

SANDSPIT RESERVE RESTORATION: VEGETATION PLAN FOR 2013

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Introduction

The Sandspit Reserve includes a children's playground and grassed areas next to the road which leads to the Sandspit wharf. Also included is Dean's Island, which is covered with mature pohutukawas and other regenerating bush. There are some invasive weeds on the island. Two tidal lagoons and remnants of salt marsh are all that remain of a once extensive natural salt marsh and coastal vegetation area with three lagoons.

A restoration plan for this Open Space 1 passive reserve was initially proposed by the Sandspit Residents and Ratepayers Association in the 1990's. Ex SRRRA chairperson Michael Taplin brought this up to date (Plan to restore the Passive Area of Sandspit Reserve and to provide an Information/Education facility for the public. SRRRA, March 2011). Part of the Reserve restoration plan aims to improve the vegetation on Dean's Island and the salt marsh fringe around much of the reserve, to improve the habitat for rare banded rail which breed in the area, as well as restoring some of the salt marsh vegetation which has been damaged by development and vehicle parking.

For about ten years the grassy peninsula in the middle of the reserve has been used, inappropriately, as overflow parking for vehicles with boat trailers in times when the main paved carpark nearer the wharf is full. The Reserve Restoration Plan calls to permanently remove the option to park on the grassy peninsula, and to restore it to its original purpose as a passive reserve.

At the end of the grassy peninsula there are two sand banks which serve as the only natural high-tide roost for native wading birds in the Sandspit estuary. It is proposed to establish an information kiosk close to the road, with a few carparks only for vehicles of disabled persons. A flat, low level board walk, suitable for wheelchairs, would be built along the grassy reserve to two or three bird hides which would give close viewing access without disturbing the birds using the roost or feeding and roosting in the lagoons. Appropriate salt marsh and coastal plants would be established on much of the spit.

The board walk and hides would provide a unique opportunity in the Auckland Region, not only for the general public but also for disabled people, to enjoy close-up views of several species of wading and other birds, albeit in moderate numbers, as well as some of our delightful salt marsh flowers.

Although there are other areas near Auckland where larger numbers of wading birds can be viewed (Miranda, Omaha Spit, Ambury Park) all these areas require a long walk sometimes over rough ground and are not suitable for wheelchairs or infirm people. At Sandspit there is the opportunity for wheelchair access along a well-constructed path to hides only 100 metres from disabled parking. This enhancement of natural and amenity values is a far more appropriate use for this reserve than its current inappropriate use as a parking area for vehicles with trailers.

The vegetation plan for 2013 is a step towards implementation of the Sandspit Reserve Restoration Plan and will restore some of the coastal vegetation of the reserve and its fringes with appropriate locally-sourced salt marsh and coastal natives.

Expert guidance

The vegetation plan for 2013 has been guided by two recent documents produced by Warkworth botanist Maureen Young (appended). In January 2011 Maureen listed the indigenous plants of the Sandspit saltmarsh and Dean's Island. Then in March 2011 she compiled a list of plants suitable for revegetation of Dean's Island.

Vegetation plan

The accompanying Google image shows six zones, A to F, indicating different proposed vegetation treatments. Each zone is discussed below.

Zone A North and east shoreline of northern (carpark) lagoon

Purpose: Thicken up the shoreline saltmarsh vegetation to improve cover for banded rails to travel securely around the edge of the lagoon. Suitable vegetation could also provide a visual screen to obscure the unsightly parking area from view across the northern lagoon.

Type of planting: Mostly infill planting. Saltmarsh fringe and several larger shrubs.

Shoreline length: Approximately 100 metres.

Plants and numbers:

<i>Plagianthus divaricatus</i>	Saltmarsh ribbonwood	50
<i>Muehlenbackia complexa</i>	Pohuehue	50
<i>Apodasmia similis</i>	Oioi	30
<i>Austrostipa stipoides</i>	Needle grass	20
<i>Phormium tenax</i>	Flax	20
<i>Pseudopanax lessonii</i>	Houpara	15
<i>Leptospermum scoparium</i>	Manuka	10
<i>Myrsine australis</i>	Mapou	10
<i>Metrosideros excelsa</i>	Pohutukawa	3

Zone B North and east shoreline of southern (Dean's Island) lagoon

Purpose: Repair damage to saltmarsh vegetation caused by trailers being reversed into the saltmarsh. Improve cover for banded rails. Vegetation should mostly be kept low to allow a view from the grass to the lagoon where birds may roost or feed, yet obscure legs and lower body of visitors from the birds view.

Type of planting: Mostly infill planting.

Shoreline length: Approximately 100 metres.

Plants and numbers:

<i>Apodasmia similis</i>	Oioi	100
<i>Plagianthus divaricatus</i>	Saltmarsh ribbonwood	30
<i>Baumea juncea</i>	Sedge	20
<i>Phormium tenax</i>	Flax	10
<i>Leptospermum scoparium</i>	Manuka	5

Zone C Lagoon fringe invaded by *Paspalum vaginatum*

Purpose: Spray out expanding colony of invasive *Paspalum vaginatum*. Spraying to be carried out by Eliane Lagnaz as soon as possible to allow adequate time before subsequent planting. Improve cover for banded rails.

Type of planting: Mostly infill. Glasswort to refill areas where *Paspalum* is removed.

Shoreline length: Approximately 20 metres.

Plants and numbers:

<i>Sarcocornia quinqueflora</i>	Glasswort	40
<i>Apodasmia similis</i>	Oioi	30
<i>Plagianthus divaricatus</i>	Saltmarsh ribbonwood	15
<i>Phormium tenax</i>	Flax	5

Zone D Eroded western shoreline of Dean's Island

Purpose: To try to reduce erosion along this shoreline. About 10 years ago the SRRRA sprayed out the pohuehue along this side of the island probably encouraging subsequent erosion. Planting of suitable species here may reduce the impact of wave erosion which is undercutting the island.

Type of planting: Establishment of vegetation band on shoreline.

Shoreline length: Approximately 30 metres.

Plants and numbers:

<i>Muehlenbeckia complexa</i>	Pohuehue	30
<i>Apodasmia similis</i>	Oioi	30
<i>Sarcocornia quinqueflora</i>	Glasswort	20
<i>Plagianthus divaricatus</i>	Saltmarsh ribbonwood	5

Zone E Dean's Island

Purpose: Spray out infestations of two species of *Asparagus*. Spraying to be carried out by Eliane Lagnaz prior to subsequent planting. Hand-pulling of invasive weeds such as two species of wattle, and fleabane. Increase density of suitable native vegetation on the island, to improve nesting security for banded rail and to encourage other native birds to use and perhaps breed on the island.

Type of planting: Infill planting.

Planting area: Approximately 1200 square metres.

Plants and numbers:

<i>Pseudopanax lessonii</i>	Houpara	100
<i>Coprosma macrocarpa</i>	Coastal karamu	50
<i>Cordyline australis</i>	Cabbage tree	30
<i>Corynocarpus laevigatus</i>	Karaka	20
<i>Geniostoma ligustrifolium</i>	Hangehange	20
<i>Melicytus ramiflorus</i>	Mahoe	20
<i>Hebe macrocarpa</i>	Coastal hebe	20
<i>Hoheria populnea</i>	Lacebark	20
<i>Brachyglottis repanda</i>	Rangiora	10
<i>Myrsine australis</i>	Mapou	10
<i>Leptospermum scoparium</i>	Manuka	10
<i>Macropiper excelsum</i>	Kawakawa	10
<i>Melicope ternata</i>	Wharangi	5
<i>Olearia albida</i>	Coastal tree daisy	5

Zone F Southern (Dean's Island) lagoon

Purpose: Maintain the open part of the lagoon in its present state to provide a roosting and feeding area for waders which choose to use this area from time to time when the tidal level is right. Regular annual hand-pulling or snipping of mangrove seedlings and their removal offsite, according to current Council rules. Timing best in spring or early summer when seedlings are at their lowest numbers.

Type of planting: No planting required

Area: Approximately 2000 square metres.



Number of plants required

The total number of plants needed for the 2013 planting programme is listed below for each species. As SSOSI is able to supply some of the plants from our own nursery and other suitable sources, a second column indicates the number of each species we are seeking from Council.

Plants		# needed	# from Council
<i>Apodasmia similis</i>	Oioi	190	190
<i>Pseudopanax lessonii</i>	Houpara	115	50*
<i>Plagianthus divaricatus</i>	Saltmarsh ribbonwood	100	20*
<i>Muehlenbeckia complexa</i>	Pohuehue	80	60*
<i>Sarcocornia quinqueflora</i>	Glasswort	60	30*
<i>Coprosma macrocarpa</i>	Coastal karamu	50	0
<i>Phormium tenax</i>	Flax	35	35*
<i>Cordyline australis</i>	Cabbage tree	30	20*
<i>Leptospermum scoparium</i>	Manuka	25	25
<i>Austrostipa stipoides</i>	Needlegrass	20	20*
<i>Myrsine australis</i>	Mapou	20	20
<i>Geniostoma ligustrifolium</i>	Hangehange	20	10*
<i>Melicytus ramiflorus</i>	Mahoe	20	0
<i>Hebe macrocarpa</i>	Coastal hebe	20	20
<i>Hoheria populnea</i>	Lacebark	20	0
<i>Corynocarpus laevigatus</i>	Karaka	20	20
<i>Macropiper excelsum</i>	Kawakawa	10	0
<i>Brachyglottis repanda</i>	Rangiora	10	10
<i>Olearia albida</i>	Coastal tree daisy	5	5
<i>Melicope ternata</i>	Wharangi	5	5
<i>Metrosideros excelsa</i>	Pohutukawa	3	3

We may be able to find an alternative source for at least some of those marked with an asterisk*

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**Sandspit saltmarsh & Dean's Island
Checklist of vascular indigenous plants**

Compiled by Maureen Young

10 January 2011

Angiosperms

Dicotyledons

<i>Apium prostratum</i>	NZ celery
<i>Avicennia marina</i> subsp. <i>australasica</i>	mangrove
<i>Coprosma macrocarpa</i>	coastal karamu
<i>Coprosma repens</i> (planted).....	taupata
<i>Corynocarpus laevigatus</i>	karakā
<i>Cotula coronopifolia</i>	bachelor's button
<i>Hebe</i> ? (planted).....	koromiko
<i>Leptospermum scoparium</i>	manuka
<i>Metrosideros excelsa</i> (some planted).....	pohutukawa
<i>Muehlenbeckia complexa</i>	wire vine
<i>Myrsine australis</i>	mapau, matipo
<i>Pittosporum crassifolium</i> (planted).....	karo
<i>Plagianthus divaricatus</i>	saltmarsh ribbonwood
<i>Samolus repens</i>	sea primrose
<i>Sarcocornia quinqueflora</i>	glasswort
<i>Selliera radicans</i>	remuremu, selliera
<i>Sophora tetraptera</i> (planted)	kowhai

Monocotyledons

<i>Apodasmia similis</i>	oioi
<i>Austrostipa stipoides</i>	coastal needle grass
<i>Baumea juncea</i>	a sedge
<i>Cordyline australis</i>	cabbage tree
<i>Cyperus ustulatus</i>	umbrella sedge
<i>Ficinia nodosa</i>	knobby club rush
<i>Juncus kraussii</i> var. <i>australiensis</i>	sea rush
<i>Lachnagrostis billardierei</i>	sand wind grass
<i>Phormium tenax</i>	harakeke, flax

Plants suitable for revegetating Dean's Island, Sandspit

Maureen Young, 4 March 2011

Remove

Coprosma repens – taupata

I would recommend removing *Pittosporum crassifolium* – karo

Trees and shrubs to plant

Metrosideros excelsa – pohutukawa. Only plant if it is considered that there is room for more. Don't plant cultivars such as Dragons' blood or Maori princess.

Pseudopanax lessonii – coastal five finger. This should be a dominant plant.

Coprosma macrocarpa – coastal karamu. This should also be dominant.

There may be room on such a small island for one or two of these:-

Melicope ternata – wharangi

Sophora chathamica – kowhai (Yes, this is the local kowhai)

Corynocarpus laevigatus – karaka

Olearia albida – coastal tree daisy

Brachyglottis repanda – rangiora

Cordyline australis – cabbage tree

Dysoxylum spectabile – kohekohe

Geniostoma ligustrifolium – hangehange

Hebe macrocarpa – coastal hebe

Melicytus ramiflorus – mahoe

Hoheria populnea – lacebark

Ground plants

Poa anceps – native grass

Microlaena stipoides – native grass

Carex flagellifera – coastal sedge

Gahnia lacera – cutty grass

Asplenium oblongifolium – shiny spleenwort fern

Astelia banksii – coastal Astelia