

# 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, significant progress has been made on some of the actions in the Plan, such as looking after wetlands on Parks and Forest land, and the development of the Wetland Incentives Programme. Less progress has been made on others, such as finalising the wetland database. Overall, a lot has been achieved after one year of implementation.

Day to day implementation of the Wetland Action Plan is undertaken by staff across a number of Council departments.

### Progress

A progress report on the implementation of the Wetland Action Plan was presented to the Environment Committee at their meeting of 24 June. The following is a summary of that report:

- An inventory of wetlands in the Wellington Region has been developed. Field surveys of all known wetlands in the Wairarapa have been completed, and a draft report on the Wetlands in the Wairarapa has been prepared.
- Hydrological studies have been completed for the Queen Elizabeth Park wetlands and Te Harakeke Wetland (Waikanae). A model of the Waikanae shallow groundwater aquifer has been developed. These studies will allow us to assess the impact on wetlands of changes in the catchment, such as an increase in the use of groundwater.
- 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. Most of these wetlands are now being actively managed for their wetland values. Two small wetlands on flood protection land in the Wairarapa require further investigation to see what management they may need.
- 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 complex functions and what the long-term impact of the Lower Valley Scheme on its ecology has been. The Operations Department, Wairarapa, has developed a proposal for a more co-operative working relationship between Greater Wellington, the Department of Conservation, local iwi, and the South Wairarapa District Council.

- Greater Wellington has funded weed and pest control, fencing upgrades and research at 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). Pykes Lagoon (Gladstone) will become a wetland KNE in 2004/2005.
- The Wetland Incentives Programme was launched in November 2003 after being developed with input from wetland landowners. So far, 39 wetland landowners have received assistance under this programme. The most popular incentive is advice, followed by assistance with weed control.
- Plan Change 1 to the Regional Freshwater Plan has clarified that the diversion of water effecting a wetland needs a resource consent. The addition of Rule 9B to the Plan means that a diversion of groundwater is permitted provided it does not effect a wetland.

## **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**

This year, a lot of work has gone into identifying the catchments that will be eligible for financial assistance from Greater Wellington. The twelve catchments selected for assistance are:

- Waitohu Stream and Otaki River (flow to the Kapiti Coast)
- Ration Creek (flows to the Pauatahanui Inlet)
- Mangaroa River (Hutt River tributary)
- Karori Stream and Wainuiomata River (hill country to Cook Strait)
- Glendu Creek and Kaiwhata River (hill country to Wairarapa east coast)
- Owhanga Stream (flows to Lake Wairarapa from the Tararua Range)
- Waiohine River (Ruamahanga River tributary)
- Upper Ruamahanga River (source in the Tararua Range)
- Waihora Stream (lower Ruamahanga River tributary)

A new member of staff has been employed in the Wairarapa office to implement the programme in these catchments.

*Mind the stream*, a booklet for landowners and care groups, was published in June 2004. *Mind the stream* will be distributed to care groups, all territorial authorities in the Region and landowners with an interest in streamside management and planting. Fonterra will also be sending a copy to all 250 suppliers in the Region, along with a copy of the regional action plan for the dairying and clean streams accord.

Riparian pilot projects have been running in three parts of the Region. A draft technical report detailing the monitoring results of these three projects has been completed. This will be peer reviewed and published by the end of August, along with reviews describing the lessons learned in terms of plant survival, costs, fencing distances and so on.

Another action in the Riparian Strategy was to work with the dairy industry to achieve our common goals. The first step was to work with Fonterra and Federated Farmers to develop a Regional Action Plan for the dairying and clean streams accord. The Regional Action Plan was approved by the Policy, Finance and Strategy Committee in May 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.

To calculate Greater Wellington's carbon footprint, 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. The results are shown in Table 1 below. Electricity use is 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	20,000,000 kWh	3378.0 tonnes
Diesel	190,000 litres	497.3 tonnes
Petrol	140,000 litres	321.7 tonnes
Avgas	5000 litres	11.4 tonnes
<i>Level 2 Energy Source</i>		
International air travel	110,000 km	12.1 tonnes
Domestic air travel	140,000 km	25.2 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><u>Total</u></b>		<b>4,875.7 tonnes</b>

These initial results need to be interpreted cautiously as there is a considerable amount of estimation behind the data. Refinements to the data collection have been worked through recently with the aims of improving the accuracy and accessibility of various sources. Some examples:

- Finance are setting up a new account for staff air travel that will ensure all flights are 'captured' and have their origins and destinations recorded.
- Every individual electricity account has been detailed using SAP and help from Genesis Energy. It is possible to now estimate electricity consumption with almost 100% accuracy and to break down that consumption into divisions.

A carbon footprint for the financial year 2003/04 is currently being generated and the eventual figure will be a better 'base year' figure. Increases or decreases in Greater Wellington's carbon footprint will be able to be determined when the methodology is repeated each financial year.

Recent analysis and discussions show that there are no simple ways to make substantial reductions in our carbon footprint at the moment. However, some of the work done this year includes the development of a regional cycling strategy, investigations into the potential for wind power generation on Council land, the promotion of public transport and joining the Energy-wise Councils Partnership. In addition, an internal 'energy group' has been established, and a draft energy paper has been drafted. Discussions will continue on these and other possible programmes for reducing Greater Wellington's energy use and the carbon footprint.

## Wellington Harbour Biodiversity Case Study

### Background

The Wellington Harbour biodiversity case 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 was developed around three related themes:

- Community involvement
- Information and knowledge management
- Integrated management and co-ordination

The case study covered the coastal marine area bounded by northings running south from Sinclair Head to Turakirae Head to the seaward limit of the Wellington Region in Cook Strait, and included the Wellington Harbour. This is an area of high community interest with numerous issues including proposals for a marine reserve, a marine education centre, a surf reef, beach nourishment, and the sinking of a frigate.

### Progress

The main areas of work that were completed as part of the project are as follows:

**Community participation (Greater Wellington):** A number of community focus group meetings were held, involving people from different parts of the Region. The purpose of the focus groups was to look at the community's perceptions of the marine environment, and find out what people wanted agencies to do to look after it. Three evening lectures on the local marine environment were held at Te Papa, with 150-200 people attending each time.

**Information management (Greater Wellington):** Following the series of focus group meetings and an information gathering exercise, a database was developed and information entered (over 700 entries to date). The information will be made available on the Greater Wellington website in due course, and we are working to make the information available spatially through our GIS (geographic information system).

**Integrated management (Ministry for the Environment):** The Ministry engaged a consultant to complete an investigation into decision-making processes and legislation for key management agencies in the marine environment, followed by a report assessing management techniques for coastal resource management. A contract was also let to scope the availability, suitability and accessibility of datasets for a marine environment classification.

**Survey of harbour beaches and river estuaries (Greater Wellington):** In December 2003, the Environment Committee requested a workshop to consider the future direction of the programme. The workshop proposed a new line of work for the harbour study, which was a biological survey of the sandy beaches and river estuaries of the harbour and south coast. Greater Wellington contracted Cawthron Institute to map the substrate and vegetation of 13 sandy beaches and 3 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.

## **Next Steps**

As agreed at the Environment Committee meeting of 24 June 2004, staff are now working on a Marine Biodiversity Action Plan. This approach is consistent with other action plans being developed as part of Greater Wellington's biodiversity programme. The Action Plan will develop the options and detail the work to be carried out, budgets and timeframes.

We also propose to undertake biological surveys of the river estuaries and sandy beaches in other parts of the Region's coast. In particular, the Wairarapa coast has a high number of small river estuaries that contain coastal wetland sequences, which we know very little about. The Kapiti and Wellington coasts have larger and only slightly better understood estuaries. Work in these areas would complement the work already completed for the harbour and south coast.

## **The Freshwater Ecosystems Programme**

### **Introduction**

Greater Wellington began a Freshwater Ecosystem Programme at the beginning of the last triennium. 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**

The programme was last reported to the Environment Committee in October 2003. Some of the work reported on at that time included the mitigation of structures on our own land for fish passage (Orongorongo Weir, Rimutaka Incline Track, Whakataki River), the restoration of whitebait spawning habitat on the Kakaho Stream, public lectures and talks, the development of an inventory of the structures affecting fish passage in the Region and workshops with Council staff about how freshwater ecosystems 'work'. Since October 2003, we have:

1. Developed Point, Click, Fish for use by resource consents staff.
2. Surveyed freshwater fish at 35 new sites in the Region;
3. Prepared information sheets on freshwater fish; and
4. Begun the preparation of guidelines for building structures that are fish friendly.

Point, Click, Fish is a computer based tool that Greater Wellington has developed to help manage the habitats of freshwater fish in rivers of the Region. Point, Click, Fish tells us the species that should be found in the reaches of every river and stream, using data from field surveys and environmental information taken from the nation-wide River Environment Classification. All of this

can be viewed on a customised Geographic Information System, which 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.

### **Next Steps**

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

- Preparing information sheets that make freshwater ecosystems more understandable;
- Completing guidelines for building structures that are fish friendly;
- Mitigating fish passage over selected structures;
- Developing Point, Click, Fish for public use (i.e. on the Greater Wellington internet site).

## **QEII Trust Private Land Protection Programme**

### **Background**

Greater Wellington has recognised for some time that some ecosystem types in the region, such as wetlands, dunes, coastal escarpments, and coastal forest, are depleted and under-represented in the protected estate. The Council has developed specific strategies and programmes to address this issue. One of these is to provide financial assistance to landowners wishing to legally protect areas of biodiversity value on private land through a covenant with the Queen Elizabeth II National Trust. The costs involved in establishing a covenant typically relate to the need to fence the area to exclude stock and define it by survey to enable registration on the title.

### **Progress**

Progress in implementing this programme in 2003-04 was reported to the Committee at its last meeting in June. In summary, commitments were made to protect 294 hectares of lowland forest (14 covenants), 22 hectares of coastal or semi-coastal forest (2 covenants), and 11 hectares of wetland (4 covenants) at a total cost of \$69,000.

## **Waiwhetu Stream Action Plan**

### **Background**

The Waiwhetu Stream Working Group (WSWG), comprising tangata whenua, residents, businesses, the scientific community, and councils, produced the Waiwhetu Stream Action Plan in April 2001. Since that time the WSWG has been very active in implementing the plan, through practical enhancements of the stream margins, researching the contaminants in the stream's sediment and planning for their re-remediation, and promoting improved management practices and approaches.

## Progress

Much has been done to further this work over the last year. Funding was secured from the Sustainable Management Fund to undertake five projects aimed at providing further information regarding the options for dealing with the severely contaminated sediments in the lower reaches of the stream. These projects are:

- The analysis of fish and shellfish samples to quantify the human health risk posed by the sediments. This study revealed concerning levels of pollutants in eels and shellfish taken from the stream.
- A cost/benefit analysis of two potential remedial options by Montgomery Watson Harza.
- A study by Montgomery Watson Harza into methods of extracting sediment from the stream bed and another to determine the most suitable method of capping any vacated parts of the stream channel.
- An investigation to characterise the components of the stormwater entering the stream from a major stormwater drain. This has been partially completed. Samples collected by Greater Wellington staff are currently being analysed by a laboratory.

An investigation into the aquatic life and habitat of the stream has been completed by Landcare Research. This was partly funded by Greater Wellington. This is reported on elsewhere in this Order Paper.

The WSWG continues to meet monthly to lead the implementation of the Action Plan and discuss options and priorities. This year group members have overseen the re-vegetation of sections of the stream bank by members of the community and local school children. The areas have been prepared for planting by Hutt City Council, which also provided the plants. With Greater Wellington, the WSWG has prepared a pamphlet for local residents outlining simple actions to prevent pollutants entering the stream. The brochure also identifies a small range of plants suitable for enhancing the stream bank without compromising the flood carrying capacity of the stream.

On 14 February significant flooding occurred in the lower reaches of the stream in Lower Riverside Drive. A number of houses remain uninhabitable to this day. As a result, the Flood Protection Department is intending to undertake a flood plain management study. Discussions have taken place to ensure that this study and the existing work are integrated to the benefit of both. It is likely that the flood study will cause decision making about the contaminated sediments to be delayed but there remain a number of useful investigations to do with the sediment that can be done in the interim (for which further Sustainable Management Fund support will be sought). Work will also continue on the issues facing the upper reaches of the stream.



## **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. Significant funding to address the stream's problems commences this year (2004-05). However, 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 (the Kaiwharawhara Catchment Community Resource Kit).

### **Progress**

For much of 2003-04 officers from the two Councils have been working to identify options and approaches to achieve the vision for the stream. The options have been discussed with the community groups at two meetings in November 2003 and March 2004. Using the investigation into the ecological health of the stream prepared by Kingett Mitchell as a starting point, officers from the two Councils agreed to look first at the impact of sediment on the stream and to investigate erosion and other sources of sediment, and opportunities for riparian enhancement. This investigation will commence very soon.

There are many activities within the catchment which have contributed to the vision throughout the year. Wellington City Council has an active programme of stormwater enhancement in the area. Other contributing activities are:

- Wellington City Council has undertaken extensive planting and landscaping in Trellisick Park;
- The continuation of the re-vegetation of areas alongside the stream by the Otari-Wilton's Bush care group;
- The maintenance and replanting of the planted area at the mouth of the stream by Greater Wellington.

## **Waitohu Stream Community Plan**

### **Background**

The Environment and Landcare Divisions have been working on a joint project to better manage the Waitohu Stream for a year. The first phase of this, a study of the flood hazard posed by the stream and its water quality and ecological condition is now underway.

### **Progress**

A full report on progress with the study this year was made to the Landcare Committee of 3 August and is also included elsewhere in this Order Paper.

## **Pauatahanui Inlet Action Plan**

### **Background**

*Towards Integrated Management – the Pauatahanui Inlet Action Plan* sets out a vision for the Pauatahanui Inlet and its catchment and describes a range of actions to address the environmental issues relating to this highly important area. The Pauatahanui Inlet Community Trust was formed in 2002 to represent the local community in the implementation of the Action Plan. The Trust, Greater Wellington, and the Porirua City Council work together to make the plan a reality, along with a number other agencies with responsibilities in the catchment.

### **Progress**

The implementation of the Action Plan for Pauatahanui Inlet has progressed this year in a number of ways. In October a workshop on “Destressing Estuaries” was held. The workshop ran over two days and brought together leading experts in estuarine management from around New Zealand. Attendees and speakers included representatives from the Trust, NIWA, Landcare Research, Ngati Toa, Guardians of Pauatahanui Inlet, Ministry of Fisheries, Department of Conservation, NZ Landcare Trust, private consultancies, Greater Wellington and Porirua City Council. Following on from the workshop, the scoping of a research and monitoring strategy for the Inlet has been undertaken. This will be completed in 2004-05.

In the Action Plan, the effects of sediment on the Inlet, and the impact of changing land uses on its ecological health are flagged as key problems requiring further investigation and an appropriate management response. The review of known information about the Inlet that arose from *Towards Integrated Management*, also put a priority on the need for greater awareness of the sources, spatial variability, and rates of sedimentation so that the ecological acceptability of changes in the system might be assessed and better managed. The science workshop confirmed accelerated sedimentation and its effects on estuarine biota as the key problem for the Inlet, along with the impacts of contamination, and roading. In 2003 work commenced on a project to understand more about this issue through research into sediment cores taken from the Inlet at various sites. This project is being funded jointly by Greater Wellington, Porirua City Council and NIWA. A contract for the project has been let, the cores have been successfully gathered and the analysis is underway.

A second and related project focuses on defining a detailed land use history and land use change record for the Inlet over the last 150 years. It is intended that this will be of sufficient detail to assist with the correlation of land use patterns to sediment accumulation derived from the first study. Both these projects are due for completion by 31 March 2005.

The issue of contamination of the Inlet has also been addressed this year through studies by the Resource Investigations Department into the quality of marine sediments and stormwater discharges. The results of the marine sediment quality monitoring programme will enable us to quantify the amount of contamination in the sediments in the Inlet. Over time, with repeated sampling, we will be able to determine the rate at which contaminant levels are increasing (or decreasing). This will allow us to predict when contamination levels will breach sediment quality guidelines and prioritise and measure the effectiveness of work to control inputs of contamination into this harbour.

The Inlet (and in particular Browns Bay and Duck Creek) is also one of the areas where we are investigating the nature and levels of contaminants in stormwater (there are 10 urban areas where this work is being done). This project is also intended to provide an understanding of how the contaminants are being transported from the stormwater system to the receiving environment, e.g., dissolved in water or attached to the sediment.

For the last two years work has also been progressing on the Pauatahanui Inlet Restoration Plan. Stage 2 of this plan, covering the southern and western catchments, was completed in March 2004 after extensive public consultation. The purpose of the project is to produce an integrated restoration plan for the:

- publicly and privately owned lands on the southern and western urban margins of the Inlet; and
- the natural watercourses (including their riparian margins) and stormwater channels entering the southern and western urban margins of the Inlet, with particular emphasis on restoration techniques with the potential to reduce the inflow of silt, sediment and pollutants.

Throughout the year the Pauatahanui Inlet Community Trust has played a full role in all of these activities. In addition, the Trust has done a great deal of work on its priorities and focused on two major initiatives. These are:

- developing a scoping study for a Pauatahanui Inlet Roding Strategy (with some financial support from Greater Wellington); and
- preparing a biodiversity booklet for private landowners in the catchment with funding support from the national Biodiversity Advice Fund.

## **Greater Wellington's Waste Reduction Programme**

### **Background**

We have now been working to reduce the waste that is generated in Greater Wellington's offices for a year. Waste reduction methods are now being practised in the Masterton, Wellington and Upper Hutt offices. The purpose of the waste reduction programme is to reduce our rubbish for the good of the environment, to be in a sound position to promote waste reduction to others, and to enable us to meet Greater Wellington's target of reducing its waste by half in "Towards a Sustainable Region".

### **Progress**

The waste reduction programme has been running successfully in the three offices listed above. In Masterton the reduction in waste has been around 50 per cent. In the Wellington office, the reduction has been around 40 per cent (accurate figures require that we undertake a second waste audit. This will be done shortly). The waste being removed from the Wellington office has been reduced from 3 cubic metres to 1.8 cubic meters per day.

Our programme has also been successfully taken up and implemented by the Ministry for the Environment and is being evaluated for wider application in the public service. It is also being trialled by a major corporate organisation and has been implemented fully by another company.

## Care Group Work

### Background

When the *Take Care – Community Environmental Care Group* programme was established by Greater Wellington, a large number of applications were received and an effort made to respond positively to as many as possible. This meant that a handful of worthwhile projects were funded as Regional Policy Statement implementation projects. The discussion below refers only to the activities of these five RPS care groups. Most care groups are funded through the *Take Care* budget and the policy of funding new groups as RPS projects has now ceased. A report on the groups funded through *Take Care* will be presented to the next Environment Committee meeting.

### Progress

Four of the five groups have continued their work restoring dunes, a wetland, and two streams in various locations around the region. Unfortunately the fifth group, the Guardians of Pukerua Bay Beach, decided to cease their activities due to a lack of community agreement about their proposed activities. This group had undertaken some planting and other actions designed to prevent coastal erosion prior to calling a halt, and group members continue to maintain and look after these areas. The achievements of the four groups include:

- Producing a large sign to explain the dune restoration at Days Bay and continuing to clear weeds and plant native dune grasses. This group won three awards this year.
- The excavation and shaping of the wetland ponds at Henley Lake, as well as some weed clearing and planting.
- The Waitohu Stream Care Group winning a prestigious Green Ribbon Award for their rehabilitation of the stream and dunes.
- Extensive planting at Greendale Reserve alongside the Muapoko Stream. This included three separate planting events in which all of the students at Kenakena School were involved.