

Tabled at:

on:

## Santoft Domain Plant Recommendations

### Planting

Following are the recommendations for the planting of the shelter, wetland, stream, and screen and amenity plantings in the Domain.

I have taken into consideration all the recommendations as requested by the Santoft Domain Committee for the planting of this site. The species selection chosen have the ability to withstand the extreme climatic conditions a site like this can experience.

I have broken down this planting into several areas as each area to be planted has varying ground and climatic conditions. Plant species have been chosen to withstand the climatic and ground conditions experienced in each area. When mature, these species will give the desired effect of screening and environmental enhancement from surrounding locations.

Included in the following are full species selection, the number of plants required for each area and any other item that will be required for successful establishment of new plantings. Plants chosen are not poisonous to stock.

The planting is also designed to attract native birds to this area at different times of the year. Please refer to table four for flower and fruiting times of the plants included in these plantings.

### Table One: Pine removal replanting (Area 3 Yellow on map)

These two sites cover an area of approximately 3512 m2 (420 long x 7-9m wide) and runs almost the length of the Domain. This area is marked yellow on the attached map. .

Consideration needs to be given to the need to plant the entire length or just selected areas, as much of the site will be grazed will this area need to be fully planting?

The following numbers can be altered should the committee decided to plant other species or reduce the area of planting.

All plants chosen for this area will be able to withstand both the prevailing weather conditions and the compacted soil following the removal of the pines.

Species	Common Name	Grade	Area one	Area two	Total Cost
			Pruned Pines	Unpruned Pine	
<b>Area of planting M2</b>			1526	1986	
<b>Number of plants</b>			583	753	
<i>Coprosma repens</i>	Karamu	Pb3	23		\$ 72.45
<i>Cordyline australis</i>	Cabbage Tree, Ti	Pb3	30	50	\$ 316.00
<i>Kunzea ericoides</i>	Karnuka	Pb3	100	100	\$ 790.00
<i>Leptospermum scoparium</i>	Manuka	Pb3	50	100	\$ 592.50
<i>Olearia solandri</i>	Coastal Tree Daisy	Pb3	70	100	\$ 671.50
<i>Phormium cookianum</i>	Harekeke	Pb3	150	200	\$1382.50
<i>Pittosporum tenuifolium</i>	Kohuhu	Pb3	50	53	\$ 499.55
<i>Pseudopanax arboreus</i>	Fiver finger	Pb3	60	100	\$ 880.00
<i>Sophora godleyi</i>	Rangitikei form	Pb3	50	50	\$ 485.00
<b>Number of plants each area</b>			<b>583</b>	<b>753</b>	<b>\$ 5690.50 ex gst</b>

**Table Two: Wetland and Stream (Area 1 Green on map)**

These two sites covers an area of approximately 3292 m2 and includes both the wetland and drain margins marked green on the attached map.

Allowance has been made to plant wetland species at 1m centres and stream edge plants at 2m centres. All plants will be set back 1m from fencing to allow for possible damage from stock.

Species	Common Name	Grade	Area one	Area two	Total Cost
			Wetland	Drain edge	
<b>Area of planting M2</b>			1167	3355	
<b>Number of plants</b>			744	1200	
<i>Carex secta</i>	Native sedge	Pb3	80		\$ 316.00
<i>Coprosma robusta</i>	Karamu	Pb3		100	\$ 315.00
<i>Coprosma propinqua</i>	Mingimingi	Pb3	94	100	\$ 873.00
<i>Cortaderia toetoe</i>	Toetoe	Pb3	70	50	\$ 378.00
<i>Cyperus ustulatus</i>	Giant umbrella sedge	Pb3	300		\$1185.00
<i>Cordyline australis</i>	Cabbage Tree, Ti	Pb3	50	50	\$ 395.00
<i>Hebe stricta</i>	Koromiko	Pb3		100	\$ 395.00
<i>Kunzea ericoides</i>	Karnuka	Pb3		100	\$ 395.00
<i>Leptospermum scoparium</i>	Manuka	Pb3		200	\$ 790.00
<i>Olearia solandri</i>	Coastal Tree Daisy	Pb3		150	\$ 592.00
<i>Phormium tenax</i>	Harekeke	Pb3	150	150	\$1185.00
<i>Pittosporum tenuifolium</i>	Kohuhu	Pb3		100	\$ 485.00
<i>Pseudopanax arboreus</i>	Fiver finger	Pb3		50	\$ 275.00
<i>Sophora godleyi</i>	Rangitikei form	Pb3		50	\$ 242.50
<b>Number of plants each area</b>			<b>744</b>	<b>1200</b>	<b>\$ 7823.50 ex</b>

**Table Three: Screen Plantings (Area fuchsia on map)**

This area represents a small planting that will screen the house at 1001 Santoft Road from the developed area within the Domain. This area is marked fuchsia on the attached map.

This planting is designed that when mature will not block sun from this property and screen the house from activities within the Domain.

Species	Common Name	Grade	Number	Total Cost
<b>Area of planting M2</b>			629	
<b>Number of plants</b>			215	
<i>Coprosma propinqua</i>	Mingimingi	Pb3	10	\$ 49.50
<i>Leptospermum scoparium</i>	Manuka	Pb3	40	\$ 158.00
<i>Olearia solandri</i>	Coastal Tree Daisy	Pb3	40	\$ 158.00
<i>Phormium tenax</i>	Harekeke	Pb3	25	\$ 98.75
<i>Myrsine australis</i>	Kohuhu	Pb3	50	\$ 375.00
<i>Pseudopanax arboreus</i>	Fiver finger	Pb3	34	\$ 187.00
<i>Sophora godleyi</i>	Rangitikei form	Pb3	10	\$ 48.50
<b>Number of plants each area</b>			<b>215</b>	<b>\$ 1074.75 ex gst</b>

**Feature Tree Planting**

I propose a number of trees to be planted within the camping/picnic site for long term shade for visitors. I also suggest that we replace the tree at the entrance that marks David Coulter memorial. A more coastal hardy species is recommended.

Feature trees:

- ***Metrosideros* “Mistral”** This species is a cross between a Rata and Pohutukawa, it grows to a height of 5m when mature and is coastal hardy.
- ***Quercus robur* “English Oak”** This species would make an ideal shade tree within the domain. Although it may get “Shaped” in the spring gales it will in time grow into a significant tree.

### **Native plant descriptions**

#### **Carex secta (Wetland Sedge)**

A robust wetland grass that will grow in very damp areas of the wetland area.

#### **Coprosma repens (Taupata)**

This tough little evergreen tree reaches a height of 3m when mature and can withstand dry and salt laden winds. It can however not withstand wet feet so should only be planted in the shelter line.

#### **Coprosma propinqua (Mingimingi)**

A small coastal wetland species that reaches a height of 2m when fully mature. This plant would only be planted on the edges of the drain or within the wetland. It needs some moisture throughout the year to grow well.

#### **Cortaderia toetoe (Toe Toe)**

Our native Toe Toe that requires damp conditions to grow well. This plant would be planted within the open wetland or on the edges of the drain.

#### **Cyperus ustulatus (Giant Umbrella Sedge)**

This sedge (Grass like) reaches a height of 1m when mature. It is one of the most prolific coastal native plants growing along drains and wetlands. This plant would be used in open wet areas.

#### **Cordyline australis (Cabbage tree)**

This one speaks for itself, would be planted along the drain and in the wetland.

#### **Hebe stricta (Hebe)**

Although this likes things on the damp side this would be ideal along the drain edge. Growing to a height of 3m when mature it is a quick grower that will provide summer flowers.

#### **Kunzea ericoides (Kanuka)**

Our coastal kanuka which grows naturally along the Foxton ecological district (Santoft included). This plant will be slow in sandy conditions but once established will form an excellent shelter tree or specimen tree. It will reach a height of 5m when mature. It is not only coastal tolerant but dry loving. Good for bees.

#### **Leptospermum scoparium (Manuka)**

This plant would need to be planted in the damp areas in the domain, it will not thrive in sand but will grow along the stream and within wet areas, extremely coastal hardy. Great tree to feed the bees in the area.

#### **Olearia solandri (Coastal Tree Daisy)**

A great coastal native that will grow in most areas of the domain. This tree has golden leaves and during summer it will be smothered in white flowers. Grow to a height of 3m when mature, it will take 4 years to reach this height. A great looking native shrub that grows naturally in the coastal area around Santoft.

**Phormium tenax (Wetland Flax)**

This is our large leaved flax that is suited to most areas of the domain, would be used mainly along the stream and in the wetland. Grows to a height of 3m when mature and will attract native birds such as Tui into the Domain. A very robust species.

**Pittosporum tenuifolium Small leaved Pittosporum or (Kohuhu)**

Ideal for along the stream and drain margins where moisture will be available year round for this tree. During spring this tree flowers heavily and is highly scented in the evening. Grows to a height of 3-4 m in this coastal environment.

**Pseudopanax arboreus (Fiver Finger)**

Dry loving coastal five finger, a great plant for all areas of the Domain. For the shelter line it will be shaped by prevailing winds and until established may require some moisture to establish. For other areas in the domain it is ideally suited, when mature will reach a height of 3-4m. This plant grows naturally along the coastline between Wellington and New Plymouth.

**Sophora godleyi (Kowhai)**

Our Rangitikei Kowhai is a robust tree that will grow well along the stream and wetland margins. When mature this will reach a height 4m, this tree will not grow in raw sand.

**Table Four: Bird Attracting Plants**

The following table indicated when the native plants chosen will flower and fruit.

Species	Part of plant	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<i>Cordaderia toetoe</i>	Seed												
<i>Coprosma propinqua</i>	Fruits and seeds												
<i>Cordyline australis</i>	Nectar and seeds												
<i>Olearia solandri</i>	Seeds												
<i>Phormium tenax</i>	Nectar, seeds, fruit												
<i>Phormium cookianum</i>	Mountain Flax												
<i>Leptospermum scoparium</i>	Nectar, bees												
<i>Pittosporum tenuifolium</i>	Nectar, seeds, fruit												
<i>Sophora godleyi</i>	Nectar												