



PLANTING TO IMPROVE WATER QUALITY

Nelson's rivers are some of the Region's great assets. Our rivers provide recreational activities, drinking and irrigation water, but they also get contaminated by rubbish, chemicals, sediment and run off.

An effective way of reducing the effect of these contaminants on rivers is by fencing and planting the edges of the water-way (also called the riparian margin).

WHAT IS A RIPARIAN MARGIN?

A riparian margin is the buffer zone between land and water. This may be a stream bank, an estuary margin or wetland.

WHY IS A RIPARIAN ZONE SO IMPORTANT?

The healthiest waterways run through shady forested areas where the water is cool and contaminants are filtered out before they enter the water.

A riparian margin will:

- Prevent rubbish from blowing into a stream from car parks and roads.
- Filter run off from hard surfaces which might be carrying contaminants before they enter the waterways.
- Reduce sediment in streams and rivers by preventing bank erosion.
- If planted, provide shade which keeps the water cool and improves fish habitat.
- Introduce food sources for birds using streams and rivers as corridors.
- Improve water clarity.
- Provide spawning sites for inanga.

RESTORING RIPARIAN MARGINS

Nelson Nature is working to enhance riparian margins on public and private land. If you have a waterway on your property, we'd like to encourage you to fence and plant along your stream. If you live in a rural area, consider fencing to exclude stock. This will also help prevent soil erosion on the stream bank.

HOW TO PLANT A RIPARIAN MARGIN

- Identify the planting zones in your strip according to its slope, distance from stream, and how damp the area is, and how the stream behaves through different seasons of the year.
- Make a planting plan identifying areas, planting zones, and appropriate plant varieties (see table)
- Prepare the site by removing weeds first. Common streamside weeds to look out for are tradescantia, woolly nightshade, convolvulus and the vine weeds such as Old Man's Beard.
- Planting is best left until late autumn when rainfall is higher.
- Space plants approximately one metre apart; large trees might be planted five metres apart with smaller species between.
- In large areas, consider an initial planting to colonise the area and provide cover for longer term species.
- Plant a variety of species for enhanced biodiversity and food sources.
- If you have a problem with animal pests, use plant guards to protect young plants.



In the upper Maitai Valley, the river's edge is thick with plants that shade the water and provide habitat for wildlife.

DID YOU KNOW: The recent Nelson Environment Survey showed that most Nelsonians believe that river and stream pollution is the biggest threat to our environment. Nelson/Tasman has a higher level of conservation engagement compared to other parts of New Zealand. 74% of people who responded to the recent Nelson Environment Survey said they had undertaken at least one action to improve our environment.

| ZONE | DESCRIPTION | PLANT TYPE | SUGGESTED SPECIES |
|-------------------|---|--|---|
| Stream Edge | Prone to erosion and affected by flooding | Small, flexible plants such as grasses. Avoid flax (harakeke) as its fibrous leaves can block stormwater grates. Plant close together in groups | Carex virgata, Carex secta, Carex germinata |
| Flood Area | This is the flat area that gets wet over winter | Plants need to be able to cope with being wet in winter, but may be dry in summer. These plants also need to be able to bend in high flows. Plant close together in groups | Carex virgata, Carex secta, Carex germinata, Austroderia richardii |
| Wetland or spring | Where a spring or stream emerges – an area which is always wet | Plants need to be able to tolerate being in wet conditions all the time | Leptospermum scoparium, Cordyline australis, Coprosma propinqua, Baumea articulata, Juncus var, Leptocarpus similis |
| Banks | Soil type will vary; soil will be drier than on the stream flats. Dryness increases with height above river | Wide range of plants preferably some with capacity to create shade, e.g. Kowhai or Kanuka | Hebe stricta, Coprosma robusta, Carpodetus serratus, Coprosma propinqua, Melicytus ramiflorus, Kunzea ericoides, Cordyline australis, Pseudopanax arboreous, Sophora microphylla, Plagianthus regius, Pittosporum varieties |

FRIENDS OF THE MAITAI

When it comes to thinking globally and acting locally, residents in the Hanby Park – Clouston Bridge area got about as local as you can with their recent planting day along the banks of the Maitai River.

They worked with Council and Friends of the Maitai under a Memorandum of Understanding that has been developed to cover joint planting and plant care. Grasses and shrubs will help to keep the river bank stable, while larger trees offer shade to fish species that call the Maitai home. If you would like to get involved check out the Friends of the Maitai website or Facebook page for information on regular plant care Fridays (late afternoon), and winter planting days.

For more information, visit friendsofthemaitai.org.nz



Friends of the Maitai plant care Friday.

HOW CAN WE HELP?

The Nelson Nature team are available to help with plant advice and in providing local eco-sourced native plants for riparian strips.

If you live in a rural area, you may also qualify for up to 50% subsidy on the cost of fencing of riparian margins. If you would like further advice or information, contact Susan Moore-Lavo on 03 545 8742 or susan.moore-lavo@ncc.govt.nz.