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Committee Rural Services Wairarapa Committee
Authors Kirsten Forsyth, Policy Advisor
Ted Taylor, Section Leader, Resource Investigations

Riparian Management Implementation

1. Purpose

To present reports to the Committee about two projects that are part of the implementation of the Riparian Management Strategy:

- monitoring three pilot projects; and
- selecting the high quality catchments that will be eligible for financial assistance.

2. Background

Greater Wellington adopted its Riparian Management Strategy in July 2002. In the Strategy, Greater Wellington said it would:

- assess and report on the achievements of the pilot programmes; and
- identify the high priority catchments where Greater Wellington will give financial support to riparian work.

A progress report on the results of the pilot programme monitoring has been published, and the identification of high priority catchments has been completed.

3. Riparian rehabilitation – what difference does it make?

The riparian pilot programme was established to:

- document the effects of riparian rehabilitation on stream ecosystems and the wider environment; and
- build on Greater Wellington's knowledge and experience of working with stakeholders to carry out riparian rehabilitation in the most effective way.

There are three streams in the programme – the Enaki Stream near Carterton, the Kakariki Stream near Waikanae and the Karori Stream in Wellington City. These streams were selected as pilot areas so that we could test and monitor riparian management on three very different kinds of stream environments.

They have been monitored upstream and within the rehabilitation areas since 2001. This programme is unique in New Zealand because of the range of variables being monitored (water quality, fish presence, channel structure and riparian vegetation) and because the results are compared with sites that are within the same catchment, rather than with sites that are in a pristine stream nearby.

The results for 2001-03 have been assessed and are presented in the report “Riparian rehabilitation – what difference does it make?”.

Key results from the first three years are:

- marked improvements in bank stability and lower water temperatures in the Enaki and Kakariki Streams
- significantly decreased algal growth and consequently more diverse aquatic insect life in the Enaki Stream
- little change in water quality, insects or fish in the Kakariki Stream; and
- virtually no change in the health of the Karori Stream.

The improvements in bank stability in the two rural streams (Enaki and Kakariki) have been achieved mainly because stock access has been removed. Further improvements in water quality and stream health are expected when the plants grow higher and provide better shade.

Shade has been achieved faster on the Enaki, which is more incised and planted mainly with willows. The Kakariki has been planted mainly with native plants that are slower growing, and are now only about one metre tall.

The lack of change in Karori’s stream health reflects the overriding impact of urban stormwater on water quality and stream life. Improvements to urban streams like this will probably start with enhanced amenity value. This stream is in a high profile recreation area (the Makara Peak Mountain Bike Park) and is already raising the profile of urban streams in Wellington City.

A higher profile for urban streams helps raise community awareness about their value to people and the wider environment (rather than them being regarded as places where people can throw their weeds and rubbish).

4. Selecting catchments for streamside management assistance

Greater Wellington adopted five criteria in its Riparian Management Strategy to identify the streams that would benefit most from financial assistance.

Using Geographic Information System (GIS) modelling, the selection process for this project was completed in February 2004. The process and results are presented in the report “Selecting catchments for streamside management assistance”.

The criteria were applied in two stages:

- Stage 1 short-listed a selection of streams with high quality habitat, where riparian management should be effective at rehabilitating degraded areas. High quality catchments were identified as those that have more than 40% indigenous vegetation or exotic forest in the catchment. Areas vulnerable to degradation were identified as those with intensive land uses on erosion prone land. Sixteen catchments were short-listed from this exercise for more detailed assessment.
- Stage 2 applied scores for the ecological diversity that could exist in the short-listed catchments. These scores took into account the range of fish that were likely to live in the catchment, as well as the range in habitat – such as big, swift rivers and small, slow-flowing streams.

Finally, the River Ecosystems Group reviewed the short-listed catchments and checked the GIS desktop results against actual stream and catchment conditions. This reduced the number of qualifying catchments to a manageable number.

There are 12 catchments that collectively meet all five criteria in the strategy. The programme for delivering advice and financial assistance to landowners in those catchments is to be called the “Streams Alive” programme.

5. Where to from here?

The riparian pilot monitoring programme will continue until at least 2006. The long-term results from this study will be of immense value to both Greater Wellington and other councils around the country; it will provide reliable information about the riparian margin planted, and what happens to streams after they are fenced.

“Streams Alive” is being delivered to landowners by the Land and Rivers Management Department. To date, advice and plants have been provided to five landowners who had independently approached Greater Wellington staff. These landowners are in the Mangaroa, Waihora, Waitohu, and Otaki catchments.

6. Strategic context

These projects contribute to three of the Take 10 quality for life elements adopted in Greater Wellington’s ten-year plan. These are Biodiversity (protecting, restoring and managing the region’s most important ecosystems), Water (protecting aquatic ecosystems), and Community (ensuring people have useful information about our region).

7. Communications

Riparian rehabilitation – what difference does it make? has been distributed to a number of regional councils and interested parties.

Selecting catchments for streamside management assistance will be distributed to people who expressed interest in the development of the strategy, including iwi groups, Federated Farmers, Wellington Fish and Game Council, local branches of Forest and Bird, the Department of Conservation, and all district and city councils in the region.

8. Recommendation

It is recommended that the Committee:

(1) receive the reports, and

(2) note their contents

Report prepared by:

Kirsten Forsyth
Policy Advisor

Report approved by:

Nicola Shorten
Manager, Resource Policy

Report approved by:

Jane Bradbury
Divisional Manager,
Environment

Report prepared by:

Ted Taylor
Section Leader, Resource
Investigations

Report approved by:

Steve Blakemore
Manager, Planning and
Resources

Report approved by:

Colin Wright
Divisional Manager,
Wairarapa