A photograph of a lush green forest. In the foreground, a concrete picnic table with two benches is set on a small paved area. The background is filled with dense green foliage, including large ferns and trees. A semi-transparent dark green banner is overlaid on the top half of the image, containing the text '3.6 TABLES, SEATING AND BBQ DESIGN GUIDELINES'.

## 3.6 TABLES, SEATING AND BBQ DESIGN GUIDELINES

Existing Table, Seating and BBQ Photos:



*Glen Esk BBQ*



*Lion Rock*



*Mercer Bay Lookout*



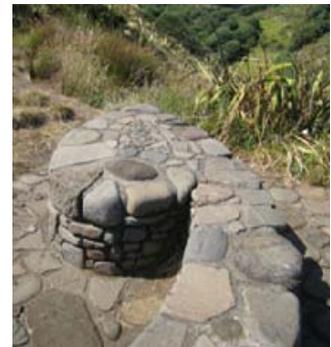
*Te Waha Point*



*Glen Esk drinking fountain*



*Glen Esk picnic area*



*The Gap Lookout*



*Kitekite Falls Lookout*



*Glen Esk*



*Tasman Lookout Track*

## Tables, Seating and BBQs on Regional Parkland at Piha:

The Piha area provides many recreational structures for the enjoyment of visitors. These include electric BBQs, picnic tables and seating.

The purpose of a recreational structure and how well it fits into the landscape should be considered simultaneously when designing and implementing.

The variety of environmental conditions, landscape sensitivities and the size of land available for park furniture call for a diversity of materials, sizes and placement. As desirable as objects are in some locations, in others it must be recognised that it is too difficult to implement and maintain.

### Potential Design Improvements:

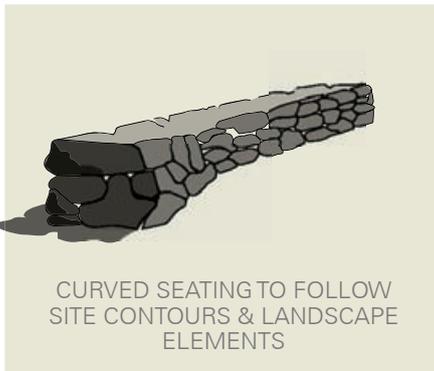
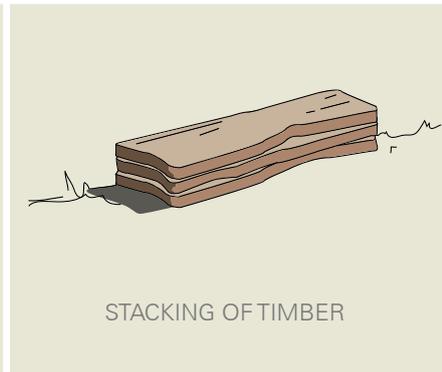
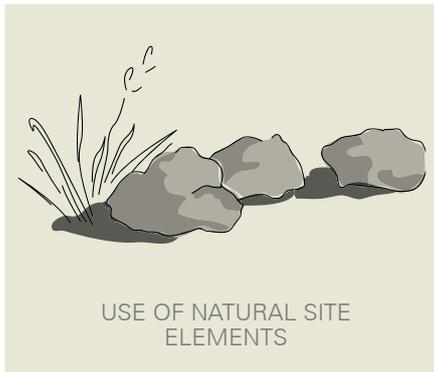


■ SITING AND LOCATION	■ AESTHETICSANDBALANCE
■ ACCESSIBILITYANDUSABILITY	■ COLOUR AND TEXTURE
■ VISIBILITY	■ CLUSTERING
■ DESIGN WITH NATURE	■ SCALE

KEY: ■ EXCELLENT ■ ADEQUATE ■ NOT ADEQUATE

**IMPROVEMENTS:**  
*The simple addition of planting behind softens the structure. Graffiti-prone surfaces are minimised by the removal of the backrest.*

## Tables, Seating and BBQ Guideline Diagrams:



## Design Exemplars:



WCC Piha



ARC Waitakere Ranges Visitor Centre



ARC Atiu Creek



ARC Piha

## Tables, Seating and BBQ Design Checklist:

<b>DESIGN WITH NATURE AND SENSE OF PLACE</b>	
<ul style="list-style-type: none"> <li>• <i>Responds to site history, culture, geology and landscape</i></li> <li>• <i>Earthworks kept to a minimum</i></li> <li>• <i>Energy conscious and renewable materials</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>SITING AND LOCATION</b>	
<ul style="list-style-type: none"> <li>• <i>Backdrop of landform or vegetation</i></li> <li>• <i>Tables/seating do not sit on ridge line</i></li> <li>• <i>Location has pleasant outlook, protection from wind and shade during summer</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>FIT FOR PURPOSE/ ACCESSIBILITY</b>	
<ul style="list-style-type: none"> <li>• <i>Ergonomically designed for main user groups</i></li> <li>• <i>Robust and adaptable structures</i></li> <li>• <i>Logical resting place</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>FORM</b>	
<ul style="list-style-type: none"> <li>• <i>Tie into the natural landform</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>AESTHETICS</b>	
<ul style="list-style-type: none"> <li>• <i>Design enhances appeal of the natural environment</i></li> <li>• <i>Design acclimatises people to the setting</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>COLOUR AND TEXTURE</b>	
<ul style="list-style-type: none"> <li>• <i>Materials and colours that blend with the local landscape</i></li> <li>• <i>Natural materials chosen that weather with time</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>SCALE AND BALANCE</b>	
<ul style="list-style-type: none"> <li>• <i>Scale of structure relative to location</i></li> <li>• <i>Design relative to human scale</i></li> <li>• <i>In context of other developments, buildings and structures within the vicinity</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE

### VISIBILITY

- *Site lines and view shafts maintained*
- *Create new visual cues towards table/seat/BBQ when proposing new development*

- EXCELLENT
- ADEQUATE
- NOT ADEQUATE

### CLUSTERING AND ECOLOGICAL FOOTPRINT

- *Footprint of structure kept to a minimum*
- *Clustering of picnic facilities and other structures*

- EXCELLENT
- ADEQUATE
- NOT ADEQUATE

### SAFETY

- *Community ownership of asset encouraged*
- *Picnic area in close proximity to high activity areas to encourage informal surveillance*

- EXCELLENT
- ADEQUATE
- NOT ADEQUATE

### MAINTAINENCE

- *Regular maintenance can be undertaken with ease/ cost efficient design*
- *Flexible to seasonal change, weathering and erosion*
- *Construction materials should be easily transported to the site*
- *Vandalism deterrent strategies should be considered*

- EXCELLENT
- ADEQUATE
- NOT ADEQUATE

### CULTURAL HERITAGE

- *Respect cultural heritage sites (refer to section 4.5)*

- EXCELLENT
- ADEQUATE
- NOT ADEQUATE

### ALTERNATIVES

- *Alternative sites considered*

ON SITE NOTES:

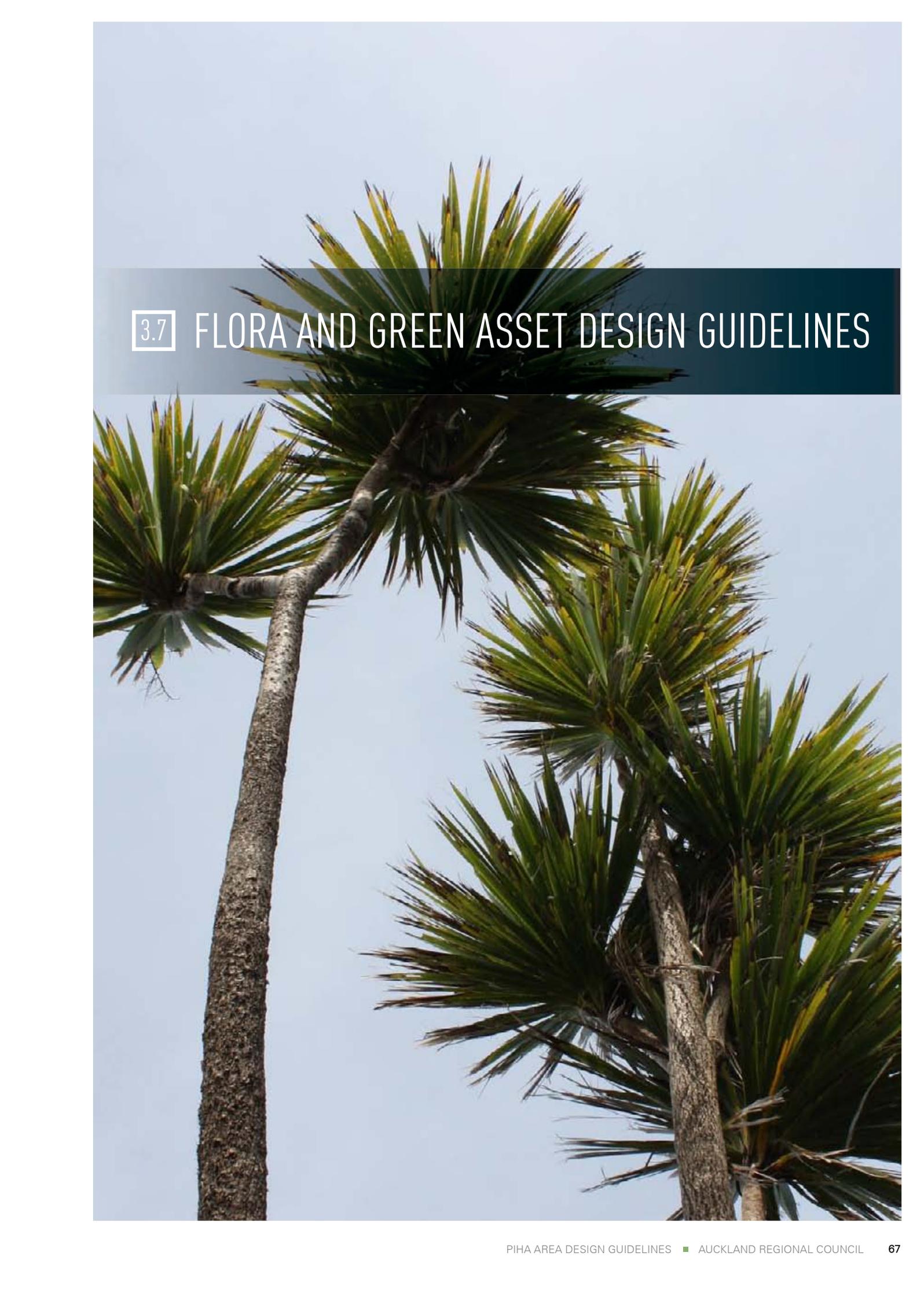
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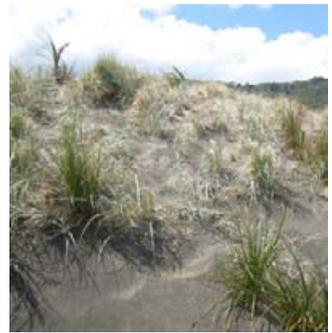
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## 3.7 FLORA AND GREEN ASSET DESIGN GUIDELINES

Flora and Green Asset Photos:



## Flora and Green Assets on Regional Parkland at Piha:

Vegetation is often the most significant feature of any park landscape - Piha is no exception. The type, extent and growth ability of the flora (green assets) along the coast of the Piha Area is dictated by the harsh environment and prevailing westerly winds off the Tasman Sea.

The visual quality of the parkland is enhanced through appropriate management and enhancement of the areas of native vegetation and landscape features, while still providing for public access and appropriate development. This requires careful integration of development and management practices with the natural systems and features of the landscape.

Facilities should be sited sensitively into the landscape, and revegetation programmes, roading and

the layout of fencing and open space areas should relate to the natural contours of the landform and the existing visual vegetation patterns. Consideration should be given to the protection of endangered plants on track edges.

There are spectacular panoramic views from many sites within Piha that greatly enhance the experience and enjoyment of the park visitor. Natural regrowth and revegetation programmes can diminish and obliterate these views and need to be sensitively managed to retain the recreational amenity of these sites.

## Design Exemplars:



*ARC Cascade Kauri*



*Entrance planting design*



*Roof garden design*



*Riprap design*



*Planting edge design*



*Carpark edge design*



*ARC Tawharanui*



*ARC Wenderholm*



*WCC Piha*



*Waitangi Park, Wellington*

## Choosing the most appropriate species for the location:

The following is a comprehensive list of documents produced by the Auckland Regional Council that provide information on planting natives in specific environments. The pdfs can be found at:

[http://www.arc.govt.nz/environment/plants-and-animals/publications/publications\\_home.cfm](http://www.arc.govt.nz/environment/plants-and-animals/publications/publications_home.cfm)

### Coastal planting (Dunes)

[http://www.arc.govt.nz/environment/plants-and-animals/publications/publications\\_home.cfm](http://www.arc.govt.nz/environment/plants-and-animals/publications/publications_home.cfm)

- Coastal Planting 2: Dunes

### Coastal forest

- Coastal planting 3: Forest
- Native Forest Restoration - Planting
- Forest Fragments - Caring for Forest Fragments

### Coastal cliff tops

[http://www.arc.govt.nz/environment/plants-and-animals/publications/publications\\_home.cfm](http://www.arc.govt.nz/environment/plants-and-animals/publications/publications_home.cfm)

- Coastal Planting 4: Cliffs

### Coastal wetlands

[http://www.arc.govt.nz/environment/plants-and-animals/publications/publications\\_home.cfm](http://www.arc.govt.nz/environment/plants-and-animals/publications/publications_home.cfm)

- Coastal Planting 5: Coastal Wetland, salt marshes and estuaries
- Wonderful Wetlands
- Wonderful Wetlands - Wetland Restoration and Planting Guide in the Auckland region

### Coastal riparian planting

[http://www.arc.govt.nz/environment/plants-and-animals/publications/publications\\_home.cfm](http://www.arc.govt.nz/environment/plants-and-animals/publications/publications_home.cfm)

- Riparian facts - Streamside Planting Guide

### Pest plants

[http://www.arc.govt.nz/environment/plants-and-animals/publications/publications\\_home.cfm](http://www.arc.govt.nz/environment/plants-and-animals/publications/publications_home.cfm)

- Coastal Planting 1 - General

### Other

[http://www.arc.govt.nz/environment/plants-and-animals/publications/publications\\_home.cfm](http://www.arc.govt.nz/environment/plants-and-animals/publications/publications_home.cfm)

- Coastal Planting 1 - General
- Coastal Planting 6 - Clay Banks

## Native (indigenous) plants of the Piha area:

BOTANICAL NAME	COMMON NAME	REQUIREMENTS
FERNS		
<i>Adiantum aethiopicum</i>	makaka	shade to part sun, tolerates dry + moist soils
<i>Adiantum cunninghamii</i>	common maidenhair	shade to part sun, tolerates dry + moist soils
<i>Adiantum hispidulum</i>	rosy maidenhair	full sun + part shade, tolerates dry and + soils
<i>Asplenium bulbiferum</i>	hen and chicken fern	part sun + shade, tolerates moist soils
<i>Asplenium flabellifolium</i>	necklace fern	full sun, tolerates dry + moist poor clay soils and harsh wind

BOTANICAL NAME	COMMON NAME	REQUIREMENTS
<b>FERNS</b>		
<i>Asplenium flaccidum</i>	makawe, hanging spleenwort	prefers shade, tolerates some moist + clay soils
<i>Asplenium lamprophyllum</i>	glossy asplenium	prefers shade, tolerates some moist + clay soils
<i>Asplenium appendiculatum</i> spp <i>maritimum</i>		shade + part sun and tolerates dry + most soils
<i>Asplenium northlandicum</i>	leather leaf asplenium	full sun + shade, tolerates some dry, moist + boggy soils and harsh wind
<i>Asplenium oblongifolium</i>	huruhuruwhenua, shining spleenwort	prefers shade and tolerates moist soils
<i>Azolla filiculoides</i>	floating fern	prefers boggy soils
<i>Blechnum blechnoides</i>	salt spray fern	full sun + shade, tolerates dry conditions, poor clay soil and harsh winds
<i>Blechnum novae-zealandiae</i>	kiokio	part sun + shade, tolerates moist, boggy, poor soils and harsh wind
<i>Cheilanthes distans</i>	woolly cloak fern	part sun + part shade, tolerates dry and poor clay soils
<i>Hymenophyllum</i> spp	filmy ferns	prefers shade and tolerates moist soils
<i>Hypolepis ambigua</i>		prefers shade and tolerates moist soils
<i>Hypolepis dicksonioides</i>	giant hypolepis	full sun + part shade, tolerates some dry and moist soils
<i>Hypolepis distans</i>		sun + shade, tolerates some dry, some moist and clay soils
<i>Lastreopsis glabella</i>		prefers shade and moist soils
<i>Lastreopsis hispida</i>	hairy legs	prefers shade and moist soils
<i>Laestrepopsis micrisora</i>		prefers shade and moist soils
<i>Lastreopsis velutina</i>	velvet fern	prefers shade and tolerates moist soils
<i>Lindsaea linearis</i>		full sun + part shade, tolerates some dry, moist, boggy, poor soils and harsh wind
<i>Lindsaea trichomanoides</i>		part sun + shade, tolerates some dry and moist poor clay soils
<i>Doodia media</i>	pukupuku	prefers shade, tolerates some dry + some moist soils
<i>Doodia mollis</i>	mokimoki	shade + part sun, tolerates dry + moist soils
<i>Pteridium esculentum</i>	bracken	full sun + part shade, tolerates dry + moist poor clay soils and harsh wind
<i>Pteris macilenta</i>		prefers shade, tolerates moist soils
<i>Pteris comans</i>	nz coastal brake	part sun + part shade, tolerates some dry + moist soils
<i>Pteris tremula</i>	tuawera, trembling brake	Prefers sun + some shade and tolerates moist soils
<i>Phymatosorus pustulatum</i>	kowaowao, maratata	shade + part sun, tolerates some dry and moist soils and some harsh wind
<i>Phymatosorus scandens</i>	moki, fragrant fern	prefers shade and moist soils
<i>Pellaea falcata</i>		full sun + part shade, tolerates dry + some moist soils and harsh wind
<i>Pellaea rotundifolia</i>	tarawera, button fern	full sun + shade, tolerates some dry and moist soils
<i>Lygodium articulatum</i>	mangemange	prefers shade and tolerates some moist soils
<b>ASTELIA</b>		
<i>Astelia banksii</i>	coastal astelia	full sun, part shade, tolerates dry + occasional moist soil and harsh wind
<i>Astelia solandri</i>	kowharawhara, perching lily	full sun + shade, tolerates dry + moist soils and harsh winds
<i>Astelia trinervia</i>	kauri grass	shade + part sun, tolerates moist soils and harsh winds
<b>FLAX</b>		
<i>Cordyline pumilio</i>	ti rauriki, dwarf cabbage tree	full sun + part shade, tolerates poor soils
<i>Phormium cookianum</i>	wharariki	full sun + part shade, tolerates dry + moist soils, poor clay + harsh wind
<i>Phormium tenax</i>	flax/harakeke	full sun, tolerates some dry + moist, poor and boggy soils + harsh wind
<b>GRASS</b>		
<i>Austrofestuca littoralis</i>	dune grass	full sun, tolerates some dry + moist soils and harsh wind
<i>Carex pumila</i>	sand carex	full sun, tolerates dry + well drained soils and harsh wind
<i>Carex secta</i>	pukio, niggerhead	full sun + part shade, tolerates boggy soils and harsh wind
<i>Carex testacea</i>	orange sedge	shade + part sun, tolerates dry + moist soils and harsh winds
<i>Cortaderia fulvida</i>	toetoe	prefers sun, tolerates dry, moist, boggy, poor clay soils and harsh wind
<i>Cortaderia splendens</i>	coastal toetoe	full sun, tolerates dry, moist + poor clay soils and harsh wind
<i>Desmoschoenus spiralis</i>	pingao	full sun, tolerates dry and some moist soils and harsh winds
<i>Dianella nigra</i>	turutu, nz blueberry	full sun + shade, tolerates dry, moist + poor clay soils and harsh wind
<i>Gahnia lacera</i>	catty grass	shade + part sun, tolerates dry, moist + poor clay soils and harsh wind
<i>Gahnia setifolia</i>	catty grass	full sun + part shade, tolerates dry, moist + poor clay soils and harsh wind
<i>Gahnia xanthocarpa</i>	toikiwi, catty grass	shade + part sun, tolerates moist, boggy and poor clay soils and harsh wind
<i>Spinifex sericeus</i>	kowhangatara, spinifex	prefers sun, tolerates dry, moist soils and harsh wind
<i>Poa anceps</i>	plumed tussock	full sun + shade, tolerates dry + moist soils and harsh wind
<i>Microlaena avenacea</i>	forest rice grass	part sun + part shade, tolerates some dry + moist soils and some harsh wind
<i>Microlaena polynoda</i>	native bamboo	full sun + shade, tolerates dry soils and some harsh winds

BOTANICAL NAME	COMMON NAME	REQUIREMENTS
<b>GRASS</b>		
<i>Microlaena stipoides</i>	meadow rice grass	part sun + part shade, tolerates some dry + moist soils and some harsh wind
<b>GROUNDCOVER</b>		
<i>Calystegia soldanella</i>	nihinihi, shore bindweed	full sun, tolerates some dry + moist soil
<i>Centella uniflora</i>	marsh pennywort	full sun + part shade, tolerates dry, moist + poor clay soils and harsh wind
<i>Coprosma acerosa</i>	sand coprosma	full sun, tolerates dry + moist soils and harsh wind
<i>Dichondra repens</i>	mercury bay weed	full sun + part shade, tolerates dry and moist soils and harsh wind
<i>Disphyma australe</i>	horokaka, nz ice plant	full sun, tolerates dry soils and harsh wind
<i>Selleria radicans</i>	remuremu	full sun, tolerates some dry, moist + some boggy soils and harsh wind
<i>Samolus repens</i>	shore pimpernel	full sun, tolerates moist + some boggy soils and harsh wind
<i>Scandia rosifolia</i>	coastal angelica	full sun, tolerates some dry + moist soils and harsh wind
<i>Pimelia prostrata</i>	strathmore weed	full sun, tolerates dry + moist soils and harsh wind
<i>Nertera depressa</i>	duckweed	full sun + full shade, tolerates moist + some boggy soils and harsh wind
<i>Nertera dichondrifolia</i>	northern nertera	full sun + part shade, tolerates some dry + moist soils
<b>HERB</b>		
<i>Celmisia major var major</i>	waitakere rock daisy	full sun, tolerates dry + moist soils and harsh wind
<i>Cotula coronopifolia</i>	bachelor's button	full sun, tolerates moist + boggy soils and harsh wind
<i>Tetragonia tetragonioides</i>	NZ spinach	sun, tolerates well drained soil and harsh wind
<i>Peperomia urvilleana</i>	wharanui	part sun + shade, tolerates dry + moist soils and some harsh wind
<b>LILY AND IRIS</b>		
<i>Arthropodium cirratum</i>	rengarenga lily	full sun + shade, tolerates dry + moist soils and harsh wind
<i>Libertia grandiflora</i>	large flowered iris	part sun + shade, tolerates dry, moist + poor clay soils
<i>Libertia ixioides</i>	native iris	part sun + shade, tolerates dry, moist + poor clay soils
<i>Libertia peregrinans</i>	creeping sand iris	sun + shade, tolerates dry, moist + poor clay soils
<b>SEDGE AND RUSH</b>		
<i>Baumea articulata</i>	jointed twig rush	prefers full sun, tolerates moist, boggy soils
<i>Baumea rubiginosa</i>	sedge tussock	prefers full sun, tolerates moist, boggy soils
<i>Cyperus ustulatus</i>	upoko tangata, giant umbrella sedge	full sun, tolerates moist + boggy soils and harsh wind
<i>Juncus pallidus</i>	giant rush	full sun, tolerates some dry, moist, boggy and poor clay soils
<i>Leptocarpus similis</i>	oioi, jointed rush	full sun + part shade, tolerates dry, moist, boggy and poor clay soils
<i>Eleocharis sphacelata</i>	kuta, bamboo spike sedge	prefers full sun, tolerates moist, boggy soils
<i>Typha orientalis</i>	raupo	prefers full sun, tolerates moist, boggy soils
<i>Uncinia uncinata</i>	forst hook sedge	full sun + shade, tolerates a wide range of conditions
<i>Schoenoplectus validus</i>	kapungawha	full sun, tolerates moist, boggy soils
<i>Isolepis nodosa</i>	knobby clubrush	full sun, tolerates dry, moist and boggy soils
<b>SHRUB</b>		
<i>Ozothamnus leptophyllus</i>	tauhinu	full sun + part shade, tolerates dry + poor clay soils + harsh wind
<i>Coprosma arborea</i>	mamangi	full sun, needs some shade to establish, tolerates some dry + moist soils
<i>Coprosma crassifolia</i>	stiff stemmed coprosma	full sun + part shade, tolerates dry + moist soils and some harsh wind
<i>Coprosma lucida</i>	shining karamu	full sun + part shade, tolerates dry + moist poor clay soils and some harsh wind
<i>Coprosma repens</i>	taupata	full sun + shade, tolerates dry + moist poor clay soils and harsh wind
<i>Coprosma robusta</i>	karamu	full sun + part shade, tolerates dry, moist, poor clay soils and harsh wind
<i>Coprosma rhamnoides</i>		full sun + full shade, tolerates dry, moist + poor clay soils and harsh wind
<i>Corokia cotoneaster</i>	bluff korokio	full sun + part shade, tolerates dry, moist + poor clay soils and harsh wind
<i>Cyathodes junipera</i>	mingimingi	full sun + shade, tolerates dry, moist and poor clay soils
<i>Dracophyllum sinclairii</i>	spiderwood	full sun + shade, tolerates dry, moist and poor clay soils
<i>Freycinetia banksii</i>	kiekie	shade needed at base + to establish, tolerates moist, boggy soils and harsh wind
<i>Gaultheria antipoda</i>	bush snowberry	full sun + part shade, tolerates dry, moist, poor clay soils and harsh wind
<i>Hebe obtusata</i>	west coast cliff hebe	full sun, tolerates dry, moist soils and harsh wind
<i>Hebe stricta</i>	koromiko	full sun + part shade, tolerates dry, moist + poor clay soils and harsh wind
<i>Hebe bishopiana</i>	huia hebe	full sun, tolerates some dry, moist soils and harsh wind
<i>Hebe macrocarpa</i>	koromiko	full sun + part shade, tolerates dry, moist + poor clay soils and some harsh wind
<i>Leucopogon fasciculatus</i>	mingimingi	full sun + part shade, tolerates dry, moist + poor clay soils and harsh wind
<i>Leucopogon fraseri</i>	patotara	full sun + part shade, tolerates dry, moist + poor clay soils and harsh wind
<i>Muehlenbeckia complexa</i>	pohuehue	full sun, tolerates dry, moist, boggy soils and harsh wind
<i>Olearia furfuracea</i>	akepiro/tanguru	full sun, tolerates dry, moist, poor clay soils and harsh wind
<i>Pomaderris kumeraho</i>	kumerahou	full sun, tolerates dry + some moist soils

BOTANICAL NAME	COMMON NAME	REQUIREMENTS
<b>SHRUBS</b>		
<i>Pittosporum crassifolium</i>	karo	full sun, tolerates some dry, moist soils and harsh wind
<i>Pittosporum ellipticum</i>		full sun + part shade, tolerates some dry, moist + some poor soils and harsh wind
<i>Pimelia arenaria</i>	autetaranga, and daphne	full sun, tolerates dry, moist soils and harsh wind
<i>Rhabdothamnus solandri</i>	turepo	shade + part sun, tolerates dry + some moist soils
<i>Melicope simplex</i>	poataniwha	full sun + some shade, tolerates dry, moist, poor clay soils and harsh wind
<i>Lophomyrtus obcordata</i>	rohutu	full sun + some shade, tolerates some dry and moist soils
<i>Lycopodium deuterodensum</i>	tree clubmoss	part sun + shade, tolerates dry, moist and poor clay soils
<b>VINE/ CLIMBER</b>		
<i>Collospermum hastatum</i>	kahakaha	full sun + shade, tolerates some dry, moist soils and some harsh wind
<i>Parsonsia heterophylla</i>	nz jasmine	full sun, tolerates moist soils
<i>Metrosideros carminea</i>	akakura, carmine rata	full sun + shade, tolerates some dry, moist soils
<i>Metrosideros perforata</i>	akatea, small white rata	full sun + shade, tolerates some dry, moist soils and harsh wind
<i>Parsonsia capsularis</i>	kaiwhiria, pink jasmine	full sun, tolerates moist soils and harsh wind
<b>TREE FERN/ PALM</b>		
<i>Cyathea dealbata</i>	ponga	full sun + shade, tolerates some dry, moist and poor clay soils
<i>Cyathea medullaris</i>	mamaku	shade needed at base + to establish, tolerates moist, poor soil and harsh wind
<i>Rhopalostylis sapida</i>	nikau	shade needed at base + to establish, tolerates moist, boggy soil and harsh wind
<b>SMALL TREES/ LARGE SHRUBS</b>		
<i>Carpodetus serratus</i>	putaputaweta	full sun + some shade, tolerates moist, some boggy and poor clay soils
<i>Cordyline australis</i>	cabbage tree	full sun + some shade, tolerates dry, moist, boggy, poor clay soils + harsh wind
<i>Cordyline banksii</i>	forest cabbage tree	full sun + some shade, tolerates dry, moist, some poor soils + some harsh wind
<i>Leptospermum scoparium</i>	manuka	full sun, tolerates dry, moist, boggy soils and harsh wind
<i>Entelea arborescens</i>	whau	full sun + some shade, tolerates some dry and moist soils
<i>Toronia toru</i>	toru	full sun + some shade, tolerates dry, moist, poor clay soils and some harsh wind
<i>Schefflera digitata</i>	pate	shade needed at base, tolerates moist and some poor clay soils
<i>Pseudopanax arboreus</i>	five finger, puahou, whauwhaupaku	some shade + shelter, tolerates moist soils
<i>Pseudopanax lessonii</i>	coastal five finger, houpara	full sun, tolerates some shade, dry, moist soils and harsh wind
<i>Myoporum laetum</i>	ngaio	full sun, tolerates dry, moist, poor clay soils and harsh wind
<i>Melicope ternata</i>	wharangi	full sun + some shade, tolerates some dry, moist, poor clay soils and harsh wind
<i>Melicytus ramiflorus</i>	mahoe	full sun + shade, tolerates some dry, moist, poor clay soils and some harsh wind
<i>Macropiper excelsum</i>	kawakawa	part sun + full shade, tolerates some dry, moist soils and some harsh wind
<i>Dodonaea viscosa</i>	akeake	full sun, tolerates dry, moist, poor clay soils and harsh wind
<i>Griselinia lucida</i>	puka	full sun + some shade, tolerates dry, moist, poor clay soils and some harsh wind
<i>Geniostoma rupestre</i>	hangehange	full sun + shade, tolerates dry, moist, some poor clay soils and some harsh wind
<b>MEDIUM TREES</b>		
<i>Beilschmiedia tarairi</i>	taraire	full sun + some shade, tolerates moist soils and some harsh wind
<i>Corynocarpus laevigatus</i>	karaka	full sun + some shade, tolerates some dry, moist soils and some harsh wind
<i>Metrosideros excelsa</i>	pohutukawa	full sun, tolerates dry, moist, poor clay soils and harsh wind
<i>Beilschmiedia tawa</i>	tawa	full sun + some shade, tolerates moist soils and some harsh wind
<i>Hedycarya arborea</i>	pigeonwood, porakaiwhiri	full sun + some shade, tolerates moist and some poor clay soils
<i>Knightia excelsa</i>	rewarewa	full sun + some shade, tolerates some dry, moist, poor soils and some harsh wind
<i>Litsea calicaris</i>	mangaao	full sun + some shade, tolerates some dry, moist, poor soils and some harsh wind
<i>Laurelia novae-zelandiae</i>	pukatea	full sun + shade to establish, tolerates dry, moist, poor soils and some harsh wind
<i>Dysoxylum spectabile</i>	kohekohe	full sun + shade to establish, tolerates moist soils
<i>Elaeocarpus dentatus</i>	hinau	full sun + some shade, tolerates some dry, moist and poor clay soils
<i>Vitex lucens</i>	puriri	full sun + some shade, tolerates some dry and moist soils
<i>Sophora fulvida</i>	west coast kowhai	full sun, tolerates dry + moist soils and some harsh wind
<i>Pseudopanax crassifolius</i>	horoeka, lancewood	full sun, tolerates some dry, moist and some poor clay soils
<i>Pseudopanax rostratum</i>	fierce lancewood	full sun, tolerates some dry and some poor clay soils
<i>Kunzea ericoides</i>	kanuka	full sun + part shade, tolerates dry, moist, poor clay soils and harsh wind
<b>TALL TREES</b>		
<i>Agathis australis</i>	kauri	full sun, tolerates some dry, moist, poor clay soils and some harsh wind
<i>Dacrydium dacrydioides</i>	kahikatea	full sun + shade to establish, tolerates moist, boggy soils
<i>Dacrydium cupressinum</i>	rimu	full sun + shade to establish, tolerates moist, some boggy and poor clay soils
<i>Prumnopitys ferruginea</i>	miro	shade needed at base + shade, tolerates some dry, moist soils and harsh wind
<i>Phyllocladus trichomanoides</i>	tanekaha	full sun + part shade, tolerates dry, moist, poor clay soils and some harsh wind

## Pohutukawas at Piha:

There are many notable wide sculpted pohutukawa within the northern and southern parts of the Piha landscape. The coastal cliffs provide a desirable habitat for these specimens, some of which are hundreds of years old and exhibit large twisted branches. Their survival should be noted and their function in the landscape is immeasurable. They provide spectacular bright red blooms in summer while the canopy provides much needed shade in the coastal setting. They are also vital to mitigating and reducing the possible dominance of residential structures along the coastal fringe.



*Photo Courtesy S. Coney Collection - Pohutukawa circa 1920*



## Flora and Green Assets Design Checklist:

<b>DESIGN WITH NATURE AND SENSE OF PLACE</b>	
<ul style="list-style-type: none"> <li><i>Responds to site history, culture, geology and landscape</i></li> <li><i>Species chosen can be found in close proximity to the site</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>SITING AND LOCATION</b>	
<ul style="list-style-type: none"> <li><i>Size and growth characteristics of chosen species appropriate for location</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>FORM</b>	
<ul style="list-style-type: none"> <li><i>Tie into the natural landform</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>AESTHETICS</b>	
<ul style="list-style-type: none"> <li><i>Planting design enhances appeal of the natural environment</i></li> <li><i>Planting design acclimatizes people to the setting</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>SCALE AND BALANCE</b>	
<ul style="list-style-type: none"> <li><i>Plant scale relative to location</i></li> <li><i>Design relative to human scale</i></li> <li><i>In context of other developments, buildings and structures within the vicinity</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>VISIBILITY</b>	
<ul style="list-style-type: none"> <li><i>Site lines and view shafts maintained</i></li> <li><i>Visual cues created by green assets</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE
<b>SAFETY</b>	
<ul style="list-style-type: none"> <li><i>Encourage community ownership of spaces, structures and green assets</i></li> <li><i>Well maintained areas attract people</i></li> <li><i>Maintain plantings to ensure visibility into, out of and around</i></li> <li><i>Adequate setback of tall growing species around carparks, recreational structures and buildings</i></li> </ul>	<input type="checkbox"/> EXCELLENT <input type="checkbox"/> ADEQUATE <input type="checkbox"/> NOT ADEQUATE

MAINTAINENCE

- *Regular maintainence can be undertaken with ease*
- *Cost efficient design*
- *Flexible to seasonal change, weathering and erosion*

- EXCELLENT
- ADEQUATE
- NOT ADEQUATE

CULTURAL HERITAGE

- *Respect cultural heritage sites (refer to section 4.5)*
- *Ensure existing or proposed vegetation will not have a potential undesirable effect on the site*

- EXCELLENT
- ADEQUATE
- NOT ADEQUATE

ECOSOURCING AND SPECIES SPECIFICATIION

- *Propose species that can be easily sourced from the local environment to ensure survival*
- *Take cues from the existing species on or surrounding the site*
- *Avoid urban style planting*

- EXCELLENT
- ADEQUATE
- NOT ADEQUATE

PROTECTION

- *Provide protection for green assets such as staking, wind cloth and pest or disease control*
- *If protection or barrier is no longer required then remove redundant infrastructure*

- EXCELLENT
- ADEQUATE
- NOT ADEQUATE

ON SITE NOTES:

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