

Beach Valley Road Weed Free Concept Plan

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1 INTRODUCTION

1.1 Beach Valley Weed Free Project

Beach Valley Road is located in the township of Piha, and is the main access road to the surf beach. In early 2008, local residents banded together to develop their own weed free precinct. The plan is to eradicate weeds from private property, road and stream sides while strengthening the neighbourhood community.

The project has four aims:

- Eradicate weeds
- Plant native plants
- Pedestrian safety
- Vehicular safety

Waitakere City Council (WCC) is providing assistance to the project through the Ranges Neighbourhood Restoration Initiative, and along with residents, has developed a Concept Plan to help to guide weeding and planting activities. The Concept Plan is to include a list of species to be planted along the roadside and in adjacent gardens, as well as a prioritised list of tasks to be undertaken.

1.2 Contribution to the Waitakere Green Network

This project contributes to the objectives of the Green Network, to connect the ranges with the sea, and bring nature into the every day lives of Waitakere residents. It contributes to all five roles of the Green Network:

1. Community involvement in care

The project was initiated and is being conducted by local residents, aided by Waitakere City Council. The project will connect people with their local environment and providing opportunities to learn about weeds and native species.

2. Inspiration to relaxation

The project will improve the streetscape of Beach Valley Road, providing an attractive environment for walking and driving.

3. Ecosystem products

Residents may choose to grow native plants for harvest such as kawakawa for herbal tea, NZ sprinach for food, or harakeke for weaving.

4. Ecosystem services

The residents desire native plants to limit erosion of steep banks and stream sides.

5. Biodiversity

Eradicating weeds and facilitating the regeneration of native plants will provide habitat for native flora and fauna.

1.3 Existing Vegetation

Beach Valley Road has a range of vegetation along the roadside, including a mix of native and exotic species. The habitat ranges from backdune sand substrate through to dry clay and damp stream sides, open to shady areas. The lower portion of the road has a canopy of pohutukawa and karaka trees.

A total of 25 exotic weed species were observed during a site visit of Beach Valley Road. It is possible that some additional species (including annuals) may also be present. Some of the exotic species have been planted for ornamental purposes while others are wild. Detailed information on weed identification and control is available from the Auckland Regional Council (www.arc.govt.nz/plantsearch) or the New Zealand Plant Conservation Network (www.nzpcn.org.nz/exotic_plant_life_and_weeds/advanced_search.asp).

1.4 Weed Free Priorities

1. Keep people motivated by achieving small goals and try not to do too much.
2. Use a targeted approach to eradicate weeds:
 - Prevent weed introduction and spread. Encourage planting of natives and non-invasive exotic species. Ensure that weeds are removed and disposed of correctly. Clean equipment and boots. Vehicles, plants and soil can also introduce weed seeds.
 - Protect weed free areas from invasion. If there are parts of your area that are weed free, make sure that they stay that way. It is much easier to maintain an area weed free by conducting quick checks than it is to eradicate a weed once it has spread.
 - Minimise available weed habitat. Most weeds colonise open sites and disturbed soil. Planting fast growing bushy species on open sites or bush edges can help to prevent weed establishment. Only weed small areas at a time and replant rather than leaving large areas of bare soil. If you have a stand of exotic trees, underplanting can be more beneficial than cutting them down.
 - Eradicate outliers first. Prioritise the removal of small populations and new weeds across your site before they establish more widely. An effective outlier programme can involve a rapid 'sweep' of your site twice per year in early spring and early autumn.
 - Then tackle large weed populations. Start with those species that pose the greatest threat to your ecosystem. These include species that are shade tolerant, climbers and creepers that smother other vegetation, and those that grow and reproduce rapidly.
 - Continue to check your site for weed regrowth or new infestations.
3. Allow natural regeneration of native species to occur.
4. Where there are few seed sources or faster regeneration is desired, plant native species in appropriate habitats.

1.5 Changes Over Time – Achieving Success

1.5.1 The Process of Regeneration

Eradicating environmental weeds can seem like an onerous task. Conducting weed control should be about working with nature to create a healthy, self-sustaining ecosystem.

The key to success is to eliminate both the **weeds themselves**, neighbouring **seed sources** (such as the flowering cape ivy up the road!), as well as the **habitat** where most weeds thrive. Weeding can achieve the first two objectives, while planting native plants achieves the third. Most weeds inhabit open, disturbed sites so shading these areas and planting dense bushy edges of existing patches of bush can help to prevent weed (re-)invasion (Figure 1). Natives can not only support native flora and fauna but they can look great and help to out-compete weeds at the same time.

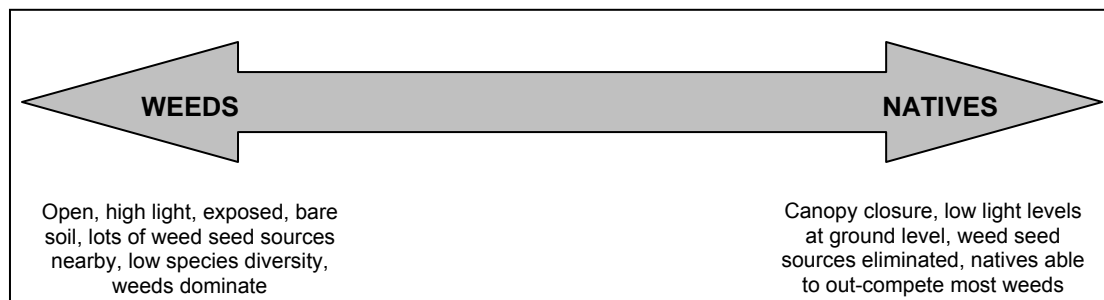


Figure 1: Most weeds prefer open, disturbed sites whereas many natives require the more stable conditions beneath a canopy

1.5.2 Milestones

There are a number of milestones that you can observe as a check that you are creating a successful weed free site. These include:

1. Shade at ground level

Since most weeds prefer open, high light environments, encouraging or planting native plants can help to reduce or eliminate available weed habitat. Shade at ground level can be achieved in a number of ways, from planting large bushy species through to using smaller groundcovers and sedges (e.g. pohuehue; toetoe) which spread out to cover the ground.

2. Weeds not growing where they used to

This is a clear sign that your weed control strategy is working. Once you have eliminated existing populations and have occupied available habitat through planting you should find that fewer weeds establish, and any that do are quick and easy to eradicate.

3. Native seed and fruit present

The presence of seed and fruit on native trees and shrubs is a major step towards the natural regeneration of native plants. Depending upon the plant, it can take from one to several years for it to produce fruit, and many species require both male and female plants to produce viable seed. If these conditions are met and fruit and seed are still not present it is likely that mammalian pests (mice, rats and possums) are the culprit.

4. Native seedlings establishing

Fruit and seeds of native species grow into free, eco-sourced plants. If natives are regrowing naturally this means that the habitat is suitable and there a few or no environmental weeds with which to compete with them. Keep up the good work!

1.5.3 The Role of Gardens, Lawns and Driveways

It is not practical or desirable to have all areas covered in dense native bush. Managed ecosystems such as lawns, driveway edges, even vegetable gardens and ornamental plants can provide valuable ecological functions.

For example, choosing to plant eco-sourced native plants that grow naturally in your area helps to conserve the integrity of local species, and result in more vigorous plants that are better suited to local conditions. They usually require less water and maintenance than exotics, plus are unlikely to become weedy (as many exotic ornamental plants do)!

The choice of plants can also result in improved habitat for native flora and fauna. Dense groundcovers can provide habitat for native insects and skinks. Ornamental plants (both native and exotic) can provide food, habitat and nesting sites for birds. Healthy, vigorous vegetation also provides less opportunity for invasion by weeds – a win, win situation.

1.5.4 Don't Forget Your Neighbours!

The Beach Valley Road project is unique in that it involves a group of landowners working together to create a weed free environment. This is important because plants and animals don't obey human boundaries – if your neighbour has a weed growing in their garden it is more than likely that it will be seeding or otherwise spreading into yours!

Individual properties along Beach Valley road are interconnected as part of a wider coastal ecosystem. Working together with neighbours and applying the principles of this document to not only the road edge but to private property and gardens, will contribute significantly to creating a healthy, weed free environment.

2 WEED FREE CONCEPT PLAN

2.1 Plant Selection

The Concept Plan for Beach Valley Road includes a combination of restoration and amenity plantings. Plant species were chosen carefully to reflect the coastal nature of the site as well as the requirements of local residents. Emphasis has been placed on low growing species to preserve views and retain safety around footpaths and roads. Form and colour is important, with an emphasis on grasses and flax-like plants incorporating foliage from green to orange to silver. Plants that flower or fruit, attracting birds and insects are also included.

2.2 Planting Zones

The road and adjacent residential properties include a wide range of habitats, from sand dunes and dry clay to damp stream sides, open to shady areas. This necessitates different species appropriate to each habitat type. That being said, a central theme of grasses and sedges has been continued along the road and a few species (or similar species) are present in most planting zones.

Lower growing species for open, exposed sites with sandy soil. Includes Zone A.

This is dry sand dune habitat at the beach end of Beach Valley Road. Under natural conditions this area may have been colonised by native grasses (pingao and spinifex) although these species are less suitable for residential gardens. The species for this zone are mainly groundcovers with some larger plants included if desired by residents. If the groundcover species are planted it is imperative that all kikuyu has been sprayed and killed.

Open (high light) to semi-shade stream sides. Includes Zone B.

There is a stream / open drain running alongside Beach Valley Road. The downstream portion of this stream is open to semi-shade with little to no canopy. Appropriate grasses and pioneer shrubs are proposed here.

Shaded stream sides under canopy. Includes Zone C.

The stream continues upstream under dense pohutukawa / karaka canopy. For erosion control, plant a combination of deep rooting species such as cabbage trees, mahoe, kawakawa and kiekie along with lower growing species such as *Carex* grasses and ferns for surface erosion control.

Open sites with sandy soil where low growing species are required. Includes the road edge towards the beach, Zone D.

These are low growing species suitable for sandy and/or dry soils. Knobbly clubrush is already growing naturally on the roadside and should be encouraged.

Open sites with sandy soil where pioneer species are desired. Includes Zone E.

This zone includes six common pioneer species of coastal environments. These species will grow rapidly to shade the soil even on sandy, dry, exposed sites. These species grow taller than other species present in Zone A or D.

Shaded sites where low growing species are required. Includes the road edge beneath canopy, Zone F.

These are low growing species suitable for full shade environments.

Infill planting and erosion control in shade beneath canopy. Includes Zone G.

Beach Valley Road includes a number of properties with steep banks beneath canopy. In these situations you need a combination of deep rooting shrubs (for bank holding) and low growing grasses (for surface erosion control). Where erosion is less of a problem, shrubs will improve shade at ground level and improve habitat. Residents can also plant shade tolerant secondary succession trees where they have existing canopy, if taller trees are desired.

Rengarenga impact planting. Includes Zone H.

Rengarenga grows naturally on rocky cliffs but also is useful as an amenity plant when planted densely together. It can look better where it gets some shade, but can also grow

happily in open exposed sites. It produces clusters of small white flowers in spring. Only one species, *Arthropodium cirratum*, grows naturally at Piha.

Low growing species for non-sandy soil in open. Includes Zone I next to the walkway and road.

These are low growing grasses, sedge-like plants and groundcovers.

Dry clay banks where views are important. Includes Zone J.

These species are lower growing (up to 1.5m for coastal flax) to maintain views. Cabbage trees grow taller but have thin trunks which do not shield views. Where views are not important, Zone E or K plants can be suitable on dry clay banks.

Pioneer planting on open sites or for extending bush or infilling gaps. Includes Zone K.

This list includes shrubs and trees that grow as pioneer species near the coast. These species can be planted together on bare open sites, or to extend or improve existing forest remnants.

2.3 Other Considerations for the Concept Plan

Pedestrian and vehicular safety is another aim for the community on Beach Valley Road. Whilst developing the Concept Plan the following issues were noted or are suggested for consideration.

Pedestrian safety:

There is a very narrow access road to Marine Parade South. This area is so narrow that only one car can pass at a time and there is no pedestrian footpath. It is suggested that the existing flax next to the stream be removed. This will allow for a pedestrian walkway. However, a fence will need to be erected to prevent people from falling into the stream.

There is a walkway along the western half of Beach Valley Road but nothing for the remainder of the road. It is suggested that a walkway be created, or otherwise an unplanted grass or gravel strip maintained to allow pedestrian access. If planting is to be undertaken near this area, ensure that no shrubs or trees are planted within 2.5m of the walkway and no low growing grasses closer than 1m.

It is understood that the community group has been in contact with Council Transport Assets team about improving pedestrian access along Beach Valley Road.

Vehicular safety:

The community has cut back vegetation to effectively widen the road available for vehicles. The road edge is to be planted with only low growing species to maintain this space.

Consideration could also be given to moving the existing bollards back to further widen the road, and/or construction of a proper kerb and channel to define the road edge properly.

Stormwater:

A portion of the road near the corner of Sylvan Glade becomes flooded during heavy rain. This is because the small drain beneath the road becomes blocked with soil and debris. It is suggested that a larger pipe is needed with a grate to prevent sediment blocking the pipe. A kerb and channel may also be beneficial to separate stormwater runoff from the road, possibly avoiding sediment runoff (and associated blockages) from the adjacent properties.

2.4 Additional Reading

There is a range of additional information available for people planning restoration work or amenity planting with native plants. A lot of this information is available on the web. Here are some additional references for coastal situations:

Author / Source	Year	Title
Andrew Crowe	2003	Which Coastal Plant? A Simple Guide to the Identification of New Zealand's Common Plants
Waitakere City Council	2005	Native to the West: A Guide for Planting and Restoring the Nature of Waitakere City
Auckland Regional Council	No date	Coastal Planting Guide 1: Coastal Planting Guide
	No date	Coastal Planting Guide 2: Dunes
	No date	Coastal Planting Guide 3: Coastal Forests
	No date	Coastal Planting Guide 4: Coastal Cliff Tops
	No date	Coastal Planting Guide 5: Coastal Wetlands, Saltmarshes and Estuaries
	No date	Coastal Planting Guide 6: Coastal Clay Banks
	2001	Riparian Zone Management: Strategy Guideline, Planting Guide

3 PLANT SPECIES LIST

Species	Botanical Name	Amount	Description
Lower growing species for open, exposed sites with sandy soil. Includes Zone A.			
GRASSES AND GROUNDCOVERS			
NZ spinach	<i>Tetragonia tetragonioides</i>	●●	Edible coastal groundcover. Growing naturally beneath pohutukawas near beach end of road.
Orange sedge	<i>Carex raotest</i>	●●	Native grass that turns orange in sun. Grows on sandy soil.
Pohuehue	<i>Meuhlenbeckia complexa</i>	●●●	Coastal vine. Survives in very harsh conditions. Forms dense tangled mass. Plant where it will not smother other groundcover species.
Sand coprosma	<i>Coprosma acerosa</i>	●	Threatened plant. Groundcover with wiry stems and small leaves. Can be difficult to grow.
Shore bindweed	<i>Calystegia soldanella</i>	●●	Good groundcover for coastal gardens. Attractive rounded leaves and pink flowers.
LARGER SPECIES			
Cabbage tree	<i>Cordyline australis</i>	●●●	Common hardy tree. Fruit for birds.
Coastal toetoe	<i>Cortaderia splendens</i>	●●	Native toetoe of coastal areas. Grows to 2.5m.
Flax	<i>Phormium tenax</i>	●●●	Very hardy. Tolerant of dry or wet soil. Nectar for birds. Grows to 3m
Taupata	<i>Coprosma repens</i>	●	Large shrub with thick glossy leaves and orange berries. Often planted. Use occasionally.
Open (high light) to semi-shade stream sides. Includes Zone B.			
Cabbage tree	<i>Cordyline australis</i>	●●●	Common hardy tree. Fruit for birds. Fast growing for erosion control.
Coastal astelia	<i>Astelia banksii</i>	●	Silver foliage. Slow growing. Plant on top of bank.
Coastal karamu	<i>Coprosma macrocarpa</i>	●●	Common coastal species.
Flax	<i>Phormium tenax</i>	●●	Very hardy. Tolerant of dry or wet soil. Nectar for birds. Grows to 3-4m. Plant above flood level.
Giant umbrella sedge	<i>Cyperus ustelatus</i>	●●	Damp to wet ground. Attractive large sedge.
Glen Murray tussock	<i>Carex flagellifera</i>	●●●	Native grass of stream sides and coastal shrub.
Oioi	<i>Apodasmia similis</i>	●●●	Jointed sedge of estuarine habitats.
Orange sedge	<i>Carex raotest</i>	●	Native grass that turns orange in sun. Grows on sandy soil.
Spreading swamp sedge	<i>Carex lessoniana</i>	●●	Damp to wet ground. Rhizomatous native grass.
Swamp sedge	<i>Carex virgata</i>	●●●	Common large native grass. Tolerant of damp to drier soil. Use throughout.
Taupata	<i>Coprosma repens</i>	●	Large shrub with thick glossy leaves and orange berries. Often planted. Use occasionally.
West Coast hebe	<i>Hebe obtusata</i>	●	Grows naturally on dry banks. Beautiful flowers.
West Coast kowhai	<i>Sophora fulvida</i>	●	West Coast species with tiny leaflets.
Shaded stream sides under canopy. Includes Zone C.			
Cabbage tree	<i>Cordyline australis</i>	●●	Common hardy tree. Fruit for birds. Fast growing for erosion control. Less vigorous in shade.
Coastal astelia	<i>Astelia banksii</i>	●	Silver foliage. Slow growing.
Forest sedge	<i>Carex ochrosaccus</i>	●●	Locally common sedge in Piha.
Glen Murray tussock	<i>Carex flagellifera</i>	●●●	Native grass of stream sides and coastal shrub.
Hangehange	<i>Geniostoma ligustrifolium</i>	●●●	Common subcanopy species in shade.
Kawakawa	<i>Macropiper excelsum</i>	●●●	Common subcanopy species in shade.
Kiekie	<i>Freycinetia banksii</i>	●●	Vine which naturally grows on stream banks.
Kiokio	<i>Blechnum novae-zelandiae</i>	●●	Attractive rhizomatous fern for erosion control.

Mahoe	<i>Melicytus ramiflorus</i>	●●●	Common streamside plant. Grows to small tree.
Nikau	<i>Rhopalostylis sapida</i>	●●	Only native palm. Likes damp shade.
NZ iris	<i>Libertia grandiflora</i>	●	Strap like leaves with tall flowers. Top of bank.
Spreading swamp sedge	<i>Carex lessoniana</i>	●●	Damp to wet ground. Rhizomatous native grass. Less vigorous in shade.
Turutu	<i>Dianella nigra</i>	●	Attractive dry tolerant groundcover species.
West Coast hebe	<i>Hebe obtusata</i>	●	Grows naturally on dry banks. Beautiful flowers.
Open sites with sandy soil where low growing species are required. Includes Zone D.			
Coastal astelia	<i>Astelia banksii</i>	●	Silver foliage. Slow growing.
Knobbly clubrush	<i>Ficinia nodosa</i>	●●●	Growing naturally further up bank.
NZ iris	<i>Libertia ixioides</i>	●●	Strap like leaves which turn orange in the sun.
Oioi	<i>Apodasmia similis</i>	●●	Jointed sedge tolerant of sandy soil.
Sword sedge	<i>Lepidosperma laterale</i>	●	Attractive sedge with flattened leaves.
West Coast hebe	<i>Hebe obtusata</i>	●	Grows naturally on dry banks. Beautiful flowers.
Open sites with sandy soil where pioneer species are desired. Includes Zone E.			
Cabbage tree	<i>Cordyline australis</i>	●●●	Common coastal pioneer.
Coastal five finger	<i>Pseudopanax lessonii</i>	●●●	Common coastal pioneer.
Coastal karamu	<i>Coprosma macrocarpa</i>	●●	Common coastal pioneer.
Flax	<i>Phormium tenax</i>	●●●	Common coastal pioneer.
Hangehange	<i>Geniostoma ligustrifolium</i>	●●	Dry tolerant shrub.
Mahoe	<i>Melicytus ramiflorus</i>	●●	Dry tolerant shrub / tree.
Shaded sites where low growing species are required. Includes Zone F.			
Bush sedge	<i>Carex lambertiana</i>	●●●	Common native grass on dry shady soil.
Coastal astelia	<i>Astelia banksii</i>	●	Silver foliage. Slow growing.
Forest sedge	<i>Carex ochrosaccus</i>	●●	Locally common sedge in Piha.
Hook grass	<i>Uncinia uncinata</i>	●●●	Common native grass on dry shady soil.
Kiokio	<i>Blechnum novae-zelandiae</i>	●●	Rhizomatous native fern.
NZ iris	<i>Libertia grandiflora</i>	●●	Strap like leaves with tall white flowers.
Rengarenga lily	<i>Arthropodium cirratum</i>	●●	Native lily with white flowers in spring.
Turutu	<i>Dianella nigra</i>	●	Attractive dry tolerant groundcover species.
Infill planting and erosion control in shade beneath canopy. Includes Zone G.			
Bush sedge	<i>Carex lambertiana</i>	●●	Common native grass on dry shady soil.
Cabbage tree	<i>Cordyline australis</i>	●●	Common coastal pioneer. Less vigorous in shade.
Coastal astelia	<i>Astelia banksii</i>	●	Silver foliage. Slow growing.
Forest sedge	<i>Carex ochrosaccus</i>	●●	Locally common sedge in Piha.
Hangehange	<i>Geniostoma ligustrifolium</i>	●●●	Common subcanopy species in shade.
Hook grass	<i>Uncinia uncinata</i>	●●	Common native grass on dry shady soil.
Kawakawa	<i>Macropiper excelsum</i>	●●●	Common subcanopy species in shade.
Kiokio	<i>Blechnum novae-zelandiae</i>	●●	Rhizomatous native fern.
Mahoe	<i>Melicytus ramiflorus</i>	●●	Dry tolerant shrub / tree.
NZ iris	<i>Libertia grandiflora</i>	●	Strap like leaves with tall white flowers.
Rengarenga lily	<i>Arthropodium cirratum</i>	●	Native lily with white flowers in spring.
Sword sedge	<i>Lepidosperma laterale</i>	●	Attractive sedge with flattened leaves.
Turutu	<i>Dianella nigra</i>	●	Attractive dry tolerant groundcover species.
Rengarenga impact planting. Includes Zone H.			
Rengarenga lily	<i>Arthropodium cirratum</i>	●●●	Plant densely for amenity beneath pohutukawa.
Low growing species for non-sandy soil in open. Includes Zone I next to the walkway and road.			
Coastal astelia	<i>Astelia banksii</i>	●	Silver foliage. Slow growing.
Glen Murray tussock	<i>Carex flagellifera</i>	●●	Native grass of stream sides and coastal shrub.

NZ iris	<i>Libertia ixioides</i>	●	Strap like leaves which turn orange in the sun.
Orange sedge	<i>Carex raotest</i>	●●●	Native grass that turns orange in sun. Grows on sandy soil.
Pohuehue	<i>Meuhlenbeckia complexa</i>	●	Coastal vine. Survives in very harsh conditions.
Swamp sedge	<i>Carex virgata</i>	●●●	Common large native grass. Tolerant of damp to drier soil.
Tarangarara	<i>Gahnia lacera</i>	●●	Attractive small bamboo-like sedge for dry soils.
Turutu	<i>Dianella nigra</i>	●	Attractive dry tolerant groundcover species.
West Coast hebe	<i>Hebe obtusata</i>	●●	Grows naturally on dry banks. Beautiful flowers.
Dry clay banks where views are important. Includes Zone J.			
Cabbage tree	<i>Cordyline australis</i>	●●●	Common coastal pioneer.
Coastal astelia	<i>Astelia banksii</i>	●●	Silver foliage. Slow growing.
Coastal flax	<i>Phormium cookianum</i>	●●●	Smaller flax species to retain views.
Coastal toetoe	<i>Cortaderia splendens</i>	●●●	Native toetoe of coastal areas. Grows to 2.5m.
Orange sedge	<i>Carex raotest</i>	●●●	Native grass that turns orange in sun. Grows on sandy soil.
Pohuehue	<i>Meuhlenbeckia complexa</i>	●●	Coastal vine. Survives in very harsh conditions.
Rengarenga lily	<i>Arthropodium cirratum</i>	●	Best for areas where there is some shade.
Swamp sedge	<i>Carex virgata</i>	●●●	Common large native grass. Tolerant of damp to drier soil.
West Coast hebe	<i>Hebe obtusata</i>	●●	Grows naturally on dry banks. Beautiful flowers.
Pioneer planting on open sites or for extending bush or infilling gaps. Includes Zone K.			
Cabbage tree	<i>Cordyline australis</i>	●●●	Common coastal pioneer.
Coastal five finger	<i>Pseudopanax lessonii</i>	●●●	Common coastal pioneer.
Coastal hebe	<i>Hebe macrocarpa</i>	●●	Common coastal pioneer.
Coastal karamu	<i>Coprosma macrocarpa</i>	●●●	Common coastal pioneer.
Coastal toetoe	<i>Cortaderia splendens</i>	●●	Native toetoe of coastal areas. Grows to 2.5m.
Flax	<i>Phormium tenax</i>	●●	Common coastal pioneer.
Hangehange	<i>Geniostoma ligustrifolium</i>	●●	Pioneer or understorey species
Kanuka	<i>Kunzea ericoides</i>	●●●	Common coastal pioneer.
Karo	<i>Pittosporum crassifolium</i>	●	Common coastal pioneer. Readily self colonises.
Mahoe	<i>Meliclytus ramiflorus</i>	●●	Common coastal pioneer.
Manuka	<i>Leptospermum scoparium</i>	●●●	Common coastal pioneer.
Mapere	<i>Gahnia setifolia</i>	●●	Large native sedge.
Pohuehue	<i>Meuhlenbeckia complexa</i>	●●	Coastal vine. Survives in very harsh conditions.
Pohutukawa	<i>Metrosidros excelsa</i>	●	Common coastal forest tree.
Puriri	<i>Vitex lucens</i>	●	Common coastal forest tree. Fruit and nectar for birds.
West Coast kowhai	<i>Sophora fulvida</i>	●	West Coast species with tiny leaflets.
Wharangi	<i>Melicope ternata</i>	●	Attractive coastal forest tree.
Whau	<i>Entelea arborescens</i>	●	Common coastal forest tree with large heart shaped leaves.

4 CONCEPT PLAN

The attached Concept Plan divides Beach Valley road into different habitat zones, each with a suggested list of restoration and amenity plants which could be planted. It does not aim to be a prescriptive document forcing residents to plant certain species. Residents should see the plan as a helpful guide for weeding and planting both along the road and in similar habitats within their own gardens.

