



A guide to riparian planting options and costs



Double row of native plants in a riparian zone

The land alongside a waterway is the riparian zone and plants in this zone are important to the health of a waterway. They provide habitat for insects and fish, while also protecting water quality by shading water to keep it cool, filtering sediment that clogs up the gravels and removing nutrients that create excessive weed growth.

There is an extensive range of riparian planting options available to improve waterway health and add other values, like bee food, stock shelter and landscape aesthetics.

Whatever you choose, your plantings require careful consideration to improve plant survival, reduce problems in the future as plants grow and to achieve the desired outcomes.

You can elect to plant only native or exotic species, or a mix of both, depending on your area and what you're trying to achieve.

The following are two examples of costings in Southland (exclusive of GST and freight), calculated on the basis of a 100 metres length for planting and three years of maintenance.

► Double rows of native plants in a riparian zone

Double rows of plantings are ideal for wider riparian zones that include banks and critical source areas. They provide some shelter, reduce weed growth, stabilise banks and have good root depth to increase nutrient uptake. Grass species like *Carex secta*, red tussock or toetoe are best close to the bank to withstand flooding, with shrubs like pittosporum, mingimingi or cabbage trees further back in the dryer soils.

Example

One row of *Carex secta* close to the waterline and a second row of mixed native species like pittosporum, mingimingi and cabbage trees planted two metres from fencing. Alternate rows, with all plants spaced at two metres.

SEASON	ACTION	COST
Winter 1	4 weeks ahead, pre-planting spot spray – chemical and labour @ \$1.50 each	\$150
Spring 1	50 <i>Carex secta</i> and 50 mixed native species @ \$3.50 each	\$350
	50 plant guards for mixed native sp.	\$100
	Planting costs, 1 person for 8 hours @ \$25 hour	\$200
Spring 2	Release spraying, chemical and labour	\$150
	Replacement of trees - 10 trees @ \$3.50 each	\$35
Spring 3	Release spraying – chemical and labour	\$150
	Remove plant guards – labour	\$60
100 metres of planting and 3 years maintenance		\$1195

► Single row of shelter trees in a riparian zone

Crowsnest poplar trees are specifically cloned to create great shelter and, being narrow formed, fit easily into a riparian zone. Being deciduous Crowsnest poplars do not shade pasture in the winter, but shade water in the summer, making them ideal for an east to west riparian zone.

Crowsnest poplar trees can grow to 10 metres high over 15 years and require little side-trimming. To reduce wind damage it is a good idea to prune poplars to form a single leader after they become established at year two or three.

Example

Single row of Crowsnest poplars at two metre spacing. Distance from the edge of the waterway to the fence is four metres.

SEASON	ACTION	COST
Winter 1	4 weeks ahead, pre-planting spot spray – chemical and labour @ \$1.50 each	\$75
	50 bare rooted cuttings @ \$2.60 each	\$130
	Planting costs, 1 person for 8 hours @ \$25 hour	\$200
Spring 1	Release spraying, chemical and labour	\$75
	Replacement of trees - 5 trees @ \$2.60 each	\$13
Spring 2	Release spraying – chemical and labour	\$75
Winter 3	Prune into single leader – 1 person for 4 hours @ \$25 hour	\$100
100 metres of planting and 3 years maintenance		\$668

More information

MPI One Billion Trees Programme – www.teururakau.govt.nz/funding-and-programmes/forestry/one-billion-trees-programme

DairyNZ – www.dairynz.co.nz/environment/waterways/planting-waterways

Beef + Lamb New Zealand - <https://beeflambnz.com/knowledge-hub/PDF/trees-farm.pdf>

Further assistance

For riparian planting advice to suit your specific needs and locations, call us to arrange a free visit by our land sustainability team on 0800 76 88 45.