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Committee Environment
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The Freshwater Ecosystems Programme: Progress and Direction

1. Purpose

To inform the Committee of progress on the Freshwater Ecosystems Programme over the last three years and its direction for the next three years.

2. Background

Greater Wellington began a Freshwater Ecosystems Programme (“the Programme”) at the beginning of the last three year financial cycle. The goals are to:

- increase our knowledge and understanding of freshwater ecosystems;
- identify ways that we can improve our management of rivers;
- enhance freshwater ecosystems through restoration projects;
- increase interest in freshwater ecosystems and awareness of them.

The programme is closely linked with work on our Riparian Strategy and our Wetland Action Plan. It is part of a larger push by the Council to increase biodiversity in the Region by enhancing ecosystem types such as lowland bush, dunes, rivers and their margins, wetlands, and the marine environment.

3. What’s happened so far

The following work has been completed over the last three years as part of the Programme.

3.1 Ecosystem health and functioning

- a “think piece” on the functions and processes of freshwater ecosystems in the Region;
- workshops with Council’s “operational” staff on how freshwater ecosystems “work”; and
- classification of rivers in the Region using the national “river environment class” system.

3.2 Freshwater fisheries

- a review of existing information about freshwater fish in the Region;
- surveys of freshwater fish at 120 sites across the Region's rivers;
- an easily accessible GIS database of fish records in the Region;
- surveys of Inanga (whitebait) spawning sites at 36 sites around the Region;
- a model that identifies expected freshwater fish in all rivers of the Region; and
- compilation of information on each freshwater fish species present in the Region (general biology, critical habitat requirements, food, life history, climbing ability, etc.).

3.3 Structures in Rivers

- an inventory of 150 structures affecting fish passage across the Region.

3.4 Public Awareness

- a public lecture by Bob McDowall "*Hidden treasures exposed: discovering our freshwater fish fauna*";
- talks to rotary clubs, environmental groups, and care groups; and
- an information sheet for landowners "*Fish friendly culverts and rock ramps in small streams*".

3.5 Restoration

- mitigation of structures on our own land for fish passage (Orongorongo Weir, Rimutaka Incline Track, Whakataki River); and
- restoration of whitebait spawning habitat on the Kakaho Stream.

3.6 Development of Point, Click, Fish

- computer based mapping/information that links river sites with the freshwater ecosystem present.

4. A programme for all Divisions

The programme has applications across a number of Greater Wellington's Divisions. Information from it is being used by the Wairarapa Division, Landcare Division, Utility Services Division, and the Environment Division. The feedback from staff using material from the programme is helping develop its future direction.

Better provision for fish passage over structures is one item that all of the divisions listed in the previous paragraph are interested in. Nearly all the species of freshwater fish in the Region are migratory and must be able to get past structures in rivers to complete their life cycles. In September 2002, staff

from Landcare, Environment, and Utilities Services Divisions spent a day in Taranaki with Taranaki Regional Council staff exchanging information about suitable structures for fish passage. Staff from these Divisions are now putting into practice better fish passage over structures they are responsible for.

5. Future direction

When the Programme began, the Council did not have much information outside our regular water quality and hydrology monitoring programs that could be used to promote or enhance freshwater ecosystems. Our focus for the last three years has been to gather information to help publicise freshwater biodiversity. Now, we have better information to achieve the Programme's goals.

Over the next year we will build on the work completed so far, by:

- preparing information sheets that make freshwater ecosystems more understandable
- mitigating fish passage over selected structures
- restoring inanga spawning habitat
- preparing guidelines for building structures that are fish friendly
- developing "Point, Click, Fish" for use by staff processing resource consents
- developing "Point, Click, Fish" for public use.

6. Communications

When I reported to the Committee on the Programme in July last year, I said "not much of the information collected so far has been passed on to the public". There are now six publications. All are available to the community and are on our website. We are also promoting material and providing it to people through care groups and interested organisations.

7. Recommendations

It is recommended that Committee:

1. *receive the report; and*
2. *note the contents.*

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