		Possibility to extend the arts theme and annual activities in Mildura
28	Construct new gallery and artists studios in front of Rio Vista	1,200	m²	500,000		Includes allowance to upgrade landscaping of amphitheatre
	Sub Total - Year 11-15			**$3,227,000**	**3,200,000**	
	Grand Total			**$19,098,000**	**$103,169,000**	



8.3.1 Cost Plan Summary and Anticipated Cash Flow

No	Item	Total Public $	Total Private $
1	Building Works Year 1 - 24	5,271,000	5,800,000
2	Building Works Year 3 - 5	7,390,000	65,106,000
3	Building Works Year 6 - 10	3,210,000	29,063,000
4	Building Works Year 11 - 15	3,227,000	3,200,000
13	**Grand Total**	**$19,098,000**	**$103,169,000**

The following items and allowances have been included in the Cost Plan:

- Design Contingency (4%)
- Construction Contingency (8%)
- Consultants Fees (12%)
- Authority Charges (1%)

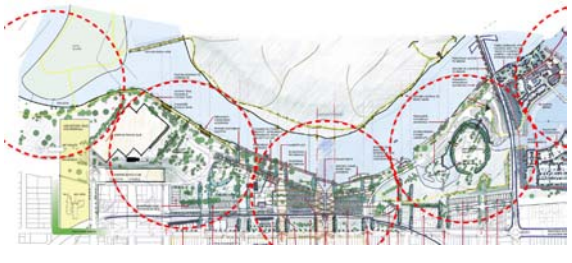
The following items and allowances have been excluded from the Cost Plan:

- GST
- Escalation beyond September 2003
- Infrastructure costs such as electrical upgrades, stormwater and sewer upgrades and gas upgrades
- Any works to the Marina site (estimated at $70M)
- No cost consideration has been given to the cash injection brought about by the sale of land for private development.
- Any remedial works to the soil if found to be contaminated. Geotechnical reports are required to determine the level and quantity of contaminants in the ground.
- Purchase of land, access rights, lease costs.

Competitive traditional tendering based on a fixed lump sum is presupposed. Market conditions are currently not keen, however, it is not reasonable to forecast for the next fifteen years at this point.

Davis Langdon Associates Tender Price Index for September 2003 is 153.

As noted in Section 7 revenues from sale of land and leasing may offset capital costs and have not been taken into account in the above figures.
Excludes detailed costing of the "First Australians Centre".



9.0 APPENDICES

A: ACKNOWLEDGEMENTS

The masterplan benefited from helpful advice and consultation across the broad spectrum of the Community including:

Attendance Focus Group 1 (MRCC)

Julie Jewell	Event Development Facilitator
Julian Bowron	Arts Manager
Mark Jenkins	Environmental Operations Officer
Ray Lyons	Manager Leisure Services
Jodie Arnold	Recreation Development Officer
Magda Simon	Disability Access
Lee Jones	Team Leader Infrastructure Design
Ivan McKenzie	Infrastructure Support Officer

Attendance Focus Group 2

Robin Ransome	Lower Murray Water (LMW)
Kevin Murphy	Lower Murray Water
Anne Grasser	Goulburn Murray Water (GMW)
Kevin Colpin	Goulburn Murray Water (SWRA)
Dennis Jewell	Vic Roads
John Edwards	Dept of Infrastructure & Natural Resources NSW
Kym Schramm	Parks Victoria

Attendance Focus Group 3

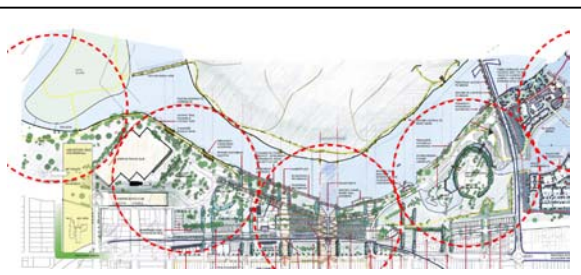
Mac Langley	Mildura Bowls Club
George Kerridge	Mildura Bowls Club
Jenny Cooke	Mildura Lawn Tennis Club
Greg Cooke	Mildura Lawn Tennis Club
Paul Hodgson	Mildura Rowing Club
Jane Broadfoot	Mildura Little Theatre Company
Max Whiting	Old Mildura Homestead

Attendance Focus group 4

Andrew Powell	MRCC
Dani Goodieson	Mildura Murray Outback Tourism
Patrick Hunt	H.S. Hunt & Son P/L / Red Cliffs Rotary
Dorothy Dowson	"AARINDA" holiday apartments
Ron Dowson	Rest Away Houseboats
Fred Simmons	
Glen Simmons	
Alan Steedman	Matahari Houseboats
Noel McDonald	Rivers & Riverboat restoration group
John Fisher	John Loughhead Architect
John Loughhead	John Loughhead Architect
Elizabeth Phillips	
Helen Turner	Mildura Art Group – Riverfront Studio
Aileen Stewart	
Brent Williams	BW & A Building Consultants
Gabby Perkins	Connell Wagner (MRCC)
Shayne Murphy	
Trish Arnold	MRCC
Barry Bishop	M.L.C. Member for North-West Province

Attendance Focus Group 5

Bill Nolan	Amaroo Houseboats
Tim Knight	Mildura/Wentworth H/B Association
Lloyd Thomson	
Bruce Hall	Avoca 1877
Stefano De Pieri	Avoca 1877 / Grand Hotel
Amanda Hately	Avoca
Cherly Hardie	Madec
Don Carrazza	Mildura Grand Hotel
Larry Dimasi	Inland Consultants
Bill Nicol	Nicol Projects
Sarah Nickas	Aurora Design & PM
Lloyd Thomson	Thomson & Singleton P/L
John Braniff	Murray Valley Citrus Board
Ron Wild	Sunraysia Institute of Tafe
Lesley Cattanach	Mildura Holiday Houseboats
Cameron Tilley	Mildura City Traders Inc.
Chris Durban	AAAH! Willandra Houseboats
Allan Murphy	Sunraysia Daily
Nick Cavallo	Mildura Chamber of Commerce
Graeme Martin	Sun. Mallee Eco. Development Board Inc.
Ray Jones	Buronga Caravan Park
Lyn McKenzie	Paddle steamers Melbourne, Rothbury, Mundoo



Attendance Focus Group 6

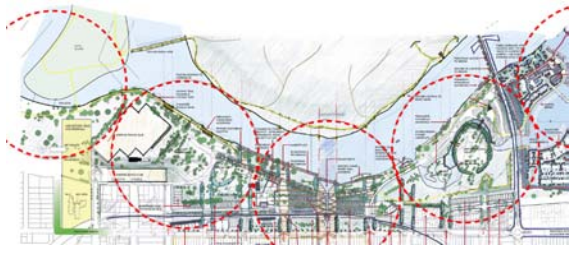
Peter Byrne	Mayor, MRCC
Heather Powell	MRCC
Bob Jones	
George Kerridge	Mildura Bowls Club
Chris Baldwin	Baldwin Boats
Bernadette Edmanson	
Lloyd Thomson	Thomson & Singleton Pty Ltd
Anthony Burt	
Mandy Foreman	
David Talbot	Mildura Rowing Club
David Milner	
Shane Milner	
Greg Cooke	Mildura Lawn Tennis Club
Noel McDonald	

Attendance Focus Group 7

Bill Nolan	Amaroo Houseboats
Tim Knight	Mildura/Wentworth H/B Association
Lyn McKenzie	Paddle steamers Melbourne, Rothbury, Mundoo
Ivan McKenzie	MRCC
Don Carrazza	Mildura Grand Hotel
Henry Tankard	Old Mildura Homestead
Ron Price	Sunraysia Bus Lines
Pat Thorburn	MADEC
Paula Mastrippolito	Executive Homes
Clare Mason	Mallee CMA
Scott Jaensch	Dept Infrastructure Planning & Natural Resources NSW
Eric Taylor	NSW Waterways Authority
John Edwards	Dept Infrastructure Planning & Natural Resources NSW
Paul Dixon	MRCC
Jodie Arnold	MRCC
Phillip Madden	Sunraysia Daily
Peter Byrne	Mayor, MRCC
Anne Mansell	Sunraysia Area Consultative Committee
Lesley Cattanach	Mildura Holiday Houseboats
Ray Jones	Buronga Caravan Park
Lee Jones	MRCC
Denis Jewell	VicRoads
Robin Ransome	Lower Murray Water
Sarah Nickas	Aurora Design
Laurence Murphy	
Barry Stewart	Mildura Aboriginal Corporation
James Golsworthy	MRCC
Nick Byrne	Tourism Victoria
Nick Cavallo	Mildura Chamber of Commerce
Graeme Martin	Sunraysia Mallee Economic Development Board

The Consultant Design Team

Daryl Jackson	Jackson Architecture
Paul Katz	Jackson Architecture
David Fantini	Jackson Architecture
Soren Luckins	Jackson Architecture
John Guida	Jackson Architecture
Michael Gerner	KLM Gerner Consulting Group
Erika Jeremy	KLM Gerner Consulting Group
Barry Lacock	Davis Langdon Australia
John Henshaw	Essential Economics
Marianne Stoettrup	Essential Economics
Ben De Ward	Enviroplan
Russell Symons	Ratio Consultants



B: Reference Documents

Sunraysia 2000 Mildura Waterfront Development July 1997

This study was first presented in 1996 to examine the relocation of the railway line out of the Mildura central business area and options for the realignment of the railway line to Yelta.

Following re-examination of this study, a relocation of the rail line was ruled out but the study scope was amended to consider opportunities for relocation of freight rail facilities from Seventh St consistent with Council's desire to redevelop the land for Tourism purposes. The study was then recommissioned to test three design options for the riverfront redevelopment.

- Option 1: Retention of Rail Freight in its existing configuration
  Redevelop goods shed as a transport interchange replacing train station. Development opportunities along Seventh Street for offices, retail, fast food, service station and residential. Create tree-lined boulevard along Seventh Street. This option was determined to be *Phase 1* of the long-term redevelopment.
- Option 2: Rationalisation of Rail Freight
  In addition to Option 1, rationalise Rail Freight to create land on northern edge overlooking park and river. Extend Cureton Avenue to access freight centre. This option was considered unsatisfactory from a cost-benefit scenario.
- Option 3: Relocation of Rail Freight
  Relocate Rail Freight to alternative site and retain a single track. Create a new commercial and entertainment precinct in Mildura to connect town with its river and parklands. At an estimated cost of $4million for relocation, this provides the greatest cost and benefit outcome, and has been further detailed in this study. Sufficient track and rail facilities should be retained to permit unencumbered through movements of freight trains and possible operations of passenger trains.
  The main line and two sidings (roads 1,2 and 3) would be retained. It would be typical to expect 10 train movements per day, about half those currently experienced. Land would then be made available for development by Mildura Rural City Council. The goods shed would become a transport interchange, the turntable would be retained in its current location, and a service centre with fuelling and café/restaurant would be provided.

The design principles of the preferred option are:
- Seventh Street to include traffic calming devices to facilitate pedestrian crossing, landscaping, lighting and street furniture.
- The current reserve between Seventh Street and the rail yards to be transformed into a 'Grand Terrace' between Langtree and Orange Avenues as a transitional space between the CBD and the Riverfront parklands. The council offices and 'service centre' are proposed to be located here also.
- The public wharf to be retained and extended with the riverbank to be enhanced to a 'natural state'.
- New facilities between Madden and Olive Avenue include interpretative centre, retail arcade and cinema complex, convention centre, sound shell and improved theatre / performance spaces.

North West Freight Transport Strategy May 2002

The Mildura facility consists of a freight gate with dedicated road access on the northeast side of the Mildura Rail Centre off Seventh St. The Mildura General Freight Services operation handles about 16,000 tonnes per annum typically involving 3 to 4 wagons per train per direction. It is expected that freight rail operators will cater for growth by extending train lengths before introducing additional trains.

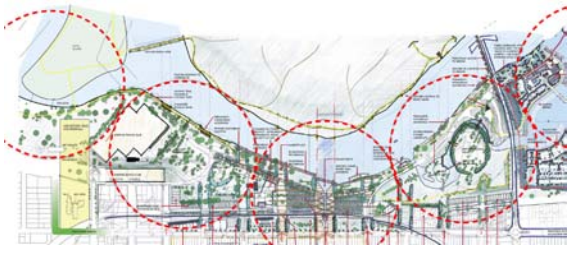
Currently, freight trains are 'broken' at Seventh St before the container wagons are transported to Merbein and the liberated locomotive returns to shunt petroleum, cement and General Freight Services wagons to the various sidings across Mildura. Likewise, trains leaving Mildura are 'made up' by shunting and movement of part trains to Seventh St and brake tested before leaving the city.

A new freight gate facility should be established in East Mildura, between Benetook and Cowra Avenues. Site access should be via either Benetook Ave or Eleventh St. This connection would facilitate road freight linkages with Benetook Avenue, the preferred Sturt (National) Highway route through Mildura. Deakin Avenue is becoming a less suitable route for the National Highway given the increasing heavy vehicle volumes within an urban/commercial environment.

Constructed in 1985, the **Chaffey Bridge** at Mildura currently carries 10800 vehicles per day, (125 of those are freight vehicles) and is expected to require additional capacity in the medium term once traffic levels approach 15,000 vpd. The existing bridge was designed to permit an additional structure to be built adjacent to it.
Planning for the new structure with upgraded approaches should be considered following a decision on the National Highway alignment. Decisions on replacement or upgrade of the Murray River Bridges will ultimately be made jointly by the State Governments of Victoria, NSW and the Federal Government on economic, tourism, historic, environmental and social grounds.

The Yelta /Mildura Line provides a single track, **broad gauge** connection to Melbourne (623km) and Geelong (556km) via Ouyen, Dunolly and Ballarat. North of Ouyen, the line hosts 2 consolidated freight trains per day (Mildura Superfreighter), 1 up and 1 down. Victoria's southwest **standard gauge** rail network connects directly to the Ports of Portland and Melbourne.

Following a feasibility investigation that identified significant benefits to the State, the Victorian Government committed $96million towards **converting rail lines** in the northwest, northeast and southwest of the state **to standard gauge**. Work on converting to standard gauge the rail lines from Yelta to North Geelong has commenced. This line presents the highest priority for gauge standardisation.



The Victorian Government will restore **passenger rail links** to four regional centres: Mildura, Ararat, Leongatha and Bairnsdale. The Mildura service is of some relevance to this study and $7.7million has been budgeted to establish a daylight service operating between Melbourne and Mildura in around 5-6 hours. The service is expected to be operational in 2004.

Track maintenance and upgrades to meet passenger train standards of safety and comfort (Class 2 standard) could permit a lift in nominal freight train operating **speeds** from a limit of 65 km/h to more than 80 km/h.

Public Open Space Strategy August 2003

The Mildura Riverfront from the proposed Marina to Rio Vista Park is a **regional open space** area under the care and control of Council and will remain the focus for, and main open space in Mildura. It will continue to be developed and managed as the main passive recreation area for residents and visitors.

Open space is important element of the lifestyle of the Mildura Rural City Council residents. Of particular importance is the Murray River where residents would prefer a relatively undeveloped, natural park or reserve, maintained in a clean and tidy condition, with basic visitor amenities.

The Mildura Riverfront should include picnic and BBQ facilities, extensive and varied play **amenities**, seating, shelters, toilets and drinking fountains, a variety of landscape forms with shade areas and wide open spaces for ball games, car parking areas near nodes of intensive use designed to minimise excessive visual and functional intrusion. Council has in recent years initiated a wide range of initiatives to **reduce** ongoing exposure to increased **water usage** and maintenance costs. Strategies that are being implemented include, incorporate a minimum of 40% low water use garden area landscaped with indigenous, drought tolerant species and 60% turf.

Development with **improved lighting** of riverfront areas will maximise visitor safety and security and enhance natural supervision of the area and create a pleasant and vibrant atmosphere. Significant habitat, and historical or cultural features of Aboriginal or post European settlement should be protected, and features of natural, historical or cultural significance should be interpreted to increase community appreciation and understanding of its significance.

It is important that open space is developed to **maximise** its **linkages** with other city attractions. Links will be established from other areas of Mildura to the Riverfront precinct, and along the river using the Three Chain Reserve. Potential exists to extend the existing trail from Ornamental Lakes Gardens to Cowra Avenue in the east, and to Merbein in the west. Also linking the Mildura – Yelta rail linear path via Three Chain Reserves at Rio Vista Park and with the Lake Hawthorn to Ranfurly Way linear path is suggested.

Trails should be loops, rather than 'out and back' trails. Where longer 'out and back' trails exist, such as along the Murray River shorter loops can be established along the main trail. They should link points of interest, and be designed to allow the user to pass through a diverse range of settings including attractive landscapes. Trails through or near areas of conservation value must be designed to ensure environmental sustainability. Trails should be designed and constructed, wherever possible to cater for people with disabilities, and will include appropriate amenities such as bike stands, drink fountains, toilets and picnic areas.

The Mildura Regional **Playground** on the riverfront should incorporate car parking to cater for weekend demand (approximately 80 spaces), toilets, shelter / shade, picnic tables and seating, BBQ's, drinking water, security lighting, play equipment for toddlers, junior and senior children, a kick about area of 2500m2, sports practice facilities, and skate/cycling areas. Natural landscape features are to be retained and enhanced with provision for access for people with disabilities assured.

Recommended actions relevant to this study:

- Prepare Master plan for regional open space (Mildura Riverfront reserves), including management and maintenance programs and environmental controls
- Extend the existing paths and tracks along the Murray River from the Ornamental Lakes Park to the east to Cowra Avenue and to the west to Merbein - $10000 pa
- Establish a regional playground on the Mildura Riverfront Reserve

Amendment C11 August 2003

The Mildura Rural City Council prepared this amendment to allow the use and development of a site for the Mildura Marina. This affects Council owned land of approximately 11.5 hectares, west of the Chaffey Bridge abutting the Murray River.
This amendment to the Mildura Planning Scheme allows the following principal elements:

- A marina with 100 river craft berths and mooring for 4 paddle steamers, land based activities such as service and maintenance, launching, fuelling and sewerage pump out
- Convention centre with capacity for 300 people
- Water front retail (1500m2)
- Three star hotel with 120-150 rooms
- 18 riverside dwellings located beside hotel as 'let accommodation'
- 24 two storey dwellings on waterfront, and 46 two and three storey dwellings on the southern portion of the site
- 9 storey high building containing 24 water front apartments (65m AHD)
- Parking Facilities
- Bus Terminal
- Passive Recreation Areas

