

RIPARIAN PLANTING GUIDE

UPPER CLUTHA REGION

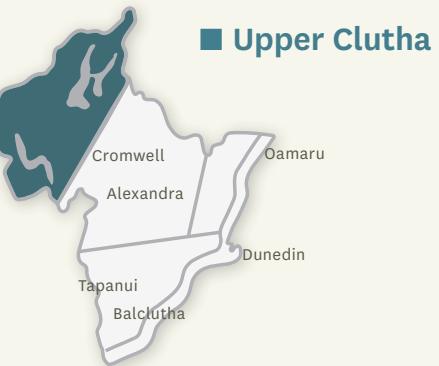
Riparian zones are the land beside a creek, river, lake or wetland. Planting native grasses, sedges, flaxes, shrubs and/or trees in riparian zones can improve the health of Otago's waterways by filtering nutrients before they reach the water, including nitrogen, phosphorus and bacteria such as *E. coli*.

Riparian planting has other benefits too:

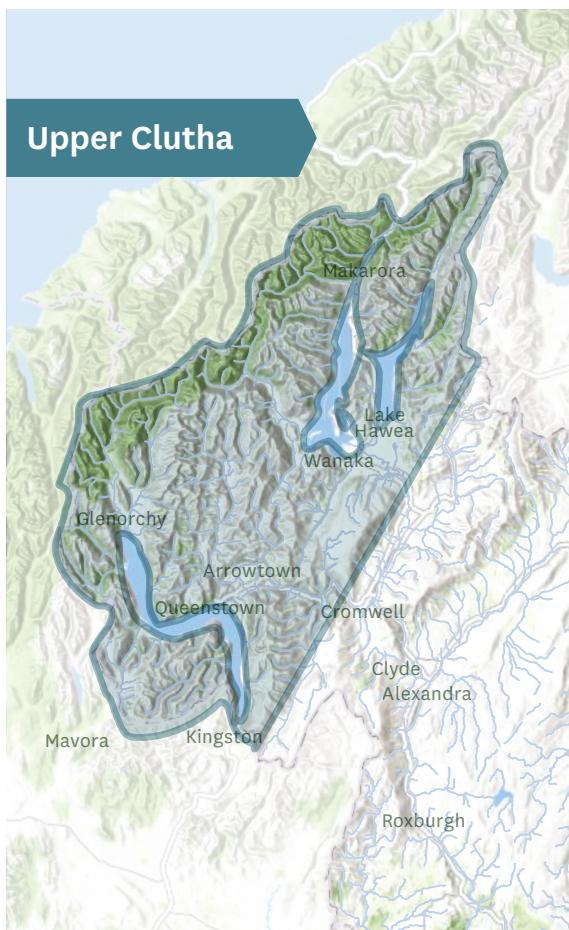
- ✓ Enhanced ecosystem health (including habitat for insects) and increased biodiversity
- ✓ Reduced sediment runoff and increased bank stabilisation
- ✓ Provides shade that decreases waterway temperatures (this reduces weed growth and provides stable temperatures for aquatic organisms)
- ✓ Provides shelter for stock
- ✓ Potential recreational opportunities such as fishing and swimming spots

Check this guide to see which plants will work best for where you live.

Planting guides are also available for Coastal Otago, Central Otago, East Otago, and South Otago.



Otago is the second largest region in New Zealand and we have a diverse range of landscapes, so it's important to choose the right plants for your climate and soil type.



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Zone	Plant	Space between plants (m)	Size height (m) x width (m)	full sun	frost	wind	moist soil	birds	pollinators	fish	Benefits	Notes
LOWER BANK	Purei <i>Carex secta</i>	1.5	2 x 1.5	•	•	•	•	•	○	•	Their overhanging leaves great egg-laying habitat for inanga.	
	Sedge <i>Carex virgata</i>	1	1 x 1	•	•	•	•	•	○	•	Provide shelter and nesting habitat for birds, such as marsh crake.	
MIDDLE BANK	Haraake / Flax <i>Phormium tenax</i>	2	2 x 2	•	•	•	•	•	•	○	Good for erosion control. Best planted a row back from the bank edge due to their larger size.	
	Toetoe <i>Austrodieria richardii</i>	2	2 x 2	•	•	•	•	○	○	○	Useful in retaining steep banks.	
Grass	Leatherleaf sedge <i>Carex buchananii</i>	0.4	0.6 x 0.4	•	•	•	•	○	○	○	Rapid growth rate. Grows best in well-drained soils. Good for erosion control.	
	Red tussock <i>Chionochloa rubra</i>	1	1 x 1	•	•	•	•	○	○	○	Plant in any soil except waterlogged soil.	
Groundcover / small shrubs	Coprosma <i>Coprosma crassifolia</i>	4	4 x 4	•	•	•	•	•	○	○	Berries attract skinks. Upright columnar habit is good for narrow spaces.	
	Mingimingi <i>Coprosma propinqua</i>	1.5	4 x 2	•	•	•	•	•	•	○	Good for erosion control. Flowers are white and inconspicuous but sweetly fragrant.	
MIDDLE BANK	Matagouri <i>Discaria toumatou</i>	2	4 x 2	•	•	•	•	•	•	○		
	Koromiko <i>Veronica salicifolia</i>	1.5	2 x 2	•	•	•	•	○	•	○		
Trees	Cabbage tree <i>Cordyline australis</i>	1 - 1.5	10 x 3	•	•	•	•	•	•	○	Good for bank stabilisation and tolerates very wet to moderately dry conditions.	
	Mānuka <i>Leptospermum scoparium</i>	2	5 x 2	•	•	•	•	○	•	○	Match the planting conditions to the seed source* Not wind tolerant as seedling.	
Trees	Silver beech <i>Lophozonia menziesii</i>	5	2.5 x 5	○	•	•	•	○	•	○	Suits cool moist sites at higher altitudes. Susceptible to drought. Not wind tolerant as sapling.	
	Narrow-leaved mahoe <i>Melicytus lanceolatus</i>	2	8 x 2.5	•	•	○	•	•	•	○	Good erosion control. Shade tolerant.	
Trees	Hector's tree daisy <i>Olearia hectorii</i>	2	9 x 3	•	•	•	•	○	○	○	Threatened in the wild. Fast growing and a good willow substitute.	
	Ribbonwood <i>Plagianthus regius</i>	2	10 x 3	•	•	•	•	○	•	○	Deciduous tree, fast growing. Good for bank stabilisation.	

*E.g: plant seed collected from wet areas into wet areas, dry seed sources planted into dry areas.

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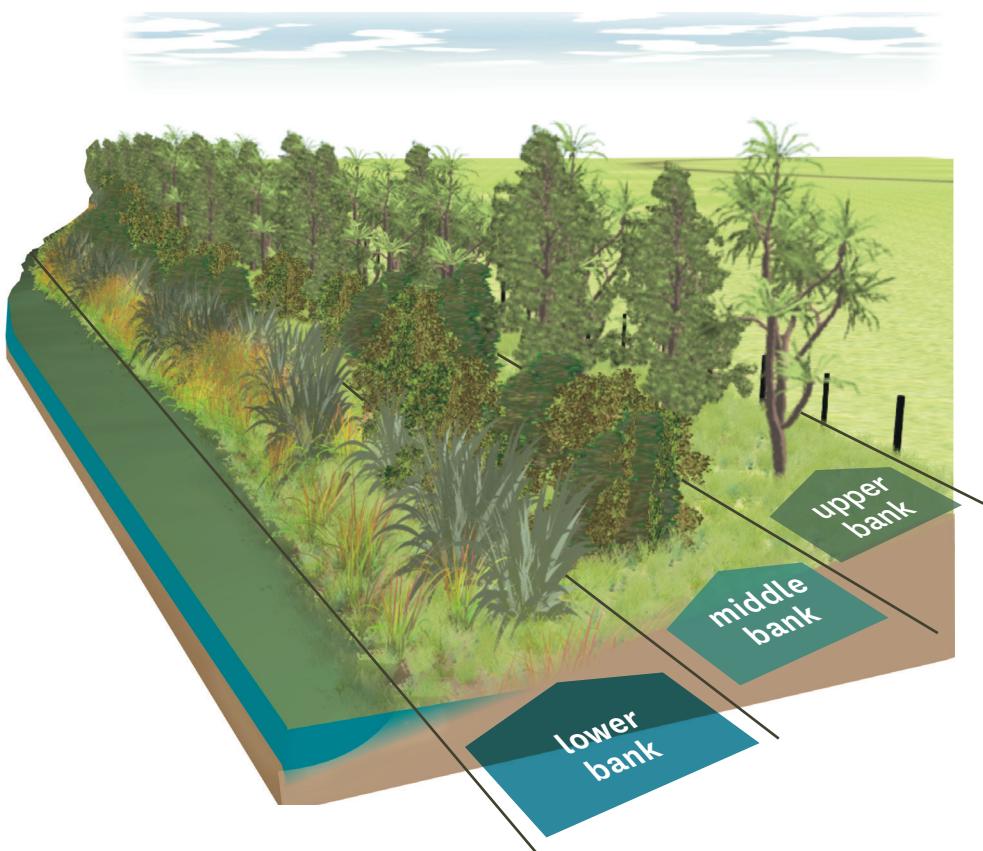
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Zone	Plant	Space between plants (m)	Size height (m) x width (m)	full sun	frost	wind	moist /wet soil	birds	pollinators	fish	Notes
UPPER BANK											
	Mountain wineberry <i>Aristotelia fruticosa</i>	2	2 x 2	•	•	•	○	•	○	○	Avoid planting in areas that can have high moisture levels.
	Desert broom <i>Carmichaelia petriei</i>	1.5	2 x 2	•	•	•	○	•	•	○	Good for slope stabilisation.
	Shiny kāramu <i>Coprosma lucida</i>	1.5	3 x 2	•	○	•	○	•	•	○	
	Korokio <i>Corokia cotoneaster</i>	1.5	2 x 1.5	•	•	•	○	•	○	○	Avoid planting in areas that can have high moisture levels.
	Whipcord hebe <i>Leionohebe cupressoides</i>	1	1 x 1	•	•	•	○	○	•	○	Rare species in the wild. Plant in dry, well-drained soils.
	Porcupine shrub <i>Melicytus alpinus</i>	1	1 x 1.2	•	•	•	○	○	○	○	Provides habitat and food for lizards.
	Scented tree daisy <i>Olearia odorata</i>	2	4 x 2	•	•	•	○	○	•	○	Threatened in the wild.
	Needle-leaved mountain coprosma <i>Coprosma rugosa</i>	3	8 x 3	•	•	•	•	•	•	○	
	Matipo <i>Myrsine australis</i>	2	5 x 3	•	○	•	○	•	○	○	
	Marble leaf <i>Carpodetus serratus</i>	3	8 x 3	•	•	•	○	•	•	○	Not wind tolerant as a sapling.
	Kahikatea <i>Dacrycarpus dacrydioides</i>	3	60 x 5	•	○	○	•	•	•	●	Good for erosion control.
	Broadleaf <i>Griselinia littoralis</i>	2	10 x 3	•	•	•	○	•	○	○	Good for erosion control.
	Mountain ribbonwood <i>Hoheria lyallii</i>	2	5 x 2	•	•	•	○	○	•	○	Deciduous.
	Kānuka <i>Kunzea ericoides</i>	2	30 x 3	•	•	•	○	○	•	○	
	Kōhūhū <i>Pittosporum tenuifolium</i>	2	5 x 4	•	•	•	○	○	•	○	Good for bank stabilisation. Not wind tolerant as a sapling.
	Totara <i>Podocarpus totara</i>	3	30 x 8	•	•	•	○	•	•	○	Grows best with some shelter. Not frost tolerant as a sapling.
	Kōwhai <i>Sophora microphylla</i>	2	8 x 5	•	•	•	○	•	○	○	

Groundcover / small shrubs

Trees / large shrubs



Riparian zones can generally be divided into three areas:

■ **Lower bank area**

Prone to flooding. Best for plant species that can tolerate waterlogged roots and survive many days under water.

■ **Middle bank area**

Plant species that can tolerate having damp feet.

■ **Upper bank area**

May partially flood every couple of years. Plant tree and shrub species that prefer dry conditions.

This guide is not an exhaustive list and we recommend you talk to your local nursery to find out more about what grows best where you live.

When is the best time to plant?

Spring is an ideal time to plant, although planting can be undertaken all year round dependent on specific site conditions.

Summer and winter are the least preferable seasons as plants are likely to be under

stress. If you're planting in summer, you will probably need to water the plants or add water retention crystals to ensure good plant survival.

If you're planting in autumn, make sure the plants have a few months to establish if they are likely to be inundated with water during winter/spring flows.