

Project name: Riparian mapping and management

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Issue:

It is well established in the literature that improvements in stream health can be obtained from actively managing the riparian areas of streams and rivers. Often this is done by fencing stock out of the riparian zone and active rehabilitation of vegetation at stream margins. However, in large catchments that have a diverse range of land uses, vegetation, geology and other factors, there is no simple way to prioritise where specific riparian management interventions should be located. The broad aim of this project is to find ways to map what is currently there now, develop methodologies to identify and prioritise where the interventions would give the best “bang for the buck”, and to assist with the formulation of BMP’s for rehabilitation.

Objective:

- Complete web-based delivery of riparian maps of the Motueka catchment and identify management applications.
- Complete an established trial of key native riparian plants to assess how different riparian plant assemblages contribute to riparian and streambank stability.
- Complete a detailed riparian vegetation classification in the Sherry River and, with NZ Landcare Trust, TDC and landowners, identify 3-5 riparian native vegetation enhancement locations in the Sherry River, assess rehabilitation techniques and establishment of native plants in community-based restoration efforts, and establish a streamside revegetation trial.

Progress and Outputs:

- A draft report on the riparian typology of the catchment is on the project web site (http://icm.landcareresearch.co.nz/science_themes/freshwater/riparian_classification_of_the_motueka_river.htm). Draft maps of current, potential and a knowledge-based classification of riparian function are also on the web site.
- A workshop was held with the Sherry River landowner group.
- Reports on vegetation mapping.
- Several short articles in Conservation Quorum on native riparian plant trial produced.
- Landcare Research 2003. Researchers measure growth of native youngsters. Discovery, Issue 6, 2003, p5.
<http://www.landcareresearch.co.nz/publications/newsletters/discovery/DiscoveryIssue6.pdf>
- Phillips, C.J. 2003. Where the rubber meets the road: the role of riparian management in ICM? Paper to be presented at ICaM: Australian Water Association Catchment Management Conference 26-27 November, 2003, University of Western Sydney.

Implications:

Results of this work will continue to feed into the implementation of TDC's Riparian Management Strategy by providing maps and other information for planning and on-the ground works. The maps will also assist landowner groups to prioritise areas for biodiversity enhancement in their catchments.

Future Directions:

Once the reports and maps are finalised this project will wind down. Some on-going elements will be incorporated into monitoring the effectiveness of riparian interventions and enhancing relationships with landowner groups via the Landcare Trust.

The native plant trial will cease in 2004, results will be written up in the following years and papers will be presented at two overseas conferences.

Related projects:

Cow crossings and streams

Sediment management in rivers – gravel extraction