PART 1

# Foreshore Management Plan

A 30-YEAR STRATEGY FOR THE RIVER





## Acknowledgements

The project team would like to acknowledge the significant input and guidance provided by the Project Steering Group, comprising Mayor Argyle, Cr Brackenridge, Cr Hodsdon, Cr Smyth and Chaired by Cr Bennett, as well as the Department of Biodiversity Conservation and Attractions.

Thanks also to all the community members who participated in focus groups and online, as well as the Nedlands Rugby Club. Your input was invaluable.

This document has been prepared by Urbaqua together with MP Rogers & Associates, South West Kinships and Shape Urban. Information on Aboriginal Heritage was largely obtained from the Nedlands and Crawley Cultural Heritage Assessment by Moodjar Consultancy for the City of Perth, 2019.

#### **ACKNOWLEDGEMENT OF COUNTRY**

We acknowledge the Whadjuk people of the Noongar nation as the Traditional Owners of the lands, waters and skies of the Country of Boorloo.

We acknowledge and respect their enduring culture, their custodianship of Country and continuing connections, their contribution to the life of the Perth, Swan Coastal Plain area, and Elders, past and present.



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### Introduction

The City of Nedlands Foreshore Management Plan (Management Plan) has been prepared in partnership with the Department of Biodiversity, Conservation and Attractions (DBCA) to provide long term, strategic guidance for the future management of the City of Nedlands foreshore (Figure 1).

The Management Plan covers the length of river foreshore between Mrs Herberts Park in the west to Charles Court Reserve in the east and includes the area between the river foreshore and The Avenue, Birdwood Parade, Jutland Parade, Wattle Avenue, Beatrice Road, and Victoria Avenue along the edge of the Dalkeith Peninsula.

This area contains extensive areas of public open space as well as private residences. It includes a range of built and natural features, and private facilities such as the Perth Flying Squadron Yacht Club and Nedlands Yacht Club, Sunset Heritage Precinct, and the Tawarri Precinct.

The extensive analysis of the Nedlands Foreshore, as part of the management planning process, highlighted the unique environmental, cultural, and historical significance of the area, particularly its close relationship with the Swan River and its surrounding ecosystems. This area, recognised for its ecological and Aboriginal cultural values, faces various challenges such as erosion, contamination, and the impact of climate change.

These factors necessitated a comprehensive Foreshore Management Plan to preserve its natural and cultural heritage while enhancing its recreational and aesthetic value for the community. The plan aligns with existing regulations and seeks to address both the preservation of significant vegetation and habitats, as well as the management of built and natural environments to ensure sustainable use and enjoyment by future generations.

In response to the detailed assessments of land resources, hydrological processes, and ongoing environmental threats, the Foreshore Management Plan incorporates strategies for managing acid sulfate soils, contaminated sites, and groundwater levels, alongside measures to protect the area from flooding and sea-level rise.

The plan also considers the infrastructural needs and recreational uses of the foreshore, proposing both structural and non-structural interventions to maintain and improve the condition of the foreshore. This approach ensures the conservation of important natural resources and the continuation of traditional uses of the land, acknowledging the profound Aboriginal connections to the area, while preparing the foreshore to meet the demands of both current and future community needs.

The Foreshore Management Plan incorporates strategies for managing acid sulfate soils, contaminated sites, and groundwater levels, alongside measures to protect the area from flooding and sea-level rise.



Figure 1: Nedlands Foreshore Management Plan area

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### **Executive Message**

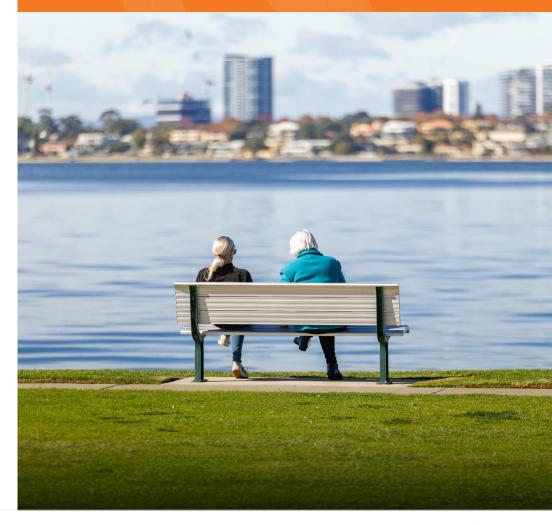
As we present the City of Nedlands Foreshore Management Plan, we embrace a significant opportunity to shape the future of our beloved river foreshore, ensuring it remains a cherished asset for all who live here and visit. This plan is a commitment to sustainable stewardship, a guide for the careful management and enhancement of the Nedlands foreshore over the next 30 years and beyond.

We have embarked on this journey with a deep respect for the land and waters that sustain us, acknowledging the traditional custodians, the Whadjuk people of the Noongar nation, and their enduring connection to this land. Our planning has been comprehensive, informed by rigorous environmental, cultural, and historical analyses. We are grateful for the invaluable contributions from our community members, whose insights and aspirations have been integral to shaping our vision.

The challenges we face—climate change, environmental preservation, and urban development—demand thoughtful responses and adaptive strategies. Our Management Plan outlines actions that balance the natural beauty and ecological health of the foreshore with the recreational and cultural enrichment of our community. It is designed to withstand the tests of time and nature, ensuring that the foreshore can be enjoyed by generations to come.

As we move forward, we remain committed to continuous engagement with you, our community. Your ongoing participation and feedback are essential to the evolution of this plan. Together, we will ensure that the Nedlands foreshore continues to be a place of beauty, recreation, and heritage.

This plan is a commitment to sustainable stewardship, a guide for the careful management and enhancement of the Nedlands foreshore over the next 30 years and beyond.



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### **Key Considerations**

The Management Plan has been developed with an understanding of and provides a response to the following considerations.

### **Cultural Heritage**

The Swan River (Derbarl Yerrigan) is an integral part of Aboriginal culture as a site of significance to the Whadjuk Noongar people and all impacts to the river are to be carefully considered. Ongoing consultation and engagement will be required for any future actions that could have the potential to impact on cultural heritage values and the appropriate legislative processes should be followed.

### Climate change

Climate change poses a significant threat to the City's natural and foreshore areas. Sealevel rise is likely to cause an increase in mean sea level into the future. High water- level events will therefore result in the foreshore being more susceptible to inundation (flow of water on to previously dry land that may be permanent or temporary) more frequently. Rising sea levels and increased intensity of storms and catchment flooding are likely

to lead to greater erosion, impacts on built structures and possible retreat of the foreshore. This may reduce available sandy shorelines and place increased pressures on foreshore assets.Increased adaptation works are expected to be required in these areas.

Reduced recharge of groundwater aquifers is leading to unsustainable use. Recent policy positions by the Department of Water and Environmental Regulation suggest that the City's access to groundwater may be reduced in future. This may result in a reduced ability to irrigate parklands.

The predicted warmer and drier conditions are expected to have an impact on survival and persistence of native flora and fauna resulting in changes in the structure and composition of vegetation and fauna communities (e.g. opportunistic exotic species may replace native species or dominance of certain native species may increase causing shift in diversity) (City of Nedlands, 2019). The condition of the

remnant bushland is likely to decline, and increased temperatures and reduced access to groundwater may also impact on the success of revegetation programs.

#### **Foreshore condition**

The condition of built assets such as river walls along the Nedlands foreshore has deteriorated over the past few years. Without major remediation works (in many cases complete replacement or upgrade) the condition of the built aspects of the Nedlands foreshore will continue to deteriorate into the future.

While the vast majority of the Nedlands foreshore is described as a built foreshore, the areas of natural foreshore also require maintenance such as the removal of invasive species, beach regrading, revegetation and, in some cases, slope stabilisation. Without ongoing maintenance actions, the condition of the natural foreshore is expected to decline.

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#### **Soil conditions**

Many parts of the Swan and Canning River have soft and silty clay deposits known as the Swan River Alluvium. This material can be very loose and provides low structural capacity for foundation structures. Any replacement of structures should follow the alignment of the redundant/historical structure where possible to reduce the risk of future settlement (sinking). Site-specific geotechnical investigations will be required for any structural design on the foreshore.

Consistent with State Government requirements (DWER), if more than 100m³ of material is planned to be excavated during any foreshore works, an acid sulfate soils (ASS) investigation will also be required and, depending on the outcomes, an ASS Management Plan may be needed.

It is also noted that records indicate that other areas of the foreshore may have been created (reclaimed) through depositing uncontrolled fill behind river walls in areas beyond what was indicated in dredge plans (see Foreshore Management Plan - Part 2). Further investigation into the potential for contamination will be required for any future large-scale excavation or ground disturbance works on the foreshore.

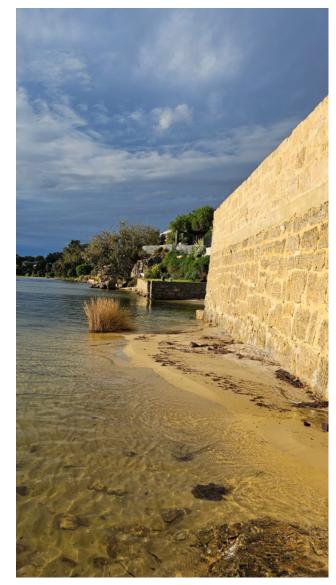
### **Drainage**

Due to the steep slopes from the plateau down to the foreshore, there is little opportunity for open drainage systems to be utilised without significant risk of erosion.

However, in the eastern part of the study area, where the foreshore flattens out and is broader, there may be opportunities to establish vegetated overland flowpaths such as living streams to provide for treatment of stormwater prior to discharge into the Swan River.

### **Private ownership**

A considerable portion of the Nedlands
Foreshore immediately abuts privately owned residences with very little or no public access to the foreshore fronting the properties. This is particularly pertinent along western and southern foreshores of Nedlands. As shown in the aerial imagery analysis, many of these lots were established between 1950 and 1970, and pre-date many current planning regulations. DBCA and DPLH policy supports the need for foreshores to be publicly accessible and recommend that, where possible, provision should be made to return foreshore reserves to the State to facilitate public access.



Private wall in the foreshore

### **Developing The Plan**

A collaborative process was employed to prepare the Management Plan that included a strong partnership approach between the City, and the DBCA, and active engagement with the community to consider and discuss current and future social and recreational values and uses.

This process was underpinned by a thorough analysis of policy and technical inputs together with the environmental, social, economic and cultural context, described in Part 2 of this Management Plan.

#### Council Plan 2023-33

Section 5.56 of the *Local Government Act 1995* requires every local government to 'plan for the future' based on the community's vision and priorities for local area. Regulations 19C and 19DA of the Local Government (Administration) Regulations 1996 prescribe how this is achieved, through a Strategic Community Plan and Corporate Business Plan.

The City of Nedlands' plan for the future is outlined in the Council Plan 2023-33, which combines our Strategic Community Plan and Corporate Business Plan into one document. The Council Plan articulates the community's vision, outcomes and strategic priorities for the next 10-years. The Foreshore Management Plan is considered a non-statutory issue-specific plan as described within the Council Plan.



# **Our 10 Year Vision**

# Sustainable and responsible for a bright future

The City of Nedlands is a harmonious, inclusive, and healthy community where people enjoy living through different ages and life-stages.

We live sustainably within the natural environment, clean and green, with a growing urban forest.

We are growing and developing responsibly to enhance our lifestyle, unique heritage and character, and beautiful parks and gardens.

We are a smart, connected community with access to quality life-long learning opportunities and vibrant town centres.

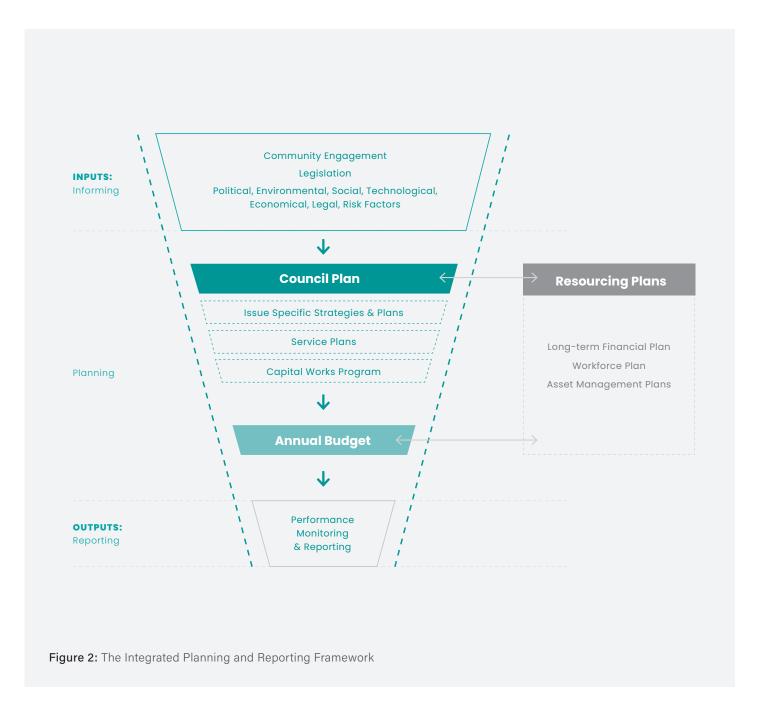
We have collaborative leadership, working with the community and key stakeholders to strengthen overall quality of life.

# Integrated Planning and Reporting Framework

The Integrated Planning and Reporting Framework (see Figure 2) provides the mechanism for local governments to comply with the statutory requirements and enable sustainable delivery of the Council Plan.

With the Council Plan forming the foundation, the Integrated Planning and Reporting Framework provides the framework that:

- Articulates the community's vision and priorities for local area
- Allocates the resources to deliver the community's vision and priorities, translated into the services and projects provided by the local government
- Monitors and reports on the local governments' progress on delivering these services and projects.



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The Management Plan is a non-statutory Issue-Specific Plan within the Integrated Planning and Reporting Framework (see Figure 2 on previous page) and a key action of the Council Plan (Action 7.2.3).

The Management Plan works towards several of the desired outcomes of the Council Plan, specifically:

- Art, culture and heritage are valued and celebrated
- 2 A healthy, active and safe community
- 4 Healthy and sustainable ecosystems
- 6 Climate resilience
- 6 Sustainable population growth
- Attractive and welcoming places
- Effective leadership and governance

This collaboration and strategic approach ensures that the Management Plan aligns with the community's vision, addresses key priorities, and contributes to the sustainable development and well-being of the City of Nedlands for the next decade and beyond.



### **Community Engagement**

For the Management Plan to deliver on the strategic objectives of the project, it was essential that meaningful input was sought from the community and key stakeholders through an active program of engagement. This ensured the consideration of community aspirations together with the critical site context and knowledge to inform preparation of concepts and strategies for the long-term management of the foreshore.

The Nedlands and wider community were encouraged to share thoughts about the use, values and future of the Nedlands foreshore via a number of opportunities between July and September 2022. These included:

- Attending a community focus group meeting (four sessions)
- Completing a values survey
- Providing comments on an online interactive mapping tool
- Attending an individual meeting with the project team
- Participating in Aboriginal engagement workshops
- Providing written feedback

Approximately 175 community members participated in the engagement activities.

Throughout the consultation, the community reinforced the desire that the following aspirations be incorporated into the Management Plan:

- Preserve the natural environment,
- Maintain access to the river and recreational values along the foreshore, and
- Recognise the balance between natural river processes and active use of a much-valued waterfront environment.

These principles were used to guide development of the Management Plan strategies.

Additional information is contained in the City of Nedlands Foreshore Management Plan Context Analysis.



### The Foreshore Management Plan

The Management Plan establishes a framework to support decision making and future investment in the management and maintenance of the City of Nedlands foreshore area to achieve the City's pillars of People, Place, Planet and Prosperity.

The Management Plan also aims to achieve the objectives and principles of the *Swan and Canning Rivers Management Act 2006*, relevant Swan Canning Planning and Development Policies, Plans and Procedures, the Blackwall Reach Jenalup and Melville Water Dootanboro Locality Plans, draft State Planning Policy 2.9: Planning for Water, and the Swan Canning River Protection Strategy.

It outlines strategies and processes to be implemented over the next 30 years and beyond, to provide a foundation for the longer-term management of ecological systems, community, recreational and cultural uses, infrastructural requirements, and other issues, constraints and opportunities including responses to climate change.



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### **Management Plan goals**

When establishing the project, it was agreed that the high-level goals of this Management Plan are to:

- ❷ Be consistent with the Swan Canning River Protection Strategy's vision of 'A healthy river for all, to be enjoyed and shared, now and in the future', and its responses, strategies, and actions and the City of Nedlands Council Plan 2023-2033 and/or DBCA policies.
- Create highly accessible and integrated areas of public open space for everyone.
- Create a benchmark for sustainable management of the river foreshore.
- Establish key areas for sport activities, passive recreation, and nature.
- Celebrate Aboriginal culture and the wider history and heritage as an important part of the foreshore and City's identity.
- Create partnership opportunities.
- Create education and training opportunities to raise awareness of river foreshore management practices.
- Enhance the City of Nedlands as a residential location of choice.

These goals provided a foundation for the development of the Management Plan and helped frame the consideration of site and environmental context, together with the community's aspirations, identified through the community engagement process as to:

- Preserve the natural environment,
- Maintain access to the river and recreational values along the foreshore, and
- Recognise the balance between natural river processes and active use of a much-valued waterfront environment.



# **Management Plan outcomes**

The community's aspirations, site and environmental conditions, and stakeholder inputs have been translated into outcomes and objectives which guide the delivery of the Management Plan actions.

### **Foreshore Wide Objectives**

There are several initiatives that are applicable to large areas of the foreshore that seek to deliver the defined outcomes of the Foreshore Management Plan. (See Figure 4)

Outcomes	Objectives
Outcome I  Sustainable management of the natural and build environment including the foreshore.	<ul><li>1.1 Respond to climate change risks through appropriate mitigation and adaptation responses.</li><li>1.2 Implement responsible asset management practices for foreshore assets.</li></ul>
Outcome 2  Space for social connections and recreation in balance with the protection of environmental values	<ul><li>2.1 Promote different recreational activities in appropriate locations.</li><li>2.2 Build relationships to optimise recreational opportunities within the foreshore.</li></ul>
Outcome 3  Well connected and defined access and movement network	3.1 Improve movement networks through the City's integrated Transport Strategy 3.2 Improve access and movement within the river.
Outcome 4  Culture and heritage underpin the identity and management of the foreshore.	<ul><li>4.1 Acknowledge and respect Aboriginal cultural connections to Derbarl Yerrigan (Swan River).</li><li>4.2 Share information with the community on the cultural, historical and environmental considerations and values of the river and foreshore.</li></ul>



Figure 4: Foreshore Management Plan

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# **Area Specific Objectives**

The following objectives are proposed for each management unit to achieve.

Outcomes	Objectives
Outcome 5  Place-based planning and delivery for optimal outcomes	<ul> <li>5.1 Manage the narrow shoreline and intertidal zones around Watkins Road and Victoria Avenue to retain an ecological corridor with low intervention coastal hazard risk management and nature based environmental design.</li> <li>5.2 At White Beach, provide a local community beach supporting passive foreshore-based recreation with beach access to the shoreline.</li> <li>5.3 At Point Resolution, protect and maintain significant environmental values through low intervention coastal hazard risk management and native bushland restoration.</li> <li>5.4 At Jutland Parade, manage the narrow shoreline and intertidal zones to retain an ecological corridor with low intervention coastal hazard risk management and nature based environmental design. Provide for local and regional sport and recreational activities.</li> <li>5.5 Develop Sunset Foreshore and Beaton Park as a destination for community recreation with All Abilities Play Space and parkland path network connecting Sunset Heritage Site and protected community beach.</li> <li>5.6 Provide community infrastructure supporting numerous water based activities with ongoing unobstructed shoreline community access at Perth Flying Squadron Yacht Club.</li> <li>5.7 At Paul Hasluck Reserve, provide room for the river and improve passive recreation and access to shoreline through creation of beaches to support local ecology with greenway tree plantings.</li> <li>5.8 Provide community infrastructure supporting numerous water-based activities with ongoing unobstructed shoreline community access at Nedlands Yacht Club.</li> <li>5.9 At Charles Court Reserve, support active recreation, transitioning to nature-based solutions providing improved access to the beach shoreline, with greenway tree plantings and stormwater management for ecological benefit.</li> </ul>

These will be reviewed on completion of the Coastal Hazard Risk Management and Adaptation Plan. The management units include:

#### Watkins Road, Victoria Avenue and Jutland Parade

Manage the narrow shoreline and intertidal zones to retain an ecological corridor with low intervention coastal hazard risk management through nature based environmental design.

#### **White Beach**

Provide a local community beach supporting passive foreshorebased recreation with beach access to the shoreline.

#### **Point Resolution Reserve**

Protect and maintain significant environmental values through low intervention coastal hazard risk management and native bushland restoration.

#### Perth Flying Squadron Yacht Club and Nedlands Yacht Club

Provide community infrastructure supporting numerous water- based activities with ongoing unobstructed shoreline community access.

#### Otto Point and Beaton Park

Develop Sunset Foreshore and Beaton Park as a destination for community recreation with All Abilities Play Space, and parkland path network connecting Sunset Heritage Site and protected community beach.

#### **Paul Hasluck Reserve**

Room for the river – improve passive recreation and access to shoreline through creation of beaches to support local ecology with greenway tree plantings.

#### **Charles Court Reserve**

Support active recreation, transitioning to nature-based solutions providing improved access to beach shoreline, with greenway tree plantings and stormwater management for ecological benefit.

These are described in more detail in the following sections, which provide broad guidance regarding proposed outcomes.

The preliminary concepts will be further investigated and appropriate detailed designs developed in consultation with stakeholders and the community prior to implementation.

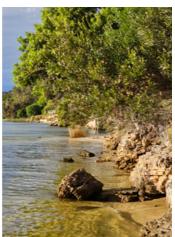
#### **Watkins Road and Victoria Avenue**

#### **Objective 5.1**

Manage the narrow shoreline and intertidal zones around Watkins Road and Victoria Avenue to retain an ecological corridor with low intervention coastal hazard risk management and nature based environmental design.

#### **Characteristics:**

Intermittent/narrow natural foreshore edge backing onto residential property. Adjoins Mrs Herberts Park. Foreshore area has been revegetated in sections. Built infrastructure including private structures, some of which are in poor condition, can affect public access. Cliff instability in some locations. Some bioengineering treatments.







#### **White Beach**

#### **Objective 5.2**

At White Beach, provide a local community beach supporting passive foreshore-based recreation with beach access to the shoreline.

#### **Characteristics**

Narrow natural foreshore edge backing onto residential property. Contains Bishop Road Reserve which includes infrastructure such as bike racks, carpark, ramp to beach and stairs, drink fountain with dog bowl, path network, irrigated grass, trees and eco zoning.

Highly valued by the local community for passive recreation such as walking and dog walking.

The predicted future flood level extends beyond the current foreshore reserve. Accordingly, this beach is likely to be affected by extreme events and may be lost in the longer term. Consideration will need to be given to identifying appropriate adaptation strategies in future. (See Figure 5)







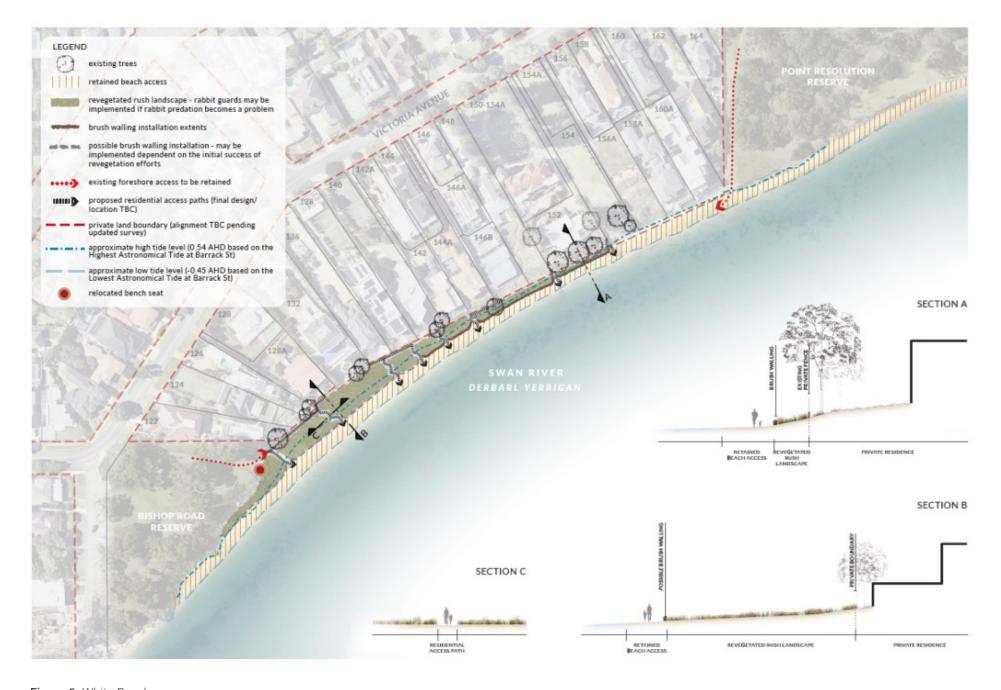


Figure 5: White Beach

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#### **Point Resolution**

#### **Objective 5.3**

At Point Resolution, protect and maintain significant environmental values through low intervention coastal hazard risk management and native bushland restoration

#### **Characteristics**

Class A Reserve 17391 for Parks and Recreation. Bush Forever Site 221. Good pedestrian access including nature-based tracks. Foreshore has a natural edge with built bioengineering assets present (brush log walling, vegetated timber palisades etc). Some known areas of erosion and cliff instability. This area is affected by riverine processes which are likely to increase, resulting in an elevated level of maintenance. A future decision may be to let the beach naturally erode when the level of maintenance becomes unsustainable.









#### **Jutland Parade**

#### Objective 5.4

At Jutland Parade, manage the narrow shoreline and intertidal zones to retain an ecological corridor with low intervention coastal hazard risk management and nature based environmental design. Provide for local and regional sport and recreational activities.

#### **Characteristics**

Intermittent/narrow natural edge and residential property. Cliff instability in some locations. Private protective structures (including a boathouse and private jetty) intersect the foreshore in places, affecting public access. Publicly accessible beach at eastern end. Also contains David Cruickshank Reserve which provides for a range of local and regional sport and recreation opportunities. Precinct also contains early learning (education) facilities and is well utilised by dog walkers.









#### **Sunset Foreshore and Beaton Park**

#### **Objective 5.5**

Develop Sunset Foreshore and Beaton Park as a destination for community recreation with All Abilities Play Space and parkland path network connecting Sunset Heritage Site and protected community beach.

#### **Characteristics**

Contains the Jo Wheatley All Abilities Play Space and a high level of facilities including a car park, public toilets, outdoor ping pong, seats, barbecues, shared paths for cycling and walking and wheelchair access.

Stairs are located at the end of Adelma Place and provide access to a small beach and Sunset Foreshore.

Contains Sunsets Heritage Precinct and Tawarri, which has recently been approved by the State Government for redevelopment. The built edge treatment includes a failed concrete panel wall at the western end of Sunset Foreshore and a recently constructed limestone rock revetment at the eastern end. Previous location of the Tawarri jetty. (Figure 6)

### **Perth Flying Squadron Yacht Club**

### **Objective 5.6**

Provide community infrastructure supporting numerous water based activities with ongoing unobstructed shoreline community access at Perth Flying Squadron Yacht Club

#### **Characteristics**

Yacht Club managed assets (built edge treatment, jetties and launching facility). Public access is maintained along the foreshore. The waters adjacent to the Club are not speed limited.





- (1) Maintain stairs for safety
- 2 Remove giant reed and revegetate
- Address the wall failure through removing dangerous pieces of the wall and planting sedges and melaleucas, facilitating a managed retreat process
- (4) Establish formal path connection as primary path (concrete)
- (5) At end of life the concrete to be replaced with crushed limestone representing secondary path
- (6) After the primary path is established as setback from the River, consider reducing the size of revetment works and wall
- (7) Seek to create a path along the ridge to provide access from Iris Avenue to the Jo Wheatley playspace

Figure 6: Sunset Foreshore and Beaton Park concept

- (8) Work with State Government to create a universal access path from Birdwood Parade to the Jo Wheatley playspace
- 9 Define pedestrian link to Jutland Parade
- (10) Address carpark flooding
- (11) Add bike repair stand
- (12) Consider opportunity for weekend coffee can or food truck. If successful could explore a more formal structure later.
- (13) Place sand at edge of Yacht Club every 5 years (or as required) to maintain the beach.
- (14) Consider a "green street" leading to the area

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#### **Paul Hasluck Reserve**

#### **Objective 5.7**

At Paul Hasluck Reserve, provide room for the river and improve passive recreation and access to shoreline through creation of beaches to support local ecology with greenway tree plantings.

#### **Characteristics**

Large expanse of irrigated grass covers the reclaimed foreshore. Other facilities include path, trees, seating (including memorial seats), steps into the water, lighting and boat moorings. Gallop House is located to the west within Birdwood Reserve which provides protection to important biodiversity values. Built edge treatment comprising concrete panel and limestone block walling in varying condition. This area will be inundated more and more frequently in future from sea level rise and extreme events. (Figure 7)

#### **Nedlands Yacht Club**

### **Objective 5.8**

Provide community infrastructure supporting numerous water-based activities with ongoing unobstructed shoreline community access at Nedlands Yacht Club.

#### **Characteristics**

Yacht Club managed assets (Club rooms, hard stand, boat storage, car parks). Built edge treatment comprising low-lying groyne structures holding narrow beach. Uncontrolled fill such as tyres and debris observed adjacent to groynes. Remnant gabion baskets and debris present in the beach.





Figure 7: Paul Hasluck Reserve

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#### **Charles Court Reserve**

#### **Objective 5.9**

At Charles Court Reserve, support active recreation, transitioning to nature-based solutions providing improved access to the beach shoreline, with greenway tree plantings and stormwater management for ecological benefit.

#### **Characteristics**

Playing fields cover majority of reclaimed land. Infrastructure includes a club house, paths, seats, playground, exercise equipment, lights, skate park, jetty, steps into the river, and JoJo's function centre in the location of former Nedlands baths.

The foreshore is a built edge treatment comprising concrete panel walling, in generally poor condition. Ruby pitches are often boggy with poor drainage due to shallow groundwater. (Figure 8)



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Figure 8: Charles Court Reserve

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# **Delivery Plan**

The City of Nedlands will develop an implementation plan that will include specific recommendations for implementation of short-term actions and ongoing management requirements.

Implementation of the Management Plan recommendations will occur over several years in response to community, asset management and environmental priorities. In some instances, sequencing of works may be required to ensure safe and economic delivery of the recommended outcome. This will also enable an adaptive management response to the delivery of actions that is able to monitor and respond to results and conditions and can also respond to budget and resource constraints and opportunities.

The City commits to the delivery of this Management Plan in collaboration with other agencies and the community where possible. The City has and will continue to work in partnership with the DBCA to achieve shared outcomes for the river. Input will continue to be sought from the community and Aboriginal groups as designs progress to ensure they still meet community expectations.

The City also supports the establishment of community groups to assist in on-ground actions and management.

A number of approvals are likely to be required to enable realisation of the management recommendations. These are summarised in Part 2 and will be factored into the action delivery timelines and project plans. The explanation of timing and funding indications is below.

Preliminary recommendations for funding and timing of actions are provided in the tables on the following pages.

#### Timing:

Short: 0-4 years

Medium: 5-10 years

Longer: 10-20 years

#### **Budget:**

**Low**: under \$50,000

Medium: \$50,000 - \$200,000

High: over \$200,000

Shading indicates a requirement for additional budget.

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# Sustainable management of the natural and built environment.

Objective	Actions		Timing	Budget
1.1 Respond to climate change risks	1.1.1	Prepare a Coastal Hazard Risk Management and Adaptation Plan for the river foreshore.	Medium	Medium – funding available
through appropriate mitigation and adaption responses	1.1.2	Implement Water Sensitive Urban Design principles in all future works and projects.	Short, ongoing	Low, annual cost
	1.1.3	Increase tree canopy and eco-zoning to minimise the use of irrigation wherever possible. Focus areas of high irrigation and maintenance in areas of highest use.	Short, ongoing	Medium, annual cost
	1.1.4	Investigate the opportunity for in-river structures in the shallows along the western foreshore to create additional estuarine habitat and provide protection to eroding shorelines.	Longer	Medium - study only
	1.1.5	Promote increased biodiversity through seed collection and propagation of endemic species and planting, particularly in Birdwood Reserve and Point Resolution Reserve.	Ongoing	Existing operational budget
	1.1.6	Consider bush fire risk and undertake appropriate mitigation and emergency response planning.	Ongoing	Existing operational budget
1.2 Implement responsible asset management practices for	1.2.1	Maintain an ongoing program of monitoring of limestone stability along publicly accessible cliff faces and implement appropriate management responses.	Short, ongoing	Low, annual cost
foreshore assets	1.2.2	Implement weed, pathogen, feral animal and pest control and manage bushland reserves in accordance with agreed management plans.	Ongoing	Existing operational budget
	1.2.3	Collaborate with the State Government to control the polyphagous shot hole borer and replant to offset losses.	Ongoing	Existing operational budget
	1.2.4	In parkland areas, seek to maintain visual access to the river and foreshore.	Ongoing	Existing operational budget
	1.2.5	Manage assets and infrastructure to agreed service levels and seek to reuse and recycle materials were possible.	Ongoing	Low, Annual cost

## Space for social connections and recreation in balance with the protection of environmental values

Objective	Actions	Actions		Budget
2.1	2.1.1	Plan to promote Beaton Park as the focus for community activities and events.	Medium	Existing operational budget
Promote different recreational activities in appropriate locations	2.1.2	Advocate for funding to establish a reiver pool or shark net for safer river swimming.	Short	High
2.2  Build relationships to optimise recreational opportunities within	2.2.1	Partner with the Nedlands Rugby Club to plan for the long-term sustainability of the Club, having consideration of future impacts of rises in sea levels and extreme weather events on the useability of Charles Court Reserve.	Ongoing	Existing operational budget
the foreshore.	2.2.2	Investigate opportunities to create a water sports precinct in partnership with the Nedlands Yacht Club and other water sports associations.	Longer	High

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### Well-connected and defined access and movement network

Objective	Actions		Timing Budget			
3.1 Improve movement networks through the City's Integrated Transport Strategy.	3.1.1	Investigate pedestrian and cycle path networks along the foreshore and seek to improve connectivity to other key local destinations/activity areas. This includes the pedestrian connections between Mrs Herberts Park, Bishop Road Reserve, Point Resolution and Beaton Park.	Short	Existing operational budget		
	3.1.2	Improve way finding signage for all modes of transport (walking, cycling, public transport and private motor vehicle).	Short	High		
	3.1.3	Install Beach Emergency Numbers throughout the foreshore.	Medium	High		
	3.1.4	Install additional seating and respite areas associated with the movement network, particularly at identified nodes and at mid points of long sections without nodes.	Medium	Low		
	3.1.5	Partner with other landowners within the foreshore to establish a better connected path network and upgrade existing paths to a consistent standard to provide for universal access.	Medium	High		
	3.1.6	Investigate priority access paths and park areas for lighting, undertake a lighting audit and ensure lighting is at appropriate levels in these areas, considering the impacts on native fauna habitats.	Medium	Medium		
3.2 Improve access and movement within the river.	3.2.1	Advocate to State Government to consider the re-establishment of the Nedlands jetty including opportunities for ferry transport.	Short	Additional resources may be required		
	3.2.2	Advocate to State Government to ensure appropriate boat speed limits are enforced where they are impacting the stability of the foreshore.	Short	Additional resources may be required.		

# Cultural and heritage underpin the identity and management of the foreshore

Objective	Actions		Timing	Budget
4.1  Acknowledge and respect  Aboriginal cultural connections to	4.1.1	Partner with Aboriginal people to better understand local cultural knowledge and values and develop a framework for sharing this knowledge in a culturally safe manner.	Short	Future budget will be required (high)
Derbarl Yerrigan (Swan River)	4.1.2	Create 'yarning circles' along the foreshore to provide intimate, discrete spaces for education, storytelling, reflection, traditional ceremonies and gathering.	Medium	Medium
	4.1.3	Investigate dual naming for key areas of the foreshore including parks and reserves.	Short	Existing operational budget
	4.1.4	Establish ongoing relationships/partnerships with local aboriginal groups, including youth, to assist with ongoing management of areas of the foreshore.	Longer	High
4.2 Share information with the	4.2.1	Add to existing interpretive walking trails including artwork, text and illustrative signage that is non-intrusive in scale and character.	Short	Medium
community on the cultural, historical and environmental considerations and values of the river and foreshore.	4.2.2	Provide information to residents about pressures on and changes in the local environment to promote understanding, support for City action and stewardship.	Longer	Low
	4.2.3	Develop online and physical information signage to improve awareness and education of the Nedlands Foreshore natural assets and processes.	Longer	Medium
	4.2.4	Facilitate walking tours for locals and visitors to learn and appreciate the heritage and cultural values along the foreshore.	Medium	Low
	4.2.5	Consider appropriate planning mechanisms to inform landowners of future risks of flooding and inundation of private land and maintenance responsibilities as well as the future creation of a public foreshore.	Medium	Low

# Place-based planning and delivery for optimal outcomes

Objective	Actions	Actions		Budget
5.1  Manage the narrow shoreline and	5.1.1	Consider revegetation or soft bioengineering treatments where the foreshore is on public land and accessible.	Medium	Medium
intertidal zones around Watkins Road and Victoria Avenue to retain	5.1.2	Assess the condition of the wall in the foreshore of Marlin Court properties.	Medium	Low
an ecological corridor with low intervention coastal hazard risk management and nature based environmental design	5.1.3	Provide information to property owners with private riverwalls to inform of their obligations to maintain them so as not to pose a safety concern to the public or obstruct public access in front.	Medium	Low
5.2 At White Beach, provide a local	5.2.1	Maintain public beach access along the beach front, from the existing north and south access points.	Ongoing	Existing operational budget
community beach supporting passive foreshore-based recreation with beach access to the shoreline.	5.2.2	Revegetate the foreshore to assist with stabilisation of the shoreline and provide habitat for fauna, maintaining aesthetic values. Aim to initially preserve existing native plants and remove invasive weed species. Plant appropriate species in accordance with approved concept and install and maintain brush walling to protect the establishing vegetation.	Medium	High
	5.2.3	Define a series of shared paths between private properties and the beach to direct and contain foot traffic to minimise disturbance and promote vegetation establishment and beach stabilisation.	Medium, as part of above	
	5.2.4	Consider renaming the beach, as requested by the community.	Longer	Low
5.3  At Point Resolution, protect and maintain significant environmental values through low intervention coastal hazard risk management and native bushland restoration.	5.3.1	Manage Point Resolution Reserve in accordance with current (and any endorsed future) management plan.	Ongoing	Existing operational budget
	5.3.2	Undertake ongoing monitoring of cliff stability and consider the environmental and social benefits and costs of ongoing actions.	Medium	Low

5,4	5.4.1	Plant more trees around perimeter of David Cruickshank.	Short	Low
At Jutland Parade, manage the narrow shoreline and intertidal	5.4.2	Investigate the planting of a pocket forest park (by the Miyawaki method) in the south west corner of David Cruikshank Reserve (old tennis courts).	Medium	Low
zones to retain and ecological corridor with low intervention coastal hazard risk management	5.4.3	Consider kerb breaks to direct stormwater to tree pits.	Medium	Low
and nature based environmental design. Provide for local and regional sport and recreational	5.4.4	Consider revegetation or soft bioengineering treatments as necessary, where the foreshore is on public land and accessible.	Medium	Low
activities	5.4.5	Provide information to property owners with private riverwalls to inform them of their obligations to maintain the river walls so as not to pose a safety concern to the public or obstruct public access in front.	Medium	Low
5.5  Develop Sunset Foreshore and Beaton Park as a destination for community recreation with All Abilities Play Space and parkland path network connecting Sunset Heritage Site and protected community beach.	5.5.1	Seek private and/or Government funding to assist with the design and construction of the endorsed concept.	Medium	Existing operational budget
	5.5.2	Undertake detailed design and construction at Sunset Foreshore and Beaton Park having consideration of the recommended elements of the concept (Figure 6)	Medium	High
5.6	5.6.1	Preserve informal public access to the foreshore.	Ongoing	Existing operational budget
Provide community infrastructure supporting numerous water-based activities with ongoing unobstructed shoreline community access at Perth Flying Squadron Yacht Club	5.6.2	Plant trees to provide shade where possible	Medium	Low
5.7  At Paul Hasluck Reserve, provide room for the river – improve passive recreation and access to shoreline through creation of beaches to support local ecology with greenway tree plantings.	5.7.1	Seek private and/or Government funding to assist with the design and construction of the endorsed concept.	Medium	Existing operational budget
	5.7.2	Undertake detailed design and construction at Paul Hasluck Reserve having consideration of the recommended elements of the proposed concept.	Longer	High

5.8	5.8.1	Preserve informal public access to the foreshore.	Ongoing	Existing operational budget
Provide community infrastructure supporting numerous water-based activities with ongoing unobstructed shoreline community access to Nedlands Yacht Club.	5.8.2	Plant trees to provide shade where possible.	Medium	Low
	5.8.3	Maintain current foreshore treatments to provide current (or improved) level of service.	Ongoing	Existing operational budget.
At Charles Court Reserve, support active recreation, transitioning to nature-based solutions providing improved access to the beach shoreline, with greenway tree plantings and stormwater management for ecological benefit.	5.9.1	Seek private and/or Government funding to assist with the design and construction of the endorsed concept.	Medium	Existing operational budget.
	5.9.2	Undertake detailed design and construction at Charles Court Reserve having consideration of the recommended elements and staging of the proposed concept.  Stage 1: Retain active recreation function until an appropriate alternative location is available.	Longer	High
	5.9.3	Stage 2:  Option 1: Plan to retreat the remainder of the reserve after Nedlands Rugby Club has been relocated (liked beyond 25 years). Create two more groynes/beaches. Create swales for drainage to the beach (if required) including small sections of boardwalk. Remove Rugby Club (at end of life) and move the car park closer to the road.  Option 2: Investigate modifications required to retain and/or enhance the active sports precinct.	Longer	High

### Resourcing

Resourcing of the Management Plan is largely determined by the linkages it has with the Council Plan.

While the City has recently established a foreshore reserve fund for interim critical management works, additional funding will need to be sourced independently to deliver the outcomes of this Management Plan.

The City currently utilises Riverbank funding to assist with interim maintenance measures along the foreshore. The City will continue to work with DBCA to access additional available funding to assist in the delivery of the Management Plan actions. Current opportunities for funding include:

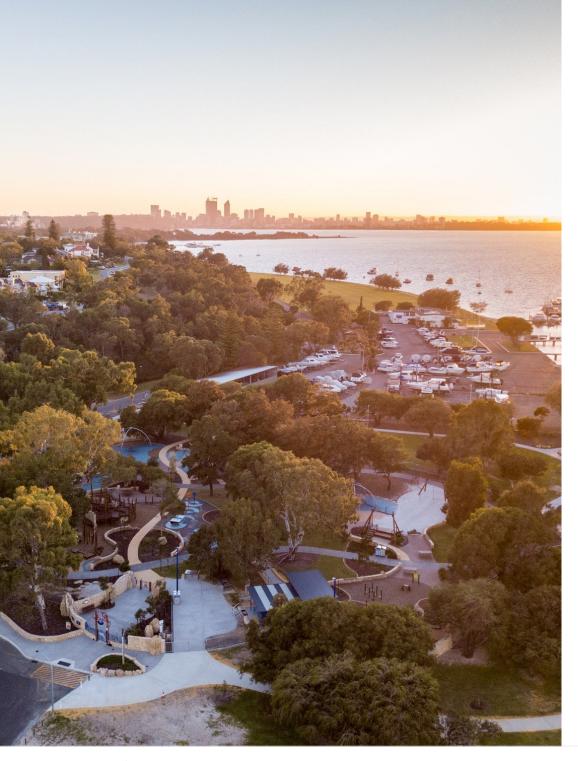
- DBCA Rivers and Estuaries Riverbank Grants
- Swan Canning Riverpark Urban Forest Funding
- Recreational Boating Facilities Scheme (RBFS) grants
- Lotterywest
- Waterwise Greening Scheme
- Urban Rivers and Catchments Program (Commonwealth)
- Disaster Ready Fund (Commonwealth)
- Sport and Recreation Events Funding
- Connecting to Country program for Aboriginal people and organisations
- Community Rivercare Program Funding (for community groups)
- Perth NRM Community Grants (for environmental volunteer groups)

- Community Stewardship Grants (for community-based projects)
- Swan Alcoa Landcare Program (SALP) grants for local (community) action
- Department of Transport and Department of Planning,
   Lands and Heritage coastal funding opportunities.
- Department of Primary Industries and Regional Development shark net funding.

The scheduling of this funding is unknown at this time and will be updated following the next review of the strategy.

Results of these metrics will be updated in the next major review of the Management Plan, as well as the inclusion of the targets to be achieved.

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### **Review Schedule**

The Local Government Act 1995 requires all local governments to plan for the future (s5.56). This plan is therefore written as a 30-year rolling document that allows for continuous improvement as new information emerges on outcomes and as projects are rolled out, as well as the management of unknown risks.

To track progress of the strategy, Council will monitor the delivery of actions.

The strategy will be initially reviewed in 2026-27 prior to the next major review of the Council Plan in 2027-28.

Following this initial review, the Management Plan will be reviewed at least every 4 years (alternating between minor and major reviews) and revised as necessary.

# **Monitoring and Reporting**

The actions in the Delivery Plan will be incorporated into the City's business planning framework and their progress reported via the City's Annual Report. To track progress as the Management Plan is implement Council will measure specific metrics that indicate the relative performance against goals.

In addition, a progress report will be released following each major review.

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