

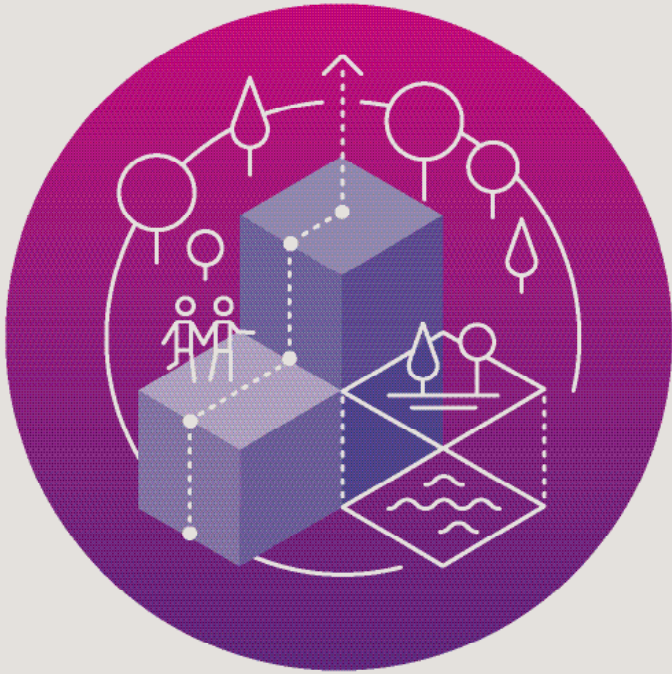
DRAFT CITY RIVER STRATEGY

FUTURE ASPIRATIONS FOR MELBOURNE'S INNER CITY RIVER

APRIL 2019



CITY OF MELBOURNE



A CITY PLANNING FOR GROWTH

Melbourne will be a leader in planning for growth and technological advancement. We will guide and influence the future development of the city for the benefit of all city users and in a way that values and celebrates its historical and cultural identity.

Acknowledgement of Traditional Owners

The City of Melbourne respectfully acknowledges the Traditional Owners of the land, the Boon Wurrung and Woiwurrung (Wurundjeri) people of the Kulin Nation and pays respect to their Elders, past and present.

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Issue for Future Melbourne Committee - APRIL 2019 - DRAFT FOR DISCUSSION

Cover Image: Birrarung aerial view looking east. Photo Credit: City of Melbourne

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INTRODUCTION



The Yarra River, Birrarung, is one of the defining features of Melbourne, providing both a recreational area and destination for many of the activities that contribute to the life of the City. As Melbourne continues to experience significant growth and change, it is increasingly important to preserve and celebrate our city's greatest natural asset.

This strategy will guide Council's future planning for enhancing the river. It outlines strategic directions and opportunities for how to improve the way we use our river and edges.

The Birrarung corridor has strong cultural, economic and social significance to Melbourne. Over recent decades, the inner-city reaches of the river have evolved from a working industrial waterfront to a vibrant recreational area. However the substantial potential of this asset to the city remains to be fully realised. Areas from Punt Road to Princes Bridge have long recognised the recreational benefits of the Birrarung, however to the west, surrounding uses have little relationship with the waterways and there is limited expression of cultural heritage.

As a river city, we need to focus on the city's relationship with the river and the unique opportunity the waterfront provides adjacent to a highly dense, urban environment. We need to reveal the layers of history particularly the Aboriginal significance of the river, and be discerning about what future opportunities will be supported to highlight the best of the city river to residents and visitors alike.

The purpose of this Draft Report is to present findings from the work completed to date, and outline a series of future strategic directions to support decision making for the continued evolution of the City River. The information introduced here will be the basis for ongoing research, discussion and engagement to identify further issues and opportunities as this project evolves. It is intended that responses we receive on this Draft will inform finalisation of the Strategy.

From herein in this strategy, the Yarra River is called by its traditional name Birrarung meaning 'river of mists' in the Boon Wurrung and Woiwurrung languages.



Image 2. Princes Bridge from Flinders Walk



Image 3. Batman Park rivers edge

Image 1. Boathouse Drive rivers edge

THE STRATEGY



Image 4. View from Sandridge Bridge across to Queensbridge square including the red steps.

Why this Strategy is needed

The City of Melbourne is Australia's fastest growing city, with the daily population in the municipality currently expected to increase from 911,000 to 1.4 million by 2036. As Melbourne continues to grow, we are presented with even more opportunities to broaden the way we use our river and its edges. Increasing worker, residential and visitor populations will put additional demands on the public space, recreation and movement uses of the river. Sustaining and improving people's experience of the Birrarung has never been so important.

There is currently a vast collection of projects, plans and strategies pertaining to the inner city reaches of the Birrarung, completed by various levels of government and private developments. This highlights the need for the City of Melbourne to clearly define its approach to the central city waterways and waterfront usage.

The particular focus of this strategy is on a 'place based' urban waterways study that provides a multi-layered understanding of the complex urban waterways environment - considers the landscape and water, urban character and open space, movement and uses and quality of place. The document introduces opportunities to maximise pedestrian connectivity, enhance amenity, create accessible and integrated civic spaces and foster an understanding of Aboriginal heritage and culture. Ultimately, the goal is to significantly raise the quality of the Birrarung environs in this central city stretch to be the centrepiece of Melbourne's economy, culture and liveability.

What we want to achieve

The purpose of this work is to establish an overall framework to guide the long term future of the City River Precinct. This framework will define City of Melbourne's vision for the inner-city reaches of the Birrarung and be used as an advocacy tool to guide the City of Melbourne in preserving and evolving the Birrarung's character and liveability and offer a planned response to ad hoc proposals and future development.

What this Strategy is

- A propositional discussion.
- A strategic guide for Council decision making.
- A basis for future capital works planning.
- An outline summary of opportunities that could be implemented in the short, mid or long term.

What this Strategy isn't

- A Statutory Plan.
- A strategy for improving overall governance.
- A plan that covers detailed matters dealt with by other Council strategies, such as waterway quality and advice on fishing and berthing facilities.



Image 5. A 'place based' urban waterways strategy

Approach

The City River Strategy proposes a design approach for the inner city reach of the Birrarung. It is organised around four key themes within which key strategic directions are outlined to provide guidance on how the river and its edges should be planned for and managed.

The four themes are:

Culture: Heritage and narrative.

Cultural values, stories, spiritual, genealogical, historical.

Ecology: Habitat and water

Holistic urban waterways environment: landscape, ecology and water.

Movement: Journey and connection

Network of connections to and along the waterfront.

Place: Activity and Character

Identity, quality, activation and economy of the urban environment.

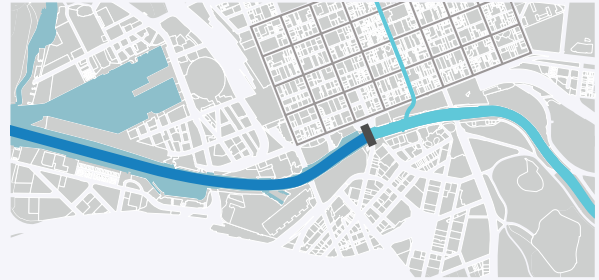
The development of this Draft Strategy was based on the following approach:

- A review of relevant plans, strategies and policies that influence the planning and design of the waterways across the City of Melbourne municipality.
- Site visits involving observing user behaviour and the influence of the physical environment on their behaviour.
- Reference to the City of Melbourne's pedestrian counting data at key locations across the corridor and reference to previous speed and volume surveys undertaken through recent studies.
- Pre-contact historical research of vegetation and landscape conditions.
- Multi-layered analysis of: biodiversity and urban forest; topography and flooding; place and urban design; access and movement; and activation and uses.
- A review of international best practice in urban waterfront developments.
- Key internal and external stakeholder engagement, including commencing discussions with the Traditional Owner groups.

Themes:

CULTURE

Heritage and Narrative



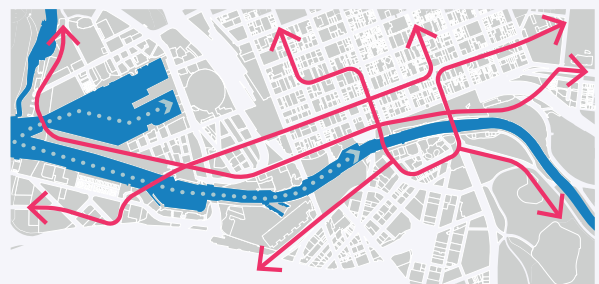
ECOLOGY

Habitat and water



MOVEMENT

Journey and connection



PLACE

Activity and Character

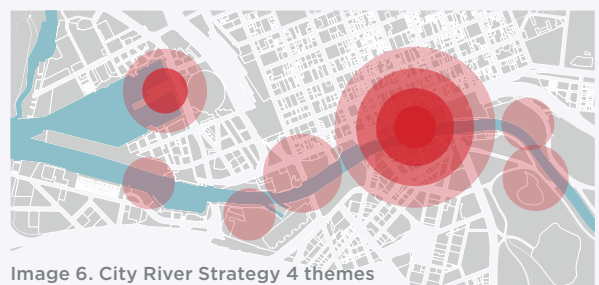


Image 6. City River Strategy 4 themes

Strategic context

The relationship of this project to previous plans and key projects currently underway is briefly outlined below.

Melbourne Water – Yarra Strategic Plan

Melbourne Water is developing a 10 year Yarra Strategic Plan which is to include a 50 year community-led vision, performance objectives around waterway health, landscape and parklands amenity and cultural and heritage values and a decision making framework. The City of Melbourne is represented on the Yarra Collaboration Committee, which advises Melbourne Water on the development of the Yarra Strategic Plan.

This report will inform and guide Council's input and, as the Yarra Strategic Plan covers a broader scope (entire 200km of the Birrarung), it will be complementary in terms of offering more place specific discussion. Melbourne Water are working towards a public Draft by mid 2019 and a final, endorsed plan in 2020.

Lower Yarra River Management Advisory Committee

The Lower Yarra River Management Advisory Committee is also working on improvements to the Lower Yarra River

governing arrangements and have developed a series of recommendations as a forward strategy regarding the allocation of commercial berths.

City of Melbourne Strategies

City of Melbourne has numerous Strategies and Plans to grow and enhance the city's open spaces and public realm that have been considered and relate to this report. These include the Open Space Strategy 2012, Transport Strategy 2014 – 2030, Total Watermark – City as a Catchment 2014, Urban Forest Strategy 2012–2032 and Bicycle Plan. There are also other waterways related initiatives being developed in parallel, covering Moonee Ponds Creek, Arden Macaulay and Fishermans Bend respectively.

City of Melbourne Capital Works

The City of Melbourne are currently working on a number of projects to improve the public realm of the north and south bank of the Birrarung. These include:

- Southbank Boulevard upgrade
- Seafarers Rest Park
- Domain Parklands Masterplan
- Birrarung Marr Master Plan
- Market Street Park

Yarra River -----> **City of Melbourne** -----> **Strategy scope**
200km length

Yarra Strategic Plan
Melbourne Water

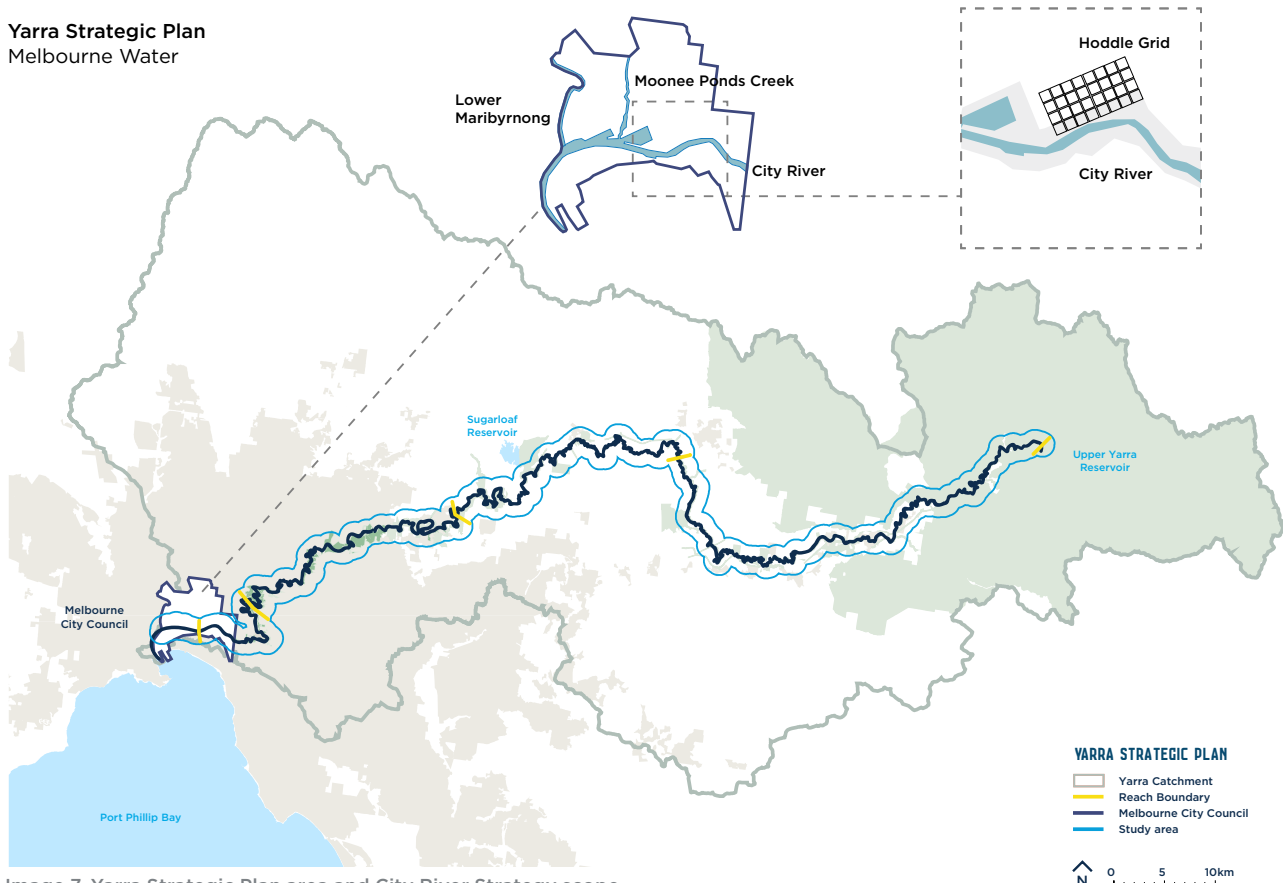


Image 7. Yarra Strategic Plan area and City River Strategy scope

Study area and conditions today

The focus of the Strategy is the inner city reaches of the Birrarung, covering 11kms of diverse river edges and urban settings (5.7km on the north bank and 5.6km on the south bank), as indicated in the map below.



Image 8. Wharf structures and hard edges along the river provide limited greening or habitat for animals.



Image 12. Plan of the study area with key open spaces and bridges and images illustrating some of the key challenges.



Image 13. Vehicular oriented infrastructure. A barrier to movement.



Image 14. Large expanses of 'hard' open space without ecological value.



Image 15. Banana Alley area constrained by clutter of car parking, furniture, and uneven paving.



Image 9. The area beneath the viaducts is overshadowed, noisy and feels unsafe.



Image 10. Activation strategies have not succeeded in enhancing Batman Park.



Image 11. Inactive, closed and hard edges to the river and unprogrammed public spaces.

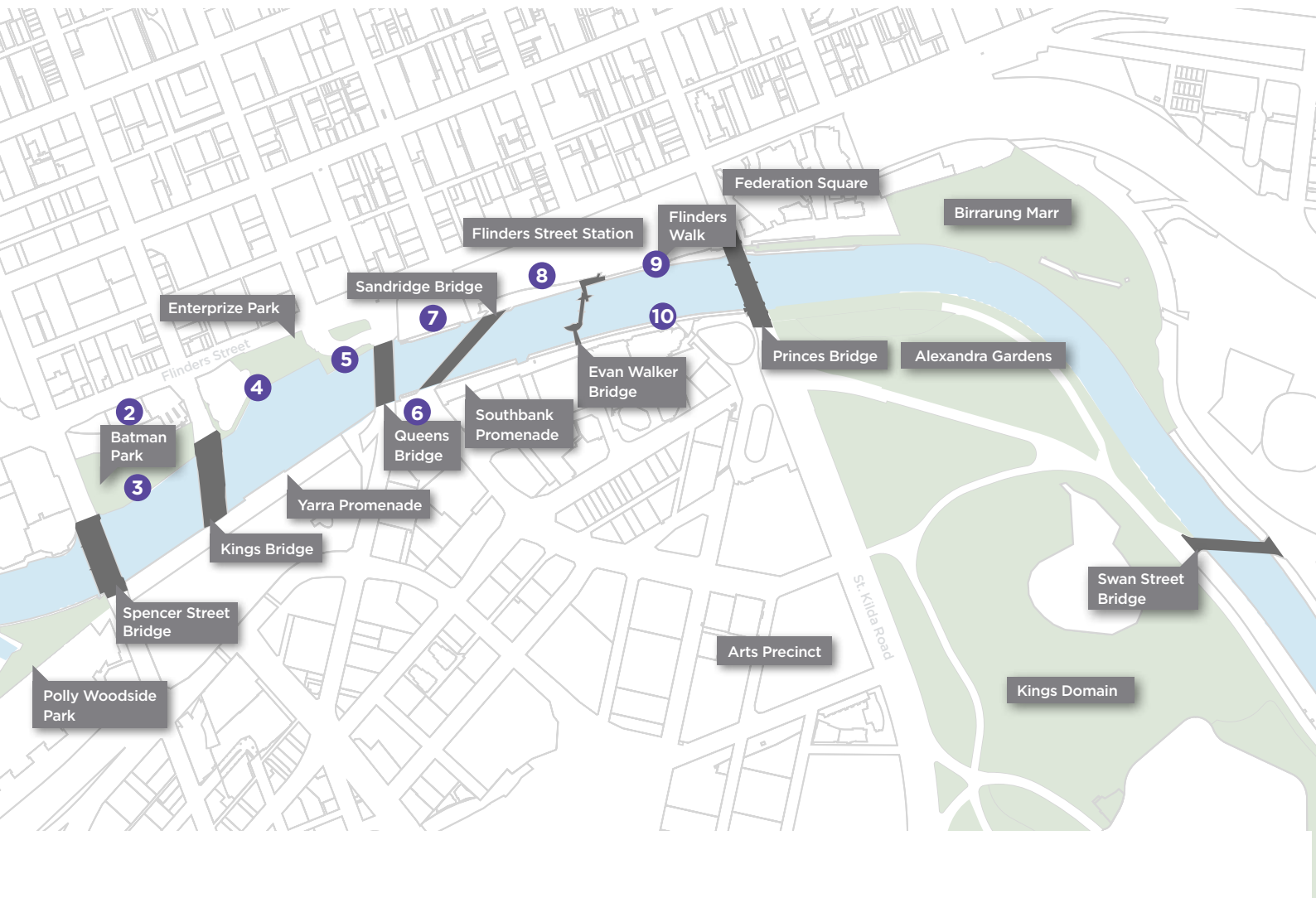


Image 16. Underutilised land at grade and complex ownership arrangements.



Image 17. Limited space at the river edge with adjoining commercial uses.



Image 18. Conflicts between commuter cyclists and pedestrians along Southbank Promenade.

THE VISION



The whole of river 50 year community vision, developed by Melbourne Water as part of the Yarra Strategic Plan, is that “Our Yarra River, Birrarung, is recognised around the world as an iconic example of a nurturing relationship between a river and its community...”
The City of Melbourne supports this direction and take this as our cue for future aspirations for the City River.

Yarra River 50-year Community vision
“Our Yarra River, Birrarung, is recognised around the world as an iconic example of a nurturing relationship between a river and its community...”

Melbourne Water.

Draft City River Strategy vision
“A world class urban riverfront which celebrates Aboriginal culture, environmental quality and resilience.”

The City of Melbourne.

In parallel with development of this Draft Strategy, Melbourne Water has been leading delivery of the Yarra Strategic Plan. Melbourne Water's first step in devising The Plan involved inviting the the broader community to contribute to the development of the Yarra River 50 Year Community Vision. Capturing the entire 200km expanse of the river, the Vision is that “Our Yarra River, Birrarung, is recognised around the world as an iconic example of a nurturing relationship between a river and its community.” The City of Melbourne supports this direction and looks to apply these values of a positive, prosperous and healthy connection with our waterways to focus on the unique characteristics of our municipal area of the Birrarung.

Over recent decades, the inner-city reaches of the river have evolved markedly, however the substantial potential of this asset remains to be fully realised. The complex land ownership and governance arrangements along the central city waterfront challenge decision making and the delivery of change. Numerous areas of the riverfront, especially along the western northbank, are also characterised by a lack of cultural expression, limited ecological habitat and day to day activation, privatisation of public places and poor pedestrian connectivity.

The Birrarung is critical to Melbourne's identity, appeal to tourists and liveability. As a river city, we need to focus on the city's relationship with the river, revealing the layers of history, particularly the Aboriginal significance. Our emerging vision for the City River is a world class urban riverfront which celebrates Aboriginal culture, environmental quality and resilience.

This will be accomplished by:

- Offering a waterfront that fosters an understanding of Aboriginal heritage and culture.
- Distinguishing the river as a slower paced environment with safe, connected walking routes to and along the waterfront.
- Providing universal accessibility along safe, well maintained pathways for all people to enjoy.
- Encouraging activation that offers broader community inclusion and supports a public waterfront.
- Establishing a new, resilient waterway condition that responds to flood events.
- Introducing further greening, including trees and riparian vegetation in the river corridor.

The City River today...



Aspirations for the future...



Image 20. Artist's impression of a possible future river conditioning (Illustrative for discussion purposes only).

Key priorities

The Birrarung will be an inspiring public waterfront that celebrates the rich Aboriginal history of Melbourne, offers a green sanctuary and is a loved place in the hearts of Melbournians. Three key priorities are as follows:

1. Embrace Aboriginal culture and heritage

Indigenous stories of the past, present and future have a powerful and important influence on the identity of our city. These stories should have a tangible presence in the public domain. There is great potential to celebrate and reflect on the indigenous heritage, and inspire how the future conditioning of the City River can be a canvas for Aboriginal values, cultural trails, paths and landscapes that celebrate the earliest memories of the place and enrich it with meaning.

A major role in identifying the cultural narrative lies with the Traditional Owner groups in order to build a strong story of the Aboriginal connection to the Birrarung and its banks.

2. Prioritise Northbank | Greenline

The Northbank is a distinguishing feature of the City River and major focus for business, tourism and leisure. Significant improvements are proposed for the public realm to accommodate the increasing numbers of pedestrians that move through this space and to strengthen Melbourne's identity as a River City.

Increasing pressures from commercial uses, including on-river floating facilities, require an investment that clearly identifies and guarantees public realm civic quality and free movement along Flinders Walk and Banana Alley. The Green Line project, currently being investigated by CoM, is a catalyst initiative that will provide inspiration for this public space improvement.

3. Restore the natural landscape

The Birrarung plays a critical environmental health role in the city. This strategy proposes to maximise the environmental contribution of the river, healthy water conditions and urban cooling through riparian greening and building on Urban Forest principles.

The river has the potential to be the major biodiversity connector in the Melbourne municipality. Birrarung will be connecting up the main biodiversity hotspots in the city and become an important link for animals and other living creatures, forming unique urban ecosystems. These ecosystems are crucial for maintaining health and wellbeing by filtrating air and water and providing shade and places for recreation.



Image 21. Celebrating culture and place



Image 22. Prioritise the public realm



Image 23. Restoring the landscape

Strategic Directions

The following section summarises a set of strategic directions to guide appropriate actions and future development of the City River corridor.



Theme 1

CULTURE

Heritage and Narrative

C1

Collaborative

Establish a protocol for on-going collaboration with Traditional Owner groups to help tell the story of the Aboriginal connection to the Birrarung.

C2

Visible

Increase the public visibility of Aboriginal intangible heritage and the history of the Birrarung through interpretation and information.

C3

Maritime

Recognise the historical and contemporary importance of the maritime uses of the Birrarung.



Theme 2

ECOLOGY

Habitat and water

E1

Riparian greening

Re-introduce a riparian zone to improve water habitat, biodiversity and create a healthy river ecosystem.

E2

Ecologically connected

Optimise the urban vegetation along the river banks prioritising an Indigenous palette to improve local biodiversity and ecological networks.

E3

Resilient

Address flood risk and improve water quality.



Image 24. Artwork Birrarung Marr.



Image 25. Docklands Park South wetland, Navigation Drive.



Theme 3

PLACE

Activity and character

P1

Inviting

Prioritise Northbank renewal to create an inviting destination immediate to the City.

P2

Multi-functional

Celebrate character areas and encourage new economies: a range of civic, educational, cultural, hospitality and water dependant uses.

P3

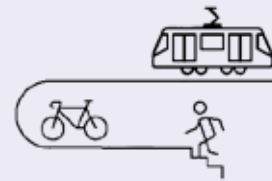
Public

Sustain the civic focus by encouraging activation that offers broader inclusion and supports a public waterfront.

P4

Legible

Rationalise clutter and on-water infrastructure to ensure unobstructed vistas and views.



Theme 4

MOVEMENT

Journey and connection

M1

Slow

Distinguish the river as a slower paced environment by creating safe, alternative north and south bicycle routes.

M2

Integrated

Transform the condition of key 'barriers' to address the gaps to the northwest and integrate access with the City.

M3

Accessible

Raise the quality and universal accessibility of riverfront pathways.

M4

Diverse water activity

Encourage more water related activity and greater diversity of vessels, particularly more non-motorised crafts.

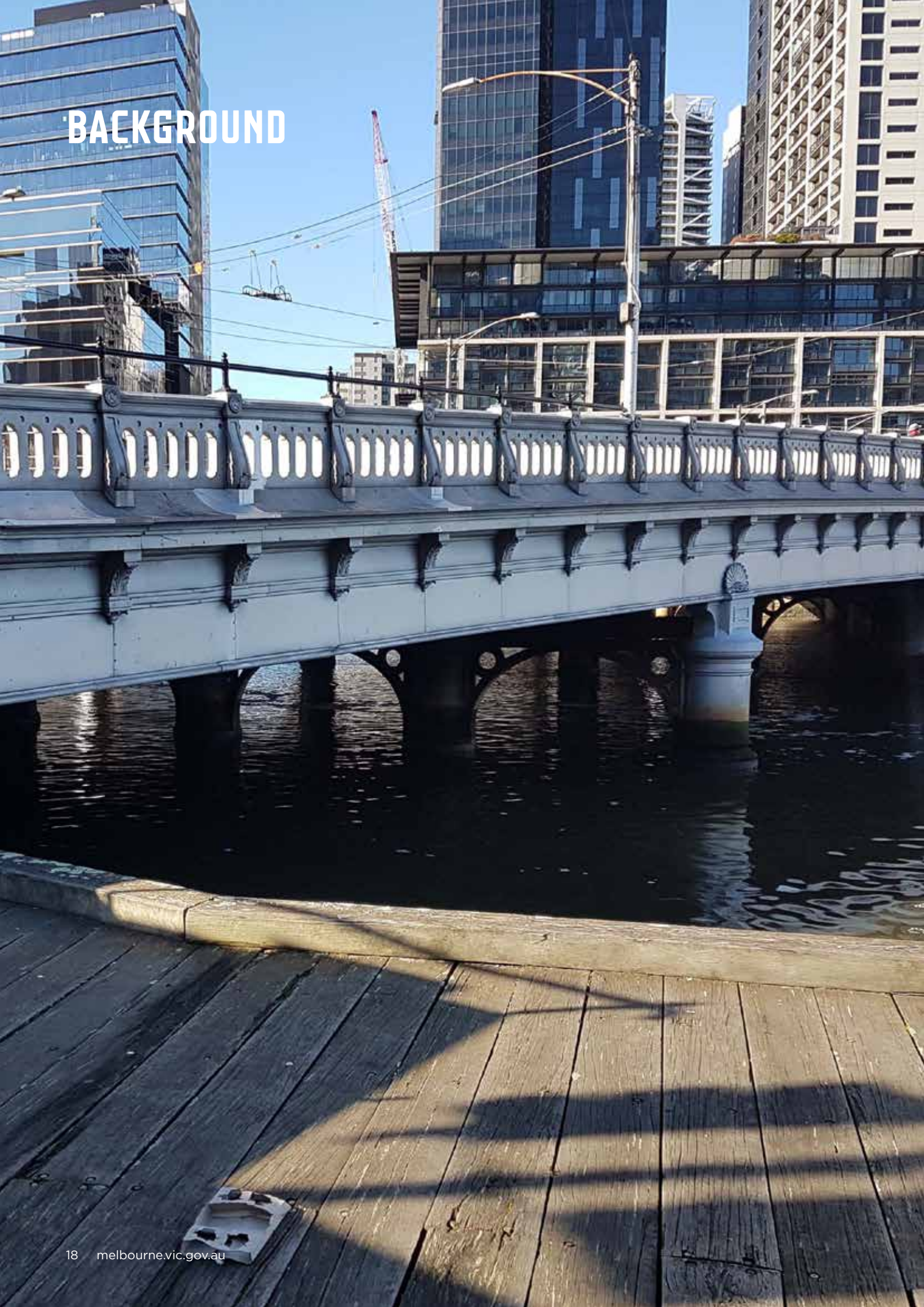


Image 26. View from Southbank Promenade to Princes Bridge and the City



Image 27. Flinders Walk entry Flinders Street Station.

BACKGROUND



Changing role of the Birrarung

The Birrarung has played a pivotal role in the Aboriginal history and the modern development of Melbourne. As a defining feature of the central area, a natural imprint and formation, the Birrarung set the location and orientation of Melbourne as an early European settlement and the city's progress and development has always been intertwined with the river.

40,000 years of Indigenous history - An intimate connection to nature and place

For at least forty thousand years prior to European settlement, the Birrarung was part of the ancient Aboriginal country of the Woi wurrung and Boon wurrung clans of the Kulin people, who spoke in five different languages. The Wathaurung, the Bunurong, and the Woiworung people lived near the Port Phillip Bay area. The Woiworung comprised a number of clans including the Wurundjeri, whose territory was located close to the area drained by the Birrarung and its tributaries.

In the initial years of early settlement the Aboriginal clans still camped at their traditional locations on either side of the Birrarung. Fresh waterfalls were the traditional meeting place for the clans living on opposite banks. This was the place where freshwater met saltwater and the people would meet half way to negotiate trade, perform marriages and exchange information. The area around the Birrarung was abundant in bird life and the waters plentiful in fish. The tributaries running into the Birrarung were rich in flora and fauna, providing places for hunting and areas of shelter. Aboriginal people placed great reliance upon the procurement of plant foods from their clan estates. The Birrarung was the lifeblood of the community, a rich and flourishing ecosystem providing a bountiful food source and an important location for spiritual and recreational purposes.

Early settlement - Laying the foundations of a city

The existence and discovery of the Birrarung, and its fresh water, was crucial to the founding and subsequent development of Melbourne. The imposition of urbanisation on this landscape, already rich with function and meaning, was rapid and changed forever the relationship between Aboriginal people and their country. In 1835, John Batman and John Pascoe Fawkner, two sons of British convicts transported to Australia, initiated a process that would result in the creation of Melbourne. In May of that year, John Batman as the expedition leader, signed the infamous treaty with the Kulin people, allowing British settlement on their land around Port Phillip Bay. Within a year, the seeds of a new colony and its new capital were sown. Governor Bourke accompanied by the surveyor Robert Hoddle traced out on horseback the streets of the new township of Melbourne in 1837 to a design that would become known as the Hoddle Grid, aligned with the natural curve of the Birrarung.

Industry defines the riverfront

The river was a focus for the fledgling colony, providing water, fertile land for farming and access. However, over the subsequent decades its role and value changed dramatically as Melbourne rapidly urbanised. The river was a ready-made sewer and it gave early industries the water necessary in their processes. There was a steady deterioration in water quality during the 19th century, with the river effectively serving as the city's gutter for factory muck and sewage. This period relegated the status of the riverfront and prescribed how the river environs came to be treated for sometime.



Image 29. Melbourne in 1838, view with Birrarung in the foreground (State Library of Victoria)



Image 30. Flinders Street ca. 1912, with the old Fish Market in the background (State Library of Victoria)

Role of the river today

In more recent years, the Birrarung has begun its transformation and the river now serves as a key focus for the City of Melbourne. The revitalisation of the river banks commenced in the 1970s and 80s with numerous key developments along the river including the Victorian Arts Centre and Southbank replacing industrial uses. The development of Southbank Promenade followed in the 1990s, dramatically improving the riverfront experience for an eager public. Around 2000, the river became a focus of major government projects including Melbourne Exhibition and Convention Centre and Birrarung Marr park development which further enhanced the river environs. Today the Birrarung is highly used for recreation and entertainment purposes and is the host to key annual events such as the Moomba festival, White Night and New Year's Eve celebrations. Southbank Promenade is one of the city's top three visitor destinations. The Birrarung is an important part of Melbourne's culture and the identity of the city. The City of Melbourne is committed to further enhance these values.



Image 31. view to Birrarung Marr



Image 32. Land ownership/management plan (Map devised through a desktop investigation of land ownership, -undertaken using a combination of available GIS mapping and VicMaps).

Governance arrangement

The governance arrangement of the Birrarung is highly complex and fragmented. There are a diversity of land owners and management for the river is dispersed across state government agencies, local councils and statutory authorities. These represent a range of interests, functions, purposes and (partially) operate under different legislation. This creates delivery challenges, with works requiring coordination and possibly legal agreements with numerous parties, and as projects are typically developed by separate entities, may not achieve an integrated approach. The diversity of land owners and managers also creates challenges for the provision of a legible corridor.

While this City River Strategy does not address the issue of overall governance, we raise it briefly as a major impediment to achieving change within the waterfront environment. The Yarra Strategic Plan will hopefully be the delivery mechanism for an improved governance arrangement. An improved riverfront needs a unique approach and broad cross-government and community commitment.

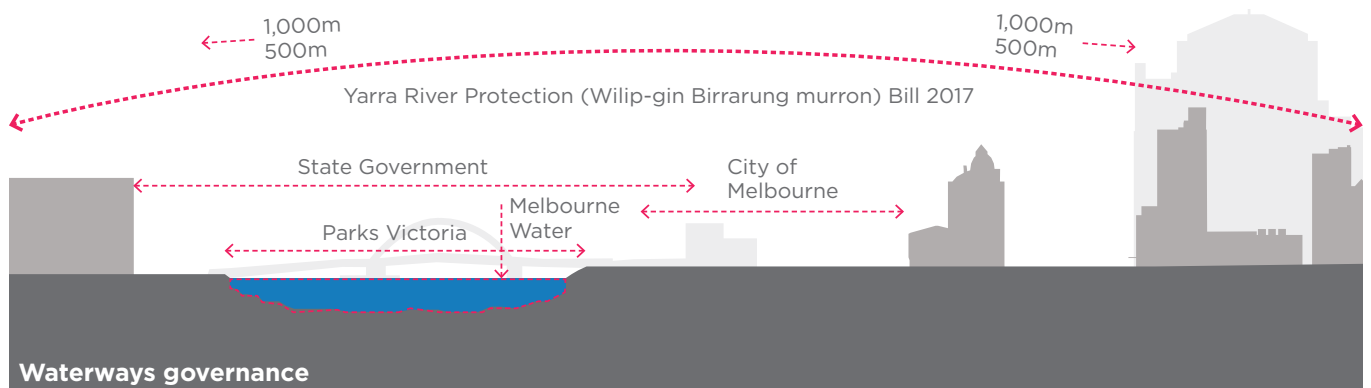


Image 33. Waterways governance: Parks Victoria is the water manager of the Lower Birrarung including piers and jetties, and the land manager along the river, except for Docklands, while Melbourne Water manages the physical water of the Birrarung waterway.

International context

Cities around the world are embracing their riverside locations as a cultural, ecological and recreational asset. Consequently many urban waterways are now being transformed, restored and developed. The following examples are highlighted as successful city river renewal projects internationally. They are all high profile, transformative interventions that have been championed by local authorities and political actors, often over an extended period of time, and typically requiring substantial budget.

The Brisbane River Southbank project was triggered by the World Expo, held in 1988. The City of Brisbane organised a Design Competition in 1989 and the development of

the project was overseen by the SouthBank Corporation (State and local Government + Private groups). The site was constrained by flooding, land contamination and established uses in the precinct. Southbank 'Brisbane's Backyard' is now an iconic riverfront destination for local, interstate and international visitors. The project has reconnected the Southbank suburbs to the Brisbane River and achieved social change, better pedestrian access, connectivity and improved ecological outcomes.

The Chicago River was part of a polluted water system and the riverfront was not being used or contributing actively to city life. The City of Chicago developed a long term vision: 'Great Rivers Chicago'. This was the framework that prompted the development of the Riverwalk



Image 34. Melbourne Birrarung
Map data: © 2018 Google



Image 35. Brisbane River
Map data: © 2018 Google



Image 36. Chicago River
Map data: © 2018 Google

Project developed by the City of Chicago Department of Transportation together with State Government. The project includes 2km riverfront divided into six different 'coves'. Fragmented landownership resulted in a three phase delivery process and intensive engagement through the 'Friends of the Chicago River' Program.

The Berges du Rhone project in Lyon (completed 2007) was initiated by the Lyon City Planning Agency in 2002 to improve activation of the riverfront and transform the river into a vibrant urban environment. The new open space was created by removing many parking spaces on the quays along both left and right banks. The project includes public baths, pontoons, fishing platforms and a skate park.

Another internationally celebrated example is the Cheonggyecheon river in Seoul, South Korea. It is a Seoul Metropolitan Government project that included reconstruction and daylighting of an 11 km long stream on a grand urban scale. Following significant government effort, including demolishing an elevated freeway, it was restored and today is an oasis in a concrete jungle, a boost to local biodiversity and economic development.

The City of Paris has developed the 'Promenade des Berges de la Seine' project, which opened in 2013. The promenade, created on the former highway that ran along the left bank, includes five floating gardens, planted atop barges, exhibition areas, performance and classroom spaces, playgrounds, sports facilities and cafes. Everything in the park can be dismantled and moved within 24 hours if the water of the river rises too high.



Image 37. Lyon Rhone River
Map data: © 2018 Google



Image 38. Seoul Cheonggyecheon Stream
Map data: © 2019 DigitalGlobe
© 2018 SKEnergy



Image 39. Paris Seine River
Map data: © 2018 Google

CULTURE: HERITAGE AND NARRATIVE



The Birrarung is a significant place of shared Aboriginal and non-Aboriginal history and cultural values, however this narrative is largely absent from the river experience today. We look to better acknowledge and reflect the sites, stories and memories to offer a place of reflection, education and enrichment.

Background

There are many cultural values and spatial characters within the City River urban landscape. The area has evolved over time, people have settled, places have been established, and the Birrarung has been a constant presence throughout that history. The river is a place of shared Aboriginal and non-Aboriginal history and cultural heritage values.

Before European settlement the Birrarung was a rich and fertile landscape. The river followed a different course, with extensive wetlands along much of the lower parts of the area. It provided food supplies and was an important meeting place.

The Birrarung landscape is a place of great spiritual importance for Aboriginal People. The Aboriginal cultural narrative for the City River provides an opportunity to reconnect to heritage, landscape and ecology in the urban context.

The Birrarung played a central role in the communities of Aboriginal groups who lived in harmony with their environment. This is reflected in the creation stories that provide insight into the importance of water and the river in the delta landscape of the lower reaches of the Birrarung.

The Birrarung is also tightly connected to the story of the European colonisation and to the choice for the location of Melbourne City itself. The old Falls in the Birrarung was the location where fresh water could be obtained by the settlers and ship access from Port Phillip Bay was possible up to this point.

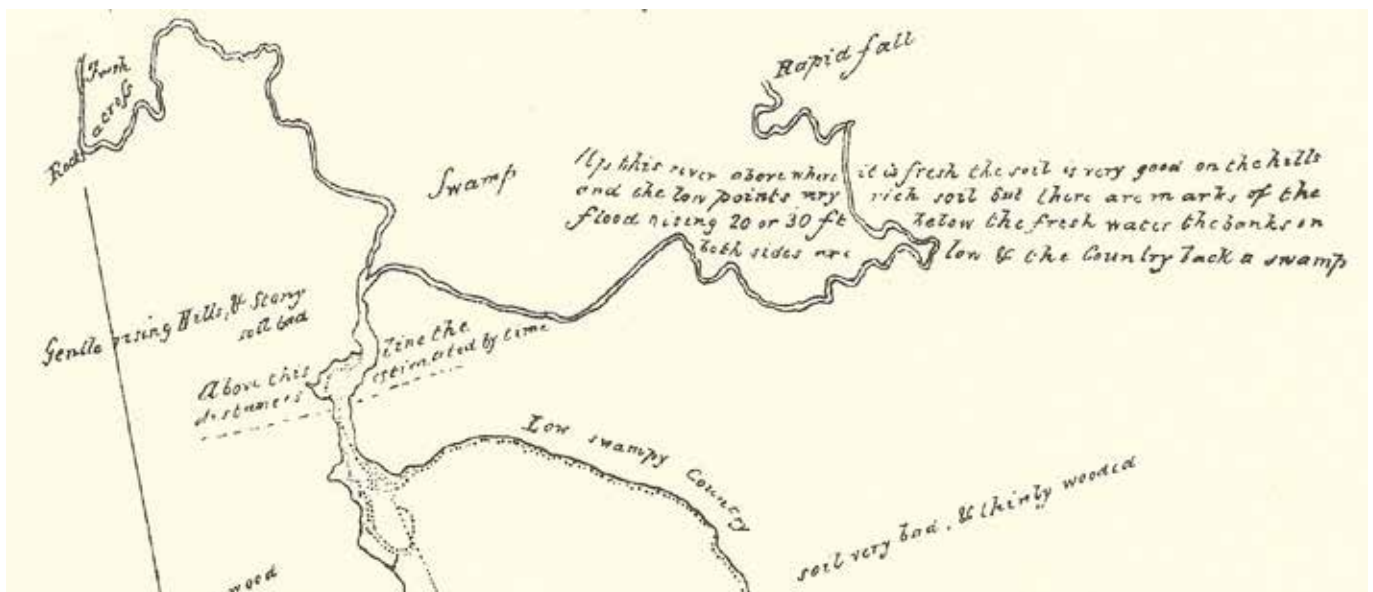


Image 41. Charles Grimes survey map 1803 (State Library of Victoria)

Image 40. R. Hofmann painting 'Melbourne 1836' (State Library of Victoria)

Existing conditions

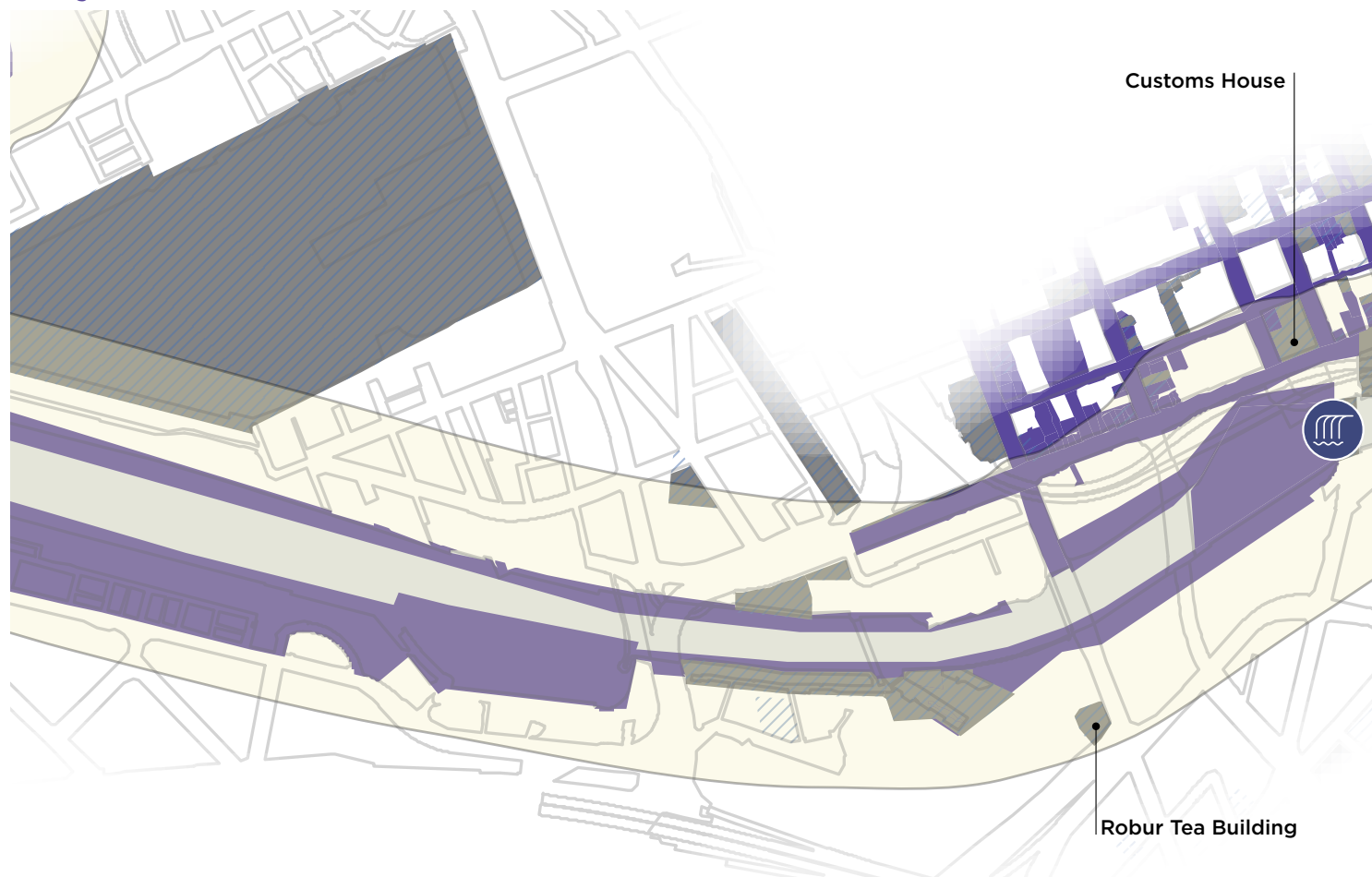


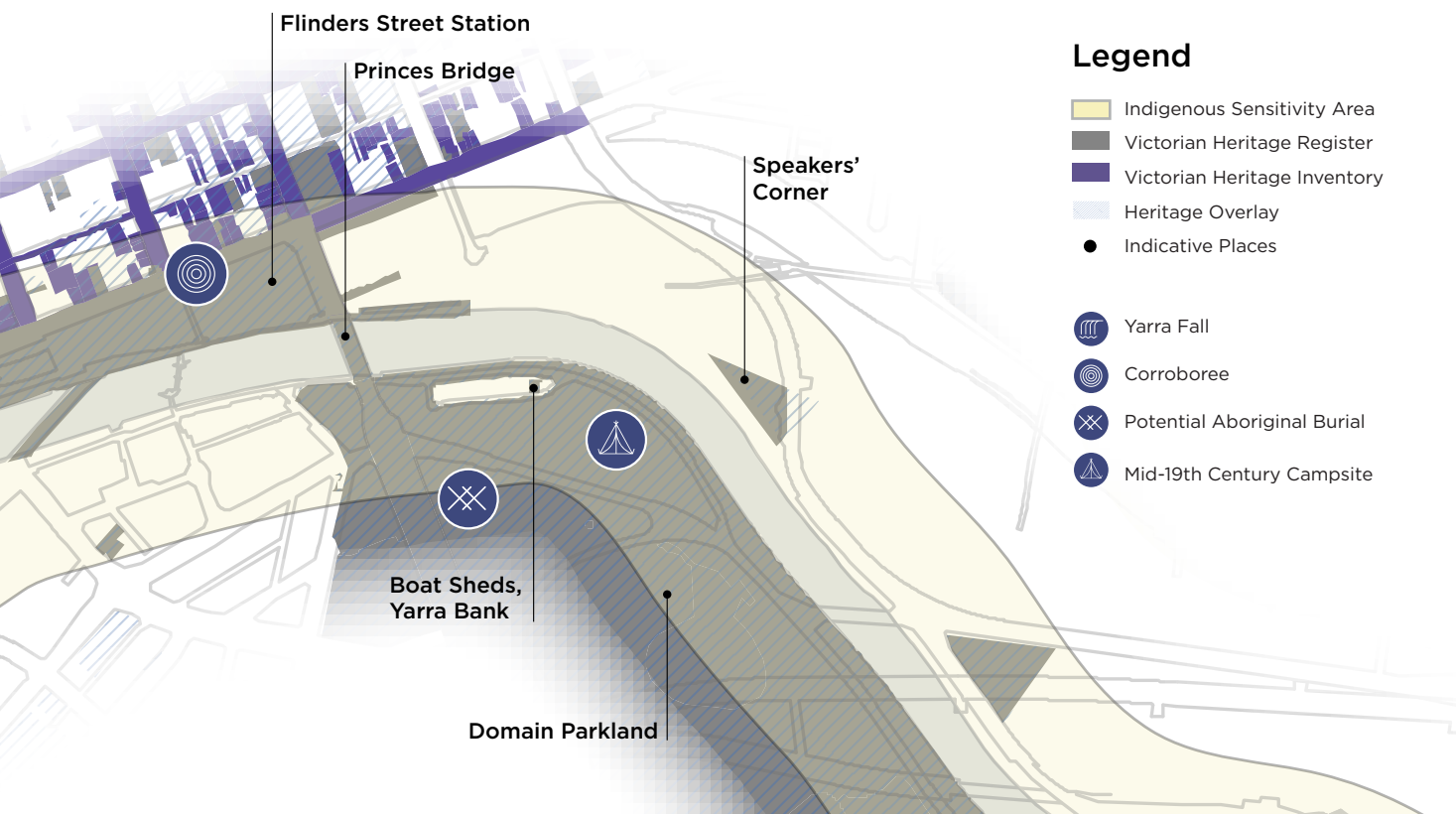
Image 42. Heritage aspects City River.



Image 43. Existing remnants of the Falls visible at Southbank Promenade below Queensbridge Square.



Image 44. Broken Pier, Southbank Spillway



Resource: Information extracted from Goldfarb (2017:Figure 4-3)

Key challenges

Key heritage and narrative challenges are defined below:

- Many stories from Melbourne's history are intertwined with the Birrarung, making the river a very rich and layered source of cultural narrative from both pre and post contact eras.
- The Aboriginal cultural heritage is an underrepresented layer in the contemporary city river landscape of Birrarung and is lacking visibility in the City.
- Significant elements of the pre contact river landscape have been largely removed, like the Falls, the wetlands and Batmans Hill. These elements are important parts of the history of Melbourne but are currently not celebrated or referenced.
- The Aboriginal Cultural Narrative connected to Birrarung is often embedded in intangible records such as stories and practices like song, dance and ritual.
- Melbourne City was planned and surveyed by European colonists. It was established in close proximity to the Birrarung. The river gave settlers access from Port Phillip Bay and also access to fresh drinking water from the river upstream of the Falls. As a result there was a strong functional connection between City and River.
- Through the development of industry along the Birrarung and port activities that were shifting westward, the City gradually turned its back on the river and the intrinsic connection with the Birrarung was lost over time.
- Many of the European cultural heritage physical aspects related to Birrarung are engineering works that assisted in, and improved shipping access to Melbourne. These works have altered the natural landscape that the City was built on, including the original course of the Birrarung.

Strategic Directions

The following section summarises a set of key strategic directions to guide appropriate actions to improve recognition of the collective history of the unique riverfront environment.

CULTURE STRATEGIC DIRECTION 1

Collaborative

Establish a protocol for on-going collaboration with Traditional Owner groups to help tell the story of the Aboriginal connection to the Birrarung.

The Birrarung is of cultural and historic interest to the people of Victoria as evidenced by various separate listings on the Victorian Heritage Register, National Heritage List and Victorian Aboriginal Heritage Register. In addition to the official histories, monuments and structures there is also the stories and memories of people over generations, which influences what people value today. This is also a place of living culture, not just one reflecting the past. The Birrarung is significant to Aboriginal People. It is a place of shared Aboriginal and non- Aboriginal history and cultural heritage values.

C1A: Establish a protocol for on-going collaboration with the Traditional Owner groups to establish an Aboriginal cultural narrative of the Birrarung.

There are three distinct Aboriginal communities associated with the City River reach of the Birrarung. At the same time, the Birrarung is important for all the Aboriginal Nations in Victoria. There are also specific groups with stated connection to the City River.

Before European settlement the Birrarung was a rich and fertile landscape. The Birrarung followed a different course, with extensive wetlands along much of the lower parts of the area. It provided food supplies and was an important meeting place.

This strategy acknowledges the Aboriginal history of the Birrarung, while also creating a platform to celebrate Aboriginal culture in Melbourne in the 21st century. People want to know the story of the river.

The Aboriginal Cultural Narrative is to highlight tangible and intangible aspects of history and culture while highlighting opportunities to incorporate these in the public realm or spatially in an integrated, contemporary way.

C1B: Commission further research of historical data with a focus on the botanical aspects of indigenous vegetation.

Cataloguing vegetation that would have historically been present in the pre contact landscape and of importance for Aboriginal people's livelihood is an important task. The Aboriginal names of plants give insight in the use of the plants, the landscapes they were in, the management of the landscape and the seasons associated with plant growth, flowering and fruiting.

The pre contact landscape of the Birrarung was a sustainably managed landscape by Aboriginal groups. The landscape was considered part of the tribe or the family and was being referred to and cared for accordingly. Such knowledge of landscape management is an important part of the Aboriginal Cultural Narrative, as it highlights the unique Aboriginal approach to living in and with nature.



Image 45. Establish a protocol for on-going collaboration with Traditional Owner groups.



Image 46. Planting at Ngarara Place RMIT Campus courtyard. Design Greenaway Architects.

Visible

Increase the public visibility of Aboriginal intangible heritage and the history of the Birrarung through interpretation and information.

For the Traditional Owners, water bodies such as rivers were and are inextricably connected to life's meaning and have powerful cultural associations. Many Aboriginal groups told stories about special places, and believed that beings from the Dreaming occupied particular watersites. These beliefs are sometimes recorded in tangible artworks but are more often embedded in intangible records such as stories and practices such as dance, song, stories and ritual.

The Falls (Yarro Yarro) were a key factor in the founding of the City of Melbourne. They were a point of crossing in the Birrarung and the location where fresh water was accessible for settlers. The cultural significance of the Falls is of great importance for the Traditional Owners and also for the history of Melbourne post-contact. The Falls were located in the vicinity of the Queen Street Bridge. They were largely removed in 1883 in response to significant floods in the preceding years. A remnant of the Falls still remains between the Queens Bridge and Sandridge Bridge landings at Southbank Promenade. These rocks can be viewed at low tide.

C2A: Increase the public visibility of the Aboriginal history of the Birrarung through information and interpretation.

Public visibility of Aboriginal history and narrative needs to be increased because of the historic significance and unique local qualities of the river. The way to improve visibility will be through information, but opportunities must also be sought to integrate interpretation and give more inclusive meaning to specific places along the Birrarung. Aboriginal values will be more holistically expressed by means of physical projects, integrated in capital works initiatives.

C2B: Recognise the historical and Aboriginal cultural importance of the Yarro Yarro Falls.

The strategic direction for the Yarro Yarro falls aims at exploring the opportunities to reference the history and cultural importance of the Falls in the public domain of the City River. A number of options could be explored including reinstating the Falls, partial reinstatement or artistic or cultural interpretation.

Full physical reinstatement of the Falls was investigated as part of this study to broadly understand the implications for the hydrology of the river, including flooding. A number of scenarios were modelled (including 100yr rain event, king tide and climate change sea level rise impacts) concluding that reinstating the Yarro Yarro Falls in the original location is likely to have a significant impact upon flood levels within the CBD.

Based on this outcome, investigating the feasibility of alternative approaches is recommended including partial reinstatement of the Falls or interpretation through urban design treatments, landscape architecture or art.



Image 47. Early drawn impression of the Falls (State Library of Victoria)



Image 48. Photo of the Falls removal works in 1883 (State Library of Victoria)



Image 49. Ngarara Place RMIT Campus courtyard. Design Greenaway Architects.



Image 50. William Barak Building Melbourne, ARM Architecture

Maritime

Recognise the historical and contemporary importance
of maritime uses of the Birrarung.

There are many cultural values and characters associated with the Birrarung. It is a river of shared Aboriginal and non-Aboriginal history and cultural heritage values.

In the early settler days ships could reach Melbourne sailing up from Port Phillip Bay to dock or anchor at what is now Enterprize Park, just below the Falls. The Falls were blown apart by dynamite in 1883 and the river was widened, particularly upstream. The interface between Birrarung and the early City became the focus of activity but over time this intrinsic relationship between the river, the landscape and the settlement was degraded by industrial uses and polluting development on the river's edge.

The river's role changed quickly from being the focus of life and source of food, to an industrial corridor serving the City. The City turned its back on the river. The ecological values and biodiversity of the river were seriously degraded.

As the recreational values of the river started to be appreciated, the river interfaces were transformed and the typical Melbourne street landscape of bluestone and plane trees was continued to some of the river's edges. Hard treatments were used for the river edges to reduce the risk of flooding and support berthing for boats and other activities.

Today, the Port of Melbourne has shifted to the west and ships on the City River are mostly for recreational use and transport.

C3A: Recognise the historical and contemporary importance of the maritime history of the Birrarung.

The many aspects of the post contact history of the Birrarung are reflected in some of the key milestones of development of Melbourne: the discovery of fresh water by the first colonists, the survey of the Hoddle Grid, the first Princes Bridge built in 1844, expansion during the Goldrush, the shift to industrial uses, the abattoirs on the river banks, the engineering work transforming the Birrarung, the Coode Plan and channelisation of the river, realisation of Victoria Dock to name a few.

There are opportunities to reference these key aspects of Melbourne history, integrated in built form, in the public domain, in art, signage and in urban landscapes. The Melbourne maritime history is a significant aspect of the Birrarung sense of place. It gives shape to the iconic qualities of the City River. Seafarers Rest Park is an example of a current opportunity for renewal and inclusion of maritime heritage and contemporary uses in a key location along North Wharf.



Image 51. The Enterprize on the Birrarung 1835 (State Library of Victoria)



Image 52. First Princes Bridge construction 1884 (State Library of Victoria)



Image 53. Birrarung 1930s (State Library of Victoria)

ECOLOGY: HABITAT AND WATER



Image 54. Royal Botanic Gardens Victoria

Referencing the richness of the pre-contact landscape and enhancing the ecological values, the River immerses people in nature. The City River, Birrarung, is restored as a healthy water landscape experience.

Background

The City of Melbourne is increasingly facing significant challenges: climate change, flooding, urban heating and population growth. These will place pressure on the urban fabric, services and people of the city. We need to respond to these challenges by proactively building healthy resilient landscapes for future generations. The Birrarung plays a critical environmental role in this context.

The Birrarung also has the potential to be the major biodiversity connector in the Melbourne municipality. It could connect up the main biodiversity hotspots in the city and become a key link for animals and other living creatures, forming unique urban ecosystems. These ecosystems are also crucial for maintaining health and wellbeing by filtrating air and water and providing shade and places for recreation.

The delta landscape of the Melbourne region is defined by the convergence of rivers and creeks including the Birrarung, the Maribyrnong River, Moonee Ponds Creek, Stony Creek and other smaller streams. Historic maps indicate that the Melbourne area previously featured an intimate delta landscape surrounded by woodland (Refer Image 55).

More than half of the current municipality of the City of Melbourne was (and is) positioned either on low lying land or dunes, wetlands/swamps or waterbodies. The current inner city growth areas like Arden, Macaulay, E-Gate and Fishermans Bend are all located in these low lying areas and have to resolve flooding issues to enable their development.

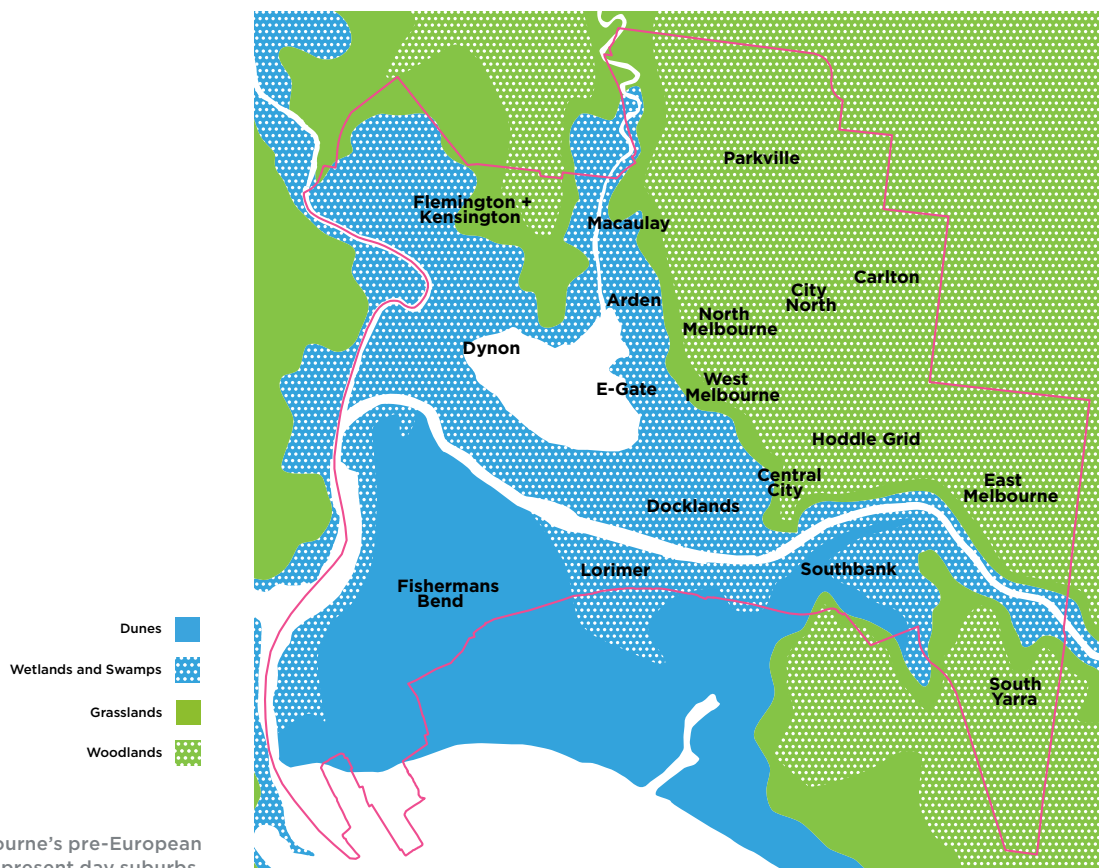


Image 55. Melbourne's pre-European landscape types and present day suburbs.

Existing conditions

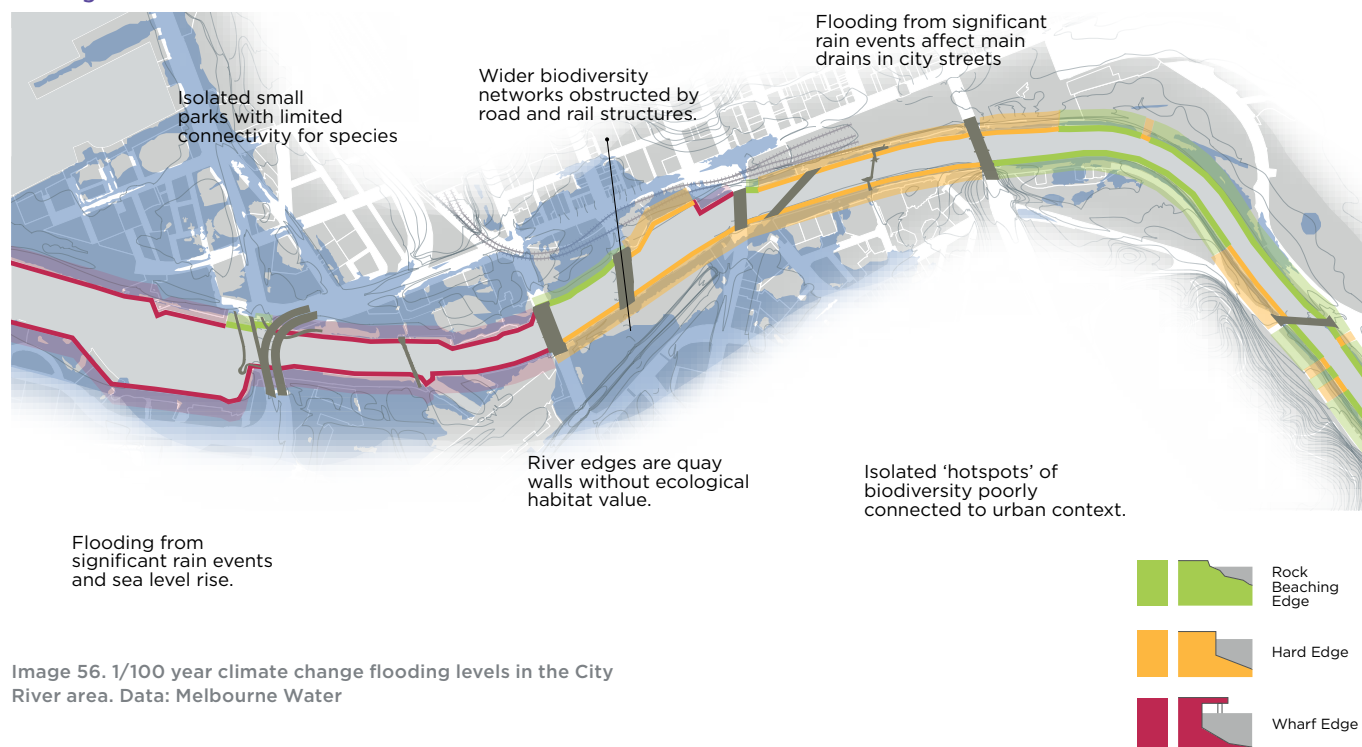


Image 56. 1/100 year climate change flooding levels in the City River area. Data: Melbourne Water



Image 57. Domain Reserve Lagoon 1880 (State Library of Victoria)

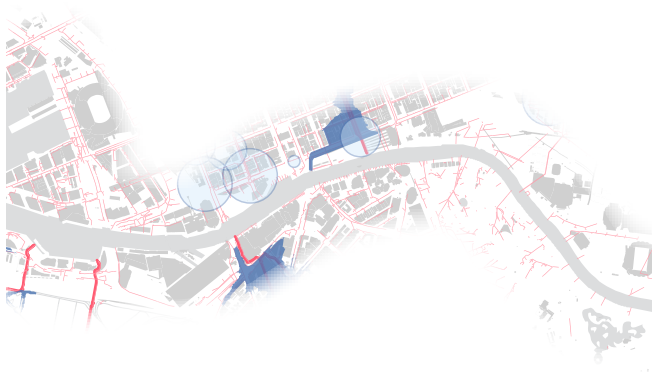


Image 58. Current flooding threat from main drains in the City area. Data: Melbourne Water and City of Melbourne



Image 59. Elizabeth Street main drain outlet underneath Flinders Walk



Image 60. Australian Wharf structure at Webb Bridge hard edge to the Birrarung



Image 61. Little Pied Cormorants roosting at the Birrarung.

Key challenges

Key habitat and water challenges are defined below:

- The ecological values and biodiversity of the original landscape in the wider delta region have been removed.
- Biodiversity values are now limited to 'hotspots' (Royal Park, Domain, Westgate Park). These are areas including a variety of indigenous planting and a range of tree canopy, mid storey and understorey vegetation, attracting wildlife from different animal groups.
- There is little or no functional connectivity for species between these 'hotspots' through a lack of habitat or structural barriers to movement.
- There is little or no riparian habitat available for fauna in the City River precinct. River edges are made up of hard materials and surfaces reducing the ability of riparian land to act as a corridor for wildlife.
- The opportunities for improvement of the Urban Forest are limited in the City River precinct because of constrained conditions like rail cover decking, rail infrastructure, wide arterial roads and bridges along the river corridor.
- There is limited opportunity to be close to the water and be immersed in an experience of 'urban calm' away from the bustling city.
- There are limited water access points for recreational access (for wading, canoe or kayak).
- There is risk of flooding through significant rain events with water levels in the City River rising and main storm water drains being affected at Elizabeth Street, King Street, Spencer Street and Clarendon Street.
- Flooding levels will be further exacerbated through expected sea level rise in the coming decades. This will particularly affect the western part of the City.

Strategic Directions

The following section summarises a set of key strategic directions to guide appropriate actions to improve the habitat and water conditioning of the City River corridor.

ECOLOGY STRATEGIC DIRECTION 1

Riparian greening

Re-introduce a riparian zone to improve water habitat, biodiversity and create a healthy river ecosystem.

Pre-settlement, the riparian zone along the Birrarung provided wildlife habitat and movement corridors, enabling aquatic and riparian organisms to move along the river systems. The vegetation slowed the flow of water, which reduced soil erosion and flood damage. Historic maps convey a river landscape that was porous, rich in swamps, inlets, wetlands and lagoons. The riparian landscape was extensive.

Today, the City River is mostly channelised through stone or concrete application on the river banks. Most of the wetlands have been removed and the smaller streams have been culverted. The landscape edging the river has been dramatically altered. The riparian ecosystem and habitat values have been diminished.

Alterations to the river edges were undertaken to support urbanisation and to gain more control over the fluctuating levels and velocity of the river water and storm water runoff. The river is a dynamic body of water that would previously have flooded the wider area on a regular basis when the landscape comprised of ephemeral wetlands. Currently the City River is a contained stream that is engineered to remain inside the bounds of the hard river edges and quay walls.

E1A: Introduce riparian vegetation to shallow sections of the river.

Riparian vegetation has a prominent role in supporting a diversity of species and improving water quality. A primary strategic direction for the City River is to transform the hard edges of the river banks with vegetation with the aim to reintroduce and improve the ecological riparian condition in the City. The City River includes many shallow sections that could be transformed to incorporate riparian vegetation. A navigable width of 50 meters is required for boats on the river. This width is actively dredged by Parks Victoria while other more shallow sections are allowed to silt up.

The interface of the river edge with the adjoining parks of Birrarung Marr and Alexander Gardens provides an ideal location to extend the ecological benefits of the parks into the water. Batman Park and Enterprize Park also offer potential to incorporate more riparian vegetation on their river edges. There is also potential to incorporate boardwalk access through the wetland edges to provide a different river edge experience and connection to nature. Impact on active water uses, such

as rowing, boating and berthing would need to be considered in the planning of riparian edges. Intensive people use can also interfere with fragile riparian environments and management of this should be considered. Hydrological and river dynamics must also be considered and may require designed elements to slow the river and protect the plants. Trials and pilot planting programs may be required to test species selection and technical solutions along varied sections of the river.

An overall riparian vegetation target is suggested to be set for the reach between Swan Street Bridge and Spencer Street Bridge of 25% of the length of the river banks being transformed by 2030. This will allow for trials to be carried out and to establish an overall strategy for riparian greening.

E1B: Create floating habitat in the urbanised river sections.

Some areas of the river including Southbank and Docklands have an urbanised edge and limited opportunity to incorporate riparian planting within the edge. In these locations there are still options to improve biodiversity within the river environs through floating pontoons or barges with vegetation at the water's edge or floating gardens. This approach has been used successfully internationally to improve the natural character and local identity of river landscapes, while aiding biodiversity and connectivity for flora and fauna.



Image 62. Illustration of a floating garden at Flinders Walk (illustrative for discussion purposes only).

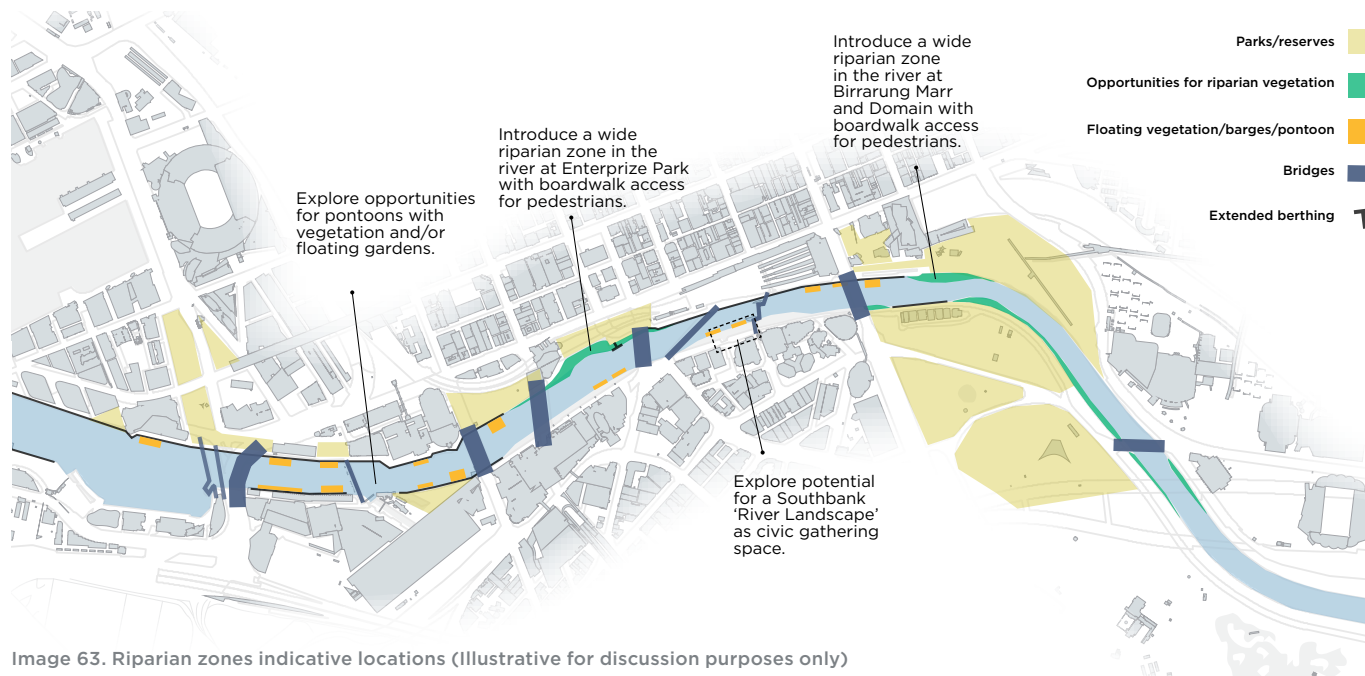


Image 63. Riparian zones indicative locations (Illustrative for discussion purposes only)

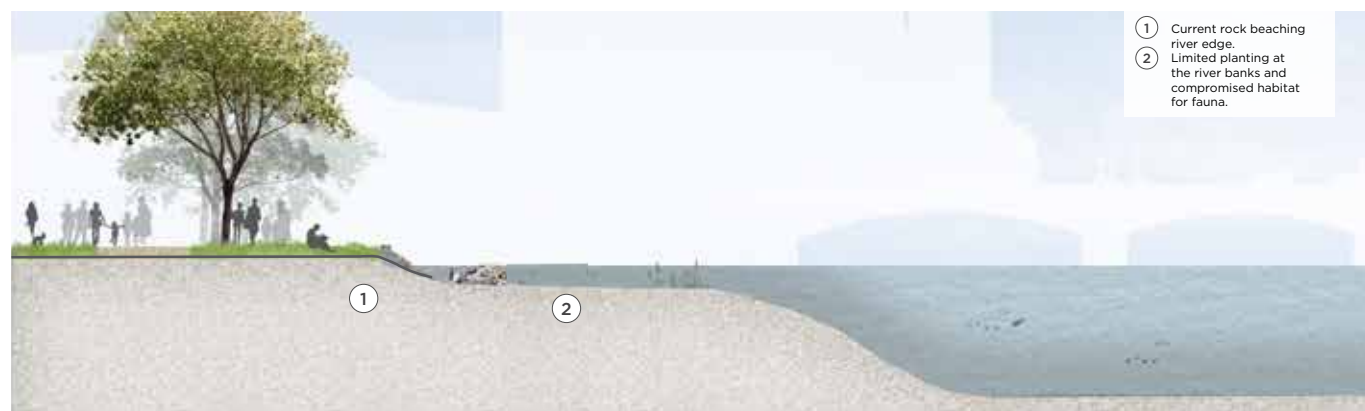


Image 64. Current river edge with rock beaching (basalt).



Image 65. Proposed river edge with extended riparian zone and replanting with indigenous species (Illustrative for discussion purposes only)

Ecologically connected

Optimise urban vegetation along the river banks prioritising an Indigenous palette to improve local biodiversity and ecological networks.

The 1750 Ecological Vegetation Class mapping (Victoria State Government) of the Melbourne area conveys a rich variety in vegetation types along the river with reed swamps, brackish wetlands, swamp scrub and mangroves. This highlights the character and the reach of water in the delta landscape. This pre-contact landscape incorporated a rich floristic biodiversity but only sporadic remnants remain today. The landscape character of the original vegetation has completely disappeared and mostly replaced with exotic vegetation, consisting of lawn and introduced trees.

Larger open spaces and reserves like Westgate Park in Fisherman's Bend and the Royal Botanic Gardens have re-established biodiversity hotspots in the contemporary urban context of Melbourne. Waterways act as a connector for wildlife and the spread of vegetation through a connected habitat framework for water and land based species particularly birds, reptiles and frogs. Physical barriers need to be identified in order to improve connectivity and reduce habitat fragmentation. The benefits of a more connected habitat framework with restored and improved biodiversity values for the City are wide ranging. This is articulated in the City of Melbourne Nature in the City Strategy 2017 with 'The city as an ecosystem' philosophy. The beneficial ecosystem services and a 'Nature for People' that will result from better habitat connectivity and permeation will allow for people to be in close proximity to natural systems in their direct environment. The benefits of contact with nature include improved health and wellbeing.

The Urban Forest Strategy and Precinct Plans for both the Central City and Southbank precincts indicate that many trees in the river corridor have a limited 'useful life expectancy'. This strategy proposes that many European tree types in the city should be replaced by other species, including indigenous ones. Especially many of the elms and plane trees are suggested to be partly replaced over the coming 10 years. This will improve tree diversity, tree health and decrease vulnerability to diseases and pests.

E2A: Prioritise a diverse landscape palette with a native focus on the river banks.

There is an opportunity in the City River precinct to improve the urban forest diversity and health and reintroduce indigenous tree species and other indigenous vegetation. The river precinct will regain some of its

original characteristic vegetation, including riparian plant communities, where possible. This will change the character of the river precinct dramatically and will involve a conscious departure from the European style landscaping that has dominated the parks in proximity to the river. It will also provide a clear river landscape identity and strong distinction from the city street landscape character. The use of indigenous species will provide a greater link to place and the Aboriginal history, establishing a characteristic City River experience in the heart of Melbourne.

In selecting species, the specific soil conditions, local climatic constraints and future climate change effects must also be considered to ensure a resilient approach. An informal planting approach could also assist in creating a new landscape identity that contrasts with the formality of the city streets.

E2B: Encourage a wildlife corridor along the river that connects city users with nature.

Introducing new trees and vegetation along the river, including mid height plants and ground cover, will re-establish a movement corridor for urban wildlife and increase the areas for fauna habitat. It will encourage people to engage with the natural environment in the City and be immersed in a riverine experience. Interpretive signage and other forms of education about the river landscape should be provided to encourage interest and engagement.

E2C: Create saltmarsh habitat conditions to attract a selection of wetland birds.

Create riparian habitat conditions that will attract wading birds like White-faced heron, Nankeen night heron, Great egret and Royal spoonbill. These species are now increasingly found in urban environments (like Royal Botanical Gardens and Carlton Gardens) and are likely to use the City River if appropriate habitat conditions are being reinstated. A target should be set for the establishment of saltmarsh and riparian conditions to enable birdlife to forage and a place for roosting. Creating the right conditions for wetland birds will increase the likelihood of other fauna establishing itself in the river corridor and in general aid in the connectivity for species.

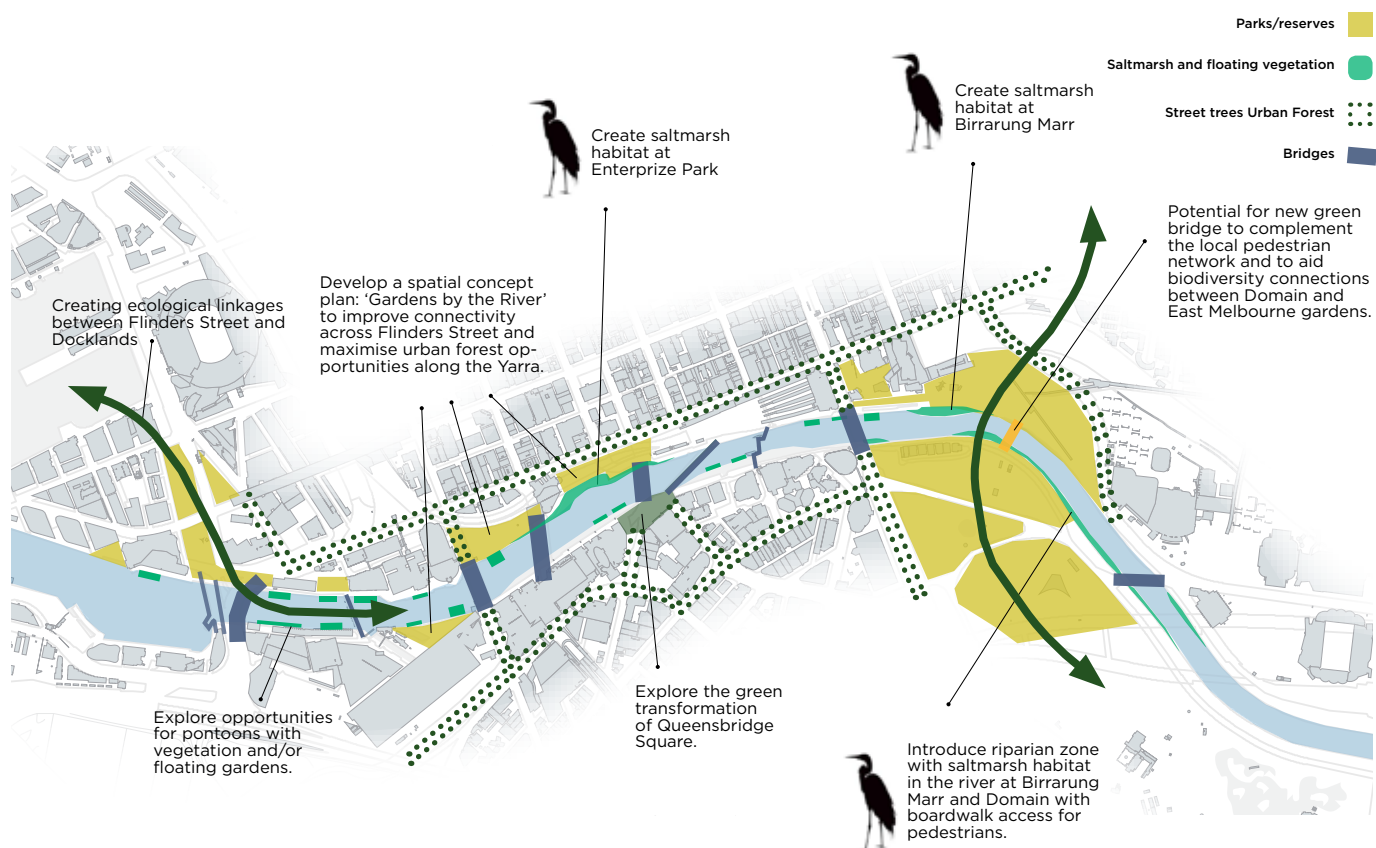


Image 66. Improve biodiversity connections
(Illustrative for discussion purposes only)



Image 67. "White-faced heron" by: natureshare.org.au/people/William/ - (©William Terry) used under: <https://creativecommons.org/licenses/by/2.0/> - Cropped from original -



Image 68. Illustration of a reinstated riparian zone along the Birrarung (illustrative for discussion purposes only).

Resilient

Address flood risk and improve water quality.

The flood mapping for heavy rain events and sea level rise impacts in the urban area of Melbourne highlights the vulnerability to flooding in the City, especially west of Princes Bridge. Both Southbank and Northbank will be affected by flooding from significant rain events. This includes the bottom of King and Spencer Streets on the Northbank, a stretch of Flinders Street and generally Southbank, Lorimer and Docklands.

Historically, the river was part of a dynamic landscape where flooding was a regular event during which the floodplain would have increased the size of the river temporarily. In the urban context, the river is now being deprived of much of the floodplain and water is being channelled through the City in order to clear the urban space from storm water as quickly as possible. In that context, flooding events are simply seen as a drainage infrastructure issue and managed through a pit and pipe system.

The riparian condition of the waterways has been degraded and minimal amounts of vegetation remain or have been partly replanted more recently. This has significantly reduced the ability of riparian land to act as a natural bio filter, to stabilise the river banks and to dampen flood peaks.

E3A: Investigate the reinstatement of the Falls to provide fresh water closer to the central city.

Currently options are being reviewed by City of Melbourne to improve access to fresh water for park irrigation. Constructing a pipeline for fresh water from the Fairfield area to the city is one of the (costly) options. There are a number of benefits to bringing fresh water further downstream including being able to irrigate urban parkland directly from the river.

Exploring the impact of reintroducing the Falls on ecology and biodiversity, given changes from brackish to freshwater conditions would need to be undertaken to measure the impact and value of this approach.

Although modelling has shown that reinstating the Falls in the original location at Queens Bridge would have flooding impacts, there may be less impact in other locations. Other potential locations for a Falls structure (further upstream) and other technical solutions may be tested in the future.

E3B: Explore potential water retention measures in public spaces on the river edge.

An approach that some cities take to address flooding and water quality is to think of the city as a sponge. In this approach, in order to minimise the effects of flooding, stormwater is captured, retained, filtered and slowed down as much as possible. The 'Sponge City' concept promotes the idea of a managed floodplain in an urban context.

This strategic direction is to explore opportunities to physically combine stormwater management measures with public realm spaces at the river edge. Water retention measures could be designed to retain volumes in a peak rain event and slow down runoff significantly. In storm events, open spaces could be utilised to partly accommodate excess rain water volumes. This would temporarily allow water to be retained in the public realm, which incorporates water storage within urban public space in a functional and aesthetically interesting way.

This concept will allow the City River precinct to be an attractive and inviting area that isn't constrained by its relationship to water, but instead is enhanced by it. It will generate opportunities to shape environmental quality and local identity in different sections of the river.

E3C: Include water sensitive urban design (WSUD) and other initiatives in the river precinct to improve water quality.

The City of Melbourne Total Watermark Strategy (updated 2014) and Integrated Water Management Plan (2014) highlight water for liveability and the environment. A water quality target for stormwater is set for 2030 as a 30% reduction in Total Nitrogen contributed to the waterways from the municipality of Melbourne's catchment (baseline year 2000). To enhance the health and biodiversity of our waterways, we need to reduce stormwater pollutants and improve water quality.

All development in proximity to the river's edge should incorporate features to retain and slow water and improve the water quality. This can be achieved through a range of measures including retention tanks, constructed wetlands and raingardens, increased tree cover and permeable pavements. Permeable pavements, for example increase porosity of hard surfaces and create more opportunities for infiltration of water. Place based guidance for innovative responses to water can provide design inspiration adding to the sense of place rather than being regarded purely as an engineering issue.

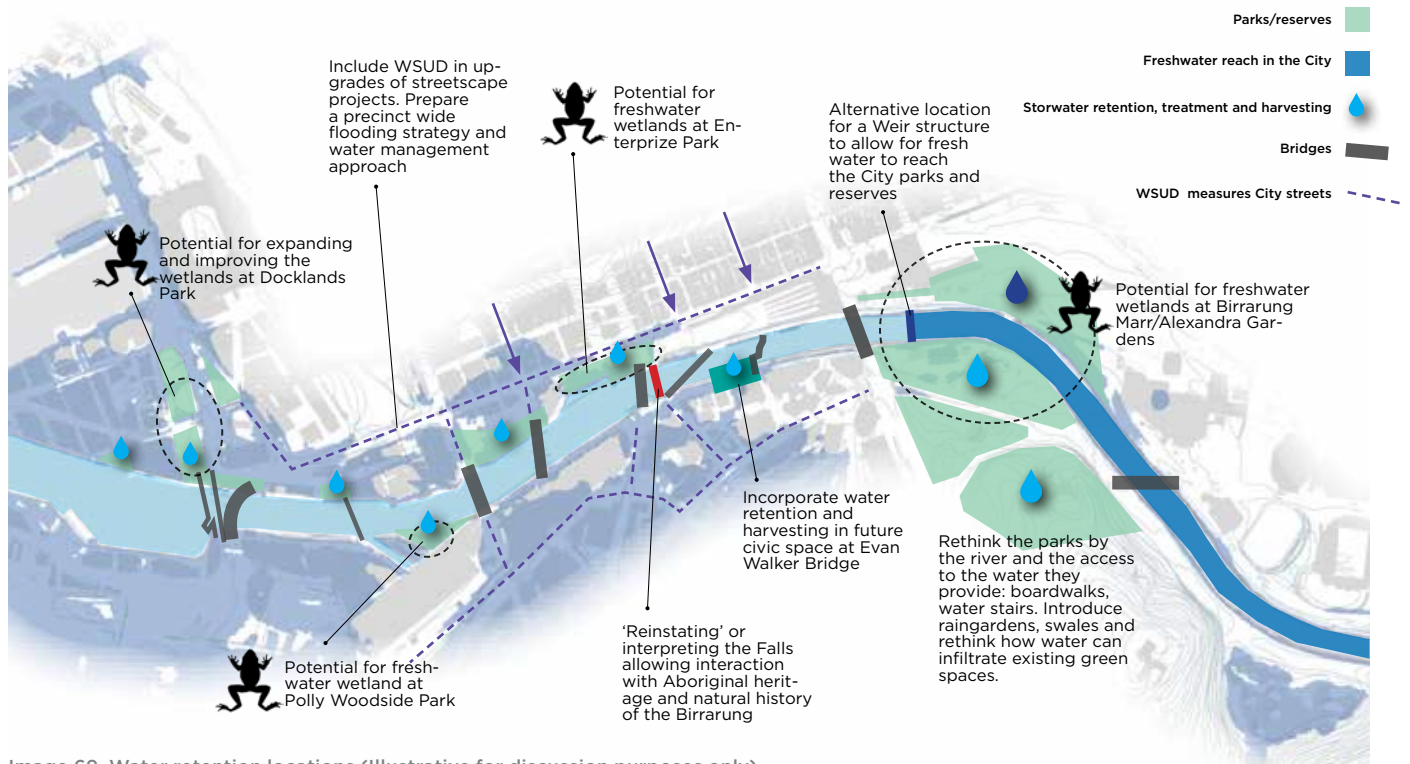


Image 69. Water retention locations (Illustrative for discussion purposes only)



Image 70. Phragmites growing at Morell Bridge



Image 71. Wetland in Royal Botanic Gardens Melbourne