

CLOUSTON associates



'OUR RIVER' NEPEAN RIVER MASTER PLAN

FINAL
November 2013

Cover Image:
Tench Reserve looking north west across the Nepean River

'OUR RIVER' MASTER PLAN FINAL

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People, Place and Partnerships

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Executive Summary

Weir Reserve

EXECUTIVE SUMMARY

Some 220 years after Watkin Tench discovered the Nepean River there are many parts of that river within an hour's walk of Penrith CBD that have changed little from the view that confronted Tench and which was the everyday landscape of the Aboriginal clans that had occupied this locality for many thousands of years. Indeed, it was the presence of the river that was the founding cause of Penrith's very existence.

Yet, as for so many urban rivers in Australia and around the world, the City of Penrith turned its back on its river as modes of transport changed and the area developed through the twentieth century. Penrith was, and still is, a River City and indeed the title of this project – 'Our River' – recognises the burgeoning community pride in and ownership of their part of one of Australia's great river landscapes.

This project is therefore an important first step in reinforcing those connections between the river and its community. The master plan acts as a catalyst in adding momentum to a suite of parallel projects and trends already evident in the region, including:

- A resurgent local economy
- New communities developing within walking distance of the river
- Progressive improvements in river health and ecology
- Parallel recreational activity and projects focused on the river
- The pending return of Penrith Lakes to public ownership
- Adjoining communities adopting more active and healthy lifestyles
- A revitalising regional centre in the river corridor.

This master plan addresses these and other related topics in developing an inspiring and enduring future for 'Our River'. The development of the master plan has entailed a sequence of processes and iterations, described in this document including:

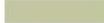
- Field investigations and background document review
- Extensive stakeholder engagement, including user surveys in the field, in workshops and online
- Summarising of the current status of the site, its planning context and the issues and opportunities it raises
- Development of master plan principles that guide the concept plan
- Preparation of a strategic concept plan and next steps towards implementation.

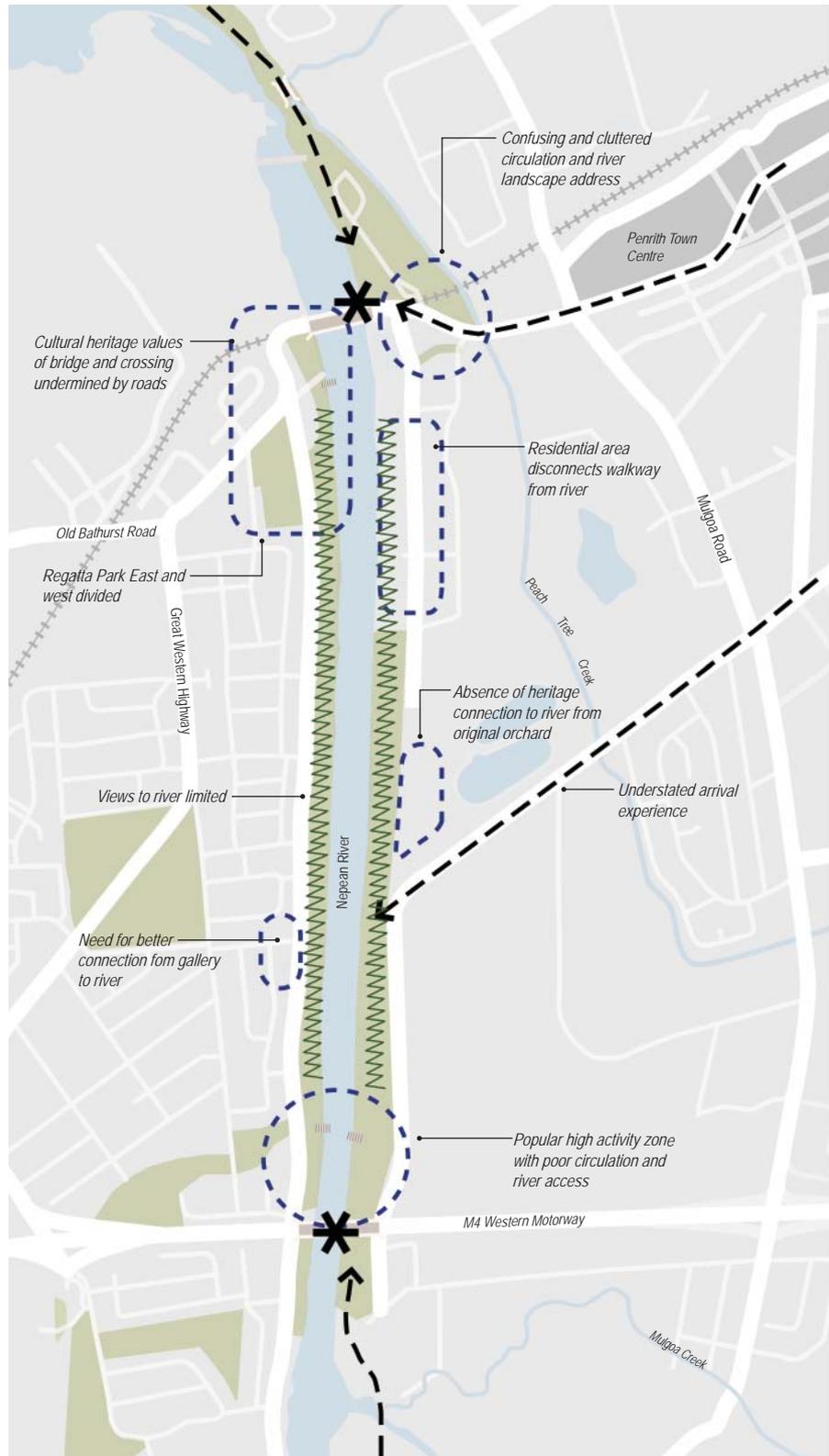
In the following pages of the Executive Summary the processes and outcomes of analysis, stakeholder engagement, concept development and definition of next steps in implementation are summarised in graphic form in the following sequence:

- Constraints and Opportunities
- Principles and Strategic Intent
- The Concept Master Plan
- Images of the potential concepts for key destinations

This Executive Summary closes with an outline for implementation of the plan, while a detailed description of the Stakeholder Engagement program and its outcomes – summarised in the Plan - are provided in an appendix to the master plan document.

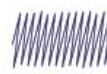
LEGEND

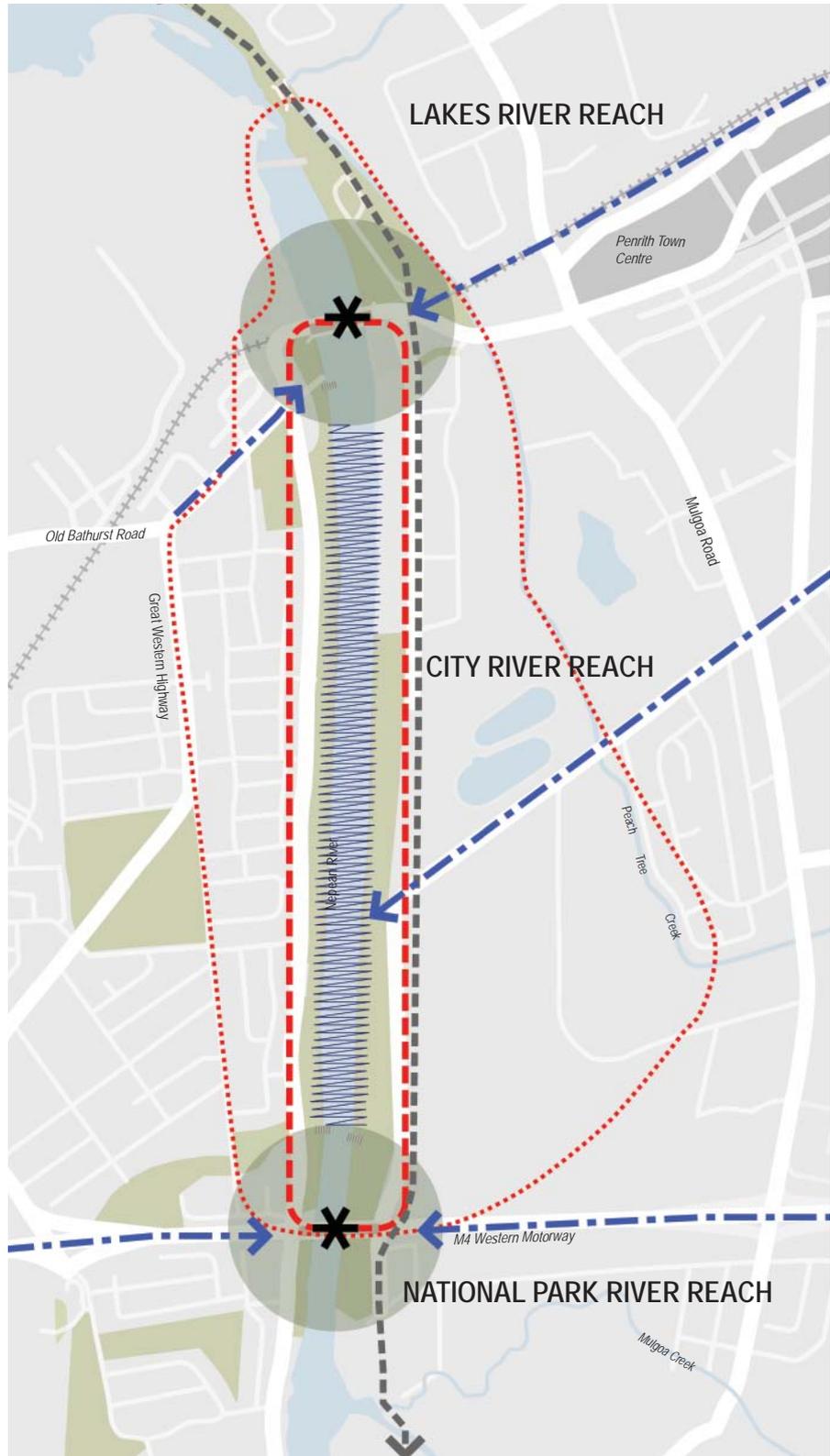
-  Open Space
-  Waterways
-  Areas of specific issues
-  Unrealised opportunities for improved visual and access connections to and along river
-  Important riparian habitat in mixed condition
-  River crossing opportunities to enhance connections and river experience



Summary of Constraints

LEGEND

-  Open Space
-  Waterways
-  Recreational activity nodes at bridges
-  Outer River corridor 'LOOP'
-  Inner River 'LOOP'
-  Enhanced River arrival and connection
-  Great River Walk
-  The Natural River in the City
-  River crossings 'Bookend' the City river reach



Summary of Opportunities

MASTERPLAN PRINCIPLES

In guiding the long term evolution of Our River, a series of planning and design principles have been developed to form the strategic framework for the master plan. These principles build upon the constraints and opportunities identified through the site analysis and community consultation stages and form the foundations for the design proposals illustrated in the concept plan.



OUR ACCESSIBLE RIVER

The river is a significant and important recreational asset in the region, but many people are unaware of its presence and values. Key to the wider awareness of the river and its recreational use and enjoyment is improved access to the parklands along its foreshores and the opportunity to get down to the water's edge and onto the water.



OUR ACTIVE RIVER

Once the river is reached what is on offer to the visitor and resident? An active and vibrant river should provide a wide range of recreational opportunities both on and off the water, making the river a place to be enjoyed by all, both for active recreation and for quiet reflection and contact with nature.



OUR CULTURAL RIVER

The river has a long cultural history, dating back thousands of years. As a spectacular natural and cultural landscape setting, the river provides the opportunity for a series of memorable spaces and places each with their own focus and character, creating a place to celebrate the community's culture and diversity.



OUR HEALTHY RIVER

As a key cultural and recreational asset, the river's health is vital to the environmental health of its river landscape and the health and wellbeing of those who live beside it or visit it. Enhancing the health of the river vegetation and the quality of water is therefore of key importance to a sustainable local environment and ultimately the health of the local community.



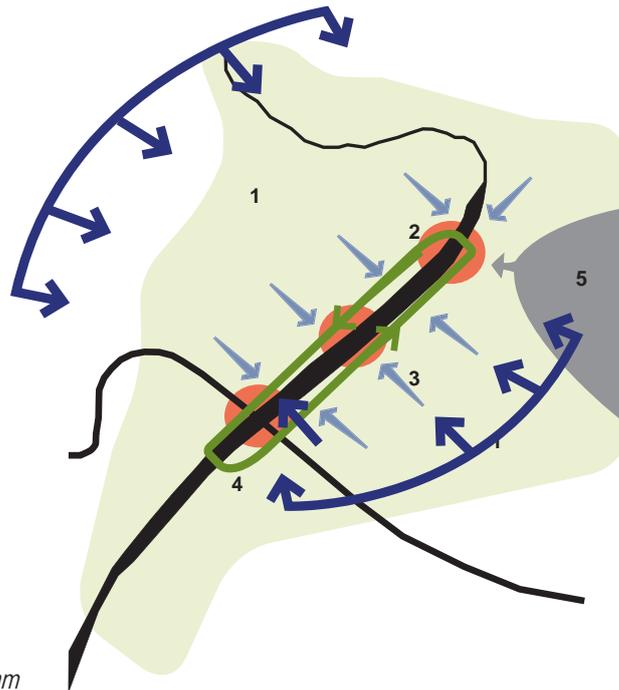
OUR MANAGED RIVER

Like all rivers systems, the river's catchment extends beyond local government boundaries and its management needs to be considered in this wider perspective. Managing and maintaining the river's natural values, cultural heritage and landscape character provides a sustainable setting for compatible recreation, both on and off the water.

These master plan principles are illustrated and further detailed on maps in the masterplan document, set out under the headings outlined above.

STRATEGIC INTENT

In realising the master plan principles previously outlined, the diagram below illustrates the strategic intent that underpins the master plan concept, placing the river at the heart of Penrith's future.



Strategic Intent Diagram

- 1**  **Refocus upon the Nepean River for destination development**
Establish the Nepean River as a primary driver for Penrith City's landscape and environmental focus.
- 2**  **Develop the a series of hubs along the Nepean River**
Build upon the strong recreational and heritage assets between the Weir and South of the M4 Motorway and develop a series of focused hubs supporting land and river based activity.
- 3**  **Improve Visual and Physical Access to the Water**
Open views and vistas to the water, to improve regional and community awareness, relationship to and ownership of the river.
- 4**  **Improve Pedestrian Connectivity and Enhance Riparian Habitat**
Provide a range of continuous loops to improve accessibility around the Nepean River, carefully integrated with enhanced foreshore vegetation and water quality management.
- 5**  **Connect the Penrith City Centre to the Nepean River**
Create a direct relationship with the Penrith City Centre visually, direct connections and activities.

WEIR RESERVE

Explore possible vehicle entry and new bridge to Weir Reserve with car parking

Open activity area supporting rowing space for future facility development. Amphitheatre at water edge with upgraded rowing deck

Explore possible additional vehicle entry, new bridge over creek

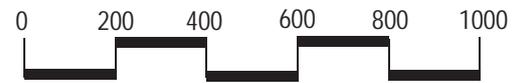
Pedestrian entry to Weir Reserve. Explore one way vehicle traffic out of Weir reserve

Motel

Log Cabin site redevelopment subject to ongoing negotiations

Sculptural river markers for rowing

Proposed on road shared use path on Nepean Avenue



New car park

Shared use path connection to city

JAMISON ROAD

Major river arrival space and view opportunity with an open activity area and new car parking

Shared use path connection along Jamison Rd with new car parking

TENCH RESERVE

Expand recreation and tourism precinct to improve circulation and parking, reducing in user conflicts

Upgrade 90 degree car parking and add shared use path

Upgrade playground with new walls and terraces

Proposed future recreation, event, tourism support space

Explore the possible realignment of Tench Avenue and potential connection to Blaikie Road

Explore paved boulevard for pedestrians

Proposed expansion of tourism / recreation facilities with car parking

River tour platform/jetty

Existing Coffee Club

Upgrade existing boat ramp and launch / wash down area, new car parking for cars and trailers

Upgrade and formalise parking under and next to motor way

Non powered vessel access (Kayaks) with launch 'pool' and buoys on river edge

Upgrade car parking and toilet

Pedestrian connection on top of weir

Pedestrian and bicycle path

Amphitheatre

REGATTA PARK

Provide a seamless connection between the waters edge and open space, increasing the potential uses for Regatta Park

Cafes / restaurants / toilets etc. at Green bridge landing with an event deck at the waters edge

Play facility with new car parking

Explore possible new road alignment with new sport/ event space

Viewing deck with grassy embankment with seamless connection to viewing area for large festivals and events

Viewing deck, small installation space, and water access at Lewers Gallery

Existing fishing platform

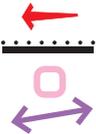
Pedestrian bridge slung under motorway

Upgraded parking under and next to motorway



CONCEPT MASTERPLAN

LEGEND

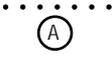
- 

Our Accessible River
 Improve the ability to get to the river
 Provide a range of continuous pathway loops
 Create a strong sense of arrival
 Connect to the city
- 

Our Active River
 Provide a range of facilities and attractions
- 

Our Cultural River
 Enhance views and vistas to and from the river
- 

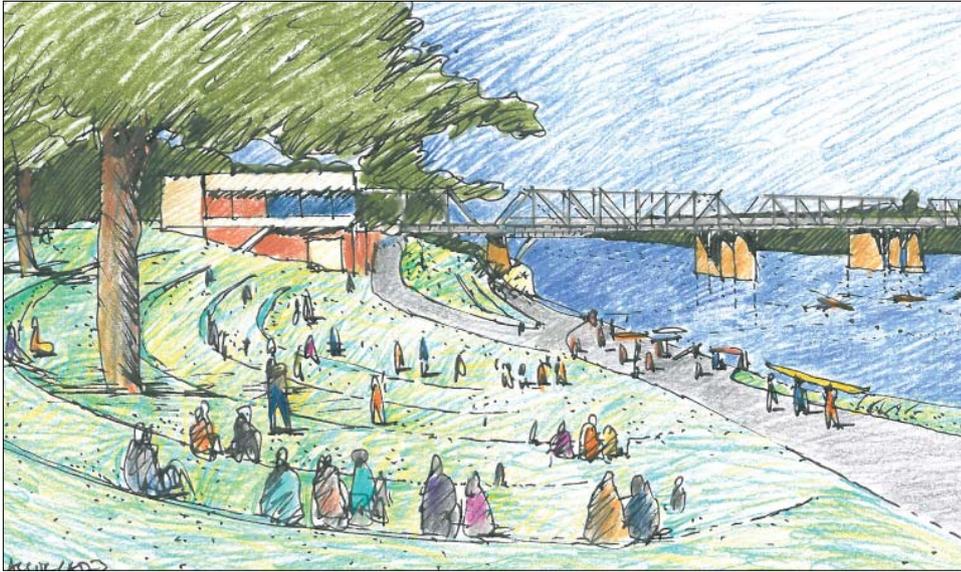
Our Healthy River
 Reinforce native vegetation link from river through creeks and streets
 Provide filtered views through to the river and open views at street ends
- 

Our Managed River
 Manage and maintain the bank's water edge infrastructure
 Manage and maintain water course for water levels and quality
- 

Pedestrian and bicycle pathways
 Water edge access point
- 

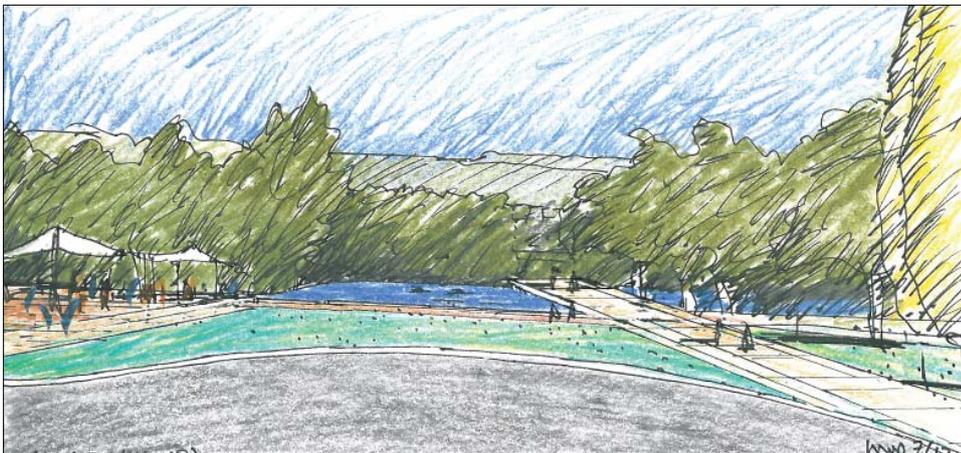
Numbers reflect perspectives on pages 14 and 15.

CONCEPT MASTERPLAN



1. WEIR RESERVE

Weir Reserve is located close to the Penrith CBD. The reserve currently has a strong focus on rowing with non-programmed recreational activities to the north. This reserve, similar to other open spaces along the Nepean River, has been disconnected by the dense water edge vegetation and is not easily accessed by car from the south.



2. JAMISON ROAD ENTRY

With a clear view to the Nepean River, the end of Jamison Road becomes an entry into Tench Reserve creating a strong sense of arrival with a plaza space and lookout.

CONCEPT MASTERPLAN



3. TENCH RESERVE

Tench Reserve will provide for a range of non-programmed events, BBQ's, boats, picnics, play, fitness, walking and cycling paths; building on its already popular facilities.



4. REGATTA PARK

The upgraded layout of Regatta Park will set the framework for festival and event opportunities, cafes, reginal play and places to view sporting events on the river.



Weir Reserve looking east from the water.

IMPLEMENTATION

The progressive implementation of the master plan will be based on a series of related and integrated activities that include:

Priorities, Staging and Program

The Plan proposes the establishment of staged program of costed works across four timeframes from Year 1 to Year 20+ that address short to long term opportunities and priorities.

Governance

The scale, duration and multi-agency nature of this project suggests that the appointment by Council of a River Keeper as the 'go-to' coordinator and manager of all river related programs and initiatives may be prudent.

Planning

A suite of planning actions may be required to inform and drive design development and implementation of the Master Plan. These actions would include:

- Supporting studies and management strategies, such as a Riparian Vegetation Management Plan
- Review and where necessary updates of land use zonings to best reflect the objectives of the Master Plan
- Liaison with key landholders and other government agencies to progress partnerships for implementation
- Establishment of budgets and funding strategies
- Development of programs to support an active river, such as an Interpretation Strategy, River Events Strategy etc.

Consultation and Communication

Ongoing consultation and communication with stakeholders and the broader community will be an essential success factor in delivering the Master Plan. Actions in this regard would include:

- Detailed consultation with stakeholders and affected community members for developed designs for each stage
- Communication of progress, new initiatives and events on the river through conventional and social media formats
- Consultation and liaison with private landholders as outlined above.

Design Development

Progressive design development of the Master Plan will parallel each of the stages and will include:

- Design Palette; systemic designs for elements that relate to whole-of-river actions, such as stormwater, vegetation, street furniture and wayfinding signage
- Site specific designs for defined spaces and reserves along the river eg Regatta Park or Weir Reserve
- One off design elements such as a regional playground.

Business Framework

Establishment of the key principles for businesses operating on and beside the river to ensure that these services respect the values of the river and serve the objectives of the plan.

Funding the Future

Establishing the potential sources of funding for implementing the plan is described and some relevant funding bodies identified.



Chapter 1. Introduction

The M4 Bridge, otherwise known as the Regentville Bridge.

INTRODUCTION

"At daylight we renewed our peregrination, and in an hour after, we found ourselves on the banks of a river nearly as broad as the Thames at Putney, and apparently of great depth, the current running very slowly in a northerly direction. Vast flocks of wild ducks were swimming in the stream."

Watkin Tench, June 1789

Remarkably, more than 220 years after Watkin Tench discovered the Nepean River there are many parts of that river within an hour's walk of Penrith CBD that have changed little from the view that confronted Tench and which was the everyday landscape of the Aboriginal clans who had occupied this locality for many thousands of years.

Indeed, it was the presence of the river that was the founding reason for Penrith's very existence.

Yet, as for so many urban rivers in Australia and around the world the City of Penrith turned its back on its river as modes of transport changed and the area developed through the twentieth century, before slowly realising the extraordinary and sometimes neglected asset on its very doorstep. Penrith was and still is a River City and indeed the title of this project – 'Our River' – recognises the burgeoning community pride in and ownership of their part of one of Australia's great river landscapes.

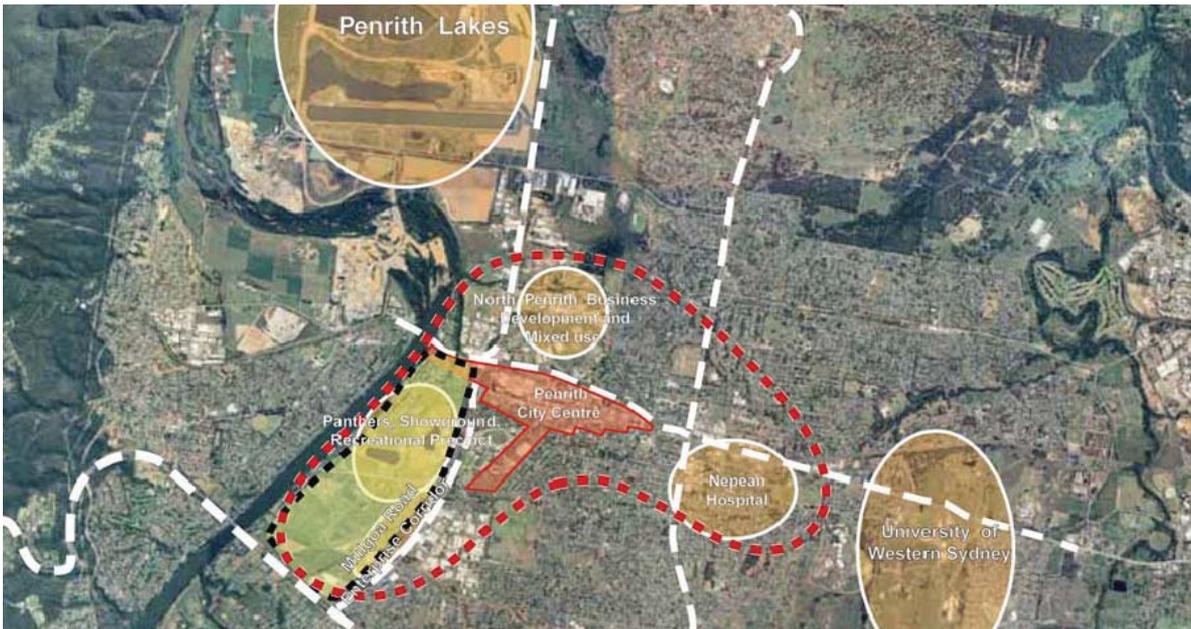
This project is therefore an important step in a series of initiatives already well in train through Council that will further reinforce those connections between the river and its community. It is also a project for which the time is right. Such projects are most successful when they coincide with a suite of parallel and synergistic events and paradigm shifts, many of which are evident in Penrith today. These parallel activities include:

- **A resurgent local economy:** numerous public and private sector development projects are presently in train in the Penrith area, suggesting a promising decade ahead for the economy of the city and district.
- **New communities developing within walking distance of the river:** the continued growth of residential communities along the river corridor means that more people are seeing the river, using it, understanding its values and demanding action to realise its full potential.
- **Progressive improvements in river health and ecology:** from initiatives to release greater environmental flows into the Nepean through to water quality improvements and riparian habitat restoration, the Nepean is witnessing a progressive return to healthier natural systems.
- **Parallel recreational activity and projects focused on waterways:** Council has been one of the most successful local government authorities in the planning, acquisition of funding and delivering sections of the Great River Walk.
- **The pending return of Penrith Lakes to public ownership:** the Sydney International Regatta Centre (SIRC) will soon be complimented by community access to one of Sydney's largest recreational waterways at Penrith Lakes.
- **Adjoining communities adopting more active lifestyles :** in responding to sedentary and often stressful lifestyles, with their associated health issues – some of which are at their peak in Western Sydney – many in the local community are using river and creek foreshores as a means of taking exercise, relaxing and gaining contact with nature.
- **Revitalising urban centres in the river corridor:** Council has recognised the crucial role that the river can and should play in the life of the city and its urban centres, seeking to revitalise the CBD, better connecting the CBD to the river and using a new river crossing to reconnect the community and the city with its western suburbs in Emu Plains and beyond.

This Master Plan addresses these and many other related topics in developing an inspiring, exciting and enduring concept for the future of 'Our River'.



The Project Site (Central) and associated Northern and Southern Curtilages.



The Context of the River in Penrith (Source: River link Precinct Plan, November 2007).

PURPOSE AND SCOPE OF THE PLAN

PURPOSE OF THE MASTER PLAN

The purpose of this master plan is to provide Penrith City Council and its community with a road map for the future stewardship of the City's river reach, connecting it with its CBD, enhancing its natural environment, nurturing a landscape that supports active and healthy lifestyles while celebrating its rich history and cultural values. Importantly, the Plan provides the framework for further design development, continuing stakeholder engagement and establishment of a funding program for the progressive implementation of the concepts that the Plan enshrines.

THE PROJECT SITE

The study area as illustrated opposite comprises all of the river foreshore between the Victoria Bridge in the north to the M4 Bridge to the south (Central) and two curtilages outside that Central area (northern and southern curtilages). The study area comprises four major parklands (Tench Reserve, Regatta Park East, Regatta Park West and Weir Reserve), the long narrow foreshore River Road Reserve on the west bank of the river and the water body of the river itself. While the project site as illustrated suggests a defined boundary, the master plan analysis and proposals also integrate with adjoining properties, streets and bridges.

BACKGROUND TO THE MASTER PLAN

Penrith City borders the two biggest urban release areas in the Sydney Metropolitan Region, namely the North West and South West Growth Centres. The Growth Centres are forecast to accommodate 30-40% of Sydney's long term housing growth and will eventually accommodate 181,000 new homes, serviced by \$7.5 billion of infrastructure. As a dedicated regional city for the North West Region, Penrith will therefore serve the population of the North West Growth Centre, with obvious implications for the demand on river based recreation.

In parallel with this plan for future growth in the region, a suite of recent planning proposals, strategies and concept plans for various sites in Penrith, generated by Council and other organisations - both within and adjoining the site, as described in more detail in Chapter 2: Planning and Site Context - form the context for this master plan. Third party initiatives address sites such as the Nepean Hospital, Western Sydney University, Penrith Panthers and Penrith Lakes, whilst Council itself is the generator of current projects such as 'Future of Penrith, Penrith of the Future', the Green River Bridge, the River link Precinct Plan and progressive implementation of the Great River Walk.

SCOPE OF THE MASTER PLAN

The Master Plan addresses all aspects of the site's current status, the issues arising and the principles that inform the subsequent proposals under the following headings:

- Our Accessible River; addressing access, circulation and wayfinding
- Our Active River; addressing recreational and leisure opportunities
- Our Cultural River; addressing the river's rich heritage and the celebration of river culture
- Our Healthy River; addressing the river's natural environment, on land and water
- Our Managed River; addressing management and maintenance of the river

Each of these topics is illustrated in the master plan with maps, photographs, perspectives sketches and rendered sections.

STAKEHOLDER ENGAGEMENT

The development of the master plan has entailed an extensive and comprehensive engagement program with a wide range of stakeholders including local residents, community members, river-based businesses, government agencies, private landholders, Council staff and Councillors. These engagement processes ran in parallel with a communications and a media plan. The findings from these processes are summarised in Chapter 3: Stakeholder Engagement and Outcomes and detailed in the Appendix.

A BRIEF HISTORY

The Great River Walk Interpretation Plan, prepared by Godden Mackay Logan in 2008, summarised the Aboriginal history of the Castlereagh district and Nepean River prior to European settlement as follows:

“Prior to 1789, the land district around Castlereagh and the Nepean River was the territory of a number of neighbouring Aboriginal groups: the Mulgoa or Mulgowey, who lived on the Nepean River between present-day Mulgoa and Castlereagh; and the Boorooboorongal, who occupied the land north of Castlereagh to beyond Richmond. Castlereagh was a middle ground, the boundary line between the two groups.

The local Aboriginal people are said to believe that the Blue Mountains were created in the Dreamtime and the rivers and creeks were formed when the aquatic animal Gurangaty attempted to escape from a tiger cat named Mittigin.

The Mulgowey and Boorooboorongal lived in open campsites and sheltered under temporary gunyahs or dwellings of wide sheets of bark bent into an A-frame. The men hunted possums, birds, ducks, wallabies, kangaroos and reptiles and used digging sticks, spears, boomerangs and traps. The women harvested yams by churning up the river bank, collected berries, grubs and shoots and cooked their food over an open fire. Mullett, although the most common fish in the river, was not liked and seldom eaten.

The rivers and creeks were a valued natural resource to the local people, providing food, drinking water, swimming and transport. The river also provided stones important for making tools. Chert was used for making sharp cutting tools and basalt pebbles for grinding and making hatchets and axes.

The occupation of the area by Europeans from early 1800s resulted in the serious disruption of the traditional lifestyles of Mulgoway and Boorooboorongal people, breaking the traditional territorial boundaries and isolating previous areas of food gathering and shelter. The 1828 census recorded 156 Aboriginal people living in the Penrith area; 38 from the Nepean, 15 from the Mulgoa, 73 from Richmond and 30 from the Booroogorang.”

Today Penrith has many Aboriginal and Torres Strait Islander residents from many different nations. Shortly after the first Europeans settled in Australia the discovery of the Nepean River at Penrith was made by Captain Watkin Tench who, together with members of his marine exploration party, reached the shores of the river in 1789. The river was officially named the Nepean by Governor Arthur Phillip, after the British Under Secretary of State and his close friend Evan Nepean.

European settlement along the Nepean River began in 1803 when the area along the east bank of the river was surveyed. Land lots adjacent to the river were granted by Governor King to free settlers, ex-military men and ex-convicts. These land lots ran parallel to the river between it and a dirt track known as Castlereagh Road which headed north towards the already settled and large rural town of Richmond.



Images of the Weir and Victoria Bridge in history (Source: <http://trove.nla.gov.au>)

In 1804 and 1805 two substantial grants of 1000 acres each were given to First Fleeters Daniel Woodriff and Thomas Jamison. The grants were situated on land between the Victoria Bridge and the Penrith Valley Bridge. Jamison's son, Sir John Jamison, who was bequeathed the land by his father in 1809, built an extravagant mansion and estate at Regentville. Between the years of 1820 and 1840 Regentville had the greater focus as a centre than Penrith until Jamison's financial ruin and death in 1847.

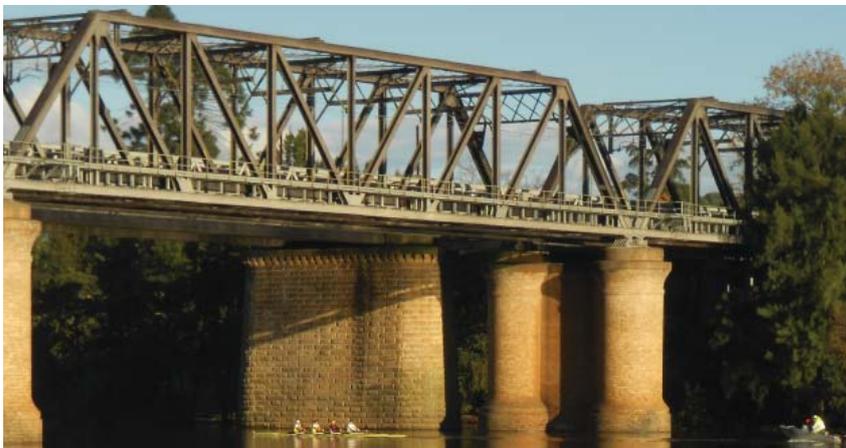
Gregory Blaxland, William Lawson and William Wentworth forged a passage in 1813 across the Nepean River and Blue Mountains to the western plains seeking greater grazing lands in order to help sustain the growing colony. Following their success and the subsequent construction by William Cox of a trafficable road across the mountains, new towns along the river grew as gateways to the west.

Settlement of the town of Penrith was initially unplanned but the construction in 1815 of a road connecting Emu Plains to Sydney and the building of a courthouse in 1817 established the beginnings of a substantial town. Government stores, inns and a police lock-up increasingly made Penrith a more desirable and closer township for the new settlers than Richmond in the north or the private estate of Regentville.

The railway from Sydney and Parramatta reached Penrith in 1862 which further improved Penrith as a transport link for the movement of agricultural and bulky products to Sydney.

Victoria Bridge, constructed in 1867 and now heritage listed, is a wrought iron girder bridge and was the first iron bridge to cross the Nepean River. Prior to this a punt service was located at the same site which was replaced by two timber bridges, both subsequently were destroyed in the floods of 1857 and 1860. Victoria Bridge was significant in the development of the colony as it initially carried both road via the Great Western Highway and rail traffic which allowed settlement to extend west to the Blue Mountains. Today the road and rail traffic are carried separately by different bridges.

Regentville Bridge (also known as the M4 Bridge) is named after the extensive private estate 'Regentville' built by Sir John Jamison. The bridge carries the M4 Western Motorway which has replaced the Great Western Highway as the main arterial route crossing the Nepean River.



The Victoria Bridge today



Tench Reserve is one of four major parks in the study area and offers opportunities for picnics, play and boat launching.



The Weir Reserve Rowing Platform with the Victoria Bridge in the background and the M4 Bridge just visible in the distance.



The area around the boat ramp at Tench Reserve is a focus of major activity at weekends



The memorial plantings in the northern end of Tench Reserve have an arboretum like character.



Chapter 2. Planning and Site Context

The Victoria Bridge combines road and rail routes.

PLANNING AND SITE CONTEXT

REGIONAL AND LOCAL CONTEXT

Penrith City is located at the western fringe of the Sydney metropolitan area - about 54 kilometres from the Sydney GPO; the Penrith City LGA is bounded by Hawkesbury City in the north, Blacktown City and Fairfield City in the east, Liverpool City and Wollondilly Shire in the south, and the Blue Mountains in the west.

In the regional context, Penrith services its own local government area as well as the Blue Mountains, Hawkesbury and parts of Blacktown, Camden and Wollondilly. Penrith is also a critical link for the south-west and north-west growth centres, as well as the central west; lying as it does on the Nepean River, Penrith marks the transition between the City and the Mountains.

THE CITY OF PENRITH

Penrith is both an agricultural centre (including dairying, poultry-farming, fruits, vegetables, beef and turf farming) as well as a focal point for manufacturing industries. The master plan area spans a number of suburbs including Penrith, Emu Plains, Leonay, Mulgoa, Regentville and Jamisontown.

Major Features of the City

The main spine of Penrith's urban center runs along an east-west axis and includes Western Sydney University, Penrith Hospital, the CBD and thence to the river. The city currently includes cultural centres complementing more commercial tourist sites and the natural beauty of the surrounding Nepean-Hawkesbury River, Penrith Lakes and the Blue Mountains.

The recreational and tourist values of these places are complemented by the continuing development of the Panther's Club Rugby Leagues Club, with the entertainment and resort centre being in close proximity of the study area. The Penrith Lakes Scheme lies 2km north of the master plan area and is proposed as a major regional public recreational parkland.

Population

The population of Penrith LGA in 2011 was 184,681 with a land area of 40,000 hectares and a population density of 4.57 persons per hectare. The current population forecast for 2013 is 189,019 with a change between 2013 and 2031 expected to be 34,612 people in Penrith City with a total of 18.31% change between 2013 and 2031. Evidently, this growth in the City's population and that of the adjoining Southwest growth area will increase demand for access to and enjoyment of the Nepean River.

FEDERAL GOVERNMENT PLANNING

The principal statutory planning legislation at a federal government level that will inform and direct the master plan includes NSW Heritage Act (1984) Disability Discrimination Act (1992) and Environment Protection and Biodiversity Conservation Act (1999). The Commonwealth Government also provides direct funding for major projects of national significance in the region such as the Nepean River Recovery Plan (2012).

STATE, METROPOLITAN AND REGIONAL PLANNING

The principal statutory planning at a state government level that will inform and direct the master plan includes the Draft Metropolitan Strategy for Sydney to 2031. Penrith is designated in the Metropolitan Strategy as a Regional city and is expected to become the principal centre providing services for one of the most rapidly growing regions in Australia.

Planning legislation and policy generated by State Government that is of particular relevance to this project includes the Water Management Act and the associated Guidelines for Riparian Corridors on Waterfront Land. Under these guidelines the Nepean River is a 3rd Order Stream for which a recommended Vegetated Riparian Zone (VRZ) would extend 30 meters landward from the top of each bank.

CLOUSTON associates

LEGEND

- Study Area
- RE1 Public Recreation
- RE2 Private Recreation
- SP2 Infrastructure
- SP3 Tourist
- B2 Local Centre
- B3 Commercial Core
- R5 Village
- R2 Low Density Residential
- R3 Medium Density Residential
- R4 High Density Residential
- B5 Business development
- B4
- RU4



Land use zones in the project study area vicinity. (Source: Penrith LEP 1/12/12)

PENRITH LOCAL ENVIRONMENT PLAN

The Penrith LEP (2010) identifies a range of land uses in the study area as illustrated in the LEP map opposite. The key land uses within and adjoining the project area comprise:

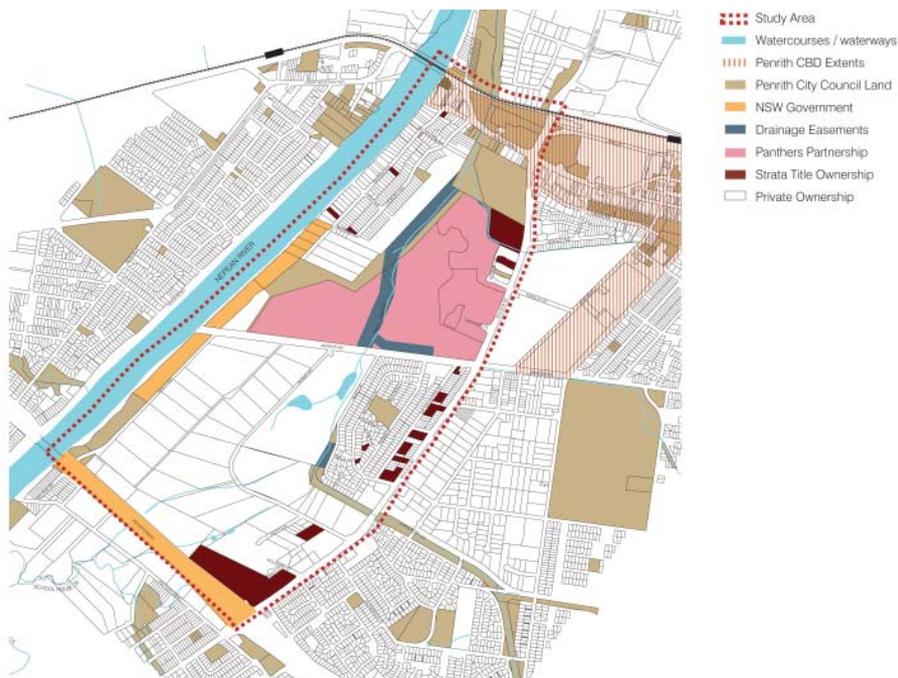
- Public Open Space (including foreshore parklands at Tench Reserve, Regatta Park East and Regatta Park West as well as Weir Reserve);
- Residential (low density closest to the river);
- Tourism (most significantly east of Tench Reserve);
- Primary Production Small Lots (east of Tench Reserve);
- Business Development (adjoining the M4).

The LEP for the Panthers site incorporates a range of existing and future uses including retail, high density residential (apartments), commercial and leisure uses.

LAND OWNERSHIP

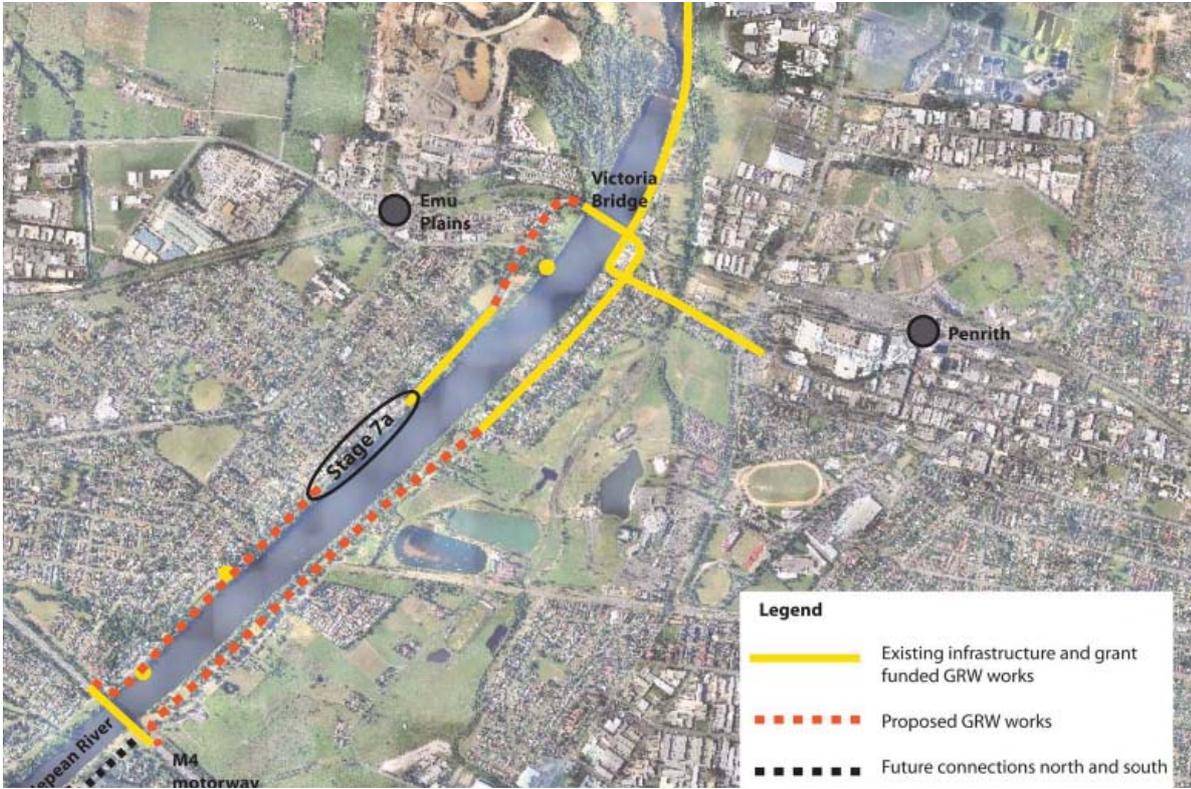
Key landholders in or immediately adjoining the master plan area, as illustrated below, include:

- NSW State Government - ownership of part of Tench Reserve (Crown Land);
- Penrith City Council - public open space ownership of Tench Reserve, Weir Reserve and Regatta Parks and River Road
- Penrith City Council - other land ownership includes Carpenter's site and Woodriff Gardens
- Penrith Panthers
- Various private land ownerships - south of Jamison Road, along Nepean Avenue and River Road.



Land Ownership

Source: HBO+EMTB, September 2009. River link Precinct Plan Urban Design Study



Great River Walk (Source: MGP grants Map)



Future of Penrith (Source: Penrith of the Future - Campement Urbain)

PENRITH CITY COUNCIL STRATEGIC PLANNING

Over recent years Penrith City Council has undertaken or been partner to a series of strategic plans that are of direct relevance to this master plan and which are summarised in brief outline below.

Penrith Community Strategic Plan 2031

The past 30 years have seen Penrith evolve from its traditional rural origins on the fringe of metropolitan Sydney to a dynamic regional city in its own right. The Community Strategic Plan sets out Council's directions for the future of Penrith to meet the aspirations of the community as expressed in the preparation of this Plan.

The River link Precinct Plan 2008 and Urban Design Study 2009.

The River link Precinct Plan establishes strategic land uses for the area of land that lies between the Nepean River and Mulgoa Road, north of the M4 and south of the rail line. The Plan proposes a range of strategic connections between the river and the CBD. The purpose of the Urban Design Study is to establish the preferred future character of the river precinct, being used as a guide in the preparation of LEPs and DCPs, providing an analysis of the physical and natural character of the river precinct and proposing a vision for its future urban and visual character.

Panthers Penrith Site - Planning Proposal 2012

Over recent years Council has been working in partnership with the Penrith Panthers in the development of their landholdings as a core element of the River Link Precinct Plan. The 2010 Development Control Plan for the site, which includes mixed use development, creek corridor enhancements and recreation facilities, was given planning approval by Council in 2013.

Great River Walk, 2003

The Great River Walk aims to create a continuous walking trail for the entire length of the Hawkesbury Nepean river system from its headwaters near Goulburn (ultimately to Canberra) to its issue into Broken Bay, a total distance of 570 kilometres. Council has progressively funded and constructed sequential stages of the Great River Walk and the path loop on both sides of the river between Victoria Bridge and the M4 Bridge, as illustrated in the upper figure opposite. An Interpretation Plan has also been prepared for the Great River Walk.

River Project 2012 and 'The Future of Penrith, Penrith of the Future' 2012

In 2010 Penrith City Council in partnership with Landcom, Penrith Panthers and C3West commissioned Campement Urbain to undertake a project that would guide and shape Penrith's vision as a progressive, innovatively designed, contemporary urban centre. The 'Future of Penrith, Penrith of the Future' strategy considers how to reconnect the City Centre with the River and proposes the re-visioning of public transport, a strong urban axis between the CBD and the river and a major pedestrian bridge crossing the river south of Victoria Bridge on the alignment of the original punt crossing. The design of this bridge - The Nepean River Green Bridge - is currently being developed by RMS. The lower figure opposite illustrates the proposed connection between the CBD and the River.

Penrith City Centre Public Domain Masterplan 2013

This Plan is currently being prepared to guide the future delivery of improvements to the public domain of the City Centre of Penrith. The aim of the Masterplan is to provide a strategic framework and recommendations for the improvement of the public domain that Penrith City Council is responsible for, such as the footpaths, streets and public spaces.

Tench Reserve Riparian Corridor (2004) and River Road Riparian Corridor Plan of Management (2008)

The Tench Reserve riparian corridor is a significant area of public parkland. The 2004 plan addresses the natural environment, indigenous cultural heritage and recreation values of the corridor and establishes objectives for management of the Reserve. The River Road Plan of Management 2008 extends from near Tunnel Gully Creek in the south to the southern edge of Regatta Park to the north, taking in a significant section of the Great River Walk study area. This Plan of Management focuses on the protection, management and rehabilitation of the riparian corridor and immediate environs.



Regatta Park lies close to the original punt crossing site on the River.



The corner of Jamison Road and Tench Avenue.

THE PROJECT SITE TODAY

The master plan area is characterised by a broad spectrum of land uses and landscape type, ranging from active foreshore parklands through residential waterfront properties to quiet natural riverbanks, riverside streets, bridges and cultural heritage sites. In the following pages the current status of the area's land uses, accessibility, natural environment, cultural heritage and landscape character are illustrated under the headings of:

- **Land Use and Activities;** describing the range of land use types, facilities and recreation activities present on the site today. Over and above the recreation facilities illustrated, a range of clubs and businesses operate along and on the river including:
 - the Nepean Rowing Club, Penrith Rowing Club, the Nepean (this stretch of the river has a long history of rowing), Powerboat and Ski Club and various community uses and buildings such as Sea Scouts in Weir Reserve
 - The Coffee Club, located on Tench Avenue road east of the boat ramp
 - The Penrith Regional Art Gallery on River Road, which also includes a cafe
 - The Nepean Shores Tourist Park on Tench Avenue which provides holiday and permanent accommodation, the Penrith Motor Inn, located on Mulgoa Road and a Caravan Park, located NW of Victoria Bridge
 - Nepean River Tours that operate the 'Nepean Belle' paddle steamer and 'Platypus' from south of the M4 Bridge and kayak hire and tour businesses run without any formal facilities from Tench Reserve.
- **Access Circulation and Way finding;** describing the arrival experience, the extent and nature of vehicle circulation, parking, pedestrian and cycle paths and wayfinding:
 - Penrith Railway station in the CBD lies some 700m (a 15-20 minute walk) from the river foreshores while bus access closest to the river includes routes and bus stops along Tench Avenue and River Road
 - The major road 'gateways' to the river include three junctions along Mulgoa Road on the eastern side of the river and two on the western bank at Emu Plains and the M4 Bridge. On site parking is available at five different locations across the site
 - Progressive construction of river foreshore paths by Council over recent years has greatly extended river access and provides popular routes for joggers, walkers and cyclists. Formal access points onto the water within the site are present in five different locations. Council has implemented wayfinding signage associated with the Great River Walk.
- **Natural and Cultural Heritage;** describing the status of the site's natural systems and its Aboriginal and non-Aboriginal cultural heritage and history:
 - The River-flat Eucalypt Forest (formerly Sydney Coastal river Flat Forest) and Cumberland Plain Woodland. are listed under the *NSW Threatened Species Conservation (TSC)* (1995) with only remnant pockets of each present along the riverbank. Five threatened species of fauna have been recorded on site, including the Green and Golden Bell Frog, the Regent Honeyeater bird, the Large-footed Myotis bat and the Cumberland Plain Landsnail
 - Peach Tree Creek is the largest waterway in the master plan area, entering the river north of Weir Reserve and is prone to flooding. Schoolyard Creek enters the river south of the M4 Bridge on the eastern bank
 - There are numerous cultural heritage sites associated with the site's rich Aboriginal and Non-Aboriginal history.
- **Image and Character;** describing the core landscape characteristics of the river and the associated landmarks, views and vistas, all as illustrated. The stretch of river contained within the master plan area has landscape qualities unique in Sydney, not least on account of the straightness of the river, over two kilometres in length within the site area and extending a further three kilometres of relatively straight river corridor southward to the Narrows.

CLOUSTON associates

LEGEND

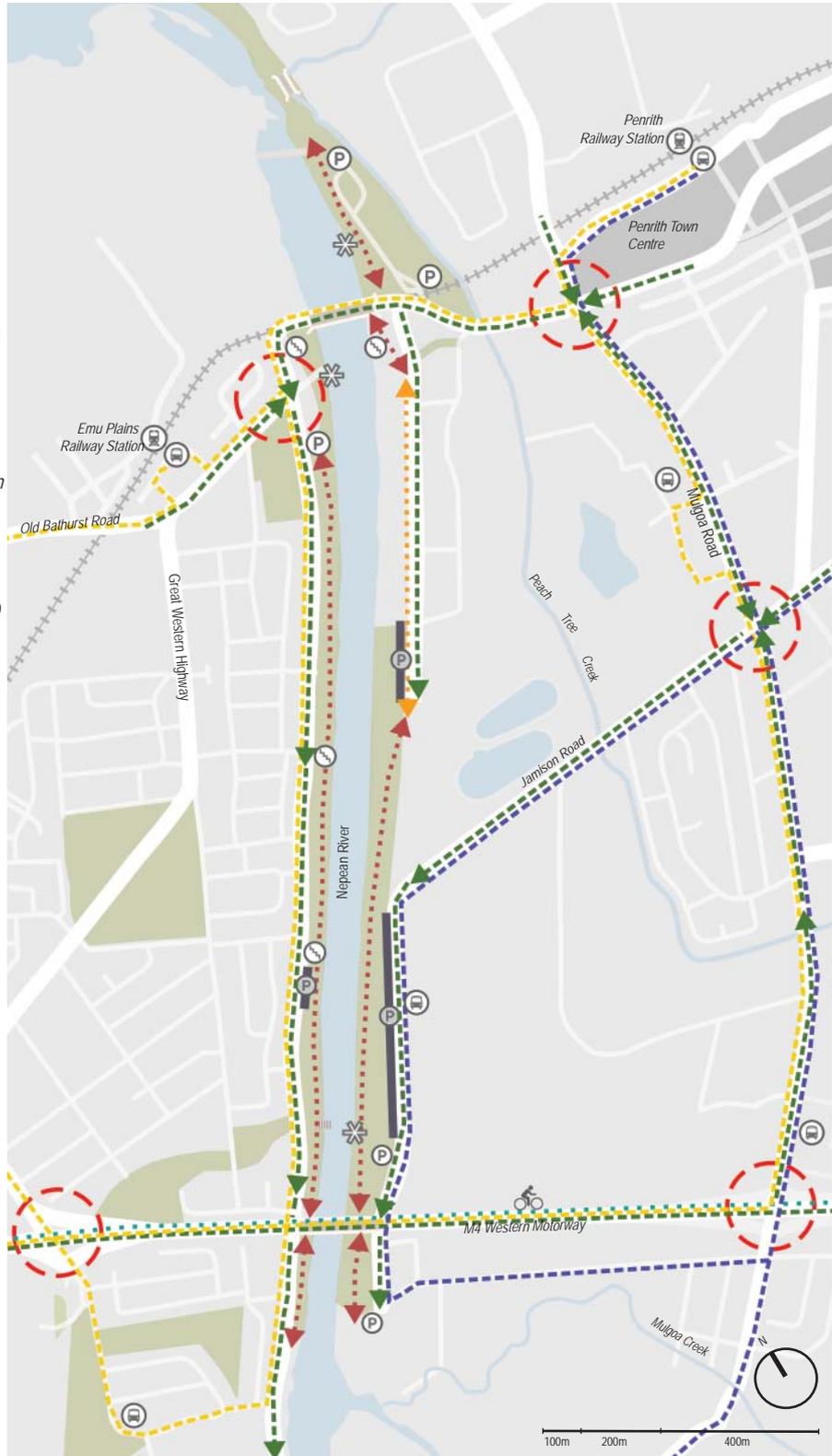
-  Open Space
-  Waterways
-  Foreshore Parklands
-  Lookout
-  Platform
-  Cafe/Kiosk
-  Information
-  Playground
-  Public Boat Ramp
-  Private Boat Ramp
-  Picnic Facilities
-  Toilets
-  Playing Fields



Land Use And Activities

LEGEND

-  Open Space
-  Waterways
-  Westbus routes
-  Blue Mountain Bus Co. routes
-  Vehicle Access
-  Pedestrian - On Road
-  Pedestrian - Sealed Path
-  Cycle Path
-  Gateway/Intersection
-  Train Station
-  Car Parking (in park)
-  Water Access (Jetty/Pontoon)
-  Car Parking (Roadside)
-  Stair Access
-  Bus Stop



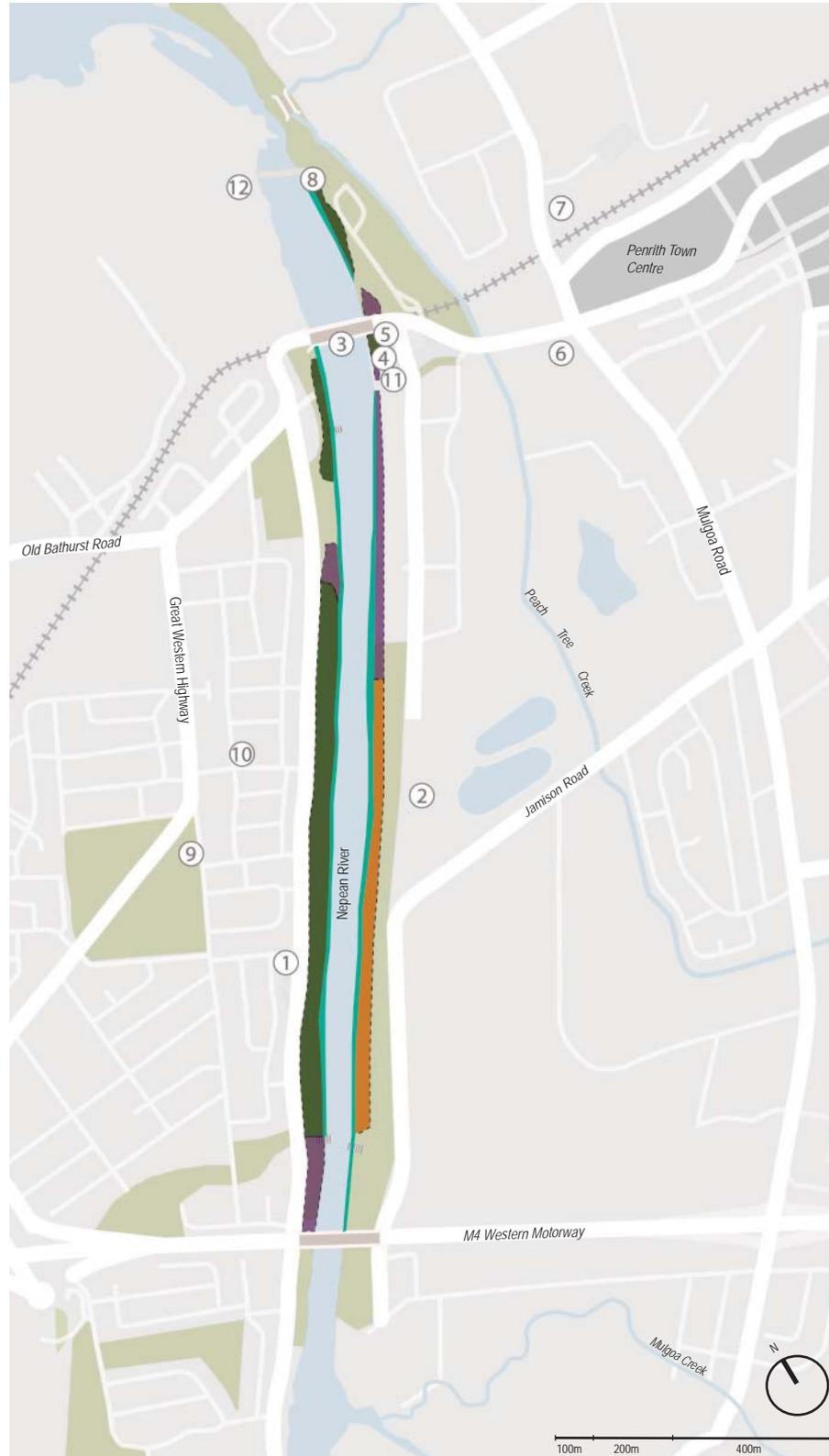
Access, Circulation and Wayfinding

LEGEND

-  Open Space
-  Waterways
-  Riparian/Aquatic Zone
-  Modified Forest
-  River flat Forest
-  Exotic Weeds

Cultural Heritage Sites

- ① Penrith Gallery and Lewers Bequest (1901)
- ② Madang Park - Farm House (1939)
- ③ Victoria Bridge (1869)
- ④ Explorers Memorial (1938)
Former Punt crossing (1823)
- ⑤ Sydney Water Pumping Station (1890)
- ⑥ Ambulance Station (1936)
- ⑦ Museum of Fire (formerly Penrith Power station)
- ⑧ Penrith Weir (1909)
- ⑨ Melrose House (1934)
- ⑩ Former Government Farm Site (1819)
- ⑪ Log Cabin Hotel (1827)
- ⑫ Mill Site



Natural and Cultural Heritage

LEGEND

- Open Space
- Waterways
- Arrival
- Views of river obscured by vegetation or structures
- Extensive views to / along River
- Activity zone

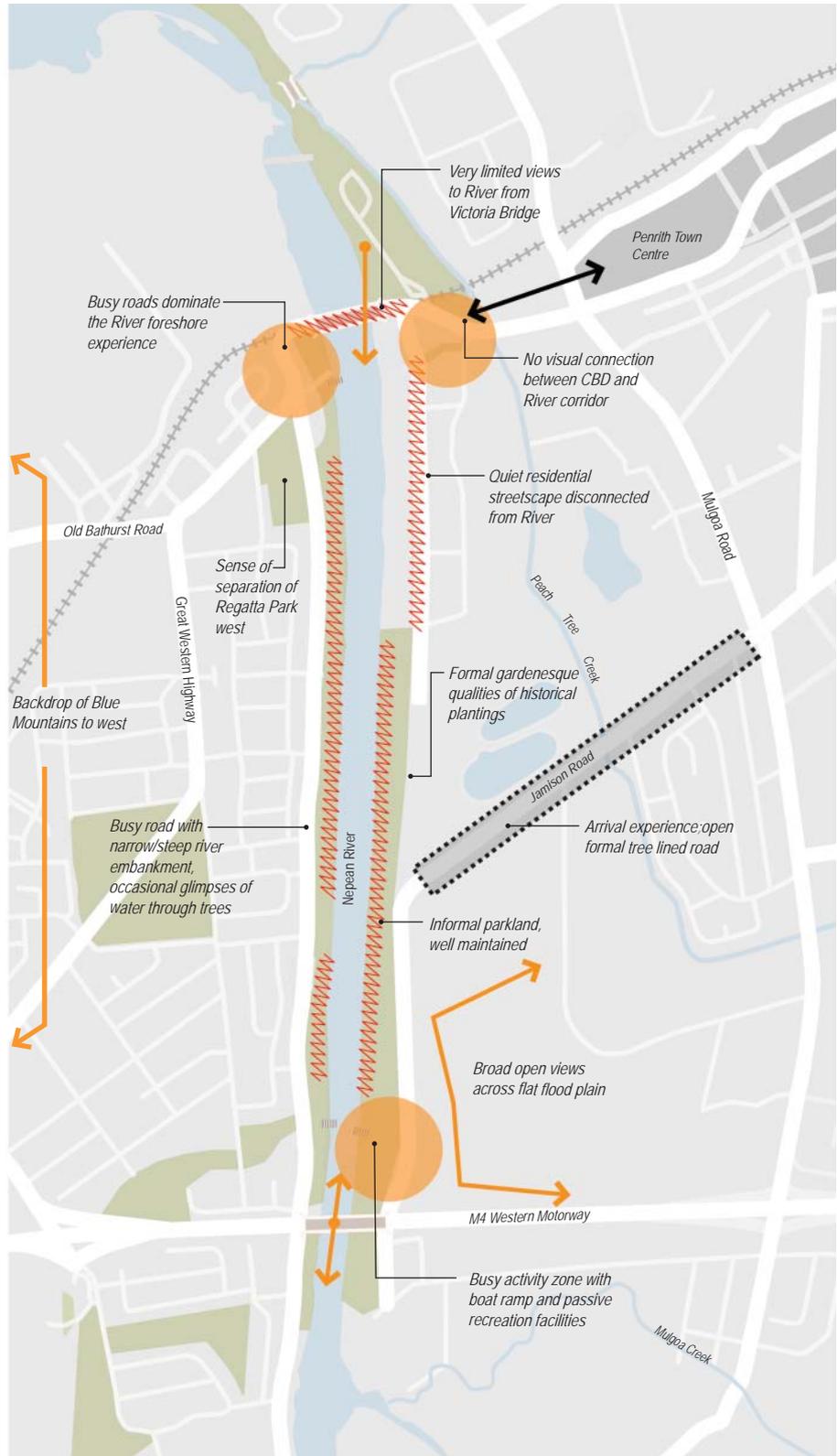


Image and Character

Chapter 3: Consultation Process and Outcomes



Sunday Siesta event at Tench Reserve Nepean River.

STAKEHOLDER ENGAGEMENT AND OUTCOMES

An extensive stakeholder engagement process has underpinned the development of the master plan, involving a range of consultation and participation processes starting during the early analysis phases and subsequently informing the development of the concept master plan. The forms of engagement employed in this program included one-on-one intercept surveys and observations in the field, workshops with staff, Councillors and stakeholders, online surveys, community fun day, briefings, presentations and an interactive public exhibition. These engagement processes ran in parallel with a communications and media plan.

Throughout the project, the outcomes of these engagement processes were recorded, analysed and integrated into the development of the master plan concept. A full record of all engagement outcomes is described in the Community Engagement Report in the Appendices and is briefly summarised below:

- **Land Use and Activities**
 - a need for a variety of recreational experiences, both active and quiet, on and off the water
 - an emphasis on the need for higher quality and more engaging children's play
 - a desire to see more cafes and restaurants along the foreshore
 - the priority for improved and separated launching facilities for powered and non-powered craft
 - the importance of river recreation and leisure including tours
 - recognition of the unique values of the river's long straight reach for rowing
 - a priority on improving public safety through improved passive and active surveillance
 - wide support for river focused events and festivals
- **Access Circulation and Way finding**
 - the importance of enhancing the bridge to bridge path loop for pedestrians and cyclists
 - a desire to gain more informal access to the water's edge for fishing, kayaking and the like
 - the need to ensure that cyclists and walkers do not conflict on pathways
 - concern to ensure there is sufficient parking but also that this not lead to congestion
 - mixed opinions on the proposed Green Bridge
- **Natural and Cultural Heritage**
 - the need to ensure that river recreation complements rather than impacts on the rivers natural values
 - the need to improve the natural values of the river corridor habitat including water quality and maintaining bank stability, revegetation and conservation of threatened bushland species
 - a desire to see the river's rich history better reflected in the landscape through interpretation
- **Image and Character**
 - recognition of the critical views to and along the river including to and from the two bridges
 - the critical need to regain views to the water progressively lost through dense vegetation growth
 - the need for quiet and reflective places and experiences on and by the river.
- **Management and Maintenance**
 - the need to manage river uses such as rowing, kayaking and skiing compatibly
 - the importance of managing aquatic and terrestrial weeds along the river.

Chapter 4: Constraints and Opportunities



Tench Reserve boat ramp and docking of the Nepean Belle.

CONSTRAINTS AND OPPORTUNITIES

Set out below and illustrated in the two maps on the following pages is a summary of the constraints and opportunities that are addressed in the master plan:

- **Land Use and Activities**
 - the foreshore is a popular destination, but recreational diversity is relatively limited on land and water
 - Tench Reserve is very popular but can be congested whilst other parts of the foreshore are little used
 - rowing has a long history on the river that is not strongly expressed at present
 - the success of the Coffee Club suggests opportunities for more cafes and restaurants along the foreshore
 - there are few locations on the foreshore suitably designed to accommodate events and festivals
- **Access Circulation and Way finding**
 - there are no clear 'gateway' addresses to the river foreshore for cars, buses, pedestrians and cyclists
 - vehicle access and parking is often poorly arranged in Tench Reserve, Regatta Park and Weir Reserve; there is a need for a more strategic approach to parking along the foreshore
 - the bridge to bridge path loop for pedestrians and cyclists is not complete and the bridge crossings are either unsafe or have poor amenity
 - launching facilities for powered and non-powered craft are not well laid out and can clash and be congested
 - informal and low key access to the water's edge is limited along the river corridor
 - many of the paths along the foreshore are discontinuous and of differing dimensions, design and safety
 - local access to the foreshore is principally by car with few safe pedestrian/bicycle path links from adjoining neighbourhoods
 - universal access opportunities vary greatly along the river, largely due to the steep river banks
 - the Great River Walk directional and interpretive signage is of a high standard and should be extended
- **Natural and Cultural Heritage**
 - there is much sound native vegetation on the foreshore, but species diversity is limited and weeds extensive
 - flooding and bank stability are key constraints in establishing healthy foreshore vegetation and robust stable paths
 - the creeks adjoining and entering the river need to be better managed to improve river water quality
 - there are few visual or interpretive cues to the significant cultural heritage sites located along the river
 - **Image and Character**
 - there are fine views along the river and to the escarpment, but vegetation growth obscures many river views
 - there is not a significant diversity of landscape character along the river foreshore
 - there is no clear visual link between the CBD and the river nor is there an urban river front precinct
 - there is an opportunity to integrate both permanent and temporary urban art along the river
- **Management and Maintenance**
 - the larger reserves are well maintained but the foreshore between reserves is often less well maintained
 - aquatic and terrestrial weeds along the river pose problems for native habitat and recreational uses.



Existing access to the River Road Reserve river frontage is limited to two formal locations.



The Great River Walk program has provided improved access to and along the river's edge.



Some local roads adjoining the river have dedicated cycle lanes, but these are not consistent on the foreshores.



The cycle and walk experience on Victoria Bridge is neither safe nor appealing.



Lower level paths are subject to periodic flooding and are often used for cycling.



Rope swings on the bank of the river create an incidental area of recreation, but can result in erosion and damage to foreshore vegetation.



The Nepean Belle viewed through a break in the tree canopy is a regular and popular feature on the river.

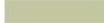


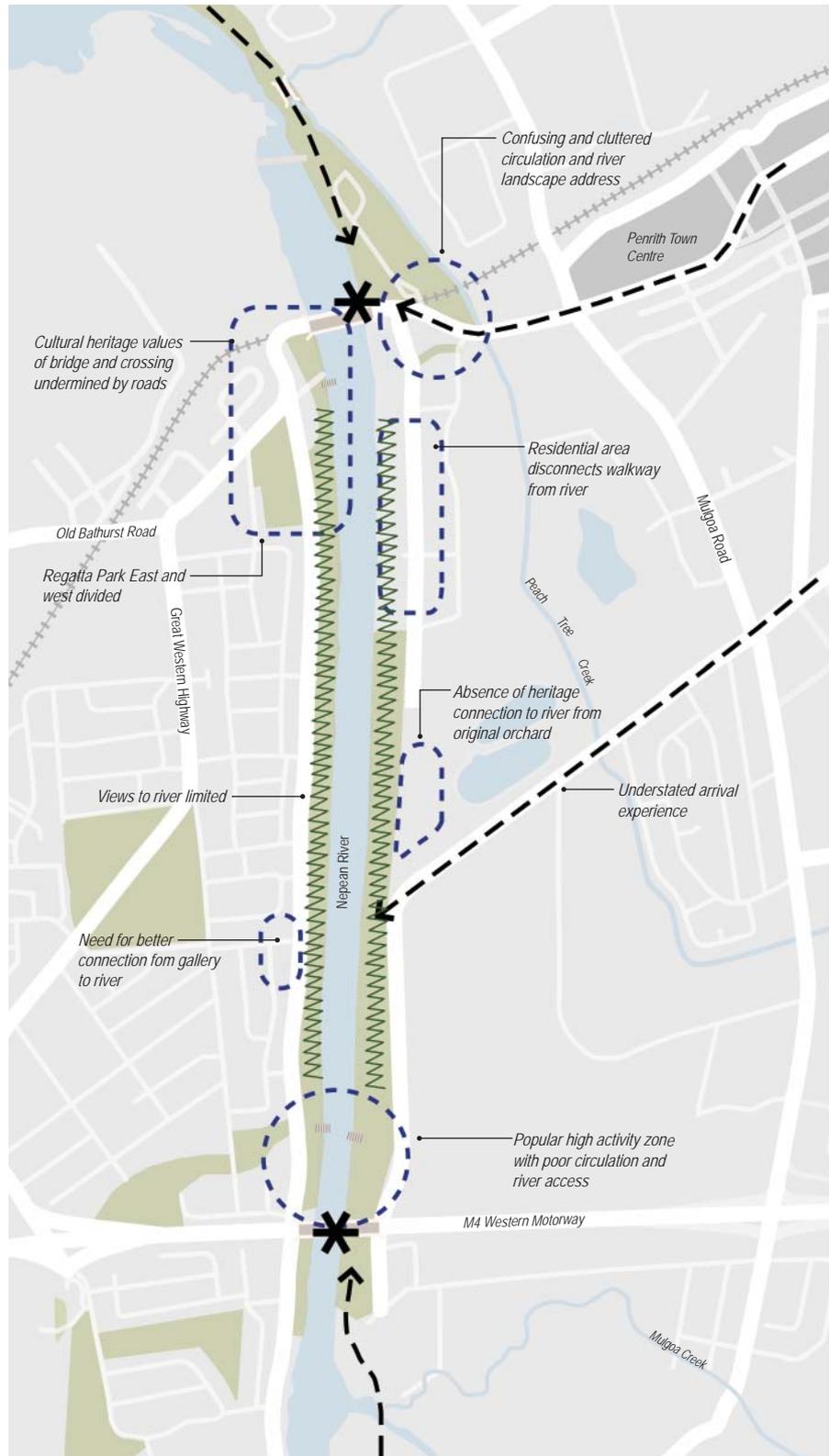
The unique long straight of this stretch of river has particular significance for the rowing community. (Source : Community Strategic Plan 2031, Penrith)



In many cases designated views to the river require active vegetation management if they are to be retained.

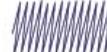
LEGEND

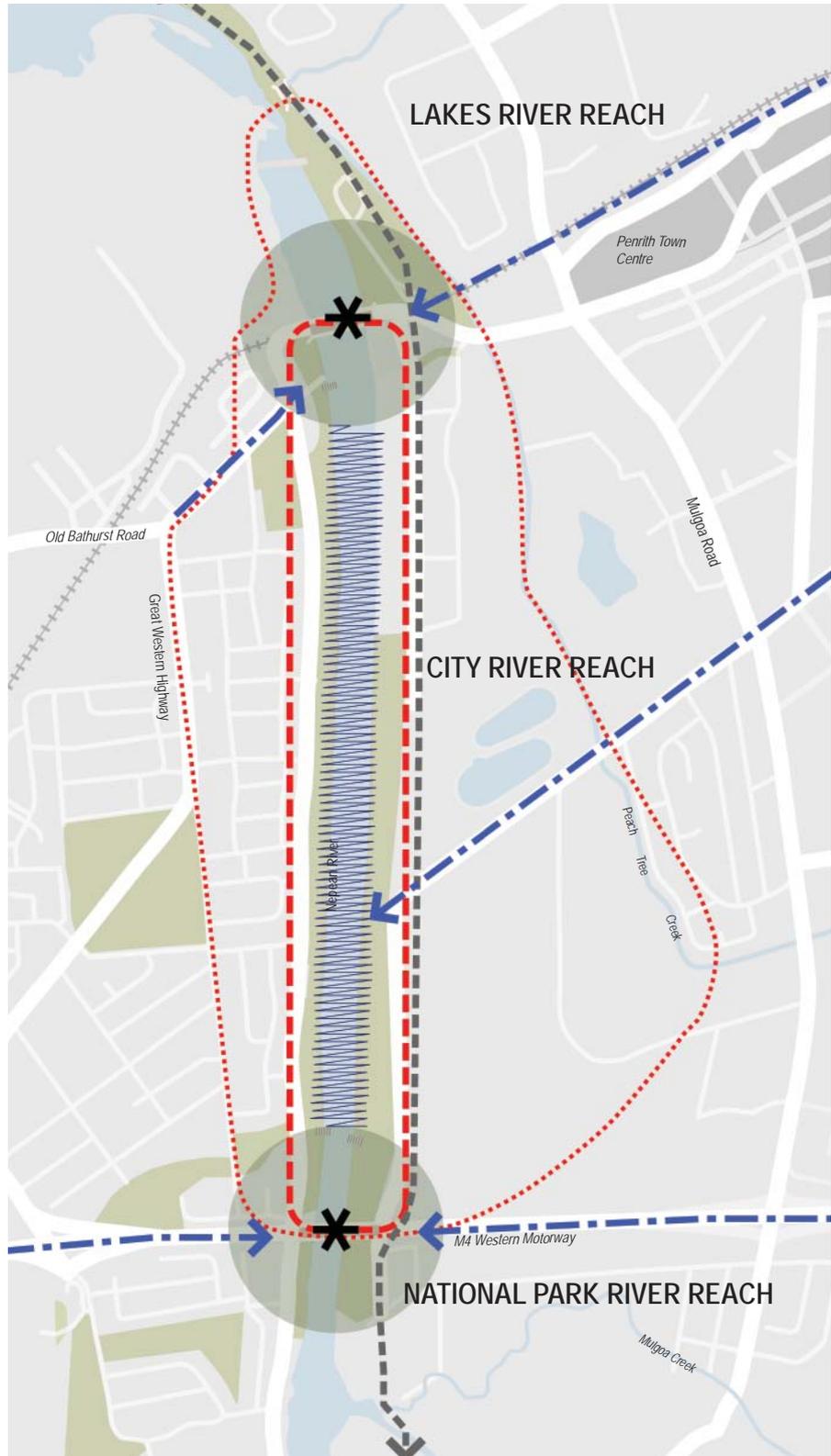
-  Open Space
-  Waterways
-  Areas of specific issues
-  Unrealised opportunities for improved visual and access connections to and along river
-  Important riparian habitat in mixed condition
-  River crossing opportunities to enhance connections and river experience



Summary of Constraints

LEGEND

-  Open Space
-  Waterways
-  Recreational activity nodes at bridges
-  Outer River corridor 'LOOP'
-  Inner River 'LOOP'
-  Enhanced River arrival and connection
-  Great River Walk
-  The Natural River in the City
-  River crossings 'Bookend' the City river reach



Summary of Opportunities



Chapter 5: Masterplan Principles

Nepean River Looking South to the M4 Bridge.

MASTERPLAN PRINCIPLES

In guiding the long term evolution of Our River, a series of planning and design principles have been developed to form the strategic framework for the master plan. These principles build upon the constraints and opportunities identified through the site analysis and community consultation stages and form the foundations for the design proposals illustrated in the concept plan.



OUR ACCESSIBLE RIVER

The river is a significant and important recreational asset in the region, but many people are unaware of its presence and values. Key to the wider awareness of the river and its recreational use and enjoyment is improved access to the parklands along its foreshores and the opportunity to get down to the water's edge and onto the water.



OUR ACTIVE RIVER

Once the river is reached what is on offer to the visitor and resident? An active and vibrant river should provide a wide range of recreational opportunities both on and off the water, making the river a place to be enjoyed by all, both for active recreation and for quiet reflection and contact with nature.



OUR CULTURAL RIVER

The river has a long cultural history, dating back thousands of years. As a spectacular natural and cultural landscape setting, the river provides the opportunity for a series of memorable spaces and places each with their own focus and character, creating a place to celebrate the community's culture and diversity.



OUR HEALTHY RIVER

As a key cultural and recreational asset, the river's health is vital to the environmental health of its river landscape and the health and wellbeing of those who live beside it or visit it. Enhancing the health of the river vegetation and the quality of water is therefore of key importance to a sustainable local environment and ultimately the health of the local community.

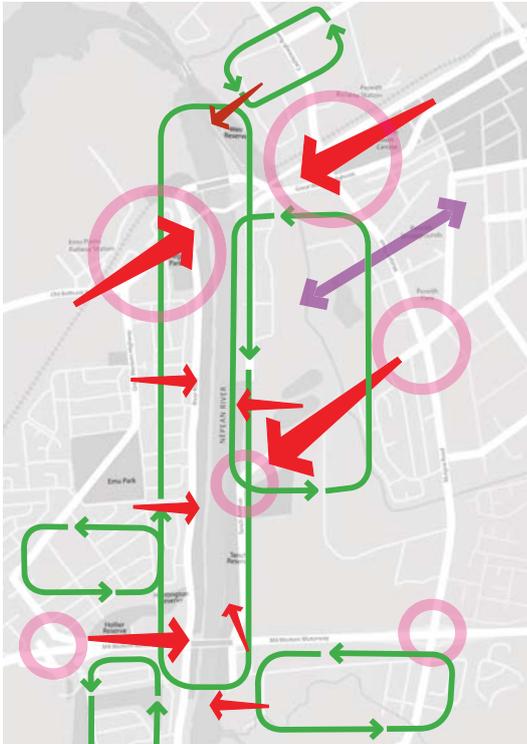


OUR MANAGED RIVER

Like all rivers systems, the river's catchment extends beyond local government boundaries and its management needs to be considered in this wider perspective. Managing and maintaining the river's natural values, cultural heritage and landscape character provides a sustainable setting for compatible recreation, both on and off the water.

These master plan principles are illustrated and further detailed on the maps in the following pages, set out under the headings outlined above.

MASTERPLAN PRINCIPLES - OUR ACCESSIBLE RIVER



Principles: 'Our Accessible River'



Improve the ability to get to the river

- Improve access and parking at the top of the river
- Improve accessibility from the top of the riverbank to water edge
- Provide a path network, linking where possible, from the river into the city
- Extend the range and number of access points along the river.



Provide a range of continuous pathway loops

- Provide continuous pathway links around the river and link loops to other destinations
- Allow for a diverse range of users such as cyclists, pedestrians and people with varying abilities
- Minimise pedestrian / vehicle conflict
- Encourage cycle access to and along the river bank.



Create a strong sense of arrival

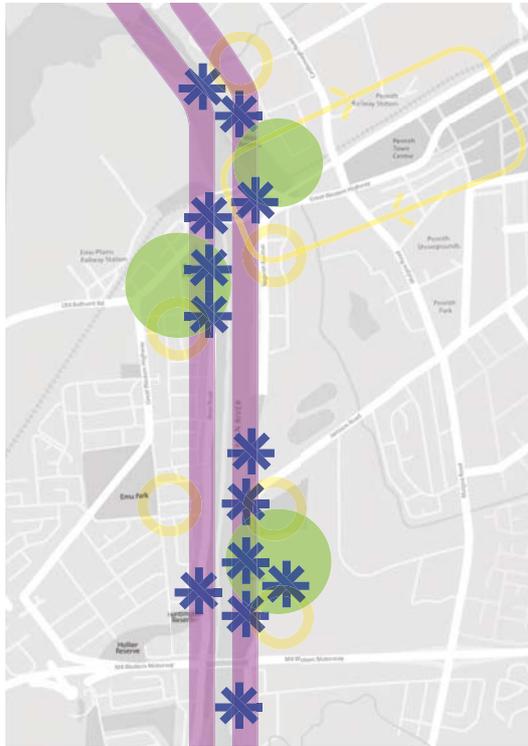
- Improve gateway destinations to the river and enhance view corridors on approach to the Nepean River
- Improve arrival roads with avenue planting.



Connect to the city

- Provide a continuous safe pathway for all user between the city and Tench Reserve
- Ensure sound orientation through a restrained and coordinated suite of directional signage.

MASTERPLAN PRINCIPLES - OUR ACTIVE RIVER



Principles: 'Our Accessible River'



Provide a range of facilities and attractions

- Open amphitheatre areas for spectator lawns and viewing
- Improved hard edge water access and launching sites
- Restaurants, cafes, kiosks, food vans and dining areas
- Provide integrated amenities, toilets, BBQ facilities, picnic spaces, fire pits and storage facilities
- Provide appropriate facilities appropriate for a range of watercraft and separate key watercraft type
- Ensure all facilities i.e. water, power and gas are provided to key areas
- Enhance and promote existing natural attractions
- Public art and play spaces in designated areas (along the bank, open areas and in the water) that interpret the elements of the river.



Provide commercial connection and opportunities

- Provide a range of opportunities for appropriate commercial facilities that enhance the river experiences
- Carefully manage any commercial development near the river
- To ensure the riverfront spaces address the river in an active manner, taking advantage of views located appropriately within the immediate site
- Connect the river to the commercial heart of the city.



Ensure flexibility of uses now and into the future

- Provide a range of non-programmed events i.e. informal meetings, BBQ, running and exercising etc
- Provide spaces that are multifunctional.



Create a safe environment

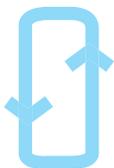
- Improved night lighting to key areas of pedestrian activity
- Ensure security and improve visibility through CPTED (Crime Prevention Through Environmental Design)
- Encourage passive surveillance through promoting increased usage and visual access.

MASTERPLAN PRINCIPLES - OUR CULTURAL RIVER



Principles: 'Our Cultural River'

- • • • **Engaging Aboriginal people**
 - Identify opportunities for training, mentorship and employment
 - Identify opportunities to reflect Aboriginal culture and contemporary priorities.



- Build upon the cultural european heritage of the river**
 - Protect historic and architecturally significant sites.

- Identify opportunities for story telling**
 - Develop a series of interpretive loop walks that tell the story of the river
 - Expand upon existing interpretation of the river through various multi media



Festivals And Events

- Create a series of memorable places
Build upon existing character and create a series of key riverfront spaces.
- Consolidate effective festival and event spaces, taking into consideration landform, proximity to users and surrounding demographic, facilities and access (transport and parking).



Cultural And Arts

- Build on existing cultural sites and integrate into the wider context.



Recreational

- Provide a range of activities on and around the river.



Historical

- Protect and conserve historic, architecturally significant sites.



Active

- Maintain a range of sporting opportunities.



Educational

- Locate education opportunities in safe and easily accessible areas.



Enhance views and vistas

- Provide views to open water;
- Enhance existing views and promote effective use of spaces
- Facilitate access and areas for casual spectator vantage points for river based events
- Reinstate views, ensuring a visual definition along the river bank.



Tench Reserve viewing to River Road on the western bank of the river.

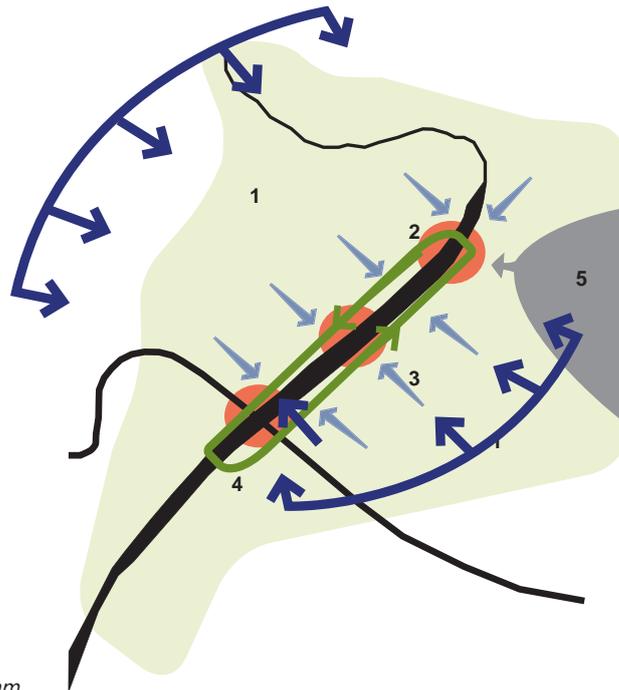


Chapter 6: Strategic Intent

Regatta Park looking south down the Nepean River

STRATEGIC INTENT

In realising the master plan principles previously outlined, the diagram below illustrates the strategic intent that underpins the master plan concept, placing the river at the heart of Penrith's future.



Strategic Intent Diagram

- 1**  **Refocus upon the Nepean River for destination development**
Establish the Nepean River as a primary driver for Penrith City's landscape and environmental focus.
- 2**  **Develop the a series of hubs along the Nepean River**
Build upon the strong recreational and heritage assets between the Weir and South of the M4 Motorway and develop a series of focused hubs supporting land and river based activity.
- 3**  **Improve Visual and Physical Access to the Water**
Open views and vistas to the water, to improve regional and community awareness, relationship to and ownership of the river.
- 4**  **Improve Pedestrian Connectivity and Enhance Riparian Habitat**
Provide a range of continuous loops to improve accessibility around the Nepean River, carefully integrated with enhanced foreshore vegetation and water quality management.
- 5**  **Connect the Penrith City Centre to the Nepean River**
Create a direct relationship with the Penrith City Centre visually, direct connections and activities.



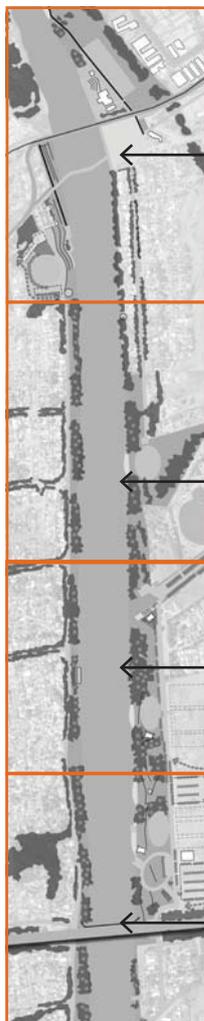
Chapter 7: Concept Masterplan

Victoria bridge looking across the river to the west

CONCEPT MASTERPLAN

Illustrated overleaf is the concept master plan for 'Our River'. This is a high level strategic concept that seeks to describe the proposals for the principal spaces, places and activities along the foreshore. This concept provides the basis for more detailed design in association with continuing stakeholder engagement towards staged implementation of the proposals.

The concept masterplan is elaborated through a colour illustration divided into 4 sections for readability. The Northern Curtilage and Regatta Park, Central River, Central River and Jamison Road Entry, Southern Curtilage and Tench Reserve.



Northern Curtilage, Weir Reserve and Regatta Park

The Northern Curtilage of the project site has two large reserves (Regatta Park and Weir Reserve) that are currently heavily used by the community. The Northern Curtilage of the project site is in close proximity to the Penrith City Centre. This section of the river will continue to provide a strong sense of river arrival for the majority of the community with an abundance of facilities and attractions.

Weir Reserve has currently an open activity area supporting rowing, with the possibility of a centre of excellence in the near future. Regatta Park will provide a seamless connection between the water's edge and open space allowing a safer and increasingly flexible open space. Regatta park will accommodate a regional play space and additional car parking and be able to hold large events and festivals.

Central River

The Central River section of the project site and especially the river's edge is currently dominated by continuous dense vegetation. The vegetation is to be progressively managed to enhance native species diversity and permit filtered views while stabilising the river bank.

Central River and Jamison Road Entry

The Central River section of the project site also has steep banks and limited water's edge access. Access to the water will happen at a range of scales and provides opportunities to get down to and onto the water by platforms, jetties and ramps. Views to the river along the Jamison Road are currently blocked by dense tree canopies. The concept master plan proposes a plaza space at the western end of Jamison Road as an arrival and introduction to the river for visitors.

Southern Curtilage and Tench Reserve

The Southern Curtilage main activity hub is focused on Tench Reserve. The concept master plan looks to expand Tench reserve into a recreation and tourism precinct, improving circulation and parking and reducing user conflicts. Proposals include the possible realignment of Tench Avenue to improve the pedestrian environment and connection to the river, with an upgrade to the existing boat ramp and launch/wash down and associated parking area to improve launching efficiency and safety as well as visitor amenity.

Index Plan

CONCEPT MASTERPLAN

LEGEND

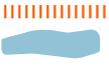
- 

Our Accessible River
Improve the ability to get to the river
Provide a range of continuous pathway loops
Create a strong sense of arrival
Connect to the city
- 

Our Active River
Provide a range of facilities and attractions
- 

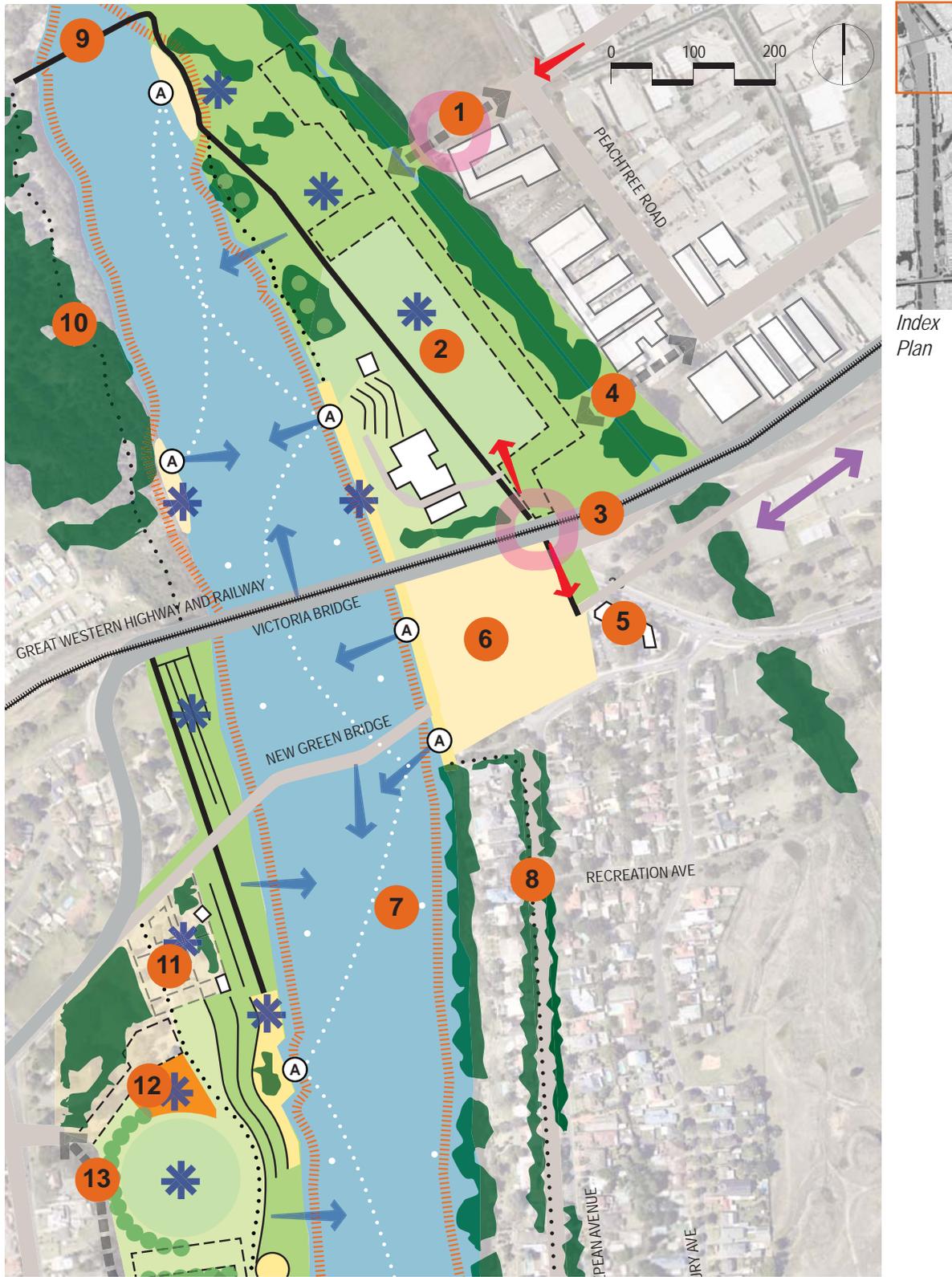
Our Cultural River
Enhance views and vistas to and from the river
- 

Our Cultural River
Enhance views and vistas to and from the river
- 

Our Healthy River
Reinforce native vegetation link from river through creeks and streets
Provide filtered views through to the river and open views at street ends
- 

Our Managed River
Manage and maintain the bank's water edge infrastructure
Manage and maintain water course for water levels and quality
- 

Pedestrian and bicycle pathways
Water edge access point



Concept Masterplan - Northern Curtilage, Weir Reserve and Regatta Park

CONCEPT MASTERPLAN - NORTHERN CURTILAGE AND REGATTA PARK

LEGEND

- 

Our Accessible River
 Improve the ability to get to the river
 Provide a range of continuous pathway loops
 Create a strong sense of arrival
 Connect to the city
- 

Our Active River
 Provide a range of facilities and attractions
- 

Our Cultural River
 Enhance views and vistas to and from the river
- 

Our Healthy River
 Reinforce native vegetation link from river through creeks and streets
 Provide filtered views through to the river and open views at street ends
- 

Our Managed River
 Manage and maintain the bank's water edge infrastructure
 Manage and maintain water course for water levels and quality
- 

Pedestrian and bicycle pathways
 Water edge access point

- | | | |
|--|--|---|
| <p>1 Explore possible vehicle entry and new bridge to Weir Reserve with car parking</p> <p>2 Open activity area supporting rowing space for future facility development. Amphitheatre at water edge with upgraded rowing deck</p> <p>3 Pedestrian entry to Weir Reserve. Explore one way vehicle traffic out of Weir reserve</p> <p>4 Explore possible additional vehicle entry, new bridge over creek</p> <p>5 Motel</p> | <p>6 Log Cabin site redevelopment subject to ongoing negotiations</p> <p>7 Sculptural river markers for rowing</p> <p>8 Proposed on road shared use path on Nepean Avenue</p> <p>9 Pedestrian connection on top of weir</p> <p>10 Pedestrian and bicycle path</p> | <p>11 Cafes / restaurants / toilets etc. at Green bridge landing with an event deck at the waters edge</p> <p>12 Play facility with new car parking</p> <p>13 Explore possible new road alignment with new sport/event space</p> <p>14 Amphitheatre</p> |
|--|--|---|



Concept Masterplan - Central River

CONCEPT MASTERPLAN - CENTRAL RIVER

LEGEND

- 

Our Accessible River
 Improve the ability to get to the river
 Provide a range of continuous pathway loops
 Create a strong sense of arrival
 Connect to the city
- 

Our Active River
 Provide a range of facilities and attractions
- 

Our Cultural River
 Enhance views and vistas to and from the river
- 

Our Healthy River
 Reinforce native vegetation link from river through creeks and streets
 Provide filtered views through to the river and open views at street ends
- 

Our Managed River
 Manage and maintain the bank's water edge infrastructure
 Manage and maintain water course for water levels and quality
- 

Pedestrian and bicycle pathways
 Water edge access point

- 15** Viewing deck with grassy embankment with seamless connection to viewing area for large festivals and events
- 16** Shared use path connection to city
- 17** Major river arrival space and view opportunity with an open activity area and new car parking
- 18** Shared use path connection along Jamison Rd with new car parking



Concept Masterplan - Central River and Jamison Road Entry

CONCEPT MASTERPLAN - CENTRAL RIVER AND JAMISON ROAD ENTRY

LEGEND

- 

Our Accessible River
 Improve the ability to get to the river
 Provide a range of continuous pathway loops
 Create a strong sense of arrival
 Connect to the city
- 

Our Active River
 Provide a range of facilities and attractions
- 

Our Cultural River
 Enhance views and vistas to and from the river
- 

Our Healthy River
 Reinforce native vegetation link from river through creeks and streets
 Provide filtered views through to the river and open views at street ends
- 

Our Managed River
 Manage and maintain the bank's water edge infrastructure
 Manage and maintain water course for water levels and quality
- 

Pedestrian and bicycle pathways
 Water edge access point

19 Viewing deck, small installation space, and water access at Lewers Gallery

20 Upgrade playground with new walls and terraces

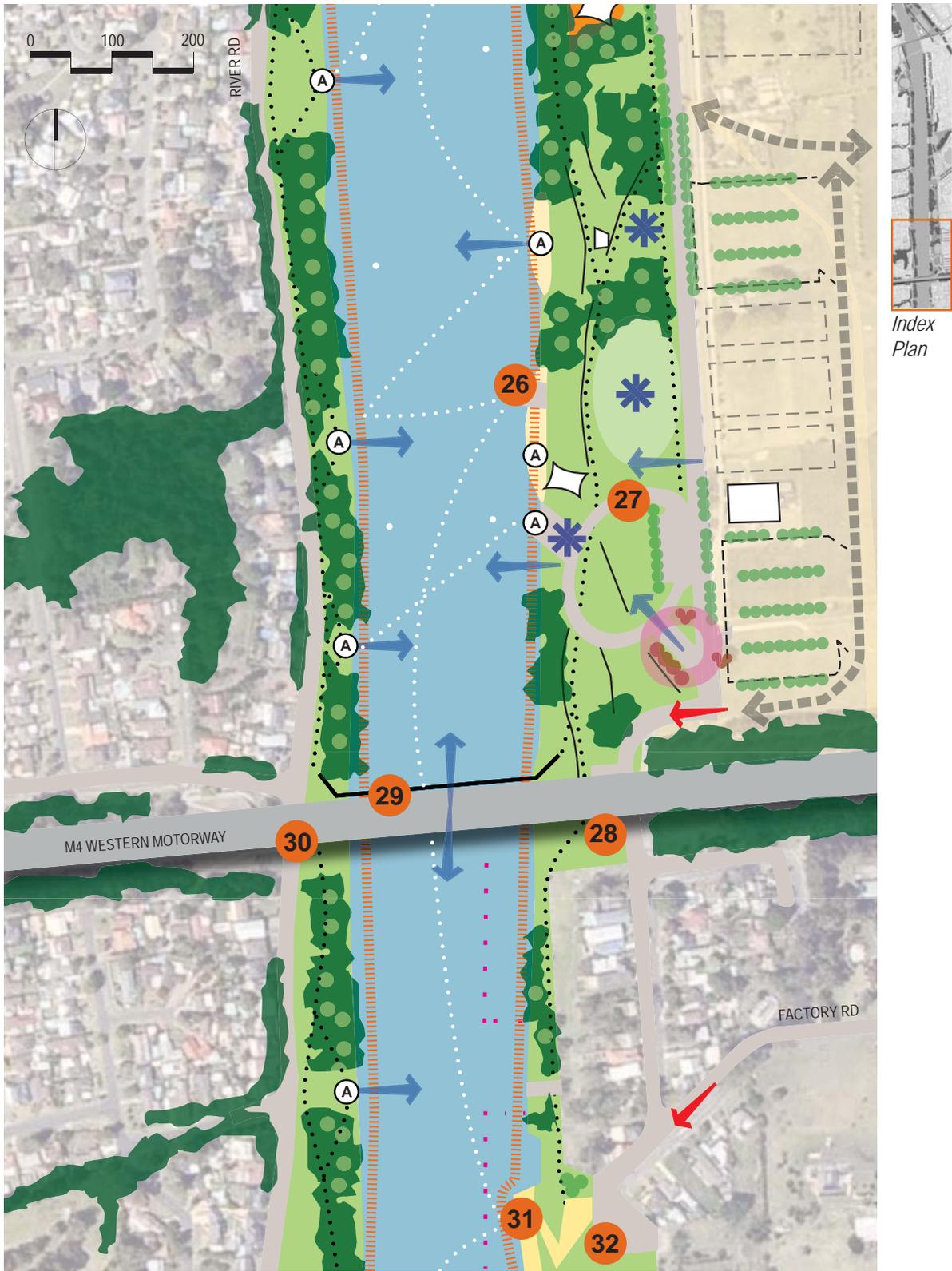
21 Proposed future recreation, event, tourism support space

22 Explore the possible realignment of Tench Avenue and potential connection to Blaikie Road

23 Explore paved boulevard for pedestrians

24 Proposed expansion of tourism / recreation facilities with car parking

25 River tour platform/jetty



Concept Masterplan - Southern Curtilage and Tench Reserve

CONCEPT MASTERPLAN - SOUTHERN CURTILAGE AND TENCH RESERVE

LEGEND

- 

Our Accessible River
 Improve the ability to get to the river
 Provide a range of continuous pathway loops
 Create a strong sense of arrival
 Connect to the city
- 

Our Active River
 Provide a range of facilities and attractions
- 

Our Cultural River
 Enhance views and vistas to and from the river
- 

Our Healthy River
 Reinforce native vegetation link from river through creeks and streets
 Provide filtered views through to the river and open views at street ends
- 

Our Managed River
 Manage and maintain the bank's water edge infrastructure
 Manage and maintain water course for water levels and quality
- 

Pedestrian and bicycle pathways
 Water edge access point

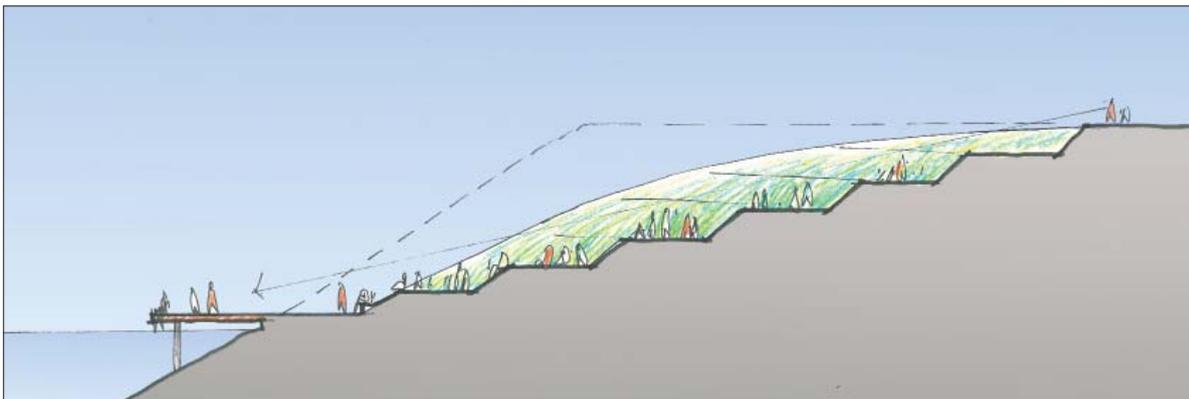
- 26** River tour platform/jetty
- 27** Upgrade existing boat ramp and launch / wash down area, new car parking for cars and trailers
- 28** Upgrade and formalize parking under and next to motor way
- 29** Pedestrian bridge slung under motorway
- 30** Upgraded parking under and next to motorway
- 31** Non powered vessel access (Kayaks) with launch 'pool' and buoys on river edge
- 32** Upgrade car parking and toilet

CONCEPT MASTERPLAN - DESIGN CONSIDERATIONS

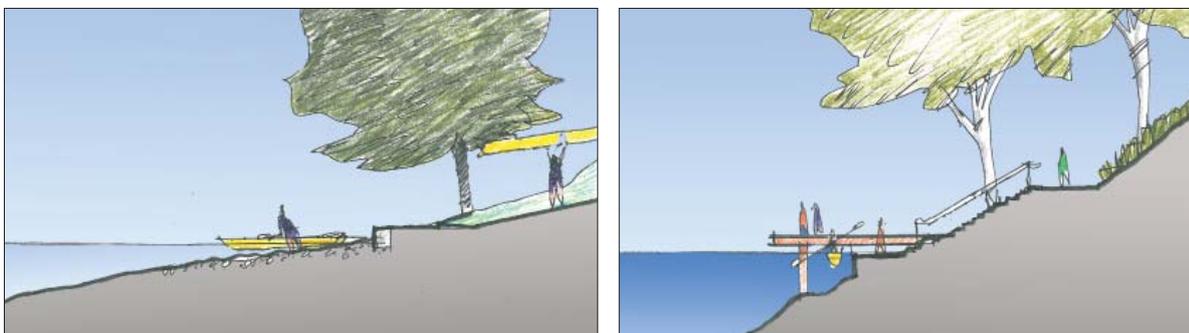
Illustrated below is a selection of design opportunities addressing aspects of river bank and foreshore design and management.



The master plan proposes expanded opportunities to view the river as here at Jamison Road where a major vista of the river opens out with a new lookout.

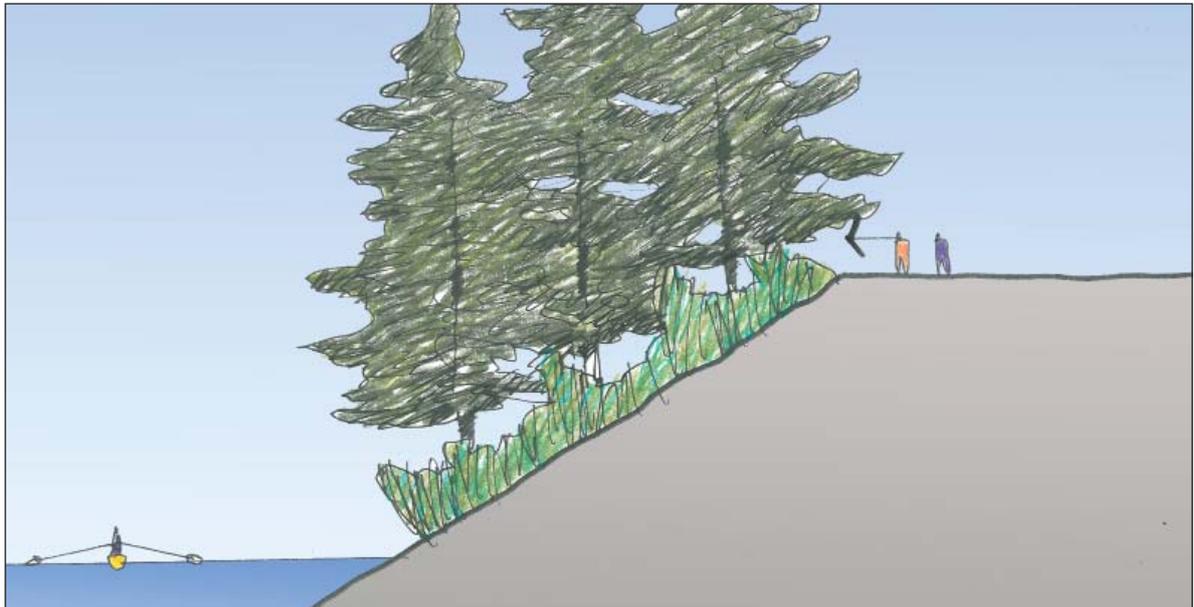


The height difference between top of bank and water level can be used creatively to establish viewing terraces for performances and events on the river in locations such as Regatta Park.



Access to the water will happen at a range of scales and provides opportunities to get down to and onto the water by platforms, jetties and ramps.

CONCEPT MASTERPLAN - DESIGN CONSIDERATIONS



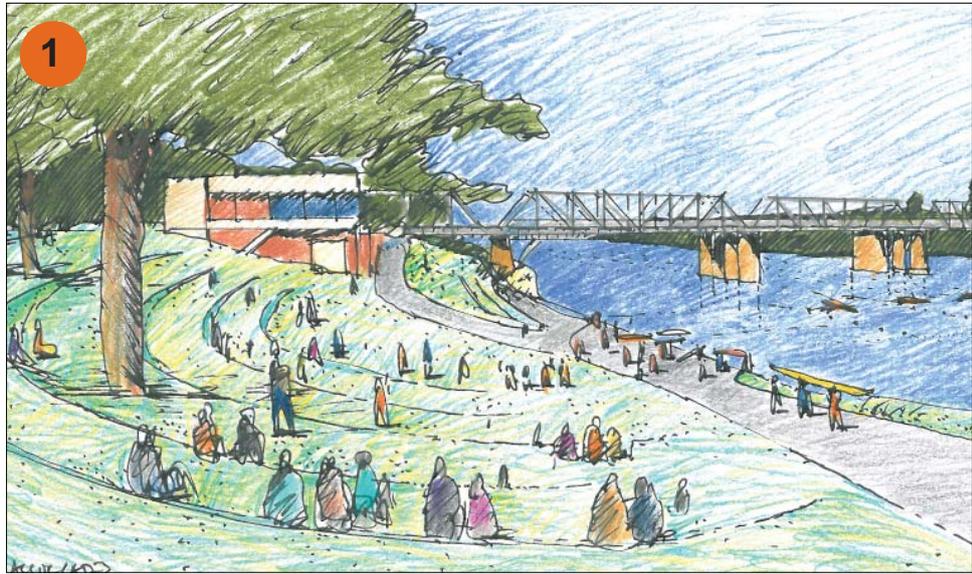
Existing: dense Casuarina canopy and weedy understorey presently stabilise the banks but reduce views of the river.



Proposed: vegetation can be progressively managed to increase species diversity and allow filtered views to the river, while stabilising the river bank.



Index Plan
- Nepean River
project area



Activating the waters edge, Ipswich 'River Heart Parklands'. (Source: 'River Heart Parklands' <http://www.top100experiences.com.au>)

CONCEPT MASTERPLAN - KEY DESTINATIONS

1. WEIR RESERVE

Weir Reserve is located close to the Penrith CBD. Weir Reserve currently has a strong focus on rowing with non-programmed recreational activities to the north. This reserve, similar to other open spaces along the Nepean River, has been disconnected by the dense water edge vegetation and is not easily accessed by car from the south.

Key Proposals:

- Improve arrival and circulation through a new road entry from the east off Peachtree Road
- Increase passive surveillance and enjoyment of the river with a viewing amphitheatre space
- Ensure opportunities for the proposed Centre of Excellence can be accommodated
- Provide site lines and movement corridors within the reserve by creating an entry point.

2. JAMISON ROAD ENTRY

With a clear view to the Nepean River, the end of Jamison Road becomes an entry into Tench Reserve creating a strong sense of arrival with a plaza space and lookout.

Key Proposals:

- Provide a strong sense of arrival along Jamison Road
- Extend parking opportunities along Jamison Road
- Create a water vista at the location where Jamison Road turns in to Tench Avenue with cantilevered lookout
- Provide a key activity area with a range of uses, such as playspaces, decks, shade, adjoining kick around spaces, along with a paved area for temporary uses (stalls, art installations, pop up activities etc).



Index Plan:
Nepean River
project area



CONCEPT MASTERPLAN - KEY DESTINATIONS

3. TENCH RESERVE

Tench Reserve will provide for a range of non-programmed events, BBQ's, boats, picnics, play, fitness, walking and cycling paths, building on its already popular framework.

Key Proposals:

- Improve vehicle circulation and parking
- Reduce user conflicts especially between powered and non-powered craft
- Enhance boat launching and associated trailer parking
- Expand recreation and tourism precinct including for upgraded play, cycling, walking, picnic and BBQ and eateries
- Improve universal access to the water's edge and pontoons
- Open views to the river.



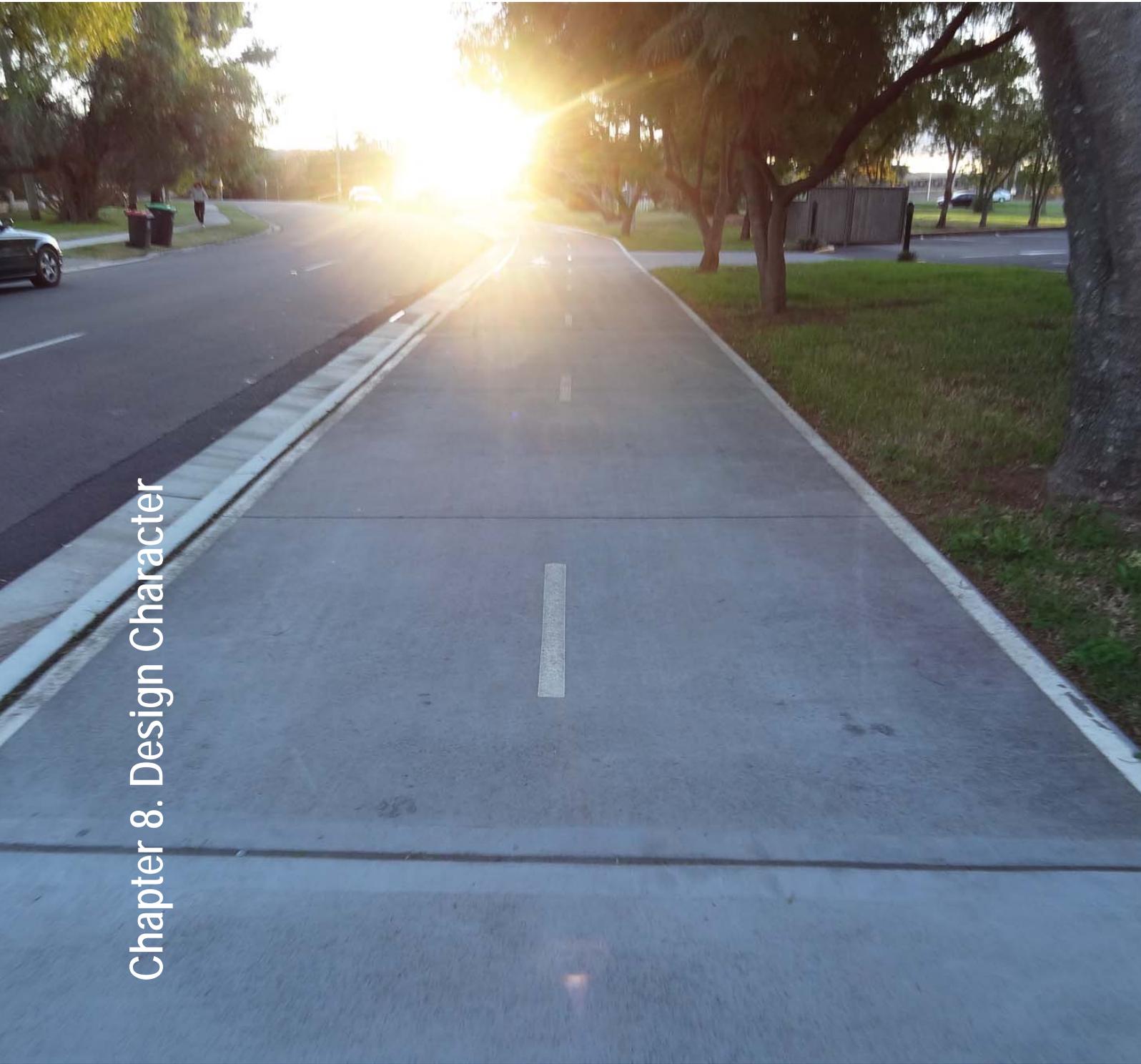
Precedent Images for Tench Reserve (Sources: 'Image design promenades' Jacobo Krauel; 2008).

4. REGATTA PARK

The upgraded layout of Regatta Park will set the framework for festival and event opportunities, cafes, regional play and places to view sporting events on the river.

Key Proposals:

- Provide places and spaces on the water's edge for viewing the river and hosting festivals and events
- Explore the opportunity to realign River Road to better integrate the two parts of the park
- Explore opportunities for permanent and mobile food outlets
- Improve views to the water
- Reprofile the river embankment to provide formal lawn terraces
- Provide a regional playground that will attract people from all areas of Western Sydney, supported by two car parking areas.



Chapter 8. Design Character

Shared use Path within the Nepean River Project Precinct.

DESIGN CHARACTER

The master plan concept proposes a wide range of initiatives to integrate the river with its city context and to enhance its natural, cultural, scenic and recreation values.

While the stretch of river between the two bridges is described as the City River Reach it encompasses a very diverse suite of environments from natural foreshore habitat to urban spaces, streetscape and transport crossings.

Maintaining this diversity is a key success factor for the delivery of the concept master plan, but it is equally important that the river be appreciated as a coherent landscape.

To that end a distinct and legible design language is an essential thread across the individual spaces and places on the river.

In the following pages some illustrations are provided that present potential precedents for design character across the elements of:

- Foreshore design
- Bicycle and pedestrian pathways
- Event spaces
- Facilities.

The precedents are not included to be exhaustive in nature but rather to reflect the broadly intended character of the site.

DESIGN CHARACTER - FORESHORE DESIGN



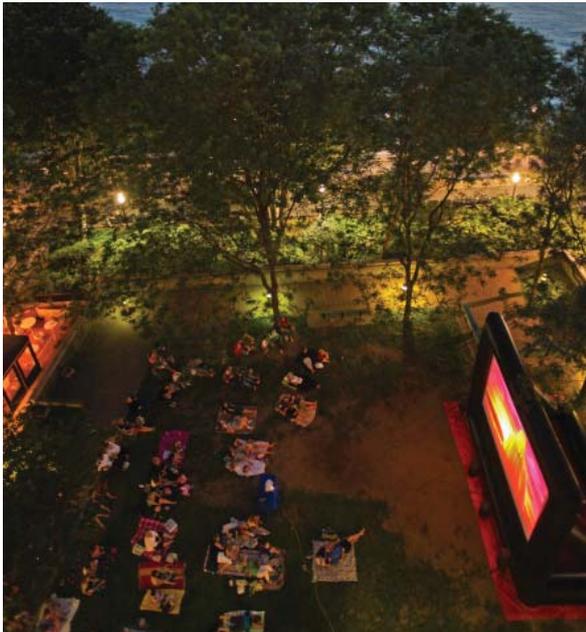
A range of foreshore design profiles should reflect the diversity of spaces and activities, from natural foreshores to urbanised water access. In all cases the enhanced ecological values of the river foreshore are key to the river's health and the community's enjoyment.

DESIGN CHARACTER - BICYCLE AND PEDESTRIAN PATHWAYS



The opportunity to increase access to and along the river is dependent on the system of connected pathways along its length. A hierarchy of path types and design will respond to specific contexts and the separation or integration of cycling and walking.

DESIGN CHARACTER - EVENT SPACES



During consultation stakeholders placed a priority on the opportunity for more events to be held on the river foreshores and on the river. Events spaces for a range of scales should be adaptable to both event and non-event mode, with associated access and infrastructure to support these.

DESIGN CHARACTER - FACILITIES



Stakeholder consultation suggested a desire to see more contemporary and contextual facilities on the river foreshores, be that boat launching facilities, natural play, fitness facilities or places to enjoy picnics and BBQ's.



Chapter 9. Implementation

Tench Reserve boat ramp

IMPLEMENTATION

The adopted 'Our River' Nepean Master Plan provides the strategic framework for the long term revitalisation of the Nepean River and its connection to the city. By its nature the implementation of all the works described in this Plan may take many years to realise in full.

PRIORITY AND PROGRAM

Consequently, it is important to identify priorities for early works that establish the initial momentum for the program, that elicit early stakeholder buy-in to the concepts and in particular which enhance access to and enjoyment of the river. Later phases of work can build on this early momentum and enhance the diversity of river experience and the range of activities that the river and its foreshores can support.

Accordingly, it is proposed that works priorities and staging be based on four phases. The first phase (current to three years) being within the current funding program and three further possible phases spread over a period of up to 20 years.

Developing a concurrent cost plan will assist in prioritising these works. The enabling stages associated with planning, consultation, design and funding that must precede construction of these works are outlined later in this section.

COSTING AND FUNDING OF THE WORKS

The cost to undertake all of the works described in the Master Plan cannot at this juncture be quantified in detail as the nature of the master plan is broadly strategic.

Nonetheless a broad order of cost, based on typical m2 rates, can be determined based on the concept masterplan, the key and the scale of the areas concerned.

Preparation of an outline cost plan that incorporates Preliminaries (including allowance for design fees, site set-up etc). should be an early implementation priority. Appropriate costing and funding for ongoing management and maintenance should also be planned in parallel with these capital works costs.

The concurrency of progressively more detailed design and costing for the project through to construction would typically proceed as follows:

- Refined Master Plan Design to permit more detailed costing for funding from grants bodies and budgeting for Council expenditure for progressive stages
- Detailed design of early stage works identified in the staging program to refine budgets and to prepare tender documentation
- Tendering of early works followed by construction
- Detailed design of subsequent stages identified in the staging program to refine budgets and to prepare tender documentation.

It should be noted that funding for various aspects of the Master Plan may come from a range of sources including:

- Council's capital works budgets and Section 94 funds;
- Grants from State and Federal Government agencies;
- Corporate partnerships with Council.

In some cases implementation can be funded through works-in-kind, such as through Voluntary Planning Agreements (VPAs) or through volunteer community organisations such as bushcare groups.

IMPLEMENTATION

Prior to works being carried out on the ground, there will be a suite of enabling activities that are required to be completed across a range of planning, design and management initiatives. Some of the enabling works that will apply to this scheme are set out below.

Governance

The scale, duration and multi-agency nature of this project suggests that the appointment by Council of a River Keeper as the 'go-to' coordinator and manager of all river related programs and initiatives may be prudent.

Planning

A suite of planning actions may be required to inform and drive design development and implementation of the master plan. These actions would include:

- Supporting studies and management strategies, such as a Riparian Vegetation Management Plan, Stormwater Management Plan or View Study
- Review and where necessary update of land use zonings to best reflect the objectives of the Master Plan
- Liaison with key landholders and other government agencies to progress partnerships for implementation
- Establishment of budgets and funding strategies as outlined in Costing and Funding of the Works
- Development of programs to support an active river, such as an Interpretation Strategy, River Events Strategy, Communications Strategy, Leasing, Licensing and Hire Strategy etc.

Consultation and Communication

Ongoing consultation and communication with stakeholders and the broader community will be essential success factors in delivering the master plan. Actions in this regard would include:

- Detailed consultation with stakeholders and affected community members for developed designs for each stage of implementation
- Communication of progress, new initiatives and events on the river through conventional and social media formats
- Consultation and liaison with private landholders as outlined above.

Design Development

Progressive design development of the Master Plan as outlined in Costing and Funding of the Works should parallel each of the stages and would typically include:

- Design Palette; systemic designs for elements that relate to whole-of-river actions, such as stormwater, vegetation, street furniture and wayfinding signage
- Site specific designs for defined spaces and reserves along the river eg Regatta Park or Weir Reserve
- One-off design elements such as a regional playground.

Business Framework

A set of guidelines and principles for the establishment and management of commercial activities on and beside the river should be developed to inform and direct calls for expressions of interest from businesses that will complement the values of the river and its foreshores.

BUDGETS & FUNDING

To assist Council in obtaining funding to achieve the master plan a range of funding sources can be drawn from; commonly these might comprise:

- General Revenue;
- Special Levies;
- Section 94 Contributions;
- State and Federal Grants;
- Partnership Agencies, business, education, community etc.
- Works in kind through voluntary organisations.

Listed below are some of the relevant available grants indicated in the State Parliament's web site guide to Community Grants. Other grants shown on this web site could be applied for independently or in partnership with community groups and local businesses.

Water Based Infrastructure Grants

- Marine/Boating Infrastructure Grant and Better Boating program. The Regional Infrastructure Grants aim to assist in providing improved recreational boating facilities on waterways across NSW (outside of Sydney Harbour).

Sustainability And Environmental Grants

- Office of Environment and Heritage: Environmental Restoration and Rehabilitation Grants, Urban Sustainability Program;
- Floodplain Management Program Grant: The Floodplain Management Program supports the implementation of the NSW Government's Flood Prone Land Policy as outlined in the NSW Government's Floodplain development manual. The primary objective of the policy is to reduce the impacts of flooding and flood liability on communities and to reduce private and public losses resulting from floods, utilising ecologically positive methods wherever possible;
- Local Adaptation Pathways Program Grant: Local Adaptation Pathways Program provides around \$2m in funding to help local government build their capacity to respond to the likely impacts of climate change;
- Habitat Action Grant: While this program is primarily to improve fish populations through improving their habitat, the grant funds project which remove exotic vegetation from waterways, bank stabilisation works and rehabilitation of riparian lands.



A section of shared use pathway close to the Log Cabin Motel site facing towards the CBD.

Open Space Grants

- Metropolitan Green Space Program for regional open space through NSW Department of Planning and Infrastructure.

The Arts And Tourism Grants

- Aus Industry, EQUAL Grants
- Arts NSW, The Arts Funding Program:
 - Sustainable arts and cultural organisations, services and infrastructure
 - Increased access to arts and cultural activities
 - A creative and diverse arts sector

The Arts Funding Projects:

- Capital Funding: for the construction, renovation or fitting-out of building and other facilities for arts and cultural use
- Creative Education Partnerships - Artists in Schools Program
- Aboriginal Regional Arts Fund

The Arts And Tourism Grants

- Aus Industry, TQUAL Grants
- Arts NSW, The Arts Funding Program:
 - Sustainable arts and cultural organisations, services and infrastructure
 - Increased access to arts and cultural activities
 - A creative and diverse arts sector

The Arts Funding Projects:

- Capital Funding: for the construction, renovation or fitting-out of building and other facilities for arts and cultural use
- Creative Education Partnerships - Artists in Schools Program
- Aboriginal Regional Arts Fund

Council must also consider terms that ensure legitimate costs of upgrading of the river foreshore are recouped wherever possible by equitable rental or lease agreements. Public hiring fees should also be set at a realistic and equitable level.



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The Nepean River with the 'Nepean Belle' paddling south

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Appendix

