

PREPARED FOR:



Moore Point

River and Foreshore
Vision and Strategy

MAY 2024

Mecone



Project Director

Jordan Faeghi
Associate Director

Contributors

Erin Crane
Senior Planner

REVISION	REVISION DATE	STATUS	AUTHORISED: NAME & SIGNATURE
01	24/10/23	DRAFT	Erin Crane
02	22/04/24	DRAFT	Erin Crane
03	09/05/24	DRAFT	Erin Crane
04	10/05/24	DRAFT	Erin Crane
05	16/05/24	FINAL	Erin Crane

* This document is for discussion purposes only unless signed and dated by the persons identified.
This document has been reviewed by the Project Director.

Contact

Level 12/179 Elizabeth Street
Sydney NSW 2000

MECONE

info@mecone.com.au
mecone.com.au

© Mecone

All Rights Reserved. No part of this document may be reproduced, transmitted, stored in a retrieval system, or translated into any language in any form by any means without the written permission of Mecone. All Rights Reserved. All methods, processes, commercial proposals and other contents described in this document are the confidential intellectual property of Mecone and may not be used or disclosed to any party without the written permission of Mecone.



Table of Contents

1	Introduction.....	5
1.1	Purpose of this Document.....	6
1.2	Application	6
1.3	How to Use this Document.....	8
1.4	Moore Point Vision.....	9
1.5	Evolution of the Georges River and Lake Moore	9
2	Foreshore Objectives	12
2.1	Place Objectives	12
2.2	Environmental Objectives	13
3	Legislative Context	14
3.1	Water Management Act.....	14
3.2	Merit-Based Approach	14
4	Defining and Planning the Foreshore	17
4.1	Foreshore Area 1: City Gateway Village.....	18
4.2	Foreshore Area 2: West Riverbank Village.....	20
4.3	Foreshore Area 3: North Bank Village	22
4.4	Foreshore Area 4: North River Village.....	24
4.5	Foreshore Area 5: Lake Moore Village	27
5	Bank Stabilisation and Habitat.....	29
6	Infrastructure within the Foreshore	33
6.1	Bridge Landings.....	33
6.2	Pedestrian Pathways and Cycle Paths	33
6.3	Public Recreation Infrastructure, Activation and Events	33
6.4	Essential Services	34
6.5	Built Form in the Riparian Zone.....	34
7	Conclusion.....	35



Schedule of Figures

Figure 1 – Aerial of Moore Point.....	5
Figure 2 – Land Application.....	6
Figure 3 – Location of Vegetated Riparian Zones	7
Figure 4 – Policy Framework	8
Figure 5 – Supporting Documents.....	8
Figure 6 – Moore Point Artistic Impression.....	9
Figure 7 – 1943 Aerial Photograph of Moore Point.....	10
Figure 8 – 1978 Aerial Photograph of Moore Point.....	10
Figure 9 – Erosion on The Eastern Side of Georges River	11
Figure 10 – Recent Photograph of Lake Moore.....	11
Figure 11 – Moore Point Foreshore Objectives	12
Figure 12 – Proposed VRZ Location – Georges River North and West.....	15
Figure 13 – Proposed VRZ Location – Lake Moore.....	16
Figure 14 – Foreshore Areas	18
Figure 15 – City Gateway Village Section 1	20
Figure 16 – City Gateway Village Section 2	20
Figure 17 – West Riverbank Village Section 1	21
Figure 18 – West Riverbank Village Section 2	22
Figure 19 – North Bank Village Section 1.....	23
Figure 20 – North Bank Village Section 2.....	24
Figure 21 – North River Village Section 1.....	26
Figure 22 – North River Village Section 2.....	26
Figure 23 – Lake Moore Village Section 1	28
Figure 24 – Lake Moore Village Section 2.....	28
Figure 25 – Georges Riverbank Restoration Typologies	29
Figure 25 –Restoration Typology Sections.....	30
Figure 27 –Foreshore Species Selection	32
Figure 26 – Indicative Bridge Landing Zones (West and North)	33



1 Introduction

Moore Point Peninsula is surrounded by the Georges River and Lake Moore. Historically, the river and lake provided natural amenity to Aboriginal clans for thousands of years, providing fresh water, food and transport.

Over time, clearing, farming, sand mining and industrial land use has led to degradation of the river corridor and Lake Moore. Due to the peninsula land form, degraded riverbanks and its current industrial land use, Moore Point has become disconnected from the surrounding urban structure.

The renewal of Moore Point provides a unique opportunity to restore and enhance the natural environment of Georges River and Lake Moore. Most importantly, the development of Moore Point will re-connect people with the water's edge, providing a hybrid urban and naturalised waterfront which connects with, enhances and complements the natural environment.



Figure 1 – Aerial of Moore Point

Source: SJB

Maintaining and improving the ecological values of the foreshore is a key outcome of Moore Point. Equally, providing appropriate treatments in foreshore areas which create functional and safe spaces which attract people to the water's edge. A bespoke foreshore response is required to accommodate both ecological and people-focused, place outcomes.

The Joint Landowners Group (**JLG**) for Moore Point are proposing to create a vibrant mixed-use development that embraces, embellishes and enhances the environmental and community benefits of the riparian corridor at Moore Point and Lake Moore.



1.1 Purpose of this Document

Befitting the largest urban regeneration projects in the country, Moore Point will provide a unique and considered foreshore response. This Foreshore Vision and Strategy (the **Strategy**) outlines the objectives and intended outcomes for the river foreshore, as well as development controls required to facilitate the intended foreshore outcomes.

The Strategy has been prepared for endorsement by the Department of Primary Industries (**DPI**) – Water in response to the Gateway Determination Conditions issued by Department of Planning, Housing and Infrastructure (**DPHI**) dated 3 April 2023. Subsequent Development Applications (**DAs**) within the precinct shall be prepared in accordance with this Foreshore Vision and Strategy.

This document is not intended to replicate or replace the legislative requirements for future DAs (refer to Section 3 of this document), rather provide guidance on the intended outcomes and treatments of foreshore areas that would need to be considered as part of future DAs across Moore Point.

1.2 Application

This Strategy applies to Moore Point, which is outlined red in **Figure 2** below.

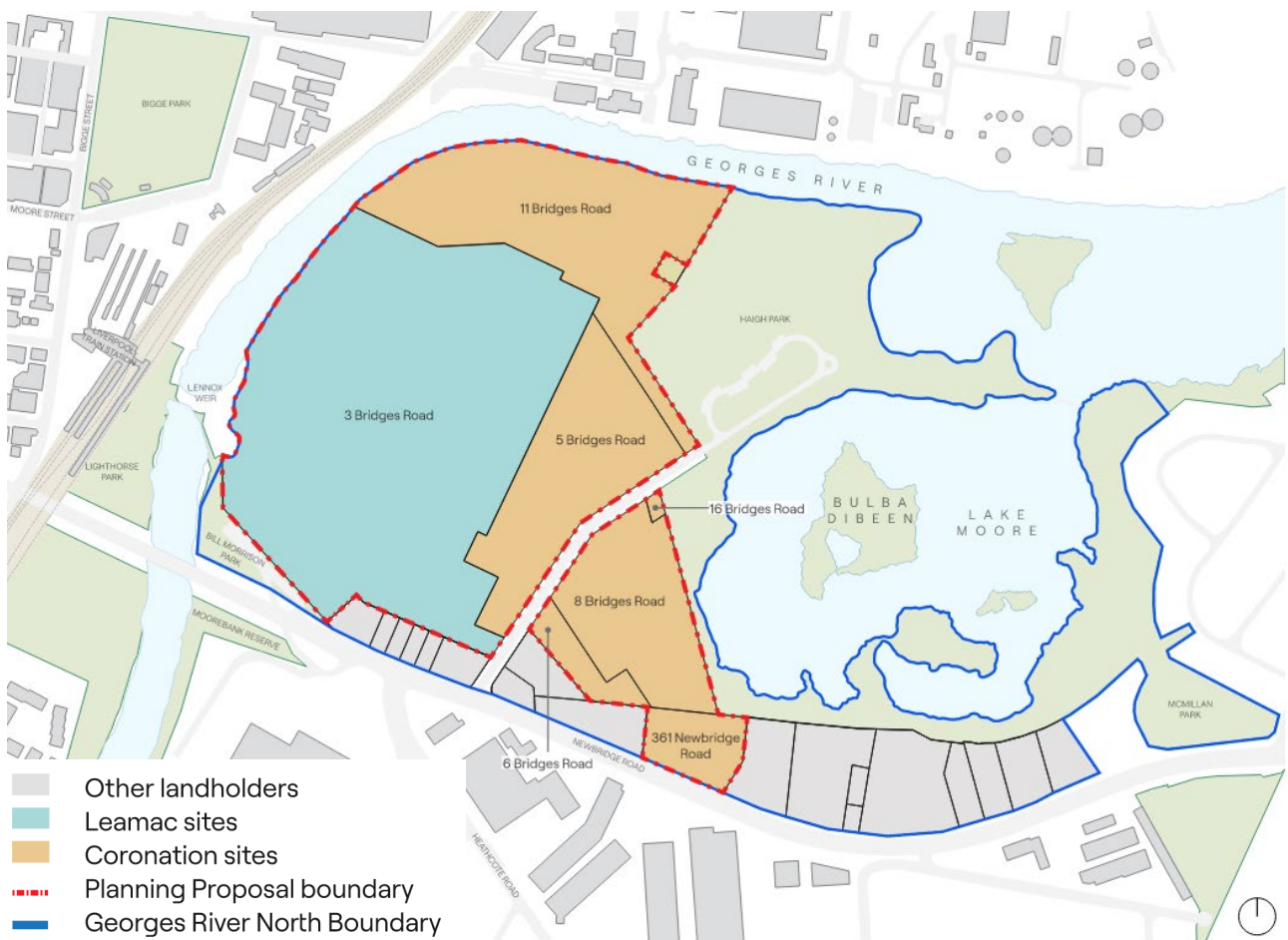


Figure 2 – Land Application

Source: SJB Architects



This Strategy seeks to guide works within the Vegetated Riparian Zones, as defined in **Figure 3** below.



Figure 3 – Location of Vegetated Riparian Zones
Source: SJB Architects

1.3 How to Use this Document

This document provides objectives and a development control framework to guide development and works within waterfront areas at Moore Point, as defined in **Figure 3**. Works proposed within the Vegetated Riparian Zone (**VRZ**) as defined in the *Water Management Act 2000 (WM Act)* (see **Section 3**) will be subject to this control framework, and shall demonstrate consistency with this document as part of the development assessment process.

This document provides objectives and controls tailored to Moore Point and should be considered as a non-statutory guidance document. Where inconsistencies may occur with the Development Control Plan or other Local Strategies/Policy, this document shall prevail.

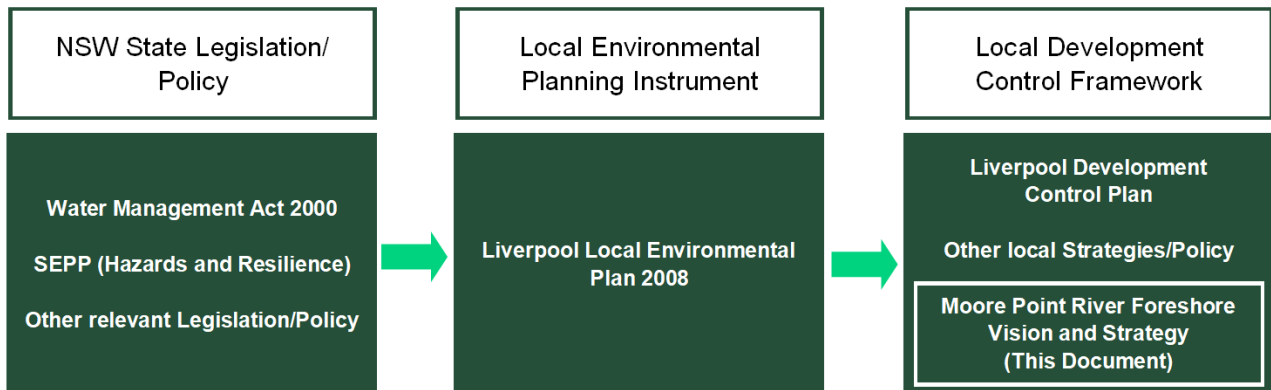


Figure 4 – Policy Framework

Source: Mecone

The Strategy has been developed in collaboration with a multidisciplinary team to evaluate all aspects of foreshore planning for Moore Point including civil engineering, landscape and public domain, flooding, biodiversity, urban design and planning.

This Strategy should be read in conjunction with the following reports and plans:

- **Appendix A** – Riparian Assessment prepared by Northrop, and
- **Appendix B** – River Foreshore Strategy Diagrams prepared by TURF.

For additional information, please refer to the following documents, submitted as part of the Moore Point Planning Proposal which provide further context.

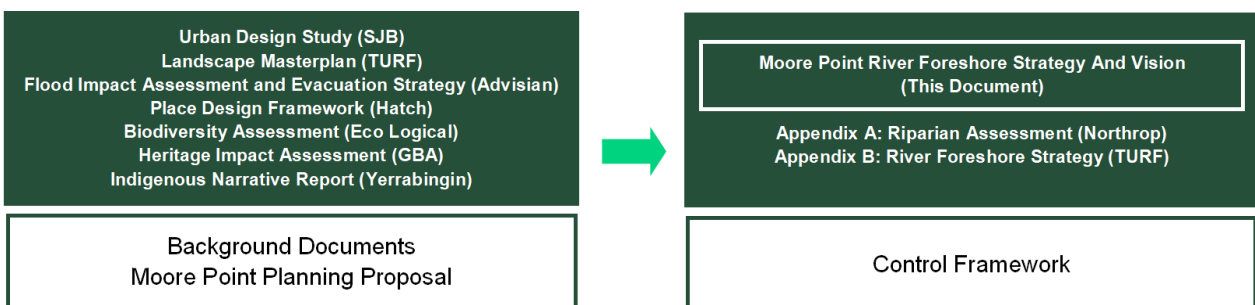


Figure 5 – Supporting Documents

Source: Mecone



1.4 Moore Point Vision

This Strategy serves as a tool which will realise the vision for the Moore Point precinct:

A network of well-designed human-scale spaces and a prominent local identity will make Moore Point Australia's next great riverfront city.

The vision seeks to create the first truly integrated riverfront development at scale in Liverpool. At the heart of this attraction will be a re-vitalised riverbank, which will undergo an ecological transformation to promote a natural, healthy, and thriving river ecosystem.

The riverbank will also offer amenity and recreational opportunities that meets the needs of a diverse community, and which encourages an active outdoor lifestyle.

A bespoke foreshore response and management strategy is required to strengthen the identity of Moore Point as world-class riverfront city.



The alignment of the northern pedestrian bridge over the Georges River is subject to further discussions with affected landowners. The alignment of the bridge is subject to change

Figure 6 – Moore Point Artistic Impression

Source: SJB Architects

1.5 Evolution of the Georges River and Lake Moore

Moore Point has frontages to both the Georges River and Lake Moore. The Georges River was first explored in 1795 and the town of Liverpool established in 1810. Once the area was settled, Moore Point was used for agricultural and horticultural land uses. It was extensively cleared.



Moore Point was industrialised in the 1940s. The site was used as a cable manufacturing facility, brought about by the second world war. Lake Moore did not exist at this time, which was part of Anzac Creek and comprised remnant oxbow lake/billabong. Refer to **Figure 7** below.



Figure 7 – 1943 Aerial Photograph of Moore Point
Source: Six Maps

In the 1970s, sand mining commenced and prevailed until it formed Lake Moore as an extension of the Georges River. Sand mining was extensive as shown in **Figure 8** below.



Figure 8 – 1978 Aerial Photograph of Moore Point
Source: Six Maps

Other industrial development occurred through the 1970s and 80s where various areas were filled with contaminated materials and vegetation was cleared.

The history of development on the foreshore paints a picture of significant and sustained human intervention causing ongoing land degradation. Other than a few features, the whole peninsula has been heavily modified as to make it unrecognisable to its natural state. This informs the context of the Strategy.

The Georges River frontage is steep, unstable and eroding. Contaminated material slumps into the river and the river is migrating landwards over time, creating ongoing instability. Relatively poor-quality vegetation exists on this frontage.



Figure 9 – Erosion on The Eastern Side of Georges River

Source: SJB Architects

The Lake Moore frontage has gentle banks and is stable and well-vegetated and is identified as containing coastal wetlands. Flooding is a feature of the precinct with high energy forces along the Georges River frontage.



Figure 10 – Recent Photograph of Lake Moore

Source: SJB Architects

To create the vision of Moore Point and activate the foreshore, a merit based approach will need to be pursued for the future redevelopment of the Georges River and Lake Moore foreshore.

2 Foreshore Objectives

Moore Point will seize the opportunity to capitalise on its proximity to the water to create a vibrant waterfront city. A bespoke foreshore response is required to balance the need for urban development and people-centric outcomes, while ensuring the natural environment can still flourish alongside these uses.

The Strategy seeks to provide guidance for future works and potential land uses within the Georges River and Lake Moore foreshore areas. In developing this Strategy, a series of Place and Environmental objectives have been developed to guide the outcomes of the foreshore.



Figure 11 – Moore Point Foreshore Objectives

Source: Mecone

2.1 Place Objectives

Moore Point's place identity centres around connectivity to the water, through the creation of vibrant and useable public spaces which draw people to the water's edge. In addition to providing amenity to local residents, the Georges River and Lake Moore will provide the backdrop for regional open space and recreation infrastructure to be enjoyed by future generations. The place objectives for the river foreshore are as follows:

1. Provide functional and safe spaces for people along the river foreshore
2. Enable the integration of natural and human landscapes
3. Enable opportunities for active and passive public recreation and associated infrastructure in a waterfront setting
4. Provide a landscape which complements the urban form of the built environment and provides a transition to the natural waterway
5. Provide opportunities for a range of uses and activities along the river foreshore including recreation, creative arts, entertainment and dining
6. Evoke a sense of pride and ownership of the natural environment



7. Provide education opportunities around the natural ecosystem, including aboriginal cultural perspectives through a *design with country* approach
8. Provide a foreshore landscape which complements the heritage character of adjacent factory pavilions and Lennox Weir

2.2 Environmental Objectives

The ecological health and function of the Georges River and Lake Moore has been progressively degraded since European settlement. The development of Moore Point provides a unique opportunity to repair and improve that natural environment, creating a harmony between natural ecosystems and new urban development. The environmental objectives for the river foreshore are as follows:

1. Provide bed and bank stability and reduce bank and channel erosion
2. Repair and improve the riverbanks with appropriate treatments and species which complement natural ecosystems
3. Maintain and restore viable riparian vegetation and habitats
4. Ensure water quality is of a standard which supports natural aquatic and terrestrial ecosystems
5. Utilise foreshore areas for deep soil planting and tree canopy cover
6. Celebrate aboriginal culture and the water story through practices of care along the river front, including the replanting of indigenous species
7. Enable land uses, buildings and infrastructure within foreshore areas where it can be demonstrated that there are no detrimental environmental impacts



3 Legislative Context

The Strategy should be read in conjunction with the requirements of key legislation which governs works within Foreshore Areas. These include:

- *Water Management Act 2000 (WM Act)*
- *State Environmental Planning Policy (Resilience and Hazards) 2021 (SEPP RH)*
- *Liverpool Local Environmental Plan 2008 (LLEP)*

Future development applications shall also address the requirements of other relevant legislation (depending on the nature of works proposed). These may include, but are not limited to:

- *Biodiversity Conservation Act 2016 (BC Act)*
- *Fisheries Management Act 1994 (FM Act)*
- *Coastal Management Act 2016 (CM Act)*
- *Heritage Act 1977 (Heritage Act)*

3.1 Water Management Act

The WM Act was established to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations. The WM ACT provides water management principles and sets the framework for how waterways in NSW are managed.

Specifically, the WM Act defines certain works within 40 metres of the top of bank as controlled activities. These activities include:

- a) the erection of a building or the carrying out of a work (within the meaning of the *Environmental Planning and Assessment Act 1979*), or
- b) the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or
- c) the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or
- d) the carrying out of any other activity that affects the quantity or flow of water in a water source.

DPI – Water is responsible for administering the WM Act and issuing Controlled Activity approvals at DA stage. This Strategy is intended to be reviewed and endorsed by DPI – Water to enable future DAs to demonstrate consistency with its objectives.

Appendix A of this Strategy sets out compliance with the objectives of the WM Act, and the capacity of the proposal to deliver sustainable and integrated outcome. This addresses requirements set out by Gateway Condition 4 of PP-2022-1602.

3.2 Merit-Based Approach

The WM Act is supported by The Department of Planning and Environment *Controlled activities – Guidelines for riparian corridors on waterfront land* (the **Guideline**) states the following in relation to controlled activity approvals:



Applications that do not conform to the matrix and/or relevant departmental controlled activity guidelines will continue to be subject to merit assessment to ensure that the proposals meet the requirements of the WM Act. All applications will still need to demonstrate that minimal harm will occur to waterfront land before a controlled activity approval will be issued.

Given the history of landform and riverine modification that has occurred in the past, and that the development seeks to activate the Georges River foreshore, the Strategy does not seek to align with the full intent of the Guidelines.

A merit-based approach outlined in this foreshore strategy is proposed, and this is consistent with the objectives of the Act and the Guideline. A summary of the intended strategy for the Georges River and Lake Moore is outlined below. A key departure from the Guideline relates to the outcome of providing a balance of recreational activities with enhanced access and native revegetation along the foreshore, rather than a fully revegetated riparian corridor.

3.2.1 The Georges River

As identified within the Biodiversity Development Assessment Report (Eco-Logical, 2024), Georges River is a 7th order stream as per the Strahler classification. For the purposes of applying the Riparian Corridor Guidelines, Georges River is therefore considered to be categorised as *4th order or greater*, requiring a 40 metre wide Vegetated Riparian Zone (**VRZ**). As required by the Guideline, the VRZ should be measured from the top of bank and is to be comprised of a 20m wide inner VRZ and 20m outer VRZ.

The current condition of the waterfront land along the Georges River varies significantly, and extensive works are required to stabilise and restore the banks and to facilitate improved flooding outcomes.

No new buildings are proposed within the 20m inner VRZ or 40m inner VRZ. Built form within the proposed riparian zone is detailed in **Section 7.5** of this document.

Specifically, to protect the toe of the bank and prevent ongoing erosion and pollution to the river, the existing toe of the bank shall be laid back, battered and include substantial revetment treatments in several locations. While this provides a superior flooding and environmental outcome, it results in widening of the waterway and the extent of the VRZ into the developable portion of the land.

As such, the proposed top of bank does not provide the most appropriate reference point for the location of the proposed VRZs. Alternatively, a 40m wide riparian zone is proposed from the toe of the bank (**MHWM**). This results in 20m wide Inner and Outer VRZs as pictured below.



Figure 12 – Proposed VRZ Location – Georges River North and West
Source: SJB Architects

3.2.2 Lake Moore

For land surrounding Lake Moore, a 30m wide VRZ is proposed, including a 15m wide inner and outer VRZ.

Prior to sand mining, the current Lake Moore frontage used to front Anzac Creek. It is therefore valid to adopt Anzac Creek as the reference waterway for assigning riparian zone. Anzac Creek is a third order watercourse in this location, requiring a 30m VRZ. Only minor changes to the Lake Moore frontage are proposed, mainly in relation to adding recreational and landscape features for community activation.

In addition to providing an improved flooding outcome, this will achieve many urban design, place-making, social and community benefits. It will enable native landscape plantings to be incorporated that will be irrigated with harvested rain/stormwater, and recycled wastewater to provide urban cooling.

Part of Lake Moore is identified under the SEPP RH as Coastal Wetlands. Any improvements to Lake Moore will avoid impact to this area.



Figure 13 – Proposed VRZ Location – Lake Moore

Source: SJB Architects

4 Defining and Planning the Foreshore

This Section outlines objectives and controls for defined areas along the foreshore that should be addressed as part of future DAs.

Moore Point is a peninsula with expansive water frontage to the Georges River and Lake Moore. Georges River and Lake Moore will provide the backdrop for regional open space and recreation infrastructure to be enjoyed by future generations.

Future land uses, including but not limited to, pedestrian and cyclist infrastructure, water play, retail, dining, creative arts and entertainment spaces must work in harmony with the natural function of the river ecosystem. Bank stabilisation works and foreshore land uses will respond to the characteristics of the natural environment, avoiding environmentally sensitive areas. Bespoke revetment typologies will be implemented to stabilise the toe of the bank and make it safe for adjoining land uses.

For the purpose of this strategy, the foreshore can be broken down into 5 key areas each with their own unique characteristics, diverse green space and management approach. The areas include:

- **Area 1** – City Gateway Village
- **Area 2** – West Riverbank Village
- **Area 3** – North Bank Village
- **Area 4** – North River Village
- **Area 5** – Lake Moore Village

While Haigh Village is acknowledged as an integrated component of the precinct, this sits outside private ownership. Works would be undertaken by or on behalf of a public authority.



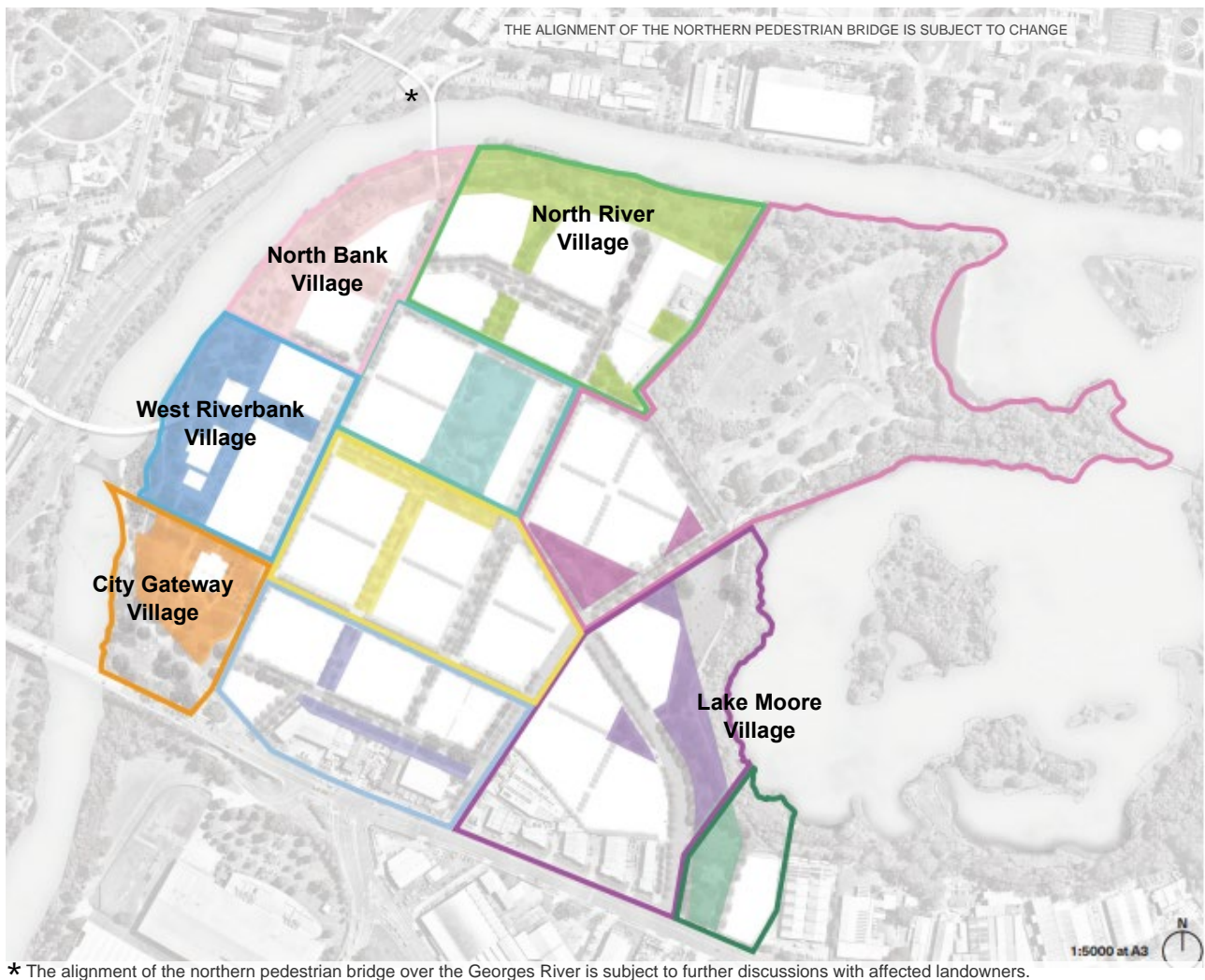


Figure 14 – Foreshore Areas

Source: TURF

The objectives for each foreshore area and proposed management approach is outlined in the following section.

It shall be noted that these areas have been defined for the purpose of this Strategy and indicative sections provided to illustrate potential bank stabilisation treatments and foreshore uses which may occur. Foreshore treatments, land uses and the location of buildings and infrastructure may vary depending on existing bank conditions, property boundaries and on site conditions.

4.1 Foreshore Area 1: City Gateway Village

The City Gateway Village embraces the industrial character and heritage of Moore Point, with spaces for all that celebrate diversity, culture and creativity.

The river's edge supports the local ecology, with increased endemic vegetation combined with hardscape revetment in eroded areas. It is a primary area for active recreation with opportunity for swimming, events, festivals, and large green spaces capable of catering for small to large events in the daytime and in the evenings.



The opportunity for water play brings the energy of the river into the urban context, offering an environment to greater connect users to their local environment. The foreshore creates a retreat from the dense cityscape and embraces healthy river living.

- Objective 1** Protect and enhance the existing heritage character of the precinct.
- Objective 2** Riverbank stabilisation to sensitively be integrated with natural surroundings, with emphasise on protection at the toe to prevent ongoing erosion.
- Objective 3** Increase endemic vegetation. Create natural habitat at intertidal zones. Species should reflect Country and regenerate the local landscape.
- Objective 4** Maintain visual connection with the river and provide equal access to adjacent passive and active recreation.
- Objective 5** Increase canopy coverage, particularly around activation zones providing access to shade.

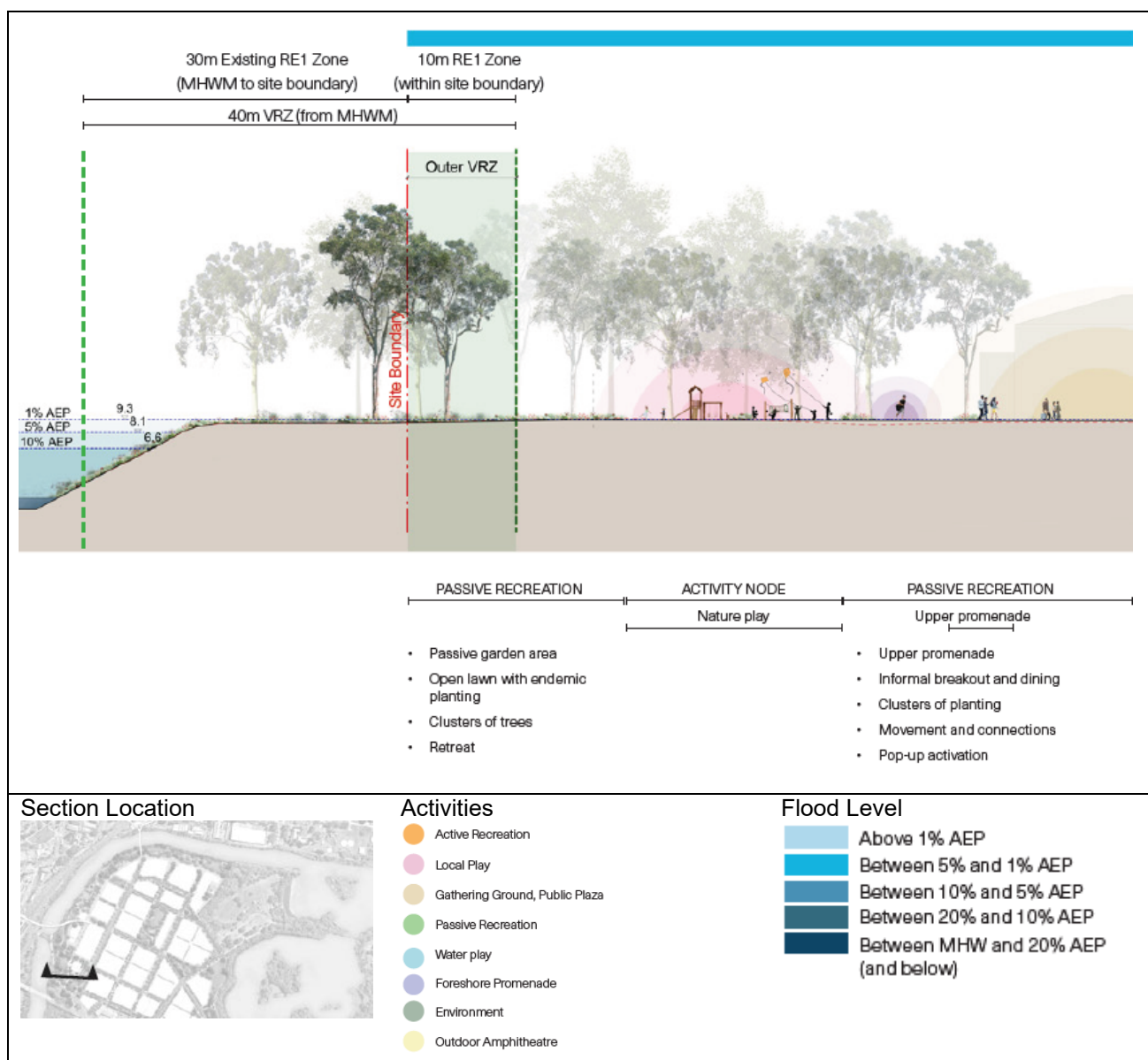


Figure 15 – City Gateway Village Section 1
 Source: TURF

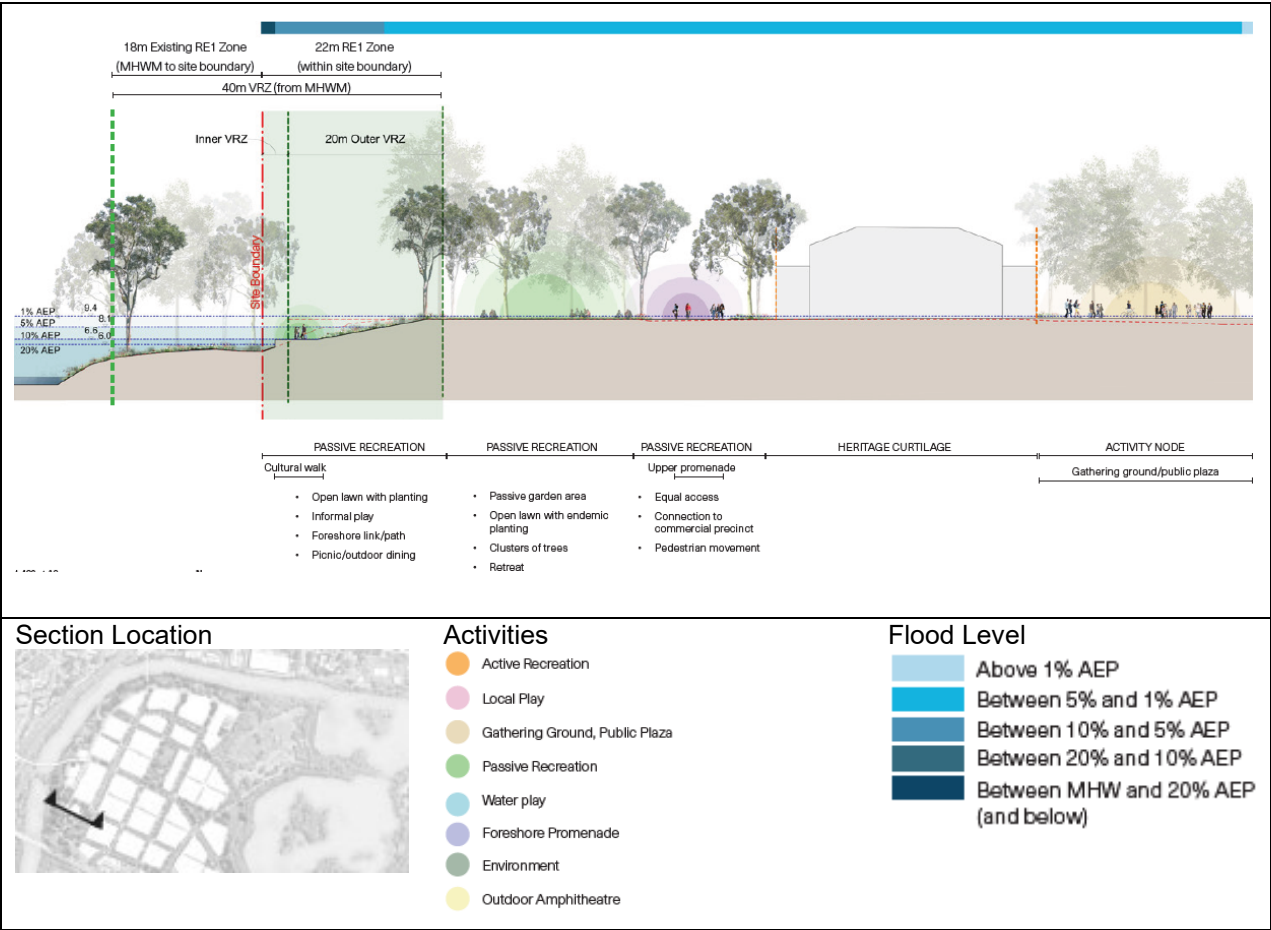


Figure 16 – City Gateway Village Section 2
 Source: TURF

4.2 Foreshore Area 2: West Riverbank Village

The city side village embraces the industrial character and heritage of Moore Point, with spaces for all that celebrate diversity, culture and creativity. The rivers edge supports the local ecology, with increased endemic vegetation combined with hardscape revetment in eroded areas. It is a primary area for active recreation with opportunity for swimming, events, festivals and large green spaces capable of catering for small to large events day through to night.

- Objective 1** Increase endemic planting from the rivers edge to the building interface.
- Objective 2** Stabilise the bank with emphasis on protecting the toe and laying back the batters to prevent ongoing erosion and pollution of the river
- Objective 3** Maintain visual and physical connection to the rivers edge from within the built form.
- Objective 4** Access to versatile and passive open green space for community and local workers, contributing to social, physical, environmental and mental health.
- Objective 5** Offer various recreation activities for all ages that celebrate the local identity.



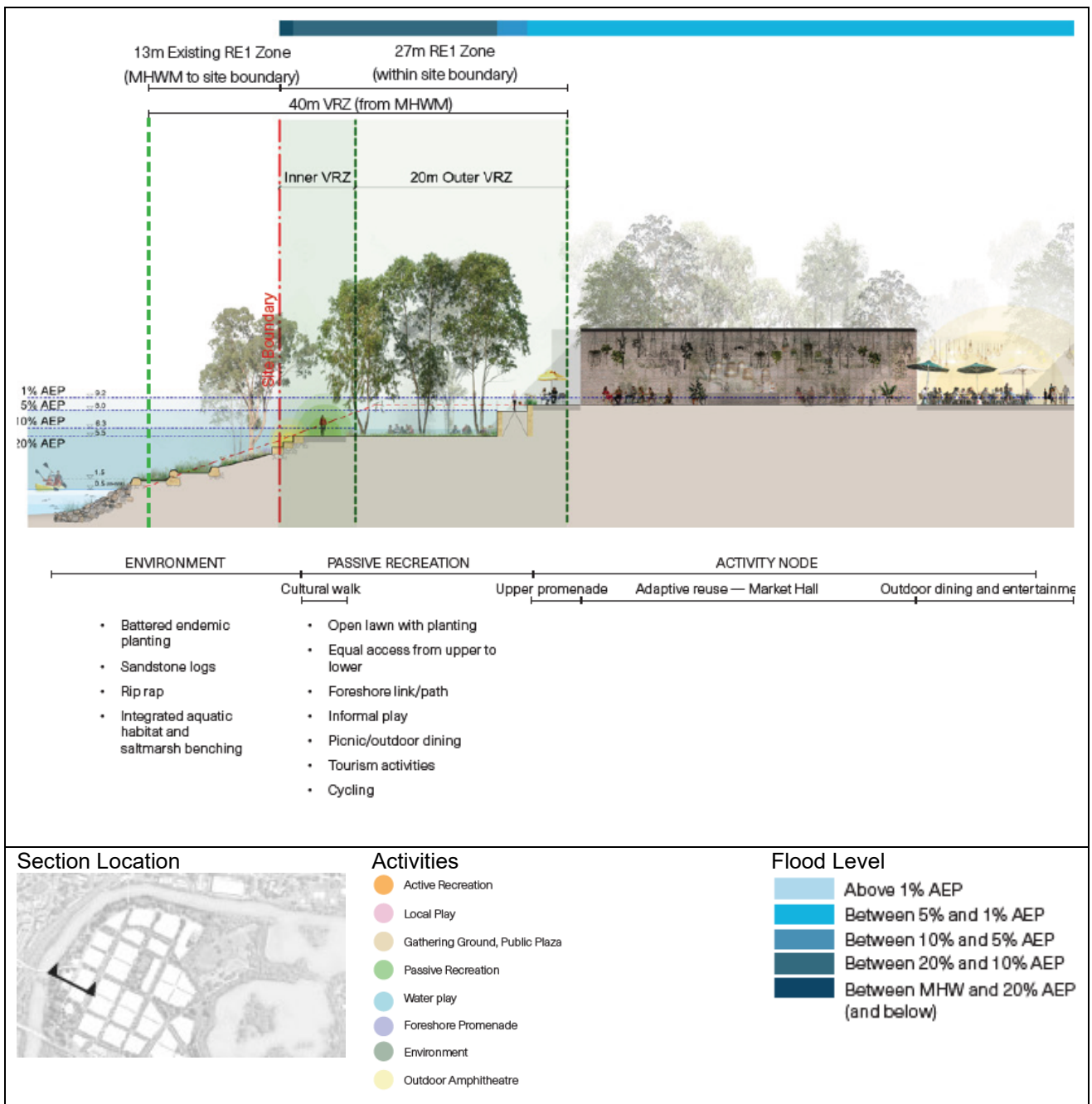


Figure 17 – West Riverbank Village Section 1

Source: TURF



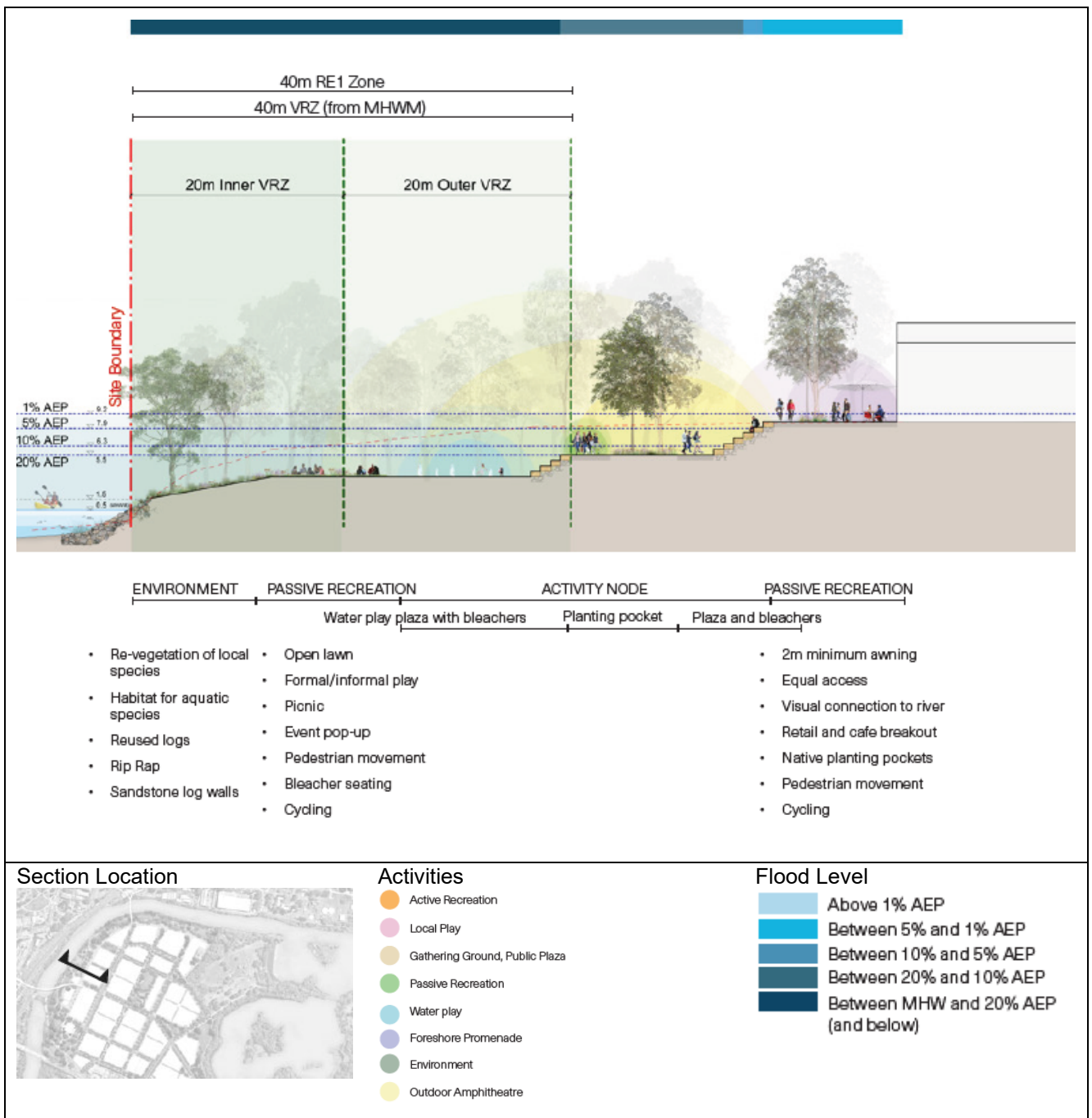


Figure 18 – West Riverbank Village Section 2

Source: TURF

4.3 Foreshore Area 3: North Bank Village

The narrowest portion along the river, the river bend creates a continuous passive green corridor with opportunity for smaller scale activation nodes. A naturalised riverbank treatment will rejuvenate river ecosystem, supporting Connecting with Country initiatives by allowing space for endemic communities and habitat for local fauna to thrive.



- Objective 1:

Stabilise the bank with toe revetment and laying back batters to prevent ongoing erosion and pollution of the river.
- Objective 2:

Increase endemic vegetation. Create natural habitat at intertidal zone. Species should reflect Country and regenerate the local landscape.
- Objective 3:

Provide a sharepath that maintains visual connection with the river, and provide equal access to adjacent passive and active recreation.
- Objective 4:

Increase canopy coverage, particularly around activation zones providing access to shade.

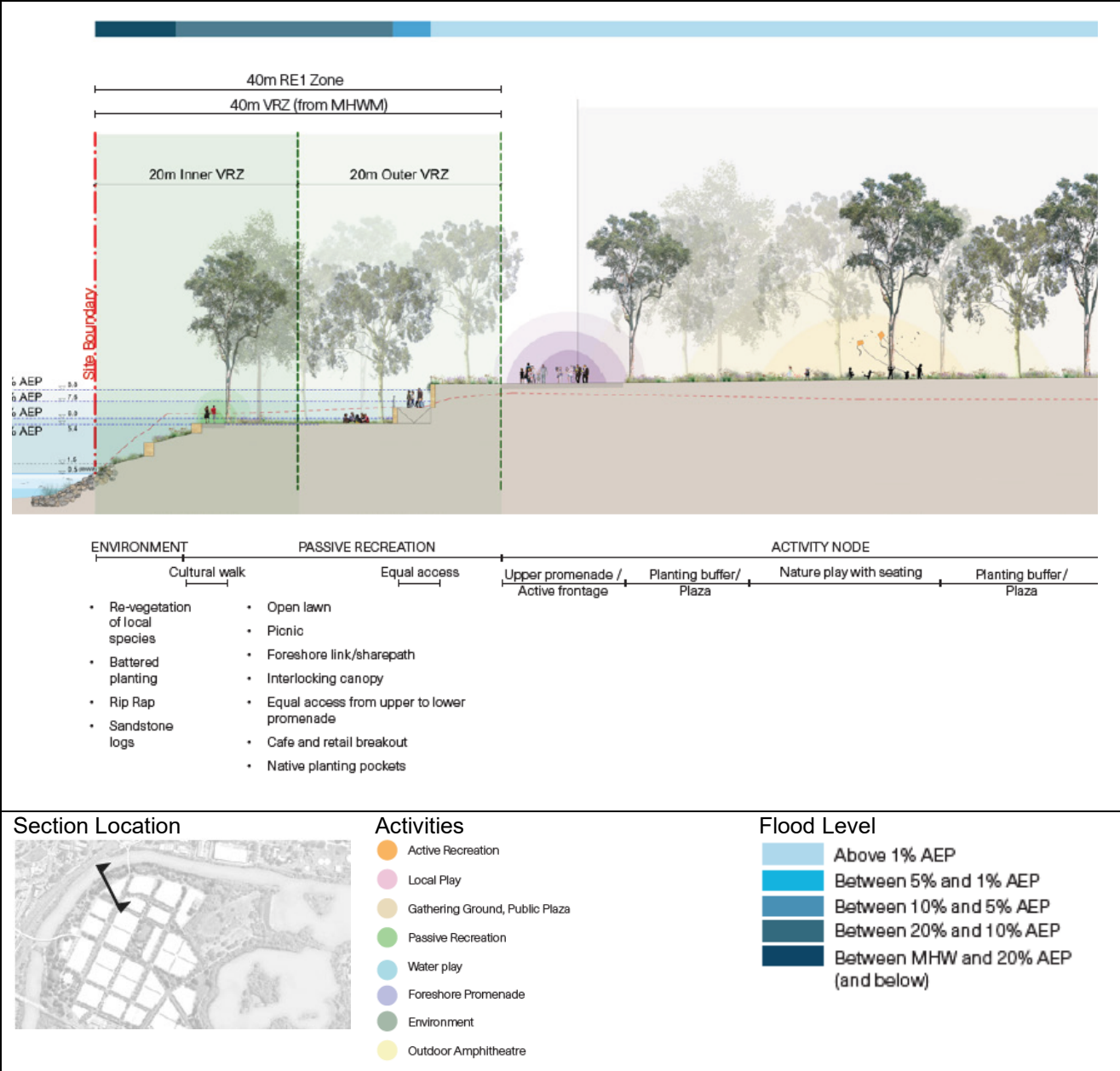


Figure 19 – North Bank Village Section 1
Source: TURF



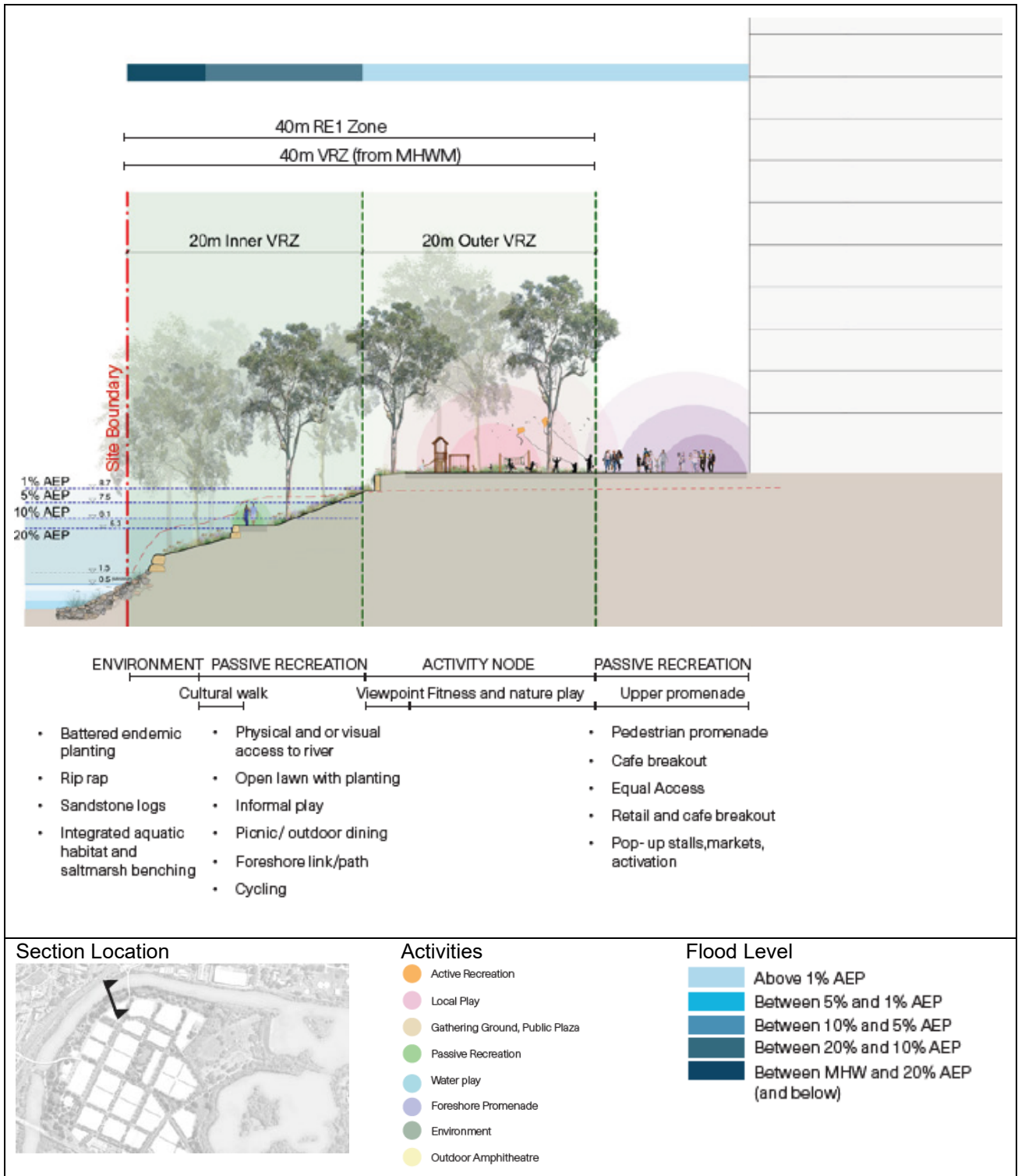


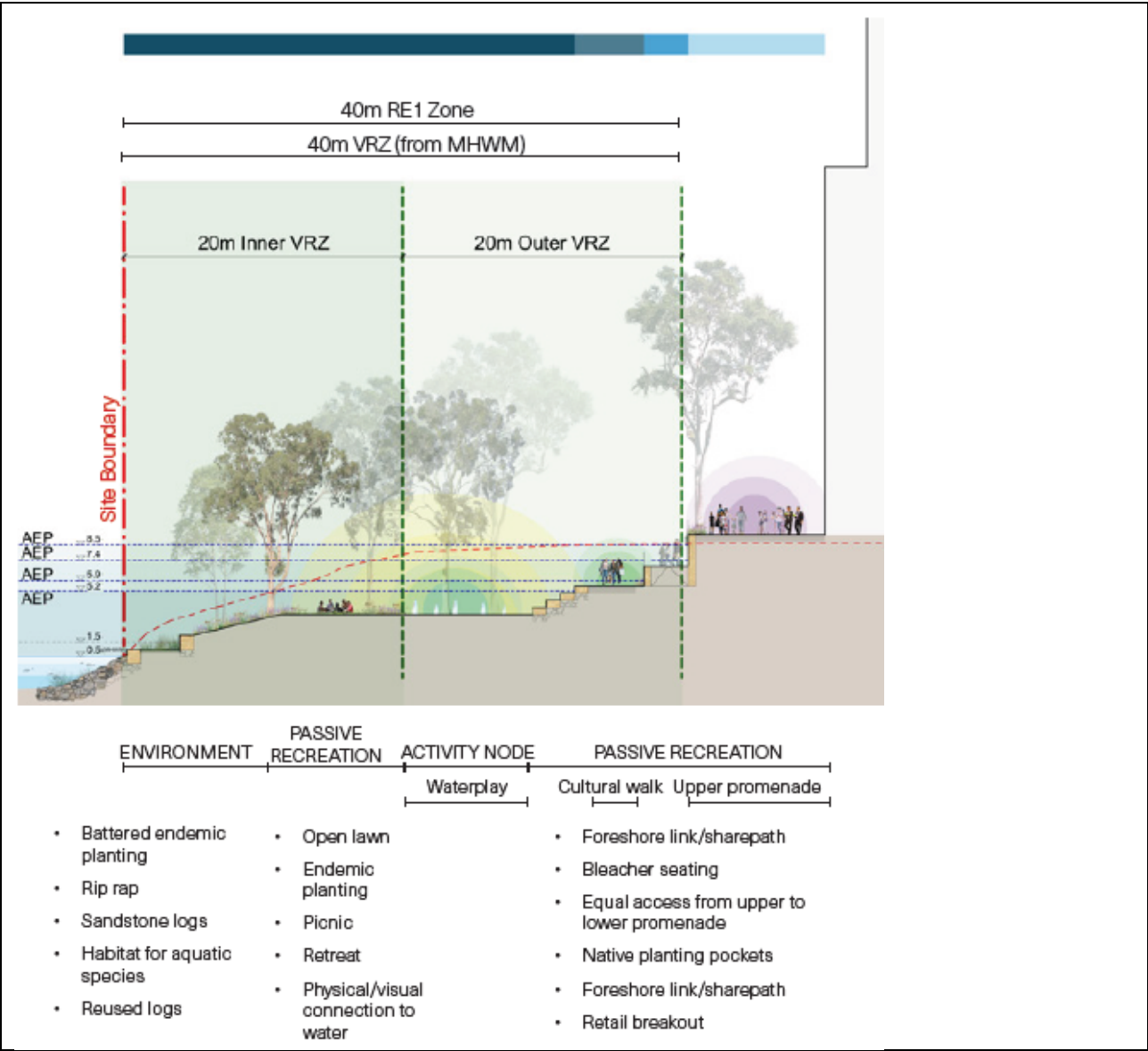
Figure 20 – North Bank Village Section 2
Source: TURF

4.4 Foreshore Area 4: North River Village



The Village maximises the northern sun, promoting various modes of outdoor recreation. Spaces are vibrant and lively directly bringing users from all areas and maintaining a close connection with the water. Areas of endemic planting are to compliment the surrounding ecology, providing shade and retreat amongst the highly active urban area.

- Objective 1:** Increase endemic vegetation. Create natural habitat at intertidal zones. Species should reflect Country and regenerate the landscape.
- Objective 2:** Increase endemic planting from the recreational edge towards the river, keeping it protected from users.
- Objective 3:** Areas of high volume endemic planting and large shade trees surrounding recreation zones to offset the urban context.
- Objective 4:** Increase amenity for all users through diverse green and recreational spaces, to encourage healthy living.



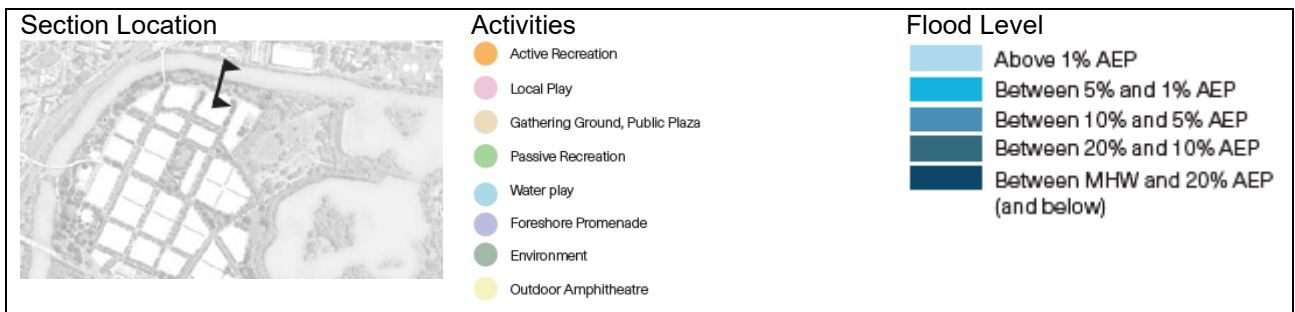


Figure 21 – North River Village Section 1

Source: TURF

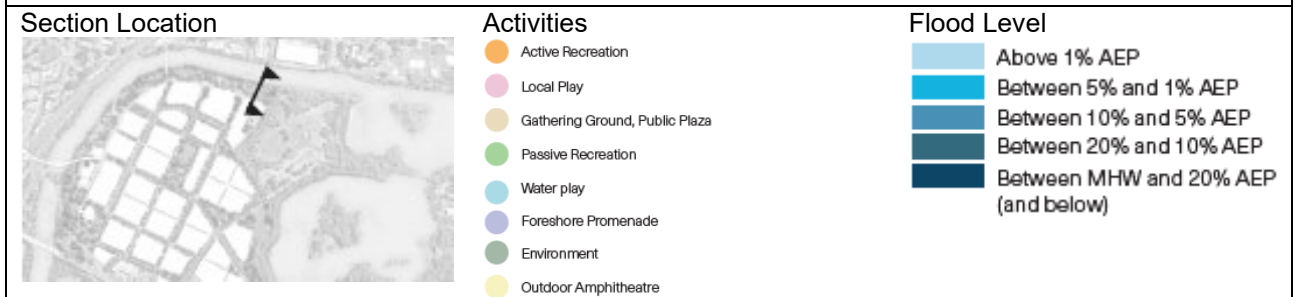
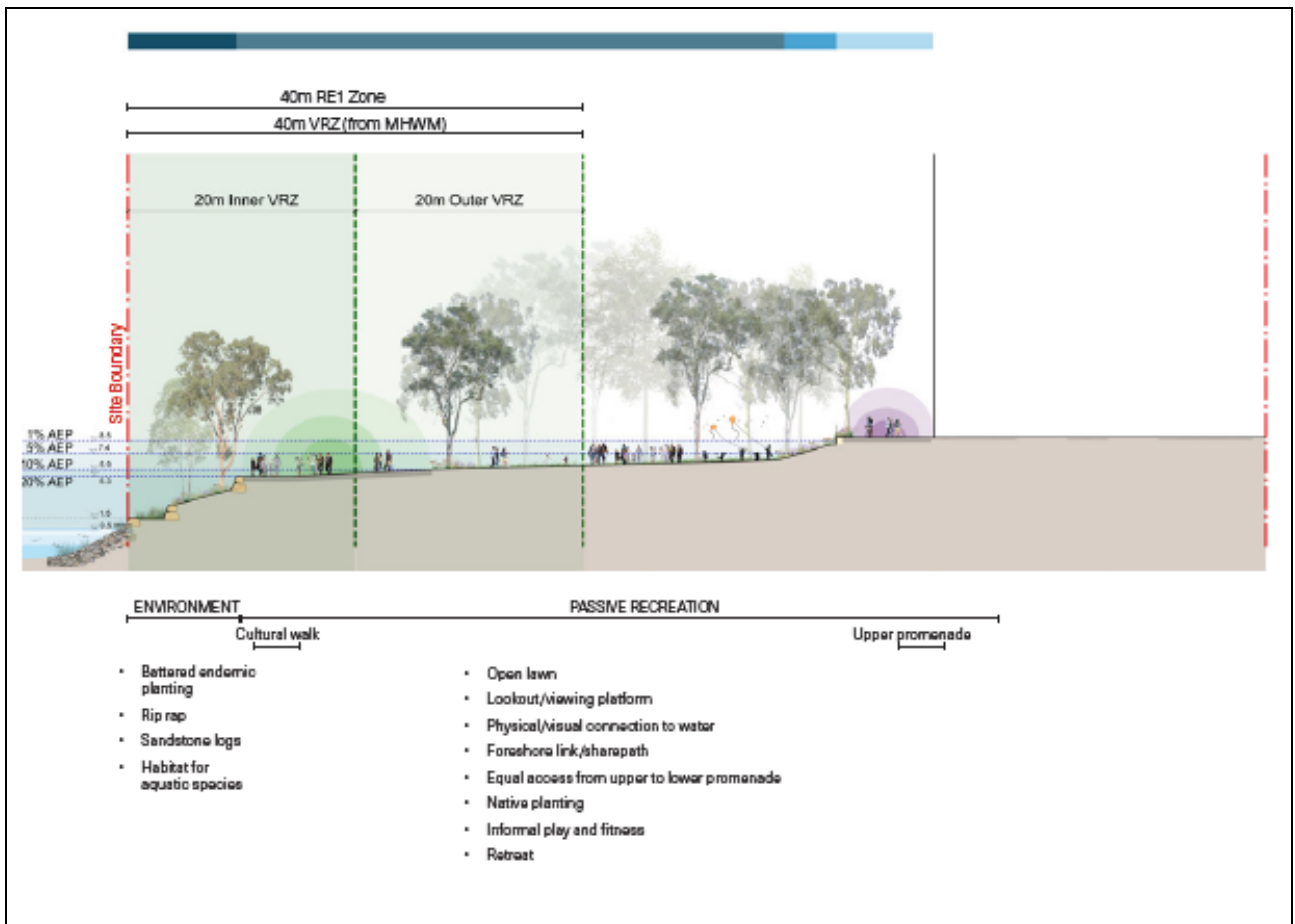


Figure 22 – North River Village Section 2

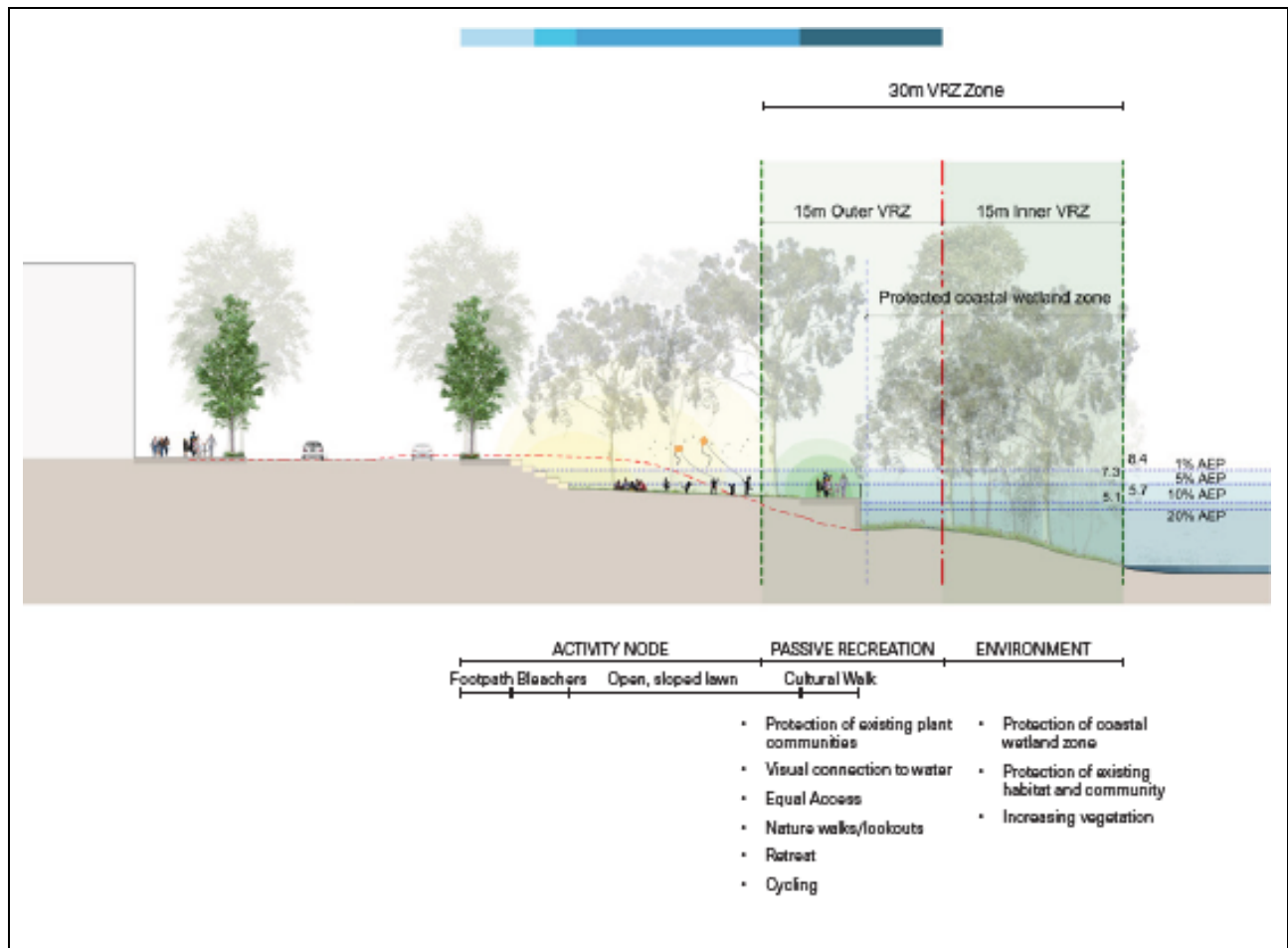
Source: TURF



4.5 Foreshore Area 5: Lake Moore Village

The surrounding areas of Lake Moore reflect the beauty of the natural lake landscape. Clear visual corridors shall be maintained from the built environment towards the existing coastal wetlands to create connections with nature and an appreciation for the local environment.

- Objective 1:** Protect and enhance the coastal wetland zone through localised revitalisation of the banks, including increasing local vegetation species and habitat.
- Objective 2:** Low impact recreation and pedestrian boardwalk with lookout opportunities - surrounding the coastal wetland areas to ensure regeneration and limited disturbance to the existing communities.
- Objective 3:** Maintain equal access from the street to boundary to allow all users to experience the natural landscape.
- Objective 4:** Offer self-directed activities amongst the local landscape to create a sense of place.
- Objective 5:** Maintain access to public open green space.



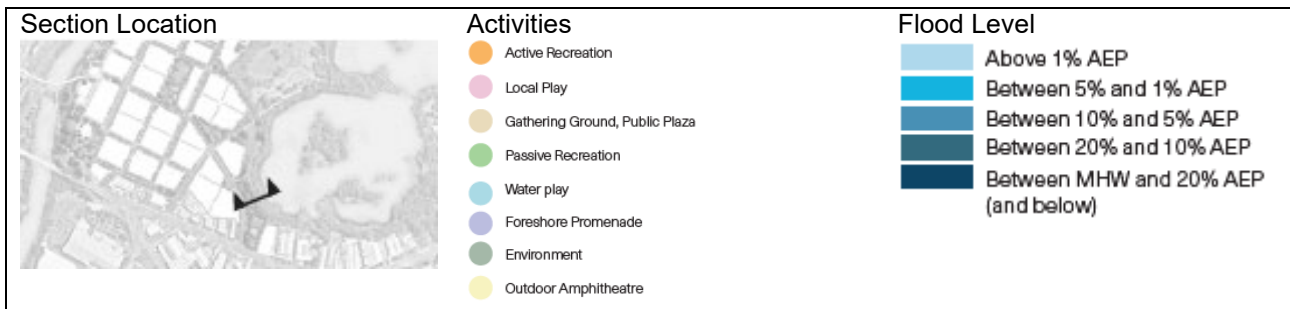


Figure 23 – Lake Moore Village Section 1
Source: TURF

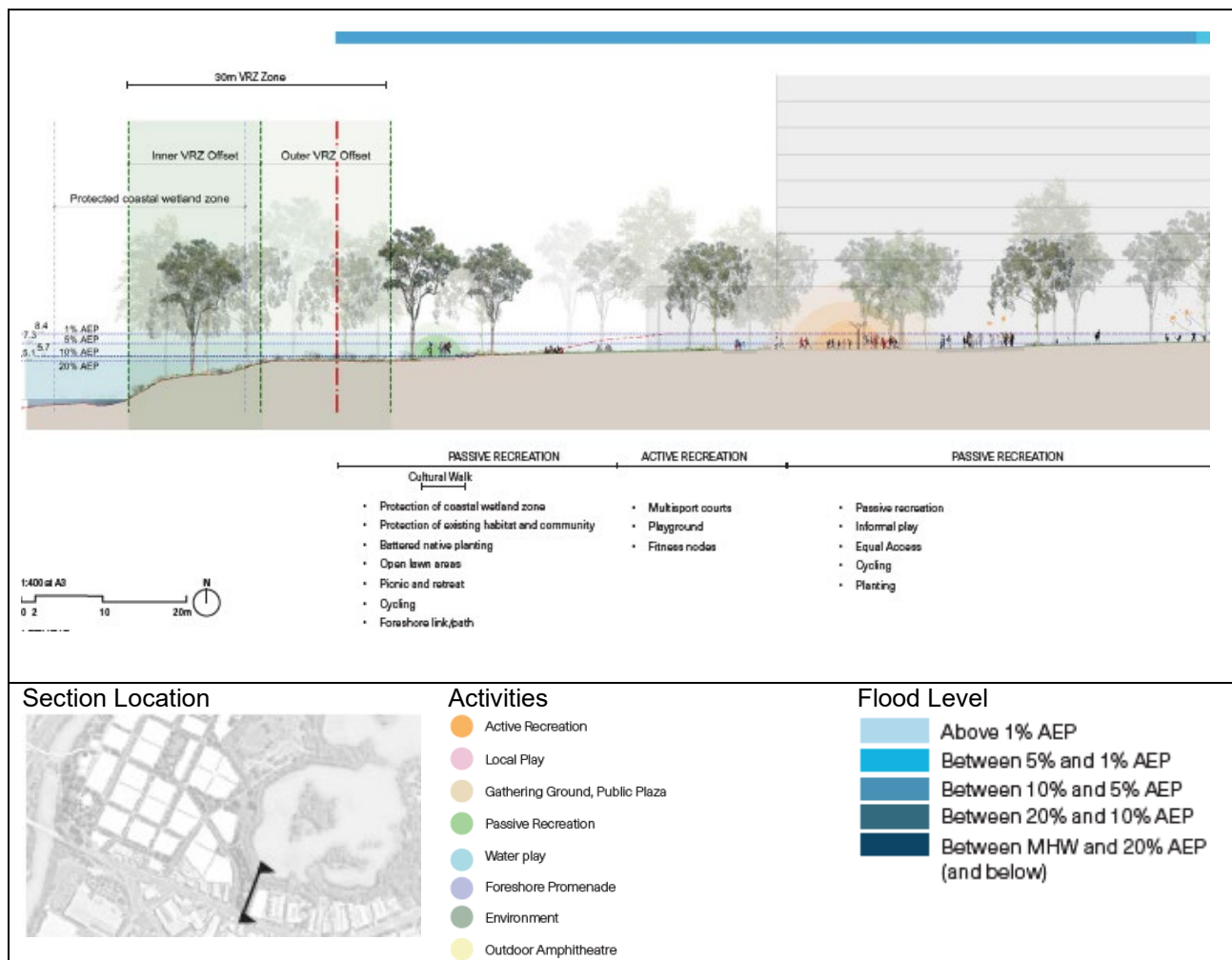


Figure 24 – Lake Moore Village Section 2
Source: TURF

5 Bank Stabilisation and Habitat

Incorporating revetment strategies and planting along the banks will allow the river to regain its health, enhancing and improving its ecology and creating a stable environment for habitat. Riverbank revetment works will extend from Lennox Weir to Haigh Park in order to provide a resilient foreshore for long-term toe and bank stabilisation.

A combination of naturalised edge treatments between the waters edge and top of bank will begin the process of restoration. Bank restoration treatments will vary along the river foreshore depending on existing site conditions and proposed adjoining uses. However, bank restoration works will generally follow 5 typical typologies as per the Revetment Typology Plan, pictured below in **Figure 25**.

- Type 1 – Planting embankment (1:4 max)
- Type 2 – Tiered planting embankment
- Type 3 – Tiered planting embankment (less than 12m wide)
- Type 4 – Tiered planting embankment with habitat opportunities
- Type 5 – River access/outdoor river amphitheatre (connection with nature)

Indicative sections of revetment typologies are provided in more detail in **Appendix 2**.

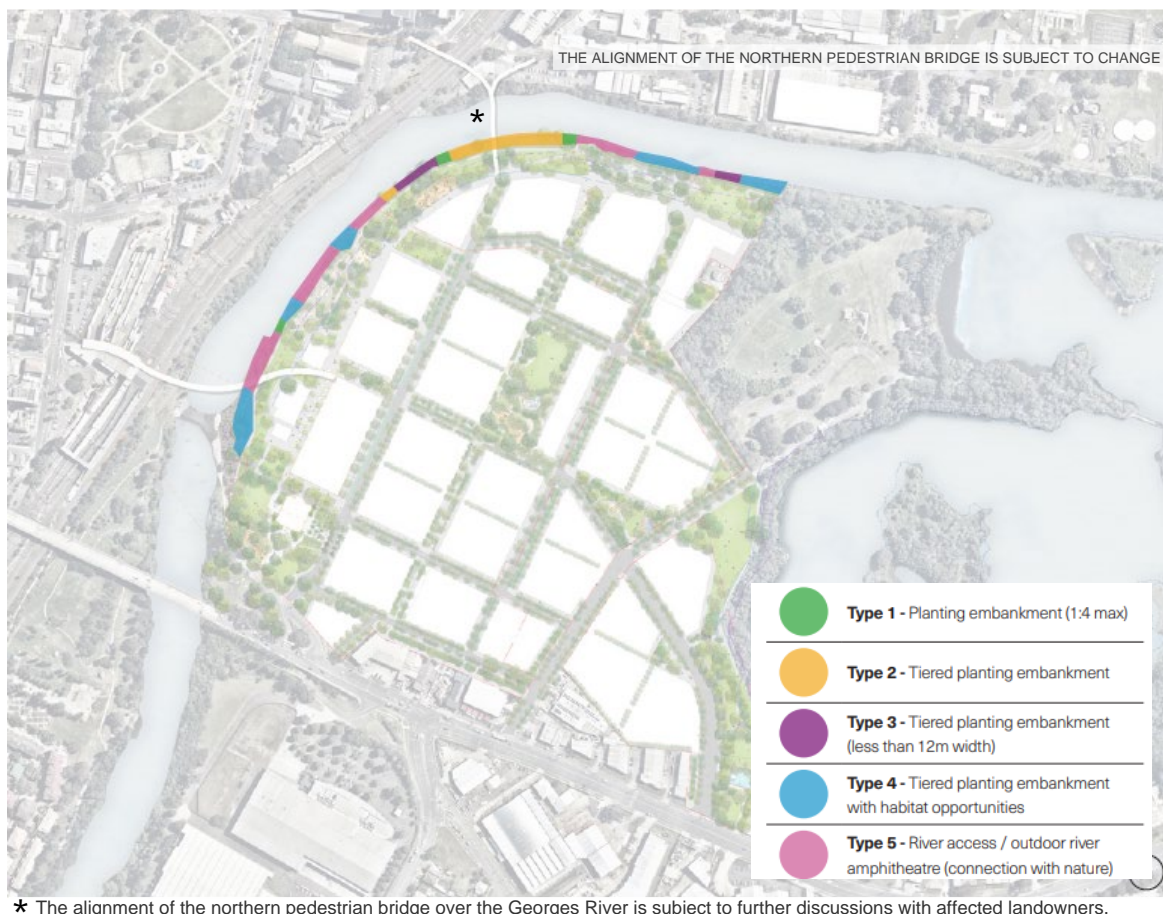
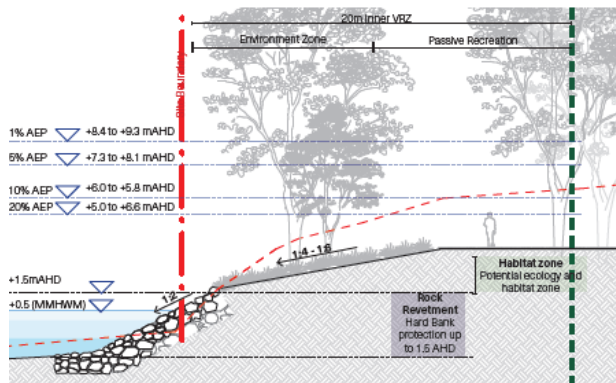


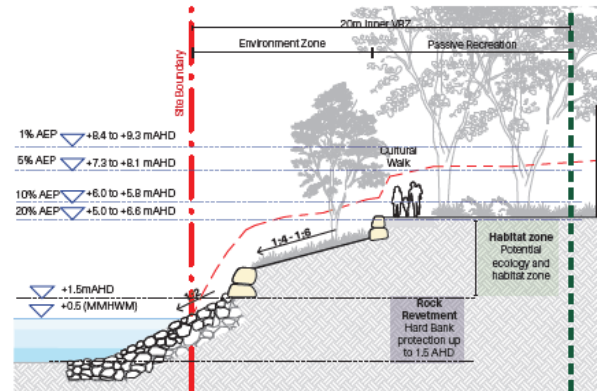
Figure 25 – Georges Riverbank Restoration Typologies

Source: TURF

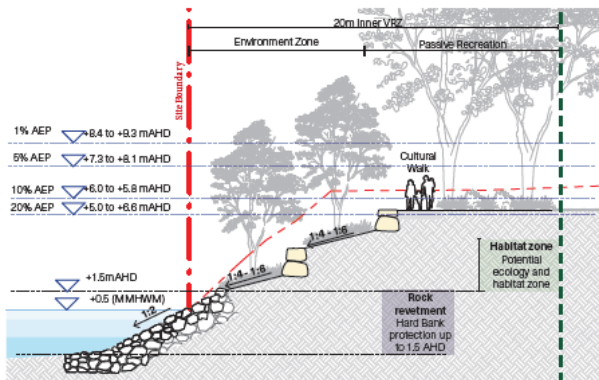
Riverbank — Type 1



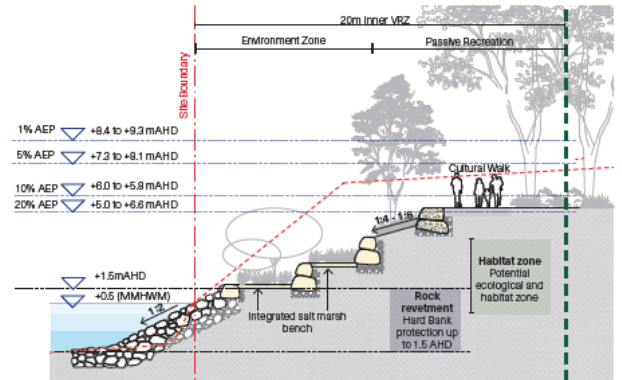
Riverbank — Type 2



Riverbank — Type 3



Riverbank — Type 4



Riverbank — Type 5

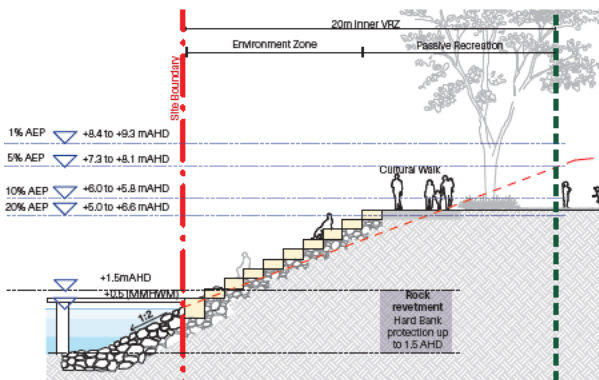


Figure 26 –Restoration Typology Sections
Source: TURF



Foreshore planting will include a combination of zones, as well as trees and shrubs in park and recreation areas along the foreshore. For park and recreation areas in the foreshore, a mix of endemic/native species have been selected to reflect the Cumberland River- Flat community of Liverpool.

Foreshore planting will be provided in accordance with the planting Schedule in **Table 1** below.

TABLE 1 – FORESHORE SPECIES SCHEDULE

CATEGORY	SPECIES
<p>Trees and Shrubs</p> <p>Species selection for the foreshore should consider the relationship to the Georges River and existing ecological communities. The Cumberland River- Flat community of Liverpool combined with other culturally significant terrestrial species.</p>	<p>Swamp Forest:</p> <ol style="list-style-type: none"> 1. <i>Casuarina glauca</i> - Swamp oak 2. <i>Eucalyptus robusta</i> - Swamp mahogany 3. <i>Leptospermum juniperinum</i> - Prickly tea tee 4. <i>Callistemon salignus</i> - Willow bottlebrush 5. <i>Melaleuca quinquenervia</i> - Broad- leaved paperbark 6. <i>Banksia oblongifolia</i> - Fern- leaved banksia 7. <i>Callistemon linearis</i> - Bottlebrush 8. <i>Melaleuca nodosa</i> - Prickly- leaved paperbark 9. <i>Xanthorrhoea fulva</i> - Wallum grass tree <p>Other suggested species:</p> <ul style="list-style-type: none"> • <i>Clematis glycinoides</i> - Headache vine • <i>Lomandra filiformis</i>- Wattle mat rush
<p>Estuary</p> <p>The following species reflect the character of the riparian salt marsh and casuarina ecology that belong to the river. It is encouraged that the following be used in the restoration of the bank and influence the planting within the precinct.</p>	<p>Saltmarsh:</p> <ol style="list-style-type: none"> 10. <i>Juncus kraussii</i> - Salt marsh rush 11. <i>Sporobolus virginicus</i> - Seashore dropseed 12. <i>Samolus repens</i> - Creeping brookweed <p>Forbs:</p> <ol style="list-style-type: none"> 13. <i>Blechnum camfieldii</i> - Water fern 14. <i>Blechnum catilagineum</i> - Soft water fern 15. <i>Gahnia clarkei</i> - Saw sedge 16. <i>Gonocarpus micranthus</i> - Creeping raspwort





Figure 27 –Foreshore Species Selection
Source: TURF

6 Infrastructure within the Foreshore

6.1 Bridge Landings

Future bridge landing locations will be considered in the planning and management of foreshore areas, to ensure that land is available to deliver this important pedestrian infrastructure at a later time. Enabling pedestrian access to Liverpool CBD, Liverpool Innovation Precinct and Train Station will open up the useability of foreshore areas and provide equitable access to public recreation space.

Adequate spatial allowances will be maintained in the vicinity of future pedestrian bridge landings. Open space, landscaping, hardstand, and temporary uses are permitted in future landing locations however, building footprints shall avoid conflict with future landing zones and maintain appropriate clearances. Indicative bridge landing zones are identified below.

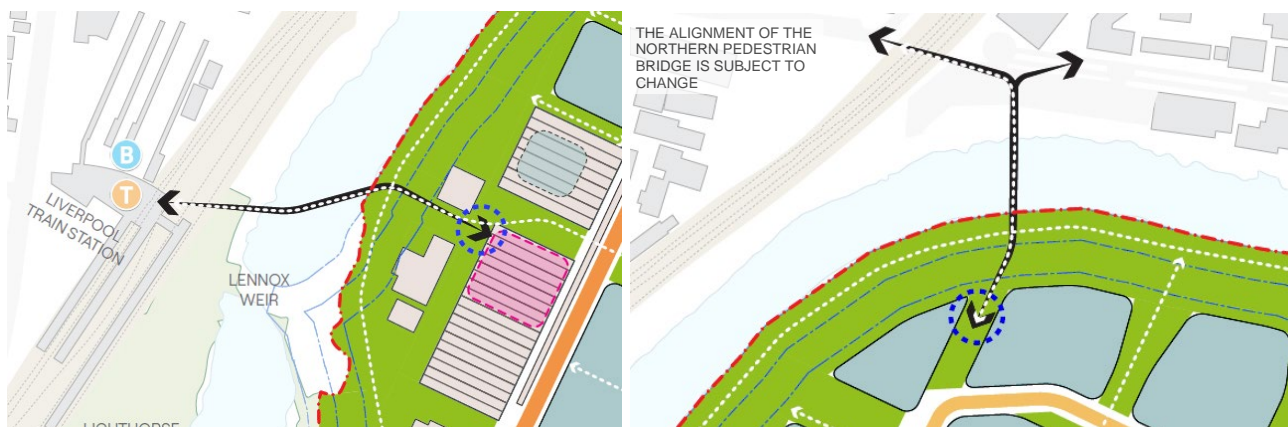


Figure 28 – Indicative Bridge Landing Zones (West and North)

Source: SJB Architects

6.2 Pedestrian Pathways and Cycle Paths

One of the key features of the Moore Point Foreshore will be the delivery of regional walking and cycling infrastructure, in the form of an 8km river loop pathway.

A 5m wide pedestrian pathway shall be provided along the length of the river foreshore, extending to Haigh Park and further to Anchor Place in the form of an elevated boardwalk which seeks to avoid impact to existing coastal wetland zones.

Adjoining complementary land uses, including retail, outdoor dining, play areas, markets will create destinations and contribute to the useability of the pathways as regional walking infrastructure.

6.3 Public Recreation Infrastructure, Activation and Events

Public recreation infrastructure may be provided within river foreshore areas, where appropriate within close proximity to the water's edge. These structure/uses may be publicly or privately owned, operated or managed, but generally serve a public function and enhance the patronage of the river foreshore. Such structures/uses shall consider the needs of various user groups and generations, which may evolve over time based on user needs. These structures/uses may include but are not limited to:

- Structures which facilitate access to the water (boat ramps, jetties, pontoons etc);



- Cultural path;
- Passive water play;
- Shared paths, boardwalks, viewing platforms, seating, shade structures;
- Recreation infrastructure such as play equipment, water play, fitness equipment, courts, skateparks etc;
- Structures relating to temporary events, markets, outdoor dining; and
- Uses such as markets, food trucks, pop up events, entertainment, creative art displays, interactive exhibitions, fitness and yoga classes.

More intensive recreation uses will occur within the outer 20m VRZ and shall be located generally above the 5% AEP flood event.

6.4 Essential Services

In addition to meeting the recreation needs of residents, the river foreshore public recreation space will also house some essential services and critical stormwater management infrastructure. Water Sensitive Urban Design infrastructure including bioretention structures and stormwater discharge points will be located within or within close proximity to foreshore areas.

6.5 Built Form in the Riparian Zone

As shown in **Figures 3, 12 and 13**, there are no existing buildings or proposed development pads within the inner or outer VRZs. On the eastern side of the site, there are some existing heritage buildings within close proximity of the VRZs but situated outside of the 40m zone. Importantly, no new buildings are proposed within the inner or outer VRZs. Some structures will be located within the VRZs as outlined in **Table 2** below. These structures relate directly to the function and safety of the Riparian Area and its role as a recreational asset.

TABLE 2 – BUILT FORM IN THE RIPARIAN ZONE

LOCATION	BUILDINGS/STRUCTURES IN RIPARIAN ZONE	
	Existing Retained	Proposed
Inner VRZ	Nil	No habitable buildings proposed. Structures may include: <ul style="list-style-type: none"> - Revetment works, - Structures which facilitate access to the water (boat ramps, jetties, pontoons etc), - Cultural path, - Passive water play, - Bridge infrastructure, - Stormwater infrastructure; and - Essential services.
Outer VRZ	Nil	No habitable buildings proposed. Structures may include: <ul style="list-style-type: none"> - Structures as listed above,



		<ul style="list-style-type: none"> - Shared paths, boardwalks, viewing platforms, seating, shade structures, - Recreation infrastructure such as play equipment, water play, fitness equipment, courts, skateparks ect, and - Structures relating to temporary events, markets, outdoor dining.
--	--	--

7 Conclusion

Moore Point is a once in a generation opportunity to deliver Australia's next Great Riverfront City. This Foreshore Vision and Strategy provides a bespoke response to plan and manage works and land uses within the expansive foreshore surrounding Moore Point.

Foreshore areas will support place outcomes, by creating vibrant and safe spaces which can be enjoyed for recreation, relaxation, dining, entertainment and cultural uses. Restoring and enhancing the natural environment with endemic species and connecting people with the water is a celebration of Country and reflects the important role of Georges River and Lake Moore in Aboriginal history.

This Strategy provides guiding objectives for key foreshore areas which seek to balance place and environmental outcomes to ensure the long-term health and enjoyment of foreshore areas for generations to come.



Appendices

APPENDIX A

Riparian Assessment Report
(Northrop)
Provided under seperate cover

Forshore Diagrams (TURF)
Provided under separate cover

