



WAIROA WATERFRONT ENHANCEMENT





Hawke Bay

Mahia Banks

Wairoa
SH 2

Napier
SH 5

Hastings
SH 2

SH 5

Hawke's Bay

2

Context



On still days the people of Wairoa remember stories of the ‘diamonds in the water.’

Wairoa is the northernmost town in Hawke's Bay, located halfway between Napier and Gisborne. This project is undertaken in collaboration with Wairoa District Council and Hawke's Bay Regional Council. Wairoa settlement has had a long history with water including a river port which dealt largely in flax. Once known as Clyde, the name Wairoa now refers to 'long waters' and reflects the communities strong connection with the river.

Prior to European arrival Wairoa was a Māori settlement. It is said that the ancestral canoe of Tākitimu travelled the river and rests where the Tākitimu meeting house now sits, (WDC, *A Strategy for North Clyde*, 2013).

To this day the Wairoa awa is still an important food source for the people of Wairoa. In season, clusters of whitebaiters can be seen eagerly awaiting their catch on the rivers banks, and fishing is an important pursuit annually along the river. In the past other mahinga kai pursuits included fibre collection, from reeds and harakeke and a navigational link to the moana.

In early settlement the Wairoa awa was the life blood of Wairoa, connecting the community to other towns and allowing them to profit from their agricultural and commercial ventures.

Over time invasive species, deforestation, and people accessing the river edge has caused erosion along many sections of this awa which in some cases has increased sediment deposition in some areas.

Now is the time to take action and reinvigorate Wairoa, to reinforce the aroha for this awa, and strengthen its banks, protecting them from further erosion, and teaching new generations of the importance of bank stabilisations in order to safeguard this awa.

This document looks at the opportunities for Wairoa awa and township, and develops concepts and planting applications to allow these opportunities to become a reality...

Objectives

Community Engagement

River Restoration

Reconnecting CBD with awa

Awakening Histories

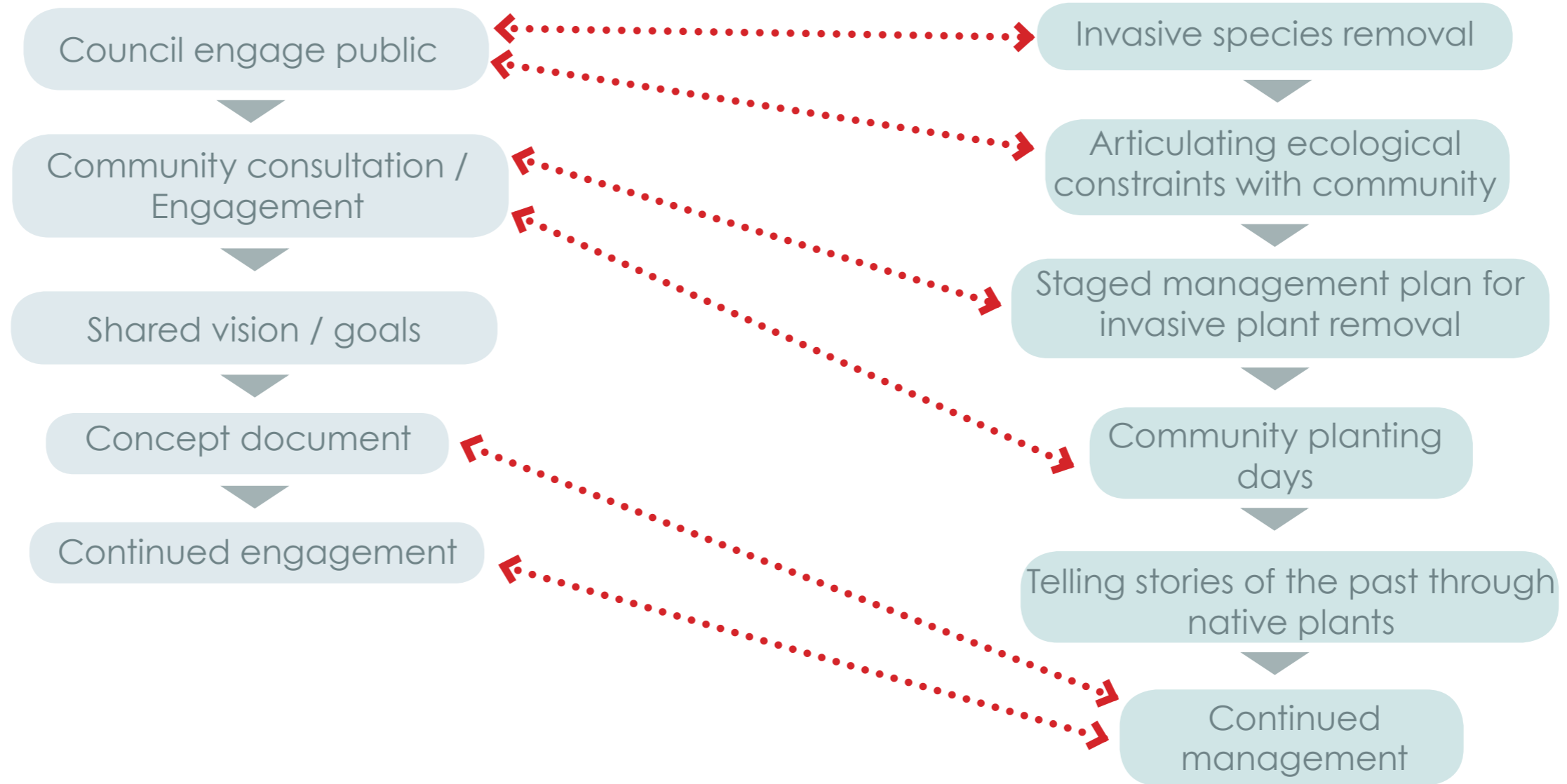
Bank Stabilisation

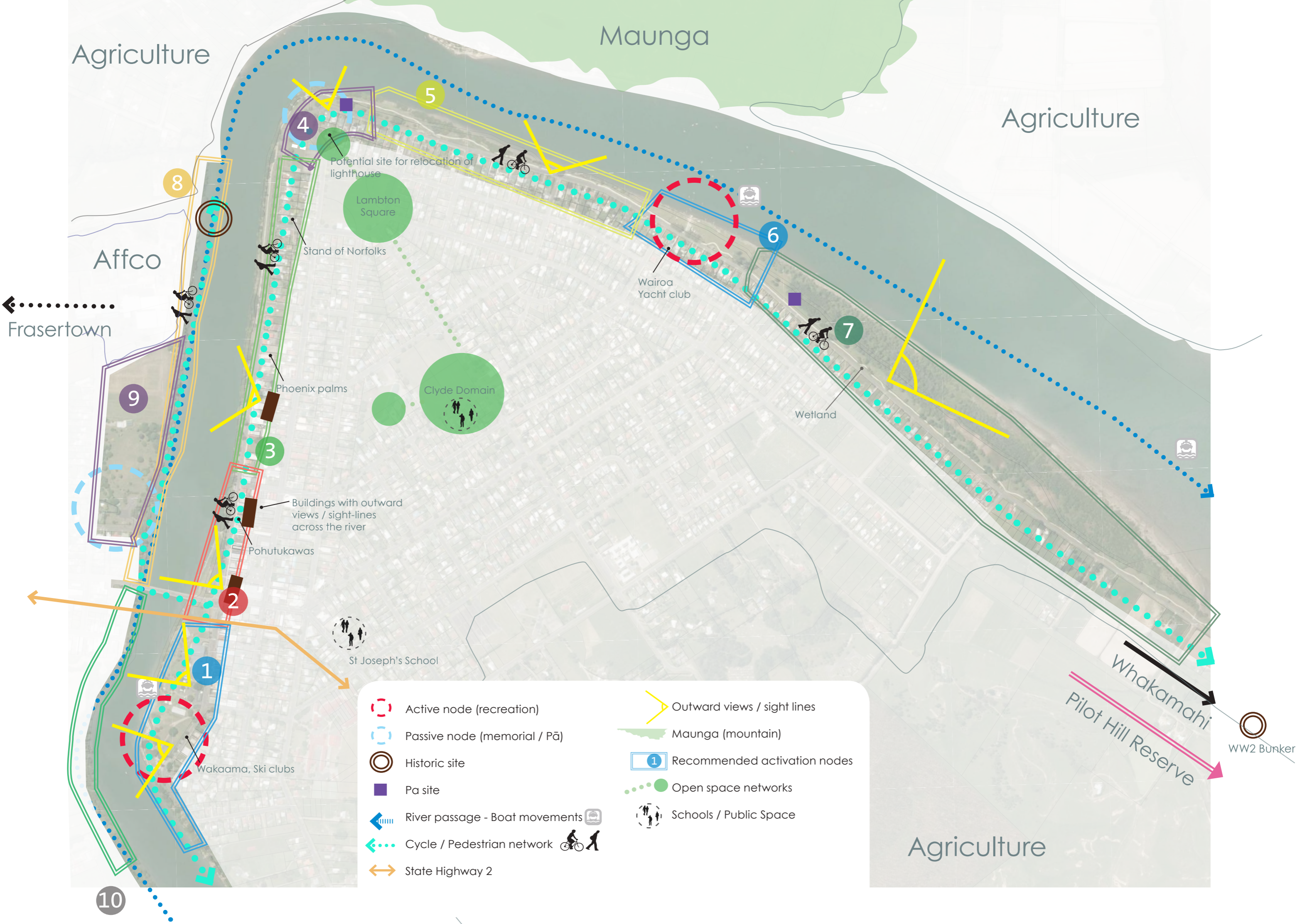
Narrating these stories in Wairoa



Community

Ecology





Agriculture

Maunga

Agriculture

Affco

Frasertown

Potential site for relocation of lighthouse

Lambton Square

Stand of Norfolks

Wairoa Yacht club

Clyde Domain

Wetland

Phoenix palms

Buildings with outward views / sight-lines across the river

Pohutukawas

St Joseph's School
















Wakaama, Ski clubs

Whakamahi

Pilot Hill Reserve

WW2 Bunker

Agriculture

-  Active node (recreation)
-  Passive node (memorial / Pā)
-  Historic site
-  Pa site
-  Recommended activation nodes
-  Open space networks
-  Schools / Public Space
-  Outward views / sight lines
-  Maunga (mountain)
-  Recommended activation nodes
-  Open space networks
-  Schools / Public Space
-  River passage - Boat movements
-  Cycle / Pedestrian network
-  State Highway 2

- 1 Recreation Precinct - Watersports, Camping
- 2 High Activity (Urban)
- 3 Promenade
- 4 Passive space
- 5 Leisure / park land
- 6 Water sports
- 7 Long term wetland
- 8 Sir James Carroll Walkway
- 9 Passive space
- 10 Restoration - bank stabilisation

Connecting up the dots

This strategy was initiated in order to undertake an in depth investigation of Wairoa

Considering the bigger picture allowed us to see relationships in land uses and how they interact with one another, contributing to the character of Wairoa waterfront

After looking at the identity of Wairoa waterfront, 10 nodes of social and ecological significance were identified. The potential to connect these nodes and allow them to interact will lead to a linear park with an outlook of the Wairoa river, acknowledging it as an important part of the town

An existing concrete path as a shared pedestrian and cycle link provides access as far as Whakamahi. Creating visually aesthetic spaces and destinations along this pathway will draw people further from the town centre, and allow the public to experience Wairoa's adapting landscape

Pause spots along this pathway aim to tell a story of the histories of Wairoa adding layers of meaning from times gone by. Plants will be used as markers, connecting these stories to the ecology of place and creating a visual reminder that more stories are to come

Enhancing and invigorating community spaces and urban environments also play an important part in reinvigorating Wairoa

The following pages investigate each node and illustrate planting recommendations, design strategies and specific long term goals for the Wairoa River

Note: Refer to plans of nodes for specific details regarding activities / landuses.

Bank stabilisations

primary (0 - 15 yrs)

- Critical to ensure Wairoa River does not erode further
- Provide Habitat - Mahinga Kai
- Reduce public making their own tracks, eroding edge further - safety
- Create legible access points through jetties and viewing platforms to reduce erosion and connect the public to the river

Amenity plantings

secondary (0-50 yrs)

- Visually appealing community and urban spaces
- Define space and promote native flora
- Tell a story of the histories of Wairoa
- Draw people further down the linear waterfront park

Make the awa more accessible for the community





River edge

Elevated, flat, low, medium

River edge specimen

Medium, tall, clusters

Ground cover

Low lying, ie. carex spp.

Bulk Harakeke

Swathes of harakeke defining space, layers of planting

Native specimen

Clusters of native specimens, markers to tell a story

Non Native

Additional to supplement existing amenity. Add colour and provide food and habitat for bird and insect life

Wetland / Salt marsh

- Create a thriving habitat and draw native bird and insect life back to Wairoa
- Cleansing water on its way out to sea
- Mahinga Kai - Food and fibre production source
- Engage with public, initiate community planting days, and teach younger generations about ecology and looking after your environment
- Create an access way so people can experience the wetland
- Invasive species removal will be needed as part of this restoration process

Coastal edge

Saline and often windswept. Species for varying layers

Saline wetland

Various layers / heights of plants to withstand varying degrees of saline levels

After analysis of Wairoa planting recommendations (plant typologies) and indicative plant lists have been developed which reflect the unique and varying contours of Wairoa river bank. Critical areas for bank stabilisation have also been identified, as well as a time frame which considers primary and secondary planting layers

These typologies include: Bank stabilisation (primary) and Amenity plantings (secondary) as overarching themes, which are then filtered down to consider different elevations and plants which would be most suitable in these environments




Along with these typologies specific removals of invasive species and time frames for both removals and rehabilitation have been identified for each node





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Key

-  Existing Amenity Specimen (exotic)
-  Low level bank stabilisation
-  Recommended Native species

Wairoa Ski club

Existing amenity specimens

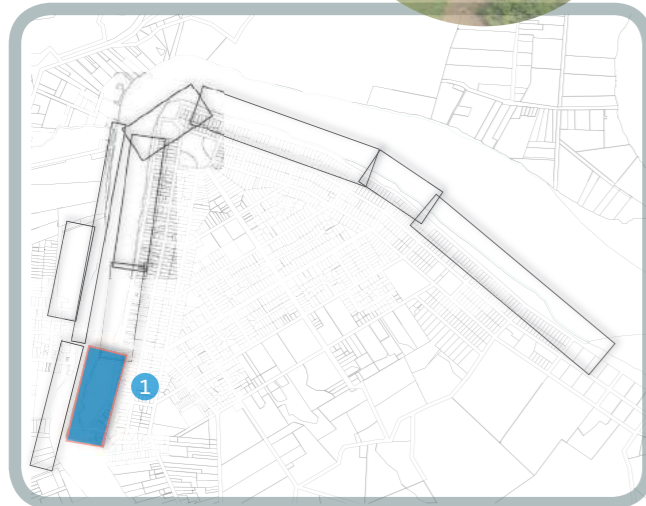
Rowing / Wakaama club

Camping grounds

Alexandra Park Community Centre



Existing



Existing:

Ski Club, Whakaama, Rowing Camping ground. Sporadically placed exotic specimens

Recommendations:

- Manage as a 'parkland'
- Open space, amenity trees - providing shade, however also open enough to watch boat races
- Open space to accommodate gathered crowds
- Lower riverside planting (Banks stabilisation flat edges)
- Beach for launching waka
- BBQ areas, tables, shaded areas (simple design, local materials and artists engaged for public space furniture)



Recommended



Plant schedule

	Botanical name	Common name	Grade (L)	Centres	Plant %	Notes
Bank stabilisation - low level	<i>Juncus planifolius</i>	Giant Rush	1.5	0.5	15%	Planted as swathes of single species
	<i>Eleocharis sphacelata</i>	Kuta	1.5	0.5	15%	Traditional weaving species (soft hats, mats, kete. To be planted in low-lying wetland, separate from estuary. Planted as swathes of single species
	<i>Carex spp.</i> <i>Phormium spp.</i>	Pukio, Purei Harakeke	1.5 1.5	0.5 0.5	20% 20%	Bank stabilisation Various harakeke species, planted in swathes of single species
	<i>Juncus Kraussii var. australiensis</i>	Oioi	1.5	0.5	20%	Swathes of single species (as these species would have occurred historically)
Total	<i>Juncus australis</i>	Wiwi	1.5	0.5	10%	Swathes of single species
					100%	

Amenity species	<i>Phormium spp.</i>	Harakeke	1.5	0.5	30%	Secondary planting set back from edge (poor for stabilisation on elevations)
	<i>Plagianthus divaricatus</i>	Mākaka (Salt Marsh Ribbonwood)	1.5	1	-	Important for bank stabilisation
	<i>Cordyline australis</i>	Ti kouka	1.5	1	-	Linking to the linear prevalence of Cabbage trees in Hawke's Bay
	<i>Metrosideros excelsa</i>	Pohutukawa	60	1	-	Add to existing pohutukawa specimens

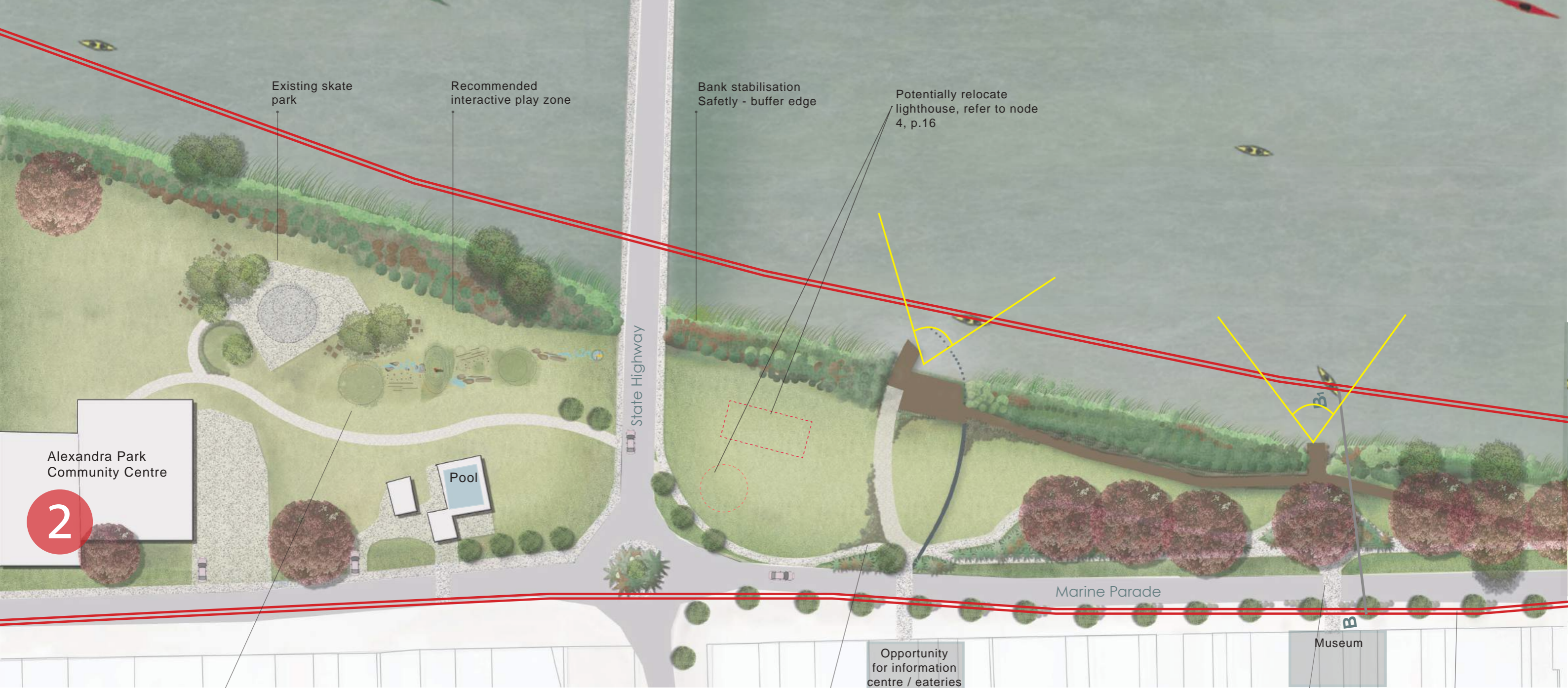
Cross Section



A Recommended bank stabilisation. Species include Wiwi, Kuta and few specimens such as Mākara (Salt Marsh Ribbonwood)

Recommended clusters of native species to complement existing exotic species. This will also ensure a food source for native wildlife throughout the year

A₁



Recommended Interactive Play Zone

To include water-play, mounds to climb, and structures made of natural materials to climb. This interactive play is tactile and relates to the identity of Wairoa and the affinity Wairoa community has with water. For tourists in the summer months sculptural seating is recommended under shaded trees as parents watch there kids play and interact with the land. Set back from the waters edge, along with safety planted buffers this site draws people under the bridge and allows the appreciation of both sides of the road

Heart of Wairoa - public space

Designed space which draws people out over the river and connect with Wairoa river at a sensory level. Sculptural components on one side reflects the creativity of the community, as well as the possibility to reflect the Māori dimension to landscape. Platform nearest the river draws people out of the street and allows them to connect with place, this connects to the lower level of the river as a board-walk continues and connects back with the existing concrete pathway. The shape of this design reflects Takitimu's canoe as it travelled down the river and was laid to rest. This arrangement also draws the eye to the other side of the river and Sir James Carroll Historic Walkway

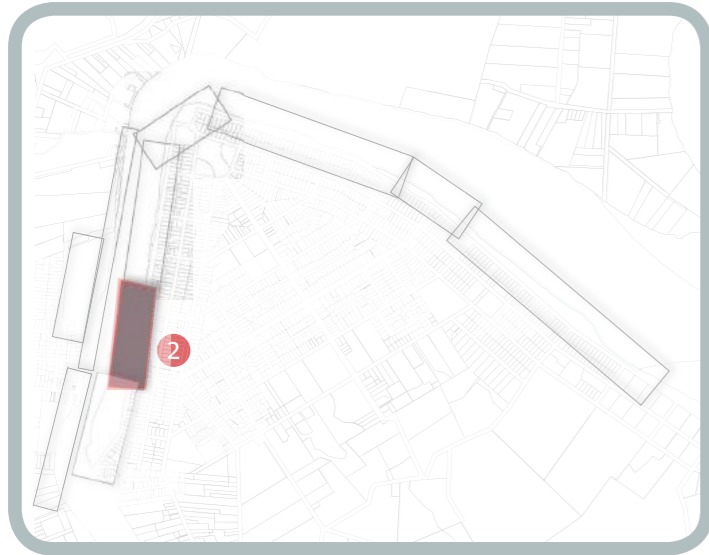
Pedestrian crossings to slow vehicles and connect to retail, located at intervals along Marine Parade

Pulling planting to other side of the road to link both sides. Possible native specimens

Existing



Urban Node 2



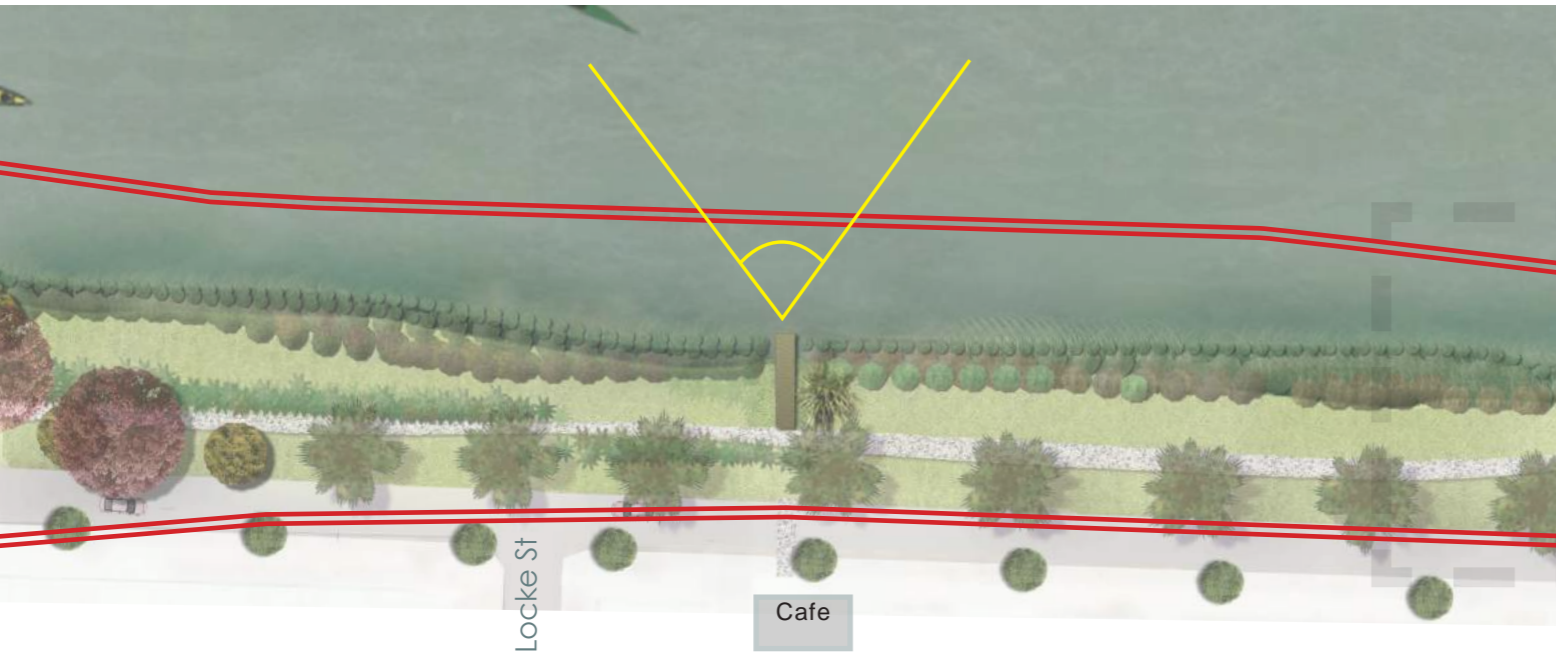
Existing:

Pohutukawa's, small amount of low level amenity plants, playground (to be removed). Phoenix plants self seeding in many locations. Removal has begun. Willows also to be removed at a later stage. Skate park and community facilities

Recommended:

- Focus on native amenity planting
- Open views, remove seeding phoenix palms
- Playground - non-prescribed, tactile
- Spatial definitions, paths, accessible, connect to river. Cycle and pedestrian
- Integrate or relocated Lighthouse
- Relocate stainless steel map (node 4)
- Create connections - streetscape / shops and river
- Banks stabilisation, planting along the edge flat and elevated.
- Wharf / Pontoon connecting the public to the river. Gathering space (ie. Concerts, performances)

Recommended



B
Cross Section









Plant schedule

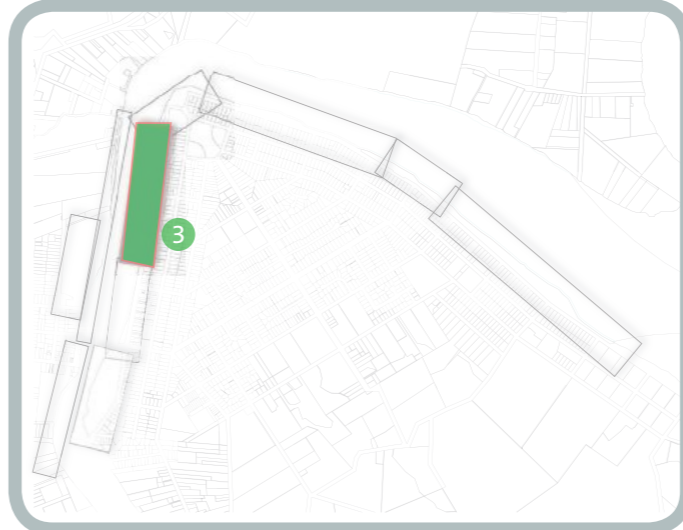
- Key**
- Existing Pohutukawa species to retain
 - Existing Phoenix Palm to retain - remove those seeding on banks
 - Recommended low level planting - Bank stabilisation
 - Platforms / Jetty connecting people with the river. Providing accessibility for fishing, outwards views
 - Pedestrian crossings to slow traffic and connect both sides of the street

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		<i>Carex spp.</i>	Pukio, Purei	1.5	0.5	20%	Bank stabilisation
		<i>Phormium spp.</i>	Harakeke	1.5	0.5	20%	Various harakeke species, planted in swathes of single species
		<i>Juncus Kraussii var. australiensis</i>	Oioi	1.5	0.5	20%	Swathes of single species (as these species would have occurred historically)
	<i>Juncus australis</i>	Wivi	1.5	0.5	20%	Swathes of single species	
	Total					100%	
Secondary	Amenity specimens	<i>Phormium spp.</i>	Harakeke	1.5	0.5	30%	Secondary planting set back from edge (poor for stabilisation on elevations)
		<i>Plagianthus divaricatus</i>	Mākaka (Salt Marsh Ribbonwood)	1.5	1	-	Important for bank stabilisation
		<i>Cordyline australis</i>	Ti kouka	1.5	1	-	Linking to the linear prevalence of Cabbage trees in Hawkes Bay
		<i>Metrosideros excelsa</i>	Pohutukawa	60	1	-	Add to existing pohutukawa specimens

Note: Existing exotic amenity species along promenade to be retained (unless they are invasive ie. Phoenix palm) Retain Norfolk Pine

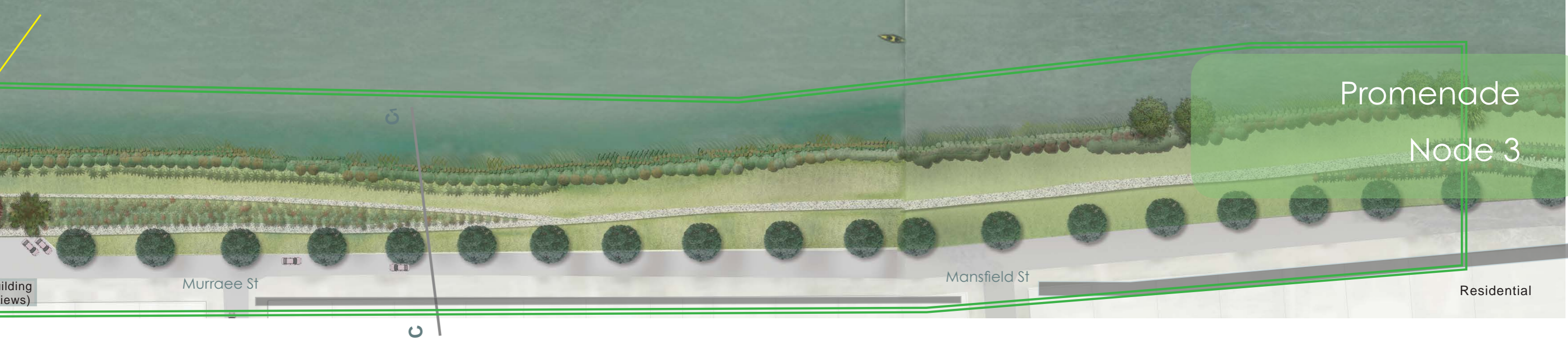


- Key**
-  Existing Pohutukawa species to retain
 -  Existing Phoenix Palm to retain - remove those seeding on banks
 -  Existing Norfolk Pines to retain
 -  Recommended low level planting - Bank stabilisation
 -  Platforms / Jetty connecting people with the river. Providing accessibility for fishing, outwards views
 -  Pedestrian crossings to slow traffic and connect both sides of the street
 -  Swaths of flax. Framing outward views and directing spatial arrangements this single species is also remnant of how harakeke used to grow prior to settlement in Aotearoa, New Zealand
 -  Existing concrete path - promenade along water front. Remove invasive species for outward views



- Existing:**
- Rows of Phoenix Palms and Norfolk Pines. Retain specified rows, however remove seeding Phoenix. Removal of seeding phoenix and some willow will open outward views. Views especially to Cinema (historic building), cafe and other well used shops.
- Recommended:**
- Manage views outwards
 - Areas of open space
 - Promenade
 - Connect to notable buildings on other side of the street
 - Remove seeding phoenix
 - Occasional steps / viewing platforms to the river
 - Dense riparian vegetation (bank stabilisation, elevated)
 - Pause / wayfinding points (storytelling)
 - Occasional seating





Existing



Primary

Secondary

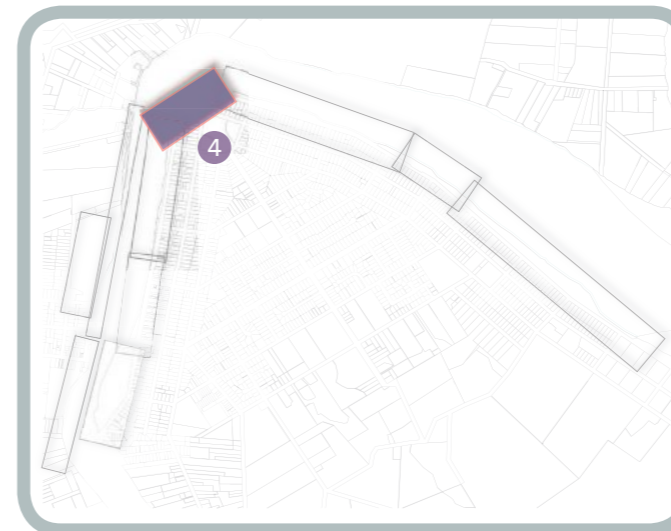
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	<i>Carex spp.</i>	Pukio, Purei	1.5	0.5	15%	Bank stabilisation
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	<i>Juncus Kraussii var. australiensis</i>	Oioi	1.5	0.5	20%	Swathes of single species (as these species would have occurred historically)
Total	<i>Juncus australis</i>	Wiwi	1.5	0.5	15%	Swathes of single species
Amenity specimens	<i>Phormium spp.</i>	Harakeke	1.5	0.5	-	Secondary planting set back from edge (poor for stabilisation on elevations)
	<i>Plagianthus divaricatus</i>	Mākaka (Salt Marsh Ribbonwood)	1.5	1	-	Important for bank stabilisation
	<i>Cordyline australis</i>	Ti kouka	1.5	1	-	Linking to the linear prevalence of Cabbage trees in Hawke's Bay
	<i>Metrosideros excelsa</i>	Pohutukawa	60	1	-	Add to existing pohutukawa specimens

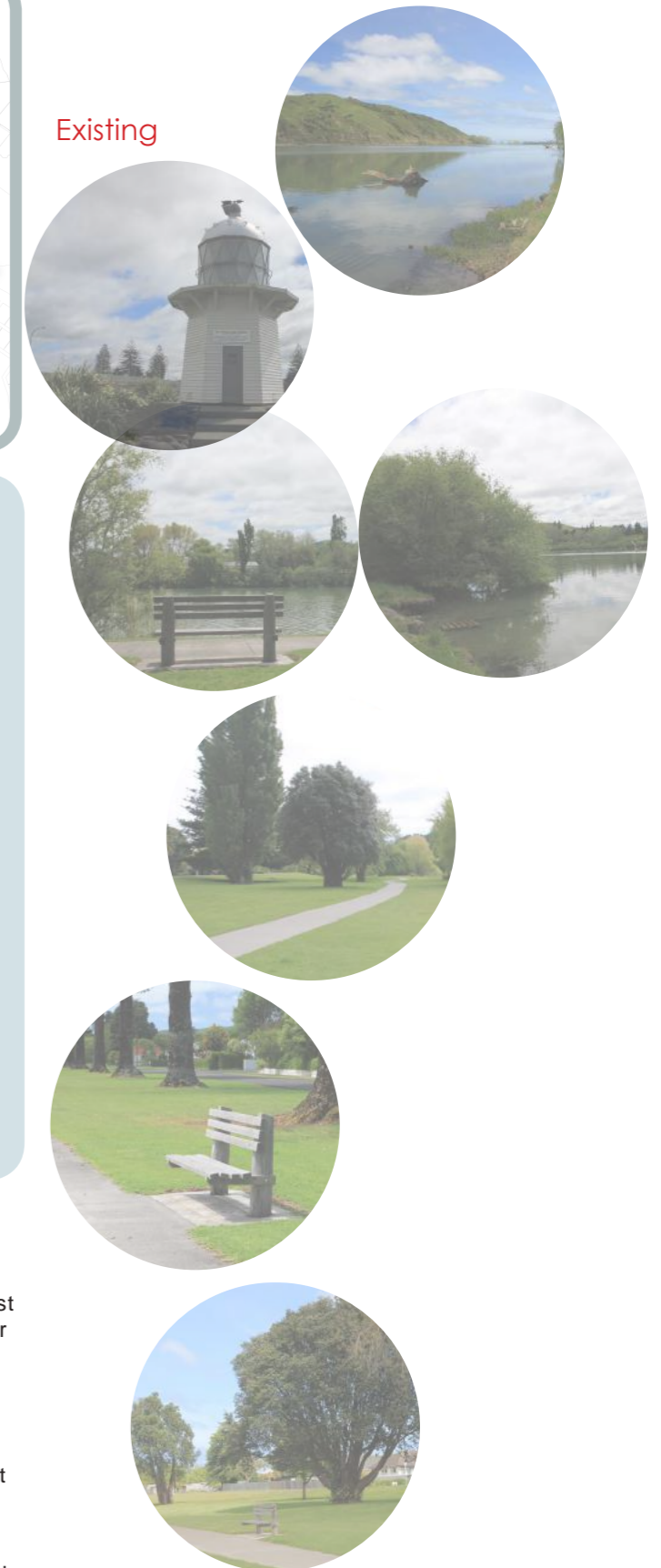
Recommended



Note: Existing exotic amenity species along promenade to be retained (unless they are invasive ie. Phoenix palm) Retain Norfolk Pine



Existing









Existing:

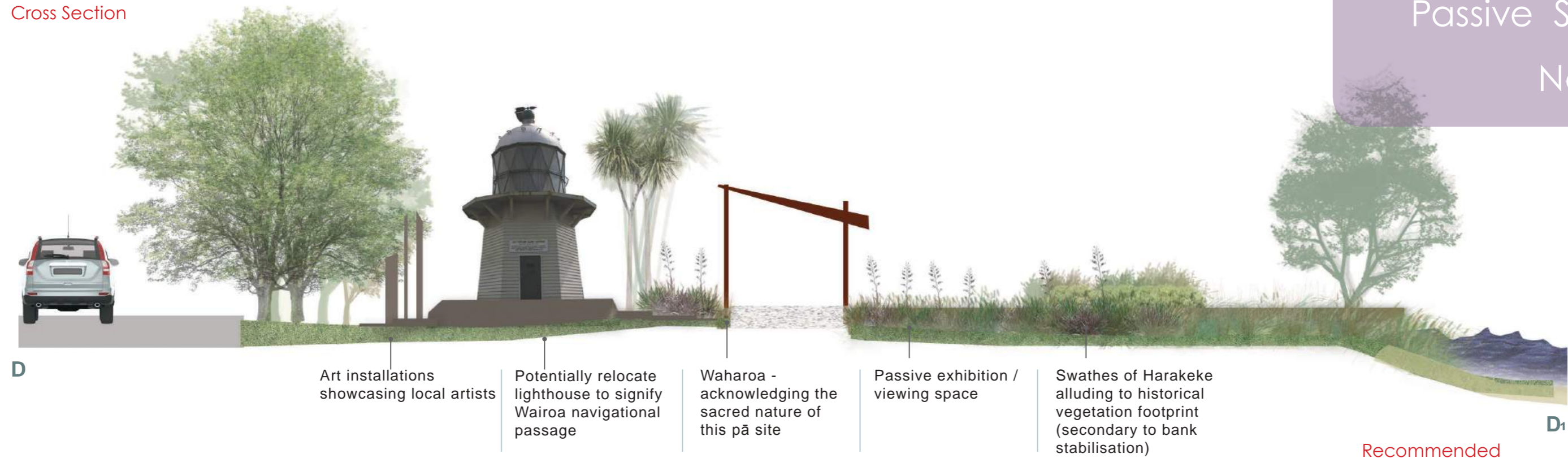
Open, views to maunga. Concrete slab, possible lighthouse location. Sporadically planted deciduous specimens. Concrete path which runs through all nodes. Adjacent open space

Recommended:

- Recognise Pā site
- Native vegetation to help tell these stories
- Riparian planting (Bank stabilisation, flat)
- Opportunity for sculpture park - exhibit space
- Relocate lighthouse to concrete slab?
- Board-walks in some locations to rivers edge only
- Connect to wider open space network

Key

-  Existing exotic amenity specimens to retain, providing colour and offering food to birds and insects through winter months when most native species don't produce enough food for birds
-  Recommended low level planting - Bank stabilisation
-  Recommended Ti kouka (Cabbage) this plant linking to its long history in Hawkes Bay
-  Existing Concrete platform as the recommended location for the lighthouse. This site is prime, offering views towards the ocean and beyond
-  Swathes of flax. Framing outward views and directing spatial arrangements this single species is also remnant of how harakeke used to grow prior to settlement in Aotearoa, New Zealand
-  Existing concrete path - promenade along water front through parkland landscape



Art installations showcasing local artists

Potentially relocate lighthouse to signify Wairoa navigational passage

Waharoa - acknowledging the sacred nature of this pā site

Passive exhibition / viewing space

Swathes of Harakeke alluding to historical vegetation footprint (secondary to bank stabilisation)

Plant schedule

Primary
Secondary

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	<i>Hebe stricta var. stricta</i>	Koromiko	1.5	1	-	
	<i>Pittosporum crassifolium</i>	Karo	1.5	1	-	
	<i>Myoporum laetum</i>	Ngaio	1.5	1	-	
	<i>Myrsine australis</i>	Matipo	1.5	1	-	Native spp. Sporadically clustered with existing exotic spp.
	<i>Cordyline australis</i>	Ti kouka	1.5	1	-	Linking to the linear prevalence of Cabbage trees in Hawkes Bay
	<i>Metrosideros excelsa</i>	Pohutukawa	60	1	-	Specimen tree along parkland

Recommended



Note: Existing exotic amenity species in parkland to be retained (unless they are invasive)



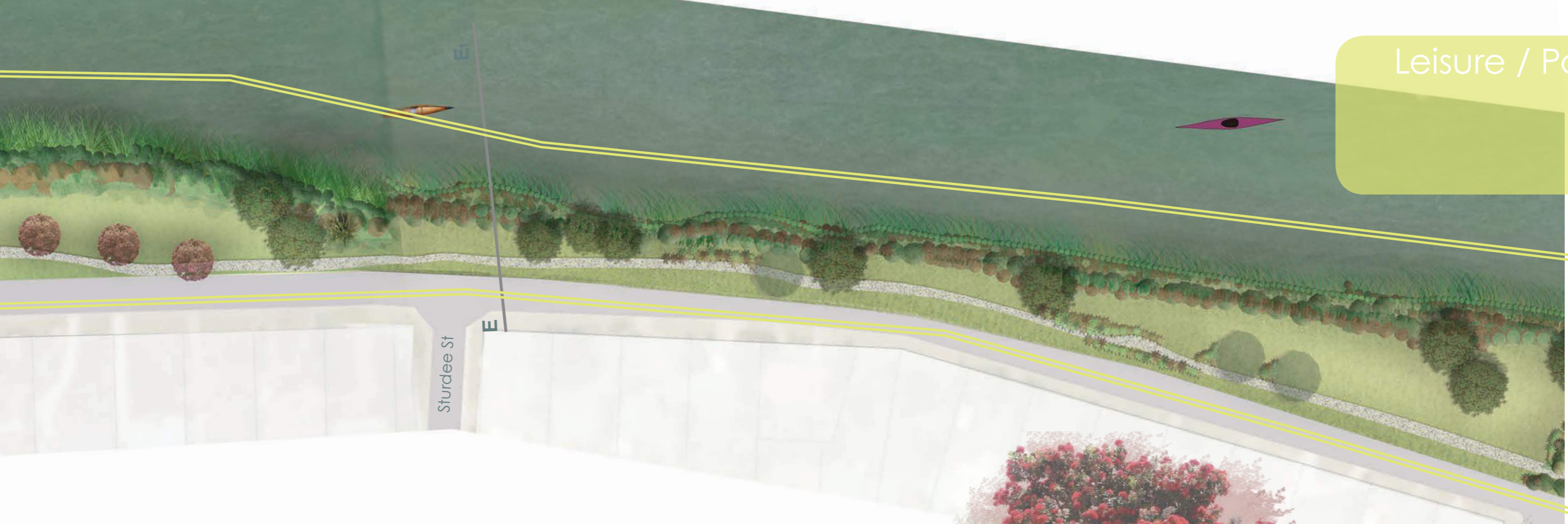
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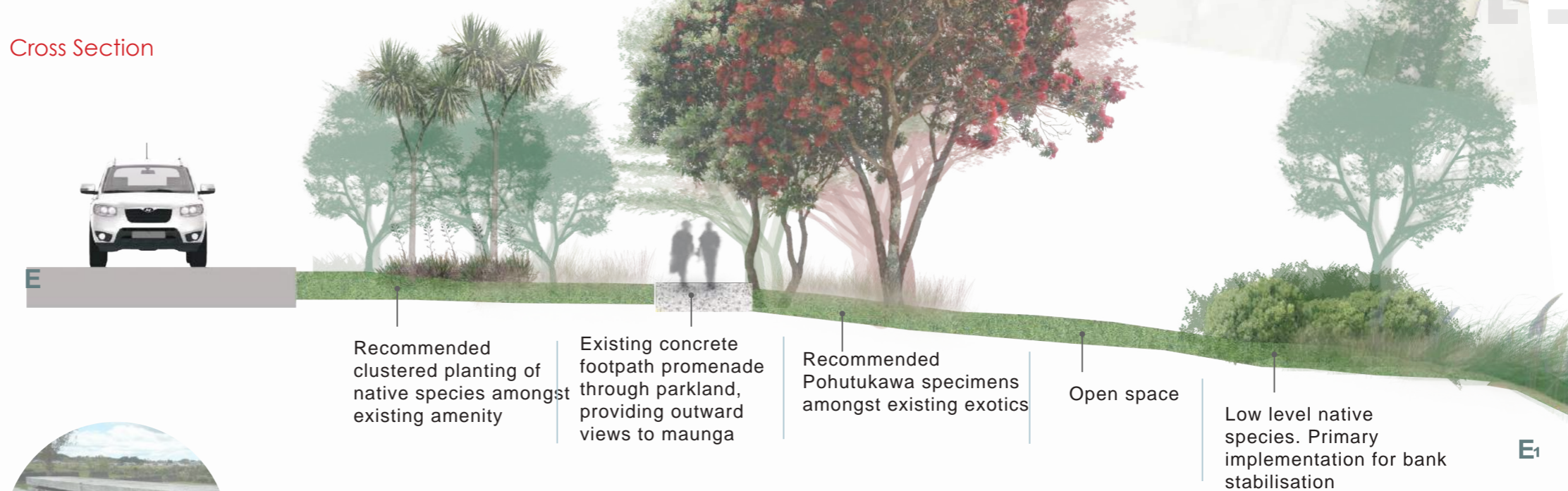
Key

-  Existing exotic amenity specimens to retain, providing colour and offering food to birds and insects through winter months when most native species don't produce enough food for birds
-  Recommended low level planting - Bank stabilisation
-  Recommended Ti kouka (Cabbage) this plant linking to its long history in Hawke's Bay
-  Swathes of flax. Framing outward views and directing spatial arrangements this single species is also remnant of how harakeke used to grow prior to settlement in Aotearoa, New Zealand
-  Existing concrete path - promenade along water front through parkland landscape

Note: Existing exotic amenity species in parkland to be retained (unless they are invasive)



Cross Section



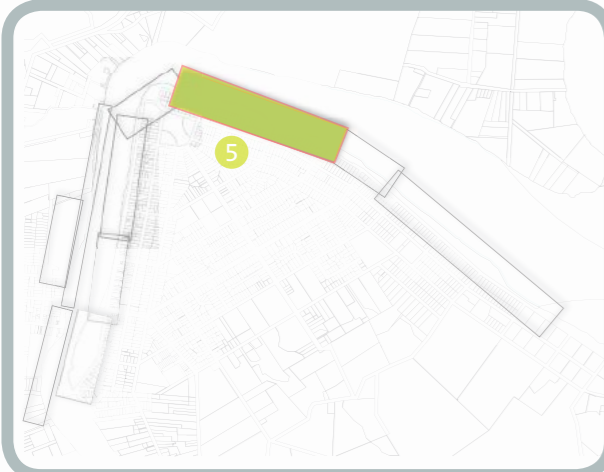
Recommended clustered planting of native species amongst existing amenity

Existing concrete footpath promenade through parkland, providing outward views to maunga

Recommended Pohutukawa specimens amongst existing exotics

Open space

Low level native species. Primary implementation for bank stabilisation



- Existing:**
Occasionally clustered exotic species (well developed). Willows close to the edge, causing erosion. Parkland landscape
- Recommended:**
- Protect outward views towards maunga
 - Promenade, parkland
 - Plant natives amongst exotic specimens, i.e. cabbage (prominent in Hawke's Bay)
 - Riparian planting (bank stabilisation, flat) some rocks may be needed to ensure erosion control in some locations

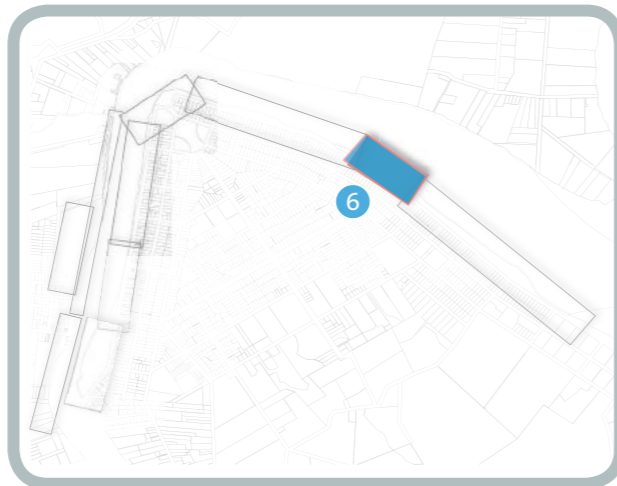
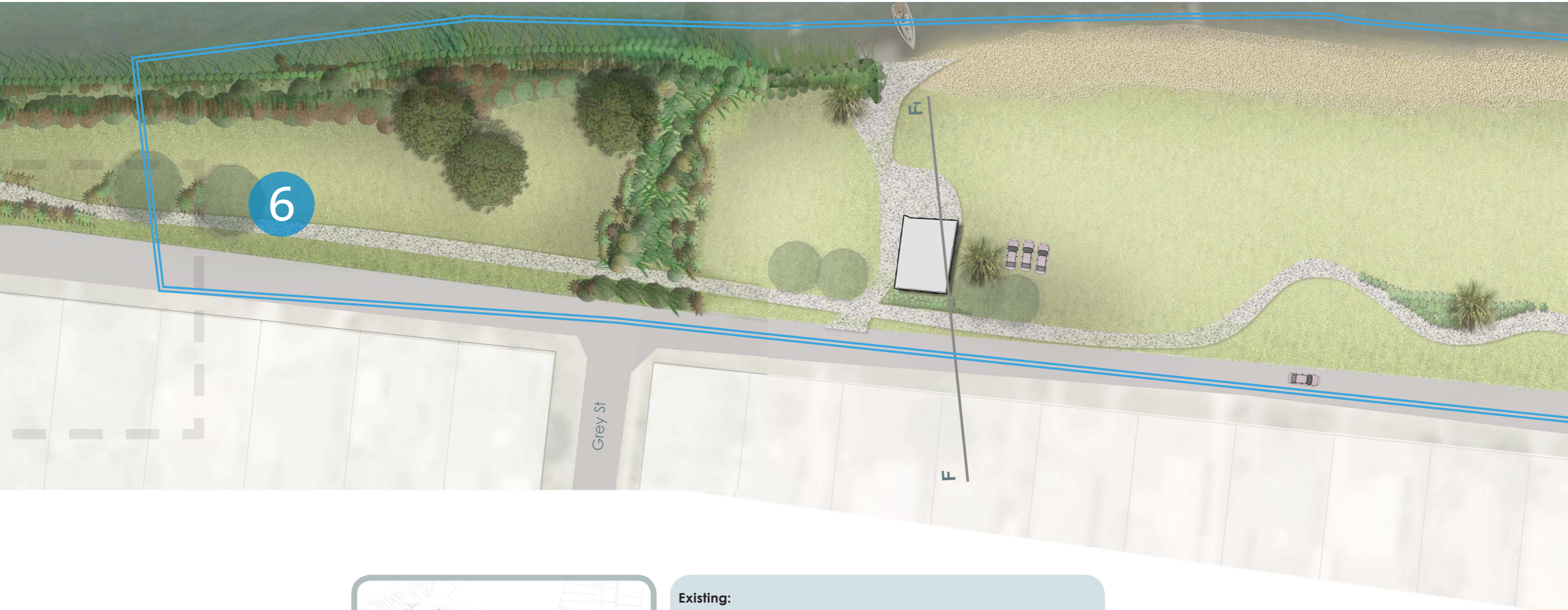


Recommended



Existing





Existing:

Parkland environment, runoff points, opportunity to plant these to filter before moving into river. Yacht club. Open space, turn around on the grass. Open outlook towards maunga.

Recommended:

- Riparian planting (bank stabilisation, flat)
- Add native to exotic specimens to create a parkland
- Planting swales (runoff) ditches to filter runoff
- Beginning of dense wetland (node 7)







Existing



Recommended

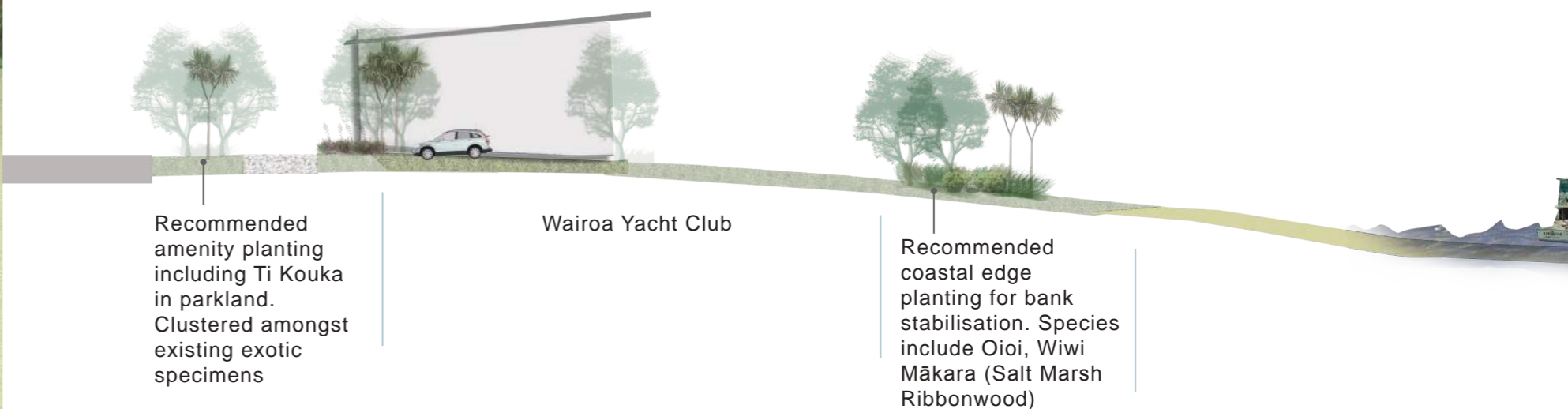


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-  Recommended low level planting - Bank stabilisation
-  Recommended Ti kouka (Cabbage) this plant linking to its long history in Hawkes Bay
-  Existing concrete path - promenade along water front through parkland landscape
-  Swale - residential runoff treatment before storm-water enters Wairoa River. Species same as low level mix
-  Wetland beginning - low level at this stage, coastal



Cross Section



Recommended amenity planting including Ti Kouka in parkland. Clustered amongst existing exotic specimens

Wairoa Yacht Club

Recommended coastal edge planting for bank stabilisation. Species include Oioi, Wiwi Mākara (Salt Marsh Ribbonwood)

Plant schedule

	Botanical name	Common name	Grade (L)	Centres	Plant %	Notes	
Primary	Low level	<i>Juncus planifolius</i>	Giant Rush	1.5	0.5	20%	Wetland zone - planted as swathes of single species
		<i>Eleocharis sphacelata</i>	Kuta	1.5	0.5	20%	Traditional weaving species (soft hats, mats, kete. To be planted in low-lying wetland, separate from estuary. Planted as swathes of single species
		<i>Typha orientalis</i>	Raupō	1.5	0.5	20%	Plant in swathes as single species
		<i>Carex spp.</i>	Pukio, Purei	1.5	0.5	20%	
		<i>Phormium spp.</i>	Harakeke	1.5	0.5	20%	Various harakeke species, planted in swathes of single species
	Total				100%		
Secondary	Coastal edge	<i>Juncus Kraussii var. australiensis</i>	Oioi	1.5	0.5	35%	Swathes of single species (as these species would have occurred historically)
		<i>Juncus australis</i>	Wiwi	1.5	0.5	30%	Swathes of single species
		<i>Phormium spp.</i>	Harakeke	1.5	0.5	35%	Swathes of single species
		Total				100%	
Secondary	Amenity specimens	<i>Plagianthus divaricatus</i>	Mākaka (Salt Marsh Ribbonwood)	1.5	1	-	
		<i>Hebe stricta var. stricta</i>	Koromiko	1.5	1	-	
		<i>Pittosporum crassifolium</i>	Karo	1.5	1	-	
		<i>Myoporum laetum</i>	Ngaio	1.5	1	-	
		<i>Cordyline australis</i>	Ti kouka	1.5	1	-	Linking to the linear prevalence of Cabbage trees in Hawkes Bay
		<i>Metrosideros excelsa</i>	Pohutukawa	60	1	-	Specimen tree (parklands adjacent to wetland)

Note: Existing exotic amenity species in parklands to be retained (unless they are invasive)



7

G1

G



Existing:

Lowland environment, opportunity to restore as a valuable wetland which connects to whakamahi saltmarsh / wetland. Progressively estuarine environment. Phoenix palms profusely self seeded. Variety of other vegetation including Raupo, Cabbage and Harakeke. Historic pā site.

Recommended:

- Long term wetland / saltmarsh
- Existing vegetation as nurse crops
- Plant for saline saturated soils ie. Ribbonwood
- Occasional access points or views outwards over the river
- Boardwalks
- Staged planting
- Engage community - planting days, connecting people to place
- Ngaio planted along road edge nearer to coastline
- Pohutukawa planting

Key

- Existing exotic amenity specimens to retain, providing colour and offering food to birds and insects through winter months when most native species don't produce enough food for birds
- Recommended low level coastal edge planting, species such as oioi, wiwi and harakeke
- Recommended Ti kouka (Cabbage) this plant linking to its long history in Hawkes Bay
- Existing concrete path - promenade along water front through parkland landscape
- Low, medium wetland planting. Native species providing habitat for native wildlife. Species include Rāupo, Kuta and Giant Rush
- Native amenity species through wetland provide shelter for lower species, as well as habitat and food for native wildlife. As saline levels increase, more species which can withstand saline such as Mākara (Salt Marsh Ribbon Wood) are added
- Native specimens such as Ngaio and Pohutukawa are also recommended in parkland between wetland and road

Cross Section



G

Parkland. Native species such as Pohutukawa recommended to complement existing exotic species

Wetland mix - low level and specimens planted in single species swathes reminiscent of historical wetlands

Coastal edge. Species that can withstand saline environments such as Wiwi and Oioi

G1

Long Term Wetland Node 7



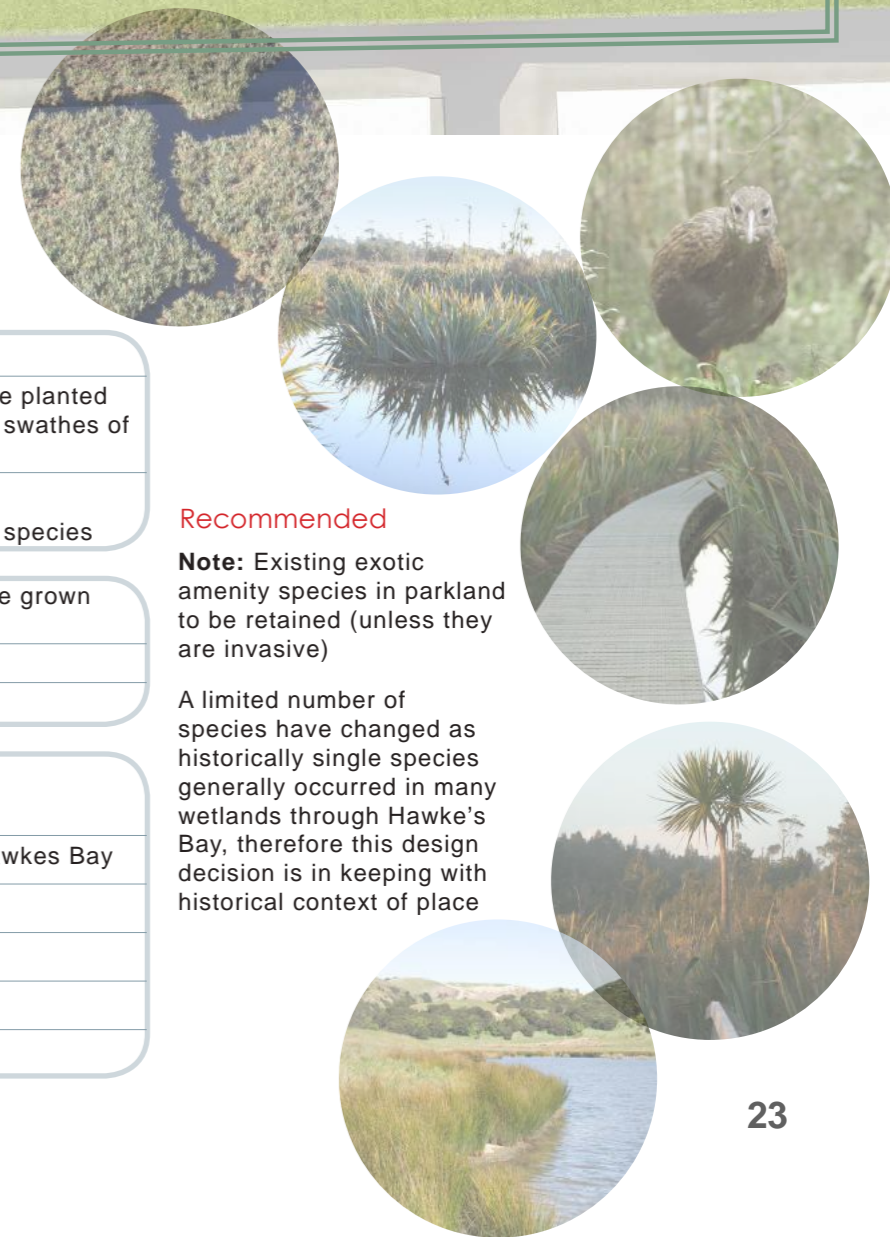
Plant schedule

	Botanical name	Common name	Grade (L)	Centres	Plant %	Notes
Primary	Low level					
	<i>Juncus planifolius</i>	Giant Rush	1.5	0.5	20%	Wetland zone - planted as swathes of single species
	<i>Eleocharis sphacelata</i>	Kuta	1.5	0.5	20%	Traditional weaving species (soft hats, mats, kete. To be planted in low-lying wetland, separate from estuary. Planted as swathes of single species
	<i>Typha orientalis</i> <i>Phormium spp.</i>	Raupō Harakeke	1.5 1.5	0.5 0.5	30% 30%	Plant in swathes as single species Various harakeke species, planted in swathes of single species
Coastal edge	<i>Juncus Kraussii var. australiensis</i>	Oioi	1.5	0.5	35%	Swathes of single species (as these species would have grown historically)
	<i>Juncus australis</i>	Wiwi	1.5	0.5	35%	Swathes of single species
	<i>Phormium spp.</i>	Harakeke	1.5	0.5	30%	Swathes of single species
Secondary	Amenity specimens					
	<i>Plagianthus divaricatus</i>	Mākaka (Salt Marsh Ribbonwood)	1.5	1	25%	(Some amenity spp. also through wetland)
	<i>Cordyline australis</i>	Ti kouka	1.5	1	10%	Linking to the linear prevalence of Cabbage trees in Hawkes Bay
	<i>Hebe stricta var. stricta</i>	Koromiko	1.5	1	10%	
	<i>Pittosporum crassifolium</i>	Karo	1.5	1	10%	
	<i>Myoporum laetum</i>	Ngaio	1.5	1	10%	
<i>Metrosideros excelsa</i>	Pohutukawa	60	1	-	Specimen tree (parkland adjacent to wetland)	

Recommended

Note: Existing exotic amenity species in parkland to be retained (unless they are invasive)

A limited number of species have changed as historically single species generally occurred in many wetlands through Hawke's Bay, therefore this design decision is in keeping with historical context of place





Node 8 - Sir James Carroll Walkway

Existing:

Clusters of native and exotic specimens adjacent to the riverfront. Bamboo stands (need removal) Willows, beginning to be removed, however more removal needed. Phoenix palm removal. Vehicles traversing walkway. Limestone path

Recommended:

- Connect to the stories of Sir James Carroll and narrate these through wayfinding, storytelling in the landscape
- Cabbage tree memorial at the end of the walk. Plant Cabbages along the walk to illustrate the species importance
- Cluster native vegetation in amongst existing plants. Specimen, medium and low species
- Riparian planting. Bank stabilisation (varying terrain).
- Enhance Waiahere Stream (Whitebait habitat)
- Interpretive signage
- Connect to surrounding open space, outward views
- Control vehicle access (2 points) to prevent through vehicle access

Node 9 - Recreation, Passive Space (WW2 Memorial)

Existing:

Open space which includes sporadically placed exotic specimen trees. Recreational fields, facilities. Passive space (WW2 memorial, stand of jacarandas which represent the number of people who lost there lives in battle)

Recommended:

- Tell the story of the WW2 memorial. Design seating / resting spots to be reflective in the memorial space
- Enhance amenity value of sports fields, connect with Affco
- Connect spatially to Sir James Carroll walkway
- Buffer / Screen Affco, however also create an obvious spatial connection, promoting workers to access open space at lunch time
- Clusters of native specimens amongst exotics
- Lower level amenity species near Affco (entranceway to open space) and to recreational facilities

Sir James Carroll Walkway

Node 8, 9



Create pedestrian connections to Affco, allowing workers to utilise this space and appreciate the river

9

Flaxmill Wharf - Earliest commercial structure in town



Bank stabilisation - elevated surface. Species such as Kuta and Oioi

Recommended complementary re-vegetation planting alongside existing native species. Removal of invasive species will be needed before planting. For example Bamboo and Phoenix Palms

Recommended complementary re-vegetation planting

Parkland / Open space

Recommended buffer planting, restricting views into Affco. Designed access way will encourage workers to come and appreciate the river and surrounding landscape

Existing



Plant schedule








Primary

	Botanical name	Common name	Grade (L)	Centres	Plant %	Notes
Bank Stabilisation (Elevated)	<i>Juncus planifolius</i>	Giant Rush	1.5	0.5	10%	Wetland zone - planted as swathes of single species
	<i>Eleocharis sphacelata</i>	Kuta	1.5	0.5	10%	Traditional weaving species (soft hats, mats, kete. To be planted in low-lying wetland, separate from estuary. planted as swathes of single species
	<i>Typha orientalis</i>	Raupō	1.5	0.5	20%	Pant in swathes as single species
	<i>Phormium spp.</i>	Harakeke	1.5	0.5	20%	Various harakeke species, planted in swathes of single species
	<i>Juncus Kraussii var. australiensis</i>	Oioi	1.5	0.5	15%	Swathes of single species (as these species would have occurred historically)
	<i>Juncus australis</i>	Wiwi	1.5	0.5	10%	Swathes of single species
	<i>Phormium spp.</i>	Harakeke	1.5	0.5	15%	Swathes of single species
Total					100%	

Secondary

Revegetation planting	<i>Plagianthus divaricatus</i>	Mākaka (Salt Marsh Ribbonwood)	1.5	1	15%	(Some amenity spp. also through wetland)
	<i>Hebe stricta var. stricta</i>	Koromiko	1.5	1	5%	
	<i>Pittosporum crassifolium</i>	Karo	1.5	1	10%	
	<i>Myoporum laetum</i>	Ngaio	1.5	1	10%	
	<i>Meliccytus ramiflorus</i>	Mahoe	1.5	1	10%	
	<i>Alectryon excelsus subsp. excelsus</i>	Titoki	1.5	1	5%	
	<i>Dacrycarpus dacridoides</i>	Kahikatea	1.5	1	5%	
	<i>Corynocarpus laevigatus</i>	Karaka	1.5	1	5%	
	<i>Cordyline australis</i>	Ti kouka	1.5	1	10%	Linking to the memorial walk / passage for Sir James Carroll - marker along the journey
	<i>Vitex lucens</i>	Puriri	1.5	1	5%	
	<i>Myrsine australis</i>	Mapou	1.5	1	5%	
	<i>Coprosma grandifolia</i>	Kanono	1.5	1	5%	
	<i>Coprosma robusta</i>	Karamu	1.5	1	5%	
<i>Pseudopanax arboreus</i>	Whauwhaupaku (Five finger)	1.5	1	5%		
Total					100%	
	<i>Metrosideros excelsa</i>	Pohutukawa	60	1	-	Specimen tree (parklands adjacent to wetland)

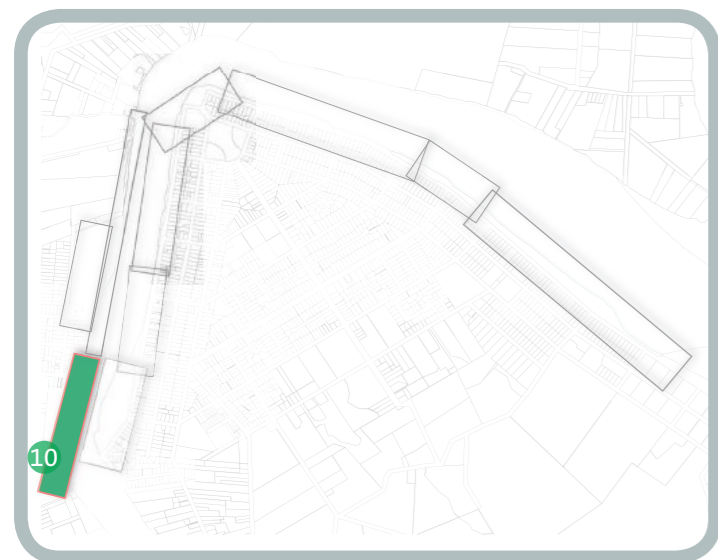
Key

-  Existing exotic amenity specimens to retain, providing colour and offering food to birds and insects through winter months when most native species don't produce enough food for birds
-  Recommended low level bank stabilisation planting. This includes Giant Rush and Kuta
-  Recommended Ti kouka (Cabbage) this plant linking to its long history in Hawkes Bay, and connect people to the James Carroll Memorial, reminding them of the journey they are on
-  Existing limestone path - promenade along water front through parkland landscape, recommended to design a path to connect up to Affco
-  Recommended re-vegetation species, enhancing native bush already located adjacent to Wairoa River. Invasive species will have to be cleared and managed prior to plantings. Long term regenerative plan for Wairoa.
-  Native specimens such as Ngaio and Pohutukawa are also recommended in parkland between River and Sports field to complement existing exotic specimens on site.
-  WW2 Memorial - Passive and contemplative space

Recommended



Note: Existing exotic amenity species in parklands to be retained (unless invasive)



Existing:
 Very steep existing bank. Row of Norfolk Pines, occasional Phoenix Palms. Bamboo (invasive species, removal needed). Occasional harakeke (retain).





Recommended:

- Dense native planting
- Riparian restoration (bank stabilisation, elevated)
- Bank stability on focus, especially opposite node 1, where river flow is eroding bank
- Native specimens

Existing



Key

-  Existing exotic amenity specimens to retain, providing colour and offering food to birds and insects through winter months when most native species don't produce enough food for birds
-  Recommended low level coastal edge planting, species such as oioi, wiwi and harakeke
-  Bank stabilisation - elevated landform species recommended include Oioi, Kuta and Wiwi
-  Native amenity species adjacent to bank stabilisation species. Recommended that this area has a re-vegetation focus. Re-vegetation species include Karo, Ngaio, Kahikatea and Karaka



Bank stabilisation - elevated surface. Species such as Kuta and Oioi

Recommended complementary revegetation planting alongside existing native species. Removal of invasive species will be needed before planting. For example Bamboo and Phoenix Palms

Recommended



Note: Existing exotic amenity species in parklands to be retained (unless they are invasive)

Plant schedule

Primary

	Botanical name	Common name	Grade (L)	Centres	Plant %	Notes
Bank Stabilisation (Elevated)	<i>Juncus planifolius</i>	Giant Rush	1.5	0.5	10%	Wetland zone - planted as swathes of single species
	<i>Eleocharis sphacelata</i>	Kuta	1.5	0.5	10%	Traditional weaving species (soft hats, mats, kete. To be planted in low-lying wetland, separate from estuary. Planted as swathes of single species
	<i>Typha orientalis</i>	Raupō	1.5	0.5	15%	Plant in swathes as single species
	<i>Phormium spp.</i>	Harakeke	1.5	0.5	15%	Various harakeke species, planted in swathes of single species
	<i>Juncus Kraussii var. australiensis</i>	Oioi	1.5	0.5	25%	Swathes of single species (as these species would have occurred historically)
Total	<i>Juncus australis</i>	Wiwi	1.5	0.5	25%	Swathes of single species
					100%	

Secondary

Revegetation planting	<i>Plagianthus divaricatus</i>	Mākaka (Salt Marsh Ribbonwood)	1.5	1	10%	(Some amenity spp. also through wetland)
	<i>Hebe stricta var. stricta</i>	Koromiko	1.5	1	5%	
	<i>Pittosporum crassifolium</i>	Karo	1.5	1	5%	
	<i>Myoporum laetum</i>	Ngaio	1.5	1	5%	
	<i>Meliccytus ramiflorus</i>	Mahoe	1.5	1	5%	
	<i>Cordyline australis</i>	Ti kouka	1.5	1	10%	
	<i>Alectryon excelsus subsp. excelsus</i>	Titoki	1.5	1	5%	
	<i>Dacrycarpus dacridoides</i>	Kahikatea	1.5	1	5%	
	<i>Corynocarpus laevigatus</i>	Karaka	1.5	1	5%	
	<i>Vitex lucens</i>	Puriri	1.5	1	10%	
	<i>Myrsine australis</i>	Mapou	1.5	1	10%	
	<i>Coprosma grandifolia</i>	Kanono	1.5	1	10%	
	<i>Coprosma robusta</i>	Karamu	1.5	1	10%	
	<i>Pseudopanax arboreus</i>	Whauwhaupaku	1.5	1	5%	
Total					100%	
	<i>Metrosideros excelsa</i>	Pohutukawa	60	1	-	Specimen tree (parklands adjacent to wetland)

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