

# Riparian Plants for Southland

A guide to plant species suitable for riparian  
planting in Southland.



environment  
**SOUTHLAND**  
REGIONAL COUNCIL  
Te Taiao Tonga



# RIPARIAN PLANTS FOR SOUTHLAND

## Riparian Plants for Southland

When choosing plants for a riparian zone, there are a number of factors to consider. It is important to select plants that will do well in your location and can tolerate local conditions. They also need to be the right plant for the job (e.g. for water quality protection or improvement, shelter, bank stabilisation, timber production, aesthetics or biodiversity values).

## What to Plant and Where

The species lists in this booklet are not comprehensive. If you need help in finding suitable species for riparian planting on your farm, contact one of our Land Sustainability Officers at Environment Southland, email [service@es.govt.nz](mailto:service@es.govt.nz) or phone 0800 76 88 45.

## Climatic Zones

Southland has one of the most diverse climates in New Zealand. Coastal parts of Southland can be very wet, while many inland areas are dry. Different parts of Southland have different climate patterns and growing conditions for plants. These areas form three main zones: coastal zone, intermediate zone and inland zone.

### Coastal zone

This zone is subjected to fairly constant cold salt-laden winds from the south and west. Riparian plants in this zone need to be tolerant of wind and salt.

### Intermediate zone

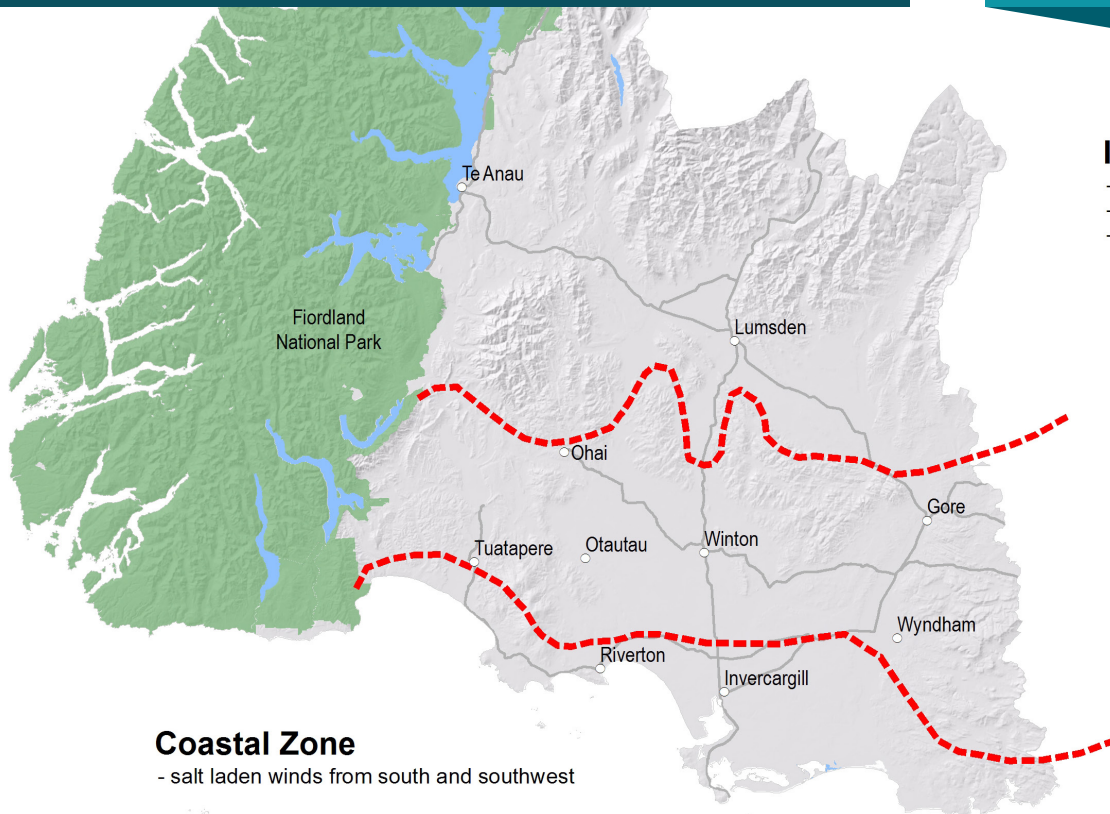
The intermediate zone has a generally temperate climate, with few severe frosts and good rainfall. It is suitable for most riparian plants.

## Inland zone

This zone lies in the northern region of Southland, which has the greatest climatic extremes. Riparian plants need to cope with a wide range of conditions, from frosts in winter to drought in summer.

These climatic zones are a guideline only. It is important to match plant species to the appropriate site on your farm. Within each farm there may be wet sites, dry sites, frost pockets (usually valley floors), areas prone to high winds and those susceptible to pest damage, all of which need to be taken into account.

## Exposure Zones for Tree Growth



### Coastal Zone

- salt laden winds from south and southwest

### Inland Zone

- dry northwesterly winds
- drought
- out of season frosts

### Intermediate Zone

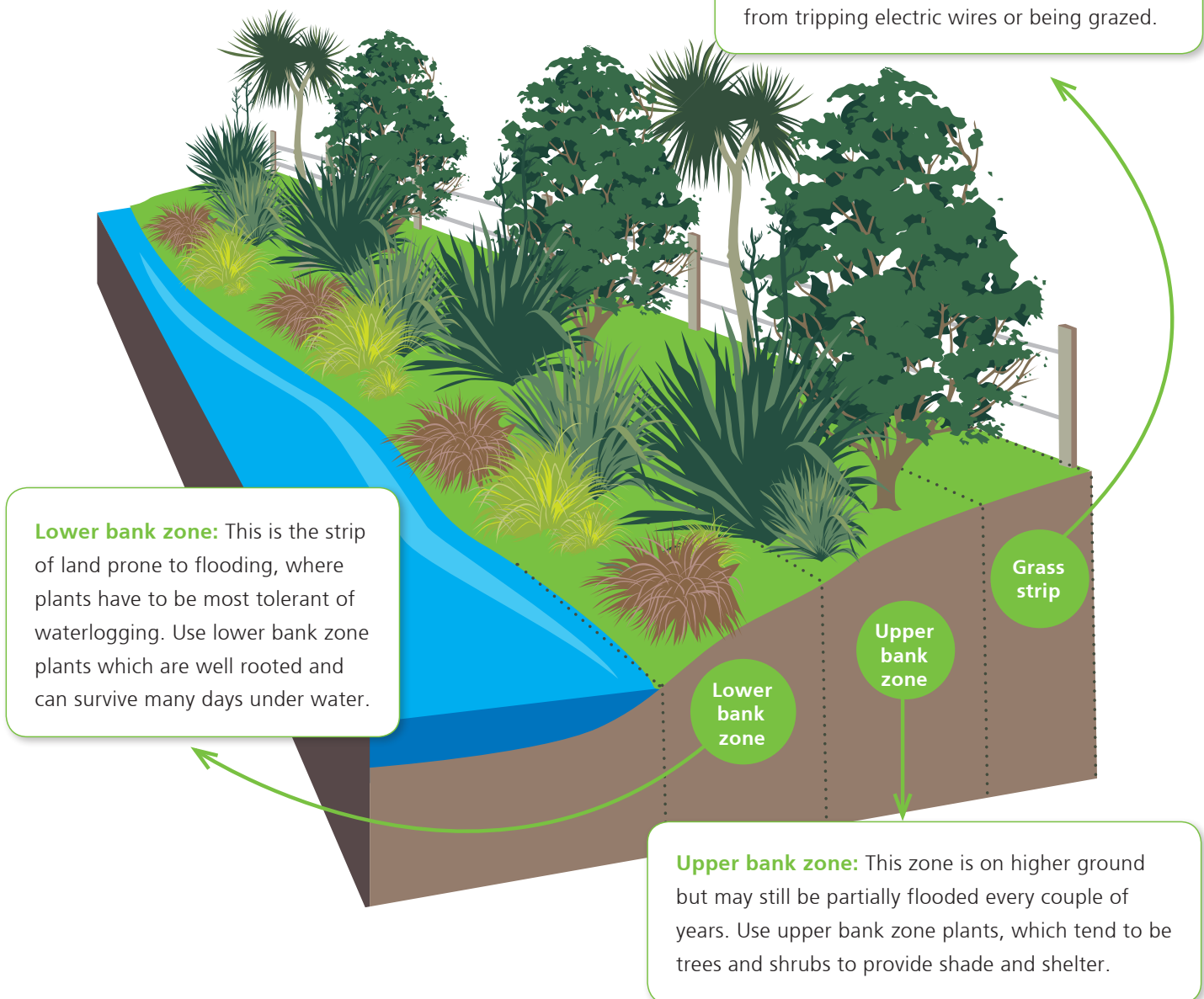
- rare out of season frosts
- rainfall > 900mm per annum

## Lower Banks Versus Upper Banks

Once you've established what climatic zone your farm is situated in, you'll have to look at plant types for your riparian zone. These are divided into two main areas for planting:

1. **Lower bank** – closest to the water and most prone to flooding.
2. **Upper bank** – on higher ground, but may get partially flooded on occasion.

**Grass strip:** A one metre wide grass strip should be left around all fences. This will help to filter out sediment, phosphorus and faecal bacteria from runoff and prevent plantings from tripping electric wires or being grazed.



*(Diagram courtesy DairyNZ)*



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## Native Riparian Plants

### Lower Bank

These plants can survive many days under water. Space 1.0-1.5 metres between plants.

Scientific Name	Common Name	Coastal Zone	Intermediate Zone	Inland Zone
<i>Austroderia richardii</i>	Toetoe	✓	✓	✓
<i>Carex secta</i>	Pukio	✓	✓	✓
<i>Chionochloa rubra</i>	Red tussock	✓	✓	✓

### *Austroderia richardii* – Toetoe





*Carex secta* – Pukio



*Chionochloa rubra* – Red tussock





## RIPARIAN PLANTS FOR SOUTHLAND

### Upper Bank

These trees and shrubs provide shade and shelter on higher ground. Space 1.5 to 2.0 metres between plants.

Scientific Name	Common Name	Coastal Zone	Intermediate Zone	Inland Zone
<i>Aristotelia serrata</i>	Wineberry		✓	
<i>Coprosma propinqua</i>	Mingimingi	✓	✓	✓
<i>Coprosma lucida</i>	Karamu		✓	
<i>Cordyline australis</i>	Cabbage tree	✓	✓	✓
<i>Griselinia littoralis</i>	Broadleaf	✓	✓	✓
<i>Hebe elliptica</i>	Kokomuka	✓	✓	
<i>Hebe salicifolia</i>	Koromiko		✓	✓
<i>Leptospermum scoparium</i>	Manuka	✓	✓	✓
<i>Melicytus ramiflorus</i>	Mahoe	✓	✓	✓
<i>Olearia lineata dartonii</i>	Twiggy tree daisy	✓	✓	
<i>Olearia traversiorum</i>	Chatham Island ake ake	✓	✓	
<i>Phormium tenax</i>	Flax	✓	✓	✓
<i>Pittosporum eugenoides</i>	Lemonwood		✓	✓
<i>Pittosporum tenuifolium</i>	Kohuhu		✓	✓
<i>Plagianthus regius</i>	Lowland ribbonwood		✓	
<i>Pseudopanax colensoi var tern atus</i>	Three finger		✓	
<i>Sophora microphylla</i>	Kowhai		✓	✓



*Aristotelia serrata* – Wineberry (10m)



*Coprosma propinqua* – Mingimingi (6m)



*Coprosma lucida* – Karamu (96m)





## RIPARIAN PLANTS FOR SOUTHLAND

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*Cordyline australis* – Cabbage tree (12m)



*Griselinia littoralis* – Broadleaf (10m+)



*Hebe elliptica* – Kokomuka (5m)





**Hebe salicifolia – Koromiko (5m)**



**Leptospermum scoparium – Manuka (10m)**



**Meliccytus ramiflorus – Mahoe (10m+)**





## RIPARIAN PLANTS FOR SOUTHLAND

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*Olearia lineata dartonii* – Twiggy tree daisy (8m)



*Olearia traversiorum* – Chatham Island ake ake (18m)



*Phormium tenax* – Flax





*Pittosporum eugenioides* – Lemonwood (12m)



*Pittosporum tenuifolium* – Kohuhu (8m)



*Plagianthus regius* – Lowland ribbonwood (15m)





## RIPARIAN PLANTS FOR SOUTHLAND

*Pseudopanax colensoi* var *ternatus* – Three finger (5m)



*Sophora microphylla* – Kowhai (25m)





## Exotic Riparian Plants

There are a variety of exotic species that are suitable for planting in riparian zones. They are usually quick growing and can provide rapid shelter and shade for adjacent paddocks. They also stabilise stream banks and provide erosion control. Some species can intercept groundwater and remove nutrients, while others provide early pollen for bees and food for birds. For further advice and information contact your Land Sustainability Officer.

Scientific Name	Common Name	Coastal Zone	Intermediate Zone	Inland Zone
<i>Eucalyptus cordata</i>	Heart-leaved silver gum	✓	✓	✓
<i>Eucalyptus nitens</i>	Shining gum		✓	✓
<i>Populus euramericana</i>	Tasman poplar		✓	
<i>Populus nigra 'Italica'</i>	Lombardy poplar		✓	✓
<i>Populus trichocarpa</i>	Black cottonwood poplar		✓	✓
<i>Salix glaucophylloides x viminalis</i>	Pussy (Glenmark) shrub willow	✓	✓	✓
<i>Salix moutere</i>	Moutere tree willow	✓	✓	

### *Eucalyptus cordata* - Heart-leaved silver gum (15m)





*Eucalyptus nitens* – Shining gum (10m)



*Populus euramericana* – Tasman poplar (30m)



*Populus nigra var Italica* – Lombardy poplar (30m)





*Populus trichocarpa* – Black cottonwood poplar (30m)



*Salix glaucophylloides x viminalis* – Pussy (Glenmark) shrub willow (8m)



*Salix moure* – Moure tree willow (8m)







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