

# Appendix 1: Regional Policy Statement and Regional Plan Implementation Summary

## Wetland Action Plan

### Background

Eight key actions were identified in the Wetland Action Plan, which was approved by the Council in March 2003. This year is the second year of implementation. Day to day implementation of the Wetland Action Plan is undertaken by staff across a number of Greater Wellington departments.

### Progress

- All available information for wetlands in the Region has now been entered into the wetland database. The data for the western region is poorer than for the Wairarapa - much of the information was collected by consultants as part of general ecological surveys for territorial authorities and was therefore not wetland specific. Nevertheless, it's a significant step forward to have the geographic location of all known wetlands in the Region in one place.
- A technical report on the state of wetlands in the Wairarapa has been prepared.
- Many wetlands in the Region depend on groundwater. A model of the shallow ground water aquifers in the Paraparaumu/Waikanae area has been developed and will be used to improve our management of this resource. Work is underway to improve our understanding of Wairarapa aquifers.
- Wetlands on land owned or managed by Greater Wellington include some of the most important in the Region. There are four wetlands on land Greater Wellington holds that are used for flood protection purposes, and sixteen wetlands on Parks and Forests land. All have been surveyed and entered into the wetland database – including remote wetlands in our forest parks. Significant enhancement work has occurred in the wetland in Queen Elizabeth Park and weed control is underway in many wetlands.
- The Wetland Action Plan states that we will work in partnership with other agencies and iwi to improve the Lake Wairarapa wetland. Greater Wellington owns some land around the Lake and is responsible for controlling water levels through the operation of the barrage gates. There are gaps in our knowledge about how this wetland functions and what the long-term impact of the Lower Valley Scheme on its ecology has been. These gaps have been summarised in a report on the environment effects of the Lower Valley Scheme that was prepared by consultants in December 2004 for the scheme review. Initial discussions have started with the Department of Conservation over the formation of a Lake Wairarapa Regional Park.
- Greater Wellington has funded ongoing pest management in Key Native Ecosystem (KNE) wetlands. The KNE wetlands include Te Harakeke (Waikanae), O te Pua (Otaki), Lake Pounui (South Wairarapa), Waingawa Swamp (Masterton), Taumata Oxbow (east of Carterton) and Waimeha Lagoon (Waikanae), Lake Onoke (South Wairarapa) and Pykes Lagoon (Gladstone).

- The Wetland Incentives Programme was launched in November 2003 after being developed with input from wetland landowners. An additional 20 landowners have joined the programme this year, making a total of 63 landowners. The most popular incentive is advice, followed by assistance with weed control.

## **Riparian Management**

### **Background**

Greater Wellington's Riparian Management Strategy was adopted in June 2002. The Strategy outlines why the Council needs to act to promote the appropriate management of riparian areas on private land. The Strategy proposed that the Council should:

- Provide information and advice to landowners about the appropriate management of streams; and
- Provide funding to assist landowners to re-vegetate the riparian areas of high value streams with appropriate species.

### **Progress**

The funded part of the programme, Streams Alive, covers 12 catchments around the Region. Streams Alive is administered by the Operations Department in Wairarapa. In 2004-05 approximately 1.3 kilometres of streams in eight catchments were fenced and planted with native plants through this programme.

*Mind the stream*, a booklet for landowners and care groups, was published in June 2004. It was distributed to care groups, territorial authorities and private landowners, as well as all Fonterra suppliers as part of Greater Wellington's implementation of the regional action plan for the dairying and clean streams accord. Over 1,000 copies of *Mind the stream* have been distributed and it is still in demand. It is also available on the Greater Wellington web site.

Riparian pilot projects have been running in three parts of the region. A booklet, *Riparian management, what difference does it make?*, that describes the environmental monitoring results of these projects was completed and distributed to interested people in October 2004.

## **The Council's Carbon Footprint Programme**

### **Background**

A carbon footprint is a measure of an organisations energy use. It is a figure that expresses all the different types of energy used in tonnes of carbon equivalent, highlighting the link between energy use and greenhouse gas emissions.

A full description of how the Council's footprint is calculated was provided in last year's report, but to recap, two things are needed. First, data on energy use, and second, a means of converting this data to a carbon footprint figure. The model we are using for this latter purpose is called EBEX 21, a product of Landcare Research.

For the EBEX 21 model to work, energy use data is required for two levels – direct and indirect use. Direct use covers our consumption of electricity, diesel, petrol, LPG and CNG, aviation fuel, light fuel oil and coal. Indirect use covers energy used in activities associated with the functioning of the organisation – international and domestic air travel, vehicle mileage for business trips, and staff commuting.

## Progress

An initial estimate of Greater Wellington’s carbon footprint was produced early in 2004 and the estimated footprint for 2002-03 was 4875 tonnes. Given the uncertainties associated with a number of the data sources in that first exercise, this figure was rounded up to 5000 tonnes to act as a benchmark for the LTCCP target (which sought a 10% reduction per year).

Following the first calculation, a more accurate set of data was collected for 2003-4, and a system set in place so that future year comparisons would be easier.

The results for 2003-04 are shown in Table 1 below. Electricity use is still the biggest component of our “footprint”. The main user of electricity (about 90%) is the Utilities Division for bulk water supply.

**Table 1**

<i>Level 1 Energy Source</i>	<i>Quantity</i>	<i>Carbon Equivalent</i>
Electricity	21,666,682 kWh	3161.3 tonnes
Diesel	200,755 litres	525.5 tonnes
Petrol	143,146 litres	328.9 tonnes
Avgas	10,275 litres	23.4 tonnes
<b>Sub-total</b>		<b>4039.0 tonnes</b>
<i>Level 2 Energy Source</i>		
International air travel	249,848 km	27.5 tonnes
Domestic air travel	285,460 km	51.4 tonnes
Staff commuting by car (< 2 litres)	1,000,000 km	260 tonnes
Staff commuting by car (> 2 litres)	1,000,000 km	370 tonnes
<b>Sub-total</b>		<b>708.9 tonnes</b>
<b>Total</b>		<b>4,747.9 tonnes</b>

Staff await the final figures for electricity, fuel etc use over the 2004-05 year. When these figures are available, it will be possible to calculate and report Greater Wellington’s carbon footprint for that financial year.

## **Wellington Harbour Biodiversity Case Study**

### **Background**

The Wellington Harbour biodiversity case study was a collaborative initiative led by Greater Wellington and the Ministry for the Environment, with direction and input from a range of other agencies and organisations. The case study focussed around the Wellington Harbour as a start to coastal and marine biodiversity work.

### **Progress**

The final part of the Wellington Harbour case study was reported to the Environment Committee last year (Report 04.320). This was a biological survey of the sandy beaches and river estuaries of the harbour and south coast, carried out by the Cawthron Institute. The Cawthron Institute mapped the substrate and vegetation of 13 sandy beaches and three river estuaries within the case study area. The purpose was to provide an overview of the health of these intertidal habitats, which provide significant amenity and environmental value.

Overall, all of the sites were found to be in a healthy condition. Some localised impacts were present, but across the majority of the habitat at all of the sites, the intertidal sediment quality was high. At the fine scale sites, which were selected to provide a picture of the areas most likely to be affected, sediment analyses found no signs of adverse nutrient enrichment or chemical contamination. All sites supported biological communities typical of other New Zealand beaches and estuaries in good condition.

The results of the survey have been useful for work in both the consents management area and for the development of the State of the Environment report. The habitat information can be used to indicate the sensitivity of different areas to pressures such as beach grooming, vehicle use and stormwater discharges. In addition, the work done provides an indication of the organisms likely to be present in different substrate types, allowing us to make some assumptions about what organisms should be present in certain areas.

With the work on the Wellington Harbour biodiversity case study completed, staff have been working on a Coastal and Marine Biodiversity Action Plan (as agreed at the Environment Committee meeting of 24 June 2004). This approach is consistent with other action plans completed and being developed as part of Greater Wellington's biodiversity programme. A draft Coastal and Marine Biodiversity Action Plan has been completed and will be presented to the relevant Committee(s) in the next few months.

In January 2005, as part of the work proposed in the Action Plan the Cawthron Institute were contracted to continue with biological surveys of the beaches and river estuaries of the Kapiti Coast, Porirua beaches and Makara estuary. This work compliments the surveys undertaken for the Wellington Harbour beaches and estuaries. When completed, the findings of this study will be reported to the Committee.

## **The Freshwater Ecosystems Programme**

### **Introduction**

Greater Wellington's Freshwater Ecosystem Programme has been running for several years now. It has the following goals.

- To identify ways that the Council can improve the health and functioning of freshwater ecosystems.
- To increase community interest and awareness of freshwater.
- To enhance freshwater ecosystems through restoration.

### **Progress last year**

The programme has been reported to the Environment Committee regularly over the last five years. In the last financial year, the following work has been completed.

#### *Point, Click, Fish*

A final version of the computer based tool called Point, Click, Fish has been developed to help manage the habitats of freshwater fish in rivers. It has two parts:

1. Computer modelling tells us the species that should be found in the reaches of every river and stream in the Region. The model relies on fish presence data from field surveys and on environmental information taken from the nation-wide River Environment Classification (REC).
2. The results of modelling can be viewed on a customised Geographic Information System (GIS). This allows users to look at the distribution of any fish species at levels of resolution that range from a single stream reach to the entire Region. In addition, the model can be linked to other relevant information about fish and rivers at the click of a mouse. The links we have included are photographs of fish; information about structures in rivers and their locations; critical habitat requirements, migration times, climbing ability, breeding habitat, when fish passage should be considered, and ways to avoid, remedy, or mitigate the adverse effects of specific activities in rivers.

Some examples of our use of this tool are: deciding on fish passage requirements when resource consents applications are made for structures in rivers; prioritising rivers for riparian management or other restoration projects; and reporting on the state of the environment. Point, click, fish could also be used in education and public awareness programmes. A website version is currently being developed.

#### *Freshwater fish diversity index*

The Council has adopted an internationally used diversity index for freshwater fish and applied it to the Wellington Region. Freshwater fish are a good indicator of river health. Our main use of the index will be as a monitoring tool for rivers, particularly over the longer term, and it will assist us to report on the state of our river environments.

### *Taupo Stream fish pass*

Greater Wellington has co-ordinated the design and construction of a fish pass at the Taupo Stream weir. We also hold the resource consent for the fish pass. Transit New Zealand, Porirua City Council, Ngati Toa, Queen Elizabeth II Trust and the Department of Conservation have all participated in the process for constructing the pass.

The pass targets two native species because we know that they occur below the weir but not in the suitable habitat above the weir. The two species are inanga and giant kokopu, whose juveniles migrate between the sea and freshwater as part of the whitebait run. They are poor climbers and the pass will now help them get into the Taupo Swamp and increase its biodiversity. The passage of other fish like banded kokopu and eels, which we know occur above and below the weir at the present time, will also be enhanced.

### *Freshwater fish information sheets*

Nine information sheets have been prepared on native freshwater fish in the Region. One sheet provides some general information and the other eight sheets contain information about the biology and life history of individual species, including photographs and lifecycle diagrams.

### *Fish Surveys*

Thirty sites in rivers of the Region were surveyed for freshwater fish this year. The results from sites on the Taueru and Otukura rivers will contribute to water allocation plans that are being prepared for these rivers. The results of surveys in the Kaiwharawhara and Owhiro streams were reported in the press. These surveys contribute to our overall knowledge of freshwater fish in the Region and are recorded on a national database.

## **Kaiwharawhara Stream Plan**

### **Background**

The Kaiwharawhara Stream is identified in the Council's ten year plan as one of the Region's six most degraded water bodies. Funding to address the stream's problems commenced last year (2004-05), although Greater Wellington has been active in the catchment for the last four years supporting care groups and working with the Wellington City Council and a number of community groups to prepare a vision for the catchment.

### **Progress**

Progress Project Kaiwharawhara was reported to the last meeting of the Committee (Report 05.293). In summary, on-the-ground achievements in the Kaiwharawhara catchment are:

The Otari-Wilton's Bush Care Group's huge planting programme alongside the Kaiwharawhara Stream between Ian Galloway Park and Otari-Wilton's Bush. Over 20,000 plants have transformed the area, with up to 50 volunteers attending at weekends for planting and weeding sessions. All plants have been locally sourced and much of the success of the project has been because of the guidance and enthusiasm of Jonathon Kennett and Bronwen Wall, the Project Co-ordinators. Jonathon and Bronwen are paid for their part time input via the Wellington City Council's Environmental Grants programme, and are able to be on site for both the regular weekend planting work and the one-off planting days for schools, businesses and the Global Volunteer Network volunteers.

Elsewhere, there has been Greater Wellington input (via the Take Care programme) to the Ngaio Progressive Association for the production and distribution of a leaflet advising local residents about what native species should be planted alongside the streams that pass either near or through their properties in Ngaio. Five hundred copies of the leaflet were distributed.

At the estuary of the Kaiwharawhara Stream, landscaping works have taken place, and an interpretative sign erected so that passengers on the inter-island ferry can read about what is being done, both at the estuary site and throughout the Kaiwharawhara catchment.

Significant landscaping is currently being carried out alongside School Road, with costs being shared by the Wellington City Council and Greater Wellington, and some of the planting being carried out by staff from local businesses.