

RIPARIAN PLANTING



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https://www.pbl.org.nz/

<u> Piroa Conservation Trust</u>

We are excited about your commitment to enhancing water quality and biodiversity through riparian planting. This information pack is tailored to guide you through the process of on-site preparation, planting, and ongoing maintenance for a successful restoration project on your land.

Understanding riparian zone

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Waipū Waters Community Nursery

A riparian zone is a strip of land beside a waterway. These areas are typically fenced to exclude livestock and are planted with native grasses, shrubs, and trees to establish a permanent ground cover.

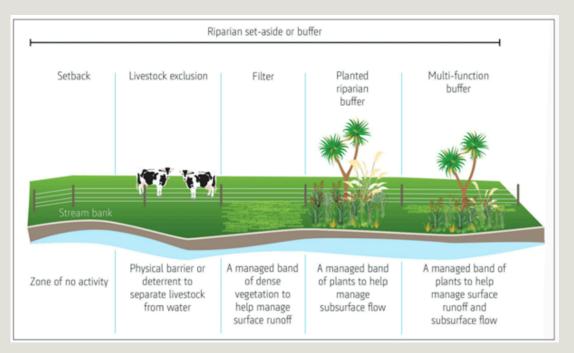
Benefits of riparian planting



Taonga Species: īnanga

Riparian buffers act as filters and stabilizers, reducing erosion and run-off while helping remove contaminants like sediments, nitrogen and phosphorus from agricultural lands.

They also provide shade which lowers water temperature, reducing weed and algae growth. Overlying vegetation provides essential spawning spots for inanga (whitebait), the base of our aqua food chain. Riparian plants are great for biodiversity, providing habitat for fish, insects, and animals in and around the water.



Source: NIWA – Common riparian buffer forms. A multi-function buffer includes both a filter strop and planted riparian buffer.

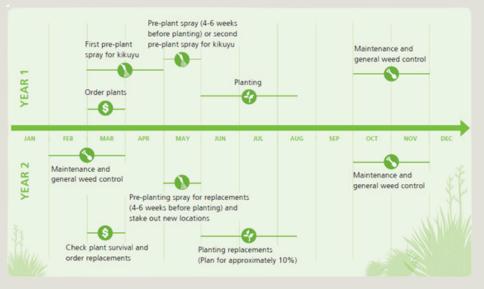


Source: Plant to Protect – Riparian Planting Zones

DESIGNING YOUR RIPARIAN ZONE

Three planting zones are commonly used:

- Grass strips: Leave grass strips between riparian plantings and fences to prevent plants from interfering with electric wires.
- Higher bank: Plant trees, shrubs, grasses, and flaxes to provide shade and shelter to the waterway channel.
- Lower bank: Plant well-rooted species like sedges and rushes that can cope with frequent flooding and waterlogging.



Source: DairyNZ - Getting Riparian Planting Right in Northland

SUGGESTED NATIVE PLANTS

Maori name / Common name	Plant species	Planting zone	Height	Comments
Oioi / Jointed rush	Apodasmia similis	Lower bank	1m	 Plant rising from water for fish to hide in until high tide take them up the bank. Plant 1 m apart in stream edge.
Ti kouka / Cabbage tree	Cordyline australis tenax		8m	 Monocot tree, bird-distributed. Can grow on lower slopes on brackish streams. Bird food. Plant 1 m apart.
Manuka or Kanuka	Leptospermum scoparium or Kunzea ericoides	Upper bank	4m 12 m	 Grows vigorously. Wide ecological tolerance, including the ability to colonise low fertility sites. Good insect food. Good at soaking up excess nutrients from runoff. Plant 1-2 m apart.
Renga Renga Lily	Arthropodium cirratum		75 cm	 Grows white flowers through spring and summer, followed by fruits and seeds. Attractive to birds and bees.
Karamu	Coprosma Robusta		2-4m	 Broadleaf shrub, fast growing with wide tolerances from shade to full sun. Bird distributed, with abundant autumn berries for birds.
Harakeke / Flax	Phormium tenax		2m	 Plant out of the flow zone as it can get ripped out of the bank and contribute to erosion. Plant 2 m apart.

Please note that these species may vary depending on the characteristics of your land.

Planting your riparian margins

On-site Preparation

Before Planting Day:

- Identify the planting area: Determine how your waterway behaves in full flow to locate areas along waterways, considering our unique ecosystems. Avoid planting large trees in areas susceptible to the full force of flooding.
- Fencing: Ensure the planting area is fenced to protect plants from livestock and promote natural regeneration.
- Weed control: Weed management is key for the success of your restoration project.

Most of our Bream Bay riparian margins have loads of kikuyu that needs a 12-week double spray programme to knock them down. Many landowners spray out the entire area to be planted. This should be done within 3 months of planting for first knock-down, and then follow-up at 6 monthly intervals after that.

Tips will be provided from our team during the site assessment. Herbicide and advice on tackling weeds and pest plants are available from Weed Action, email <u>weedaction@piroaconservation.org.nz</u>.

On Planting Day:

Please note that the planting day must be carefully chosen after a significant rainfall, if possible, to support initial growth of the plants.

- Clear area: Ensure the planting area is clear of debris, grass or weeds to provide an optimal environment for plant growth.
- Tools: Have tools ready, including a sharp spade, gloves, and any other necessary equipment such as stakes.
- Allocate planting spots: Refer to the planting plan provided in this pack for optimal plant placement.

Planting

- Digging holes: Dig a square hole twice the size of the plant's root ball to accommodate plant roots without them being curled up or bent.
- Plant placement: Place the plant in the hole at the same depth as it was in the pot.
- Backfilling: Backfill with soil, firming it around the plant to keep soils damp, reduce weeds, and provide nutrients.
- Stake: Put a stake beside your plants for easy identification during weeding and to follow their development. Be very consistent with the plant stake placement to make finding easier among weeds.

Maintaining plant health / Weed Maintenance:

Post-Planting

- Active maintenance: Weed management post planting is essential. This should be done by respecting 6 monthly intervals for herbicide use after the first weed knock-down. Exercise extreme caution when spraying near native plants.
- You can also proceed to regular checks for invasive weeds like pampas grass and wild ginger and hand-remove weeds near plants to prevent competition. Pull back growth near target native plant and flatten down growth afterwards. A flax knife (also called "Maruyoshi Flax Cutter") is the best tool for this job!

Important tips:

- Monitor plant health: Keep an eye on plant health and address any issues promptly.
- Community engagement: Engage with neighbouring landowners to create a cohesive restoration network in your waterway.
- For weed control advice, please contact us at <u>weedaction@piroaconservation.org.nz</u>.
- For pest management advice, please contact us at predatorfree@piroaconservation.org.nz.

Thank you for contributing to our conservation efforts! If you have any questions or need further assistance, please don't hesitate to contact Piroa Conservation Trust.





Maruyoshi Flax Cutter



Waipū Waters Community Nursery