

SOUTH AND WEST OTAGO 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 Central Otago, Coastal Otago, East Otago, and Upper Clutha.



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.



RIPARIAN PLANTING GUIDE

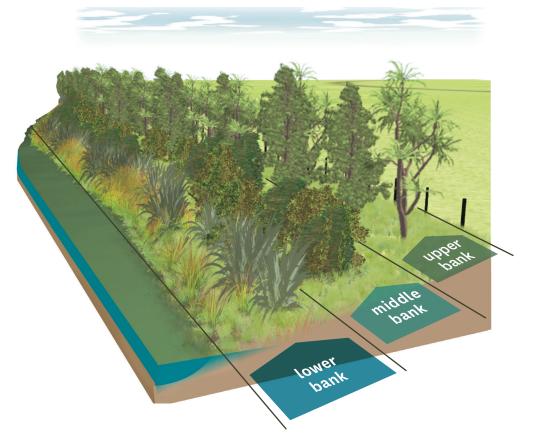
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Zone		Plant	Space	Size	Size Tolerants					Benefit	ts	Notes	
			between plants (m)	height (m) x width (m)	full sun	frost	wind	moist /wet soil	birds	pollina- tors	fish		
LOWER	Groundcover	Purei Carex secta	1.5	2 x 1.5	•	•	•	•	•	0	•	Their overhanging leaves are great laying habitat for inanga.	LOWER BANK
		Sedge Carex virgata	1	1 x 1	•	•	•	•	0	0	•	Provide shelter and nesting habitat for birds, such as marsh crake.	DANK
MIDDLEBANK	Trees / large shrubs small shrubs	Harakeke/flax Phormium tenax	2	2 x 2	•	•	•	•	•	•	0	Good for erosion control.	MIDDLE BANK
		Mingimingi Coprosma propinqua	1.5	2 x 4	•	•	•	•	•	•	0		BANK
		Toetoe Austroderia richardii	2	2 x 2	•	•	•	•	0	0	0	Useful in retaining steep banks.	
		Cabbage tree Cordyline australis	1-1.5	10 x 3	•	•	•	•	•	0	0	Good for bank stabilisation and tolerates very wet to moderately dry conditions.	
		Mānuka Leptospermum scoparium	2	10 x 3	•	•	•	•	•	0	0	Match the planting conditions to the seed source*	
		Ribbonwood Plagianthus regius	2	5 x 3	•	•	•	•	0	0	0	Deciduous tree, fast growing. Good for bank stabilisation.	
		Twiggy Tree Daisy Olearia lineata	2	5 x 2	•	•	•	•	0	0	0	Threatened in the wild.	
UPPER BANK	Groundcover / small shrubs	Shiny Karamu Copromsa lucida	1.5	3 x 2	•	0	•	0	•	•	0		UPPER
		Broadleaf Griselinia littoralis	2	10 x 3	•	•	•	0	•	0	0	Good for erosion control.	BANK
		Kānuka Kunzea ericoides	2	6 x 3	•	•	•	0	0	•	0		
		Kōhūhū Pittosporum tenuifolium	2	5 x 2	•	•	0	0	•	•	0	Good for bank stabilisation.	
		Kōwhai Sophora microphyll	3	8 x 3	•	•	•	0	•	0	0		
		Lemonwood Pittosporum eugenioides	1.5	7 x 3	•	•	•	0	•	0	0	Good for bank stabilisation.	
		Marble leaf Carpodetus serratus	3	8 x 3	•	•	•	0	•	0	0	Not wind tolerant as a sapling.	
		Narrow-leaved lacebark Hoheria angustifolia	2	5 x 2	•	•	•	0	•	•	0	Fast growing.	
		Scented tree daisy Olearia odorata	2	4 x 2	•	•	•	0	0	•	0		

^{*}E.g. plant seed collected from wet areas into wet areas, dry seed sources planted into dry areas.







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.