

Biodiversity

Full Year Review
30 June 2007

Biodiversity Coordinating Group

FOR FURTHER INFORMATION

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Report nbr??

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1. Significant biodiversity projects

1.1 Pauatahanui Inlet Catchment Project

In the 2005/06 Greater Wellington, Porirua City and the Ministry for the Environment's Sustainable Management Fund jointly funded a one year project with the objective of designing a programme to improve the management of the catchments draining into the Pauatahanui Inlet, primarily by encouraging retirement and planting of waterways. The project, "Vegetation Frameworks" was developed by Peter Handford and Associates.

During the year under review, Peter Handford was retained by the two councils to continue implementing the project. Considerable progress was achieved with highlights including:

- Farm plans completed for three major properties totalling 1,560 hectares or 15% of the total Pauatahanui Inlet catchments;
- Funding of \$60,000 was obtained from the national Biodiversity Condition Fund for fencing and riparian planting works. It was noted by the Fund in granting this funding that, while the project did not meet the normal criteria relating to formal legal protection (grants are normally only made to areas subject to perpetual covenants), they were prepared to support the project because of its innovative approach to dealing with a significant environmental issue;
- First retirement plantings undertaken on "The Glenn" property;
- Funding has been secured from the Ministry for the Environment's Sustainable Management Fund to engage a Catchment Co-ordinator. The application was made by the N.Z. Landcare Trust and the appointee will be an employee of the Trust but working to a work plan agreed to between the Trust, Greater Wellington and Porirua City Council. This externally funded appointment will allow the project budgets of the two councils to be applied to "on the ground" catchment projects. It will also allow the project to draw upon the not inconsiderable experience of the Landcare Trust in integrated catchment management.

1.2 Parks and Forests

Pest control operations completed in the second half of the financial year include initial possum control operations in Dry Creek, Belmont Regional Park and at Cannon Point, Akatarawa Forest. Bait station networks in Korokoro Valley, Speedy's Stream and Battle Hill bush remnant were replenished on a 4-monthly basis. In East Harbour Regional Park, bait stations in the 300ha mainland island site were re-filled every two months. Preparation for the coming Akatarawa Forest 1080 possum control operation required major input from staff, because of it coinciding with nearby Tb operations. This aerial 1080 operation is timed to take place in the first fine weather window following 1 July. A possum monitor was also completed in Akatarawa Forest.

Further goat culls occurred in Pakuratahi and Akatarawa Forests, while the Judas goats were checked in the Wainuiomata/Orongorongo water collection area and Belmont Regional Park.

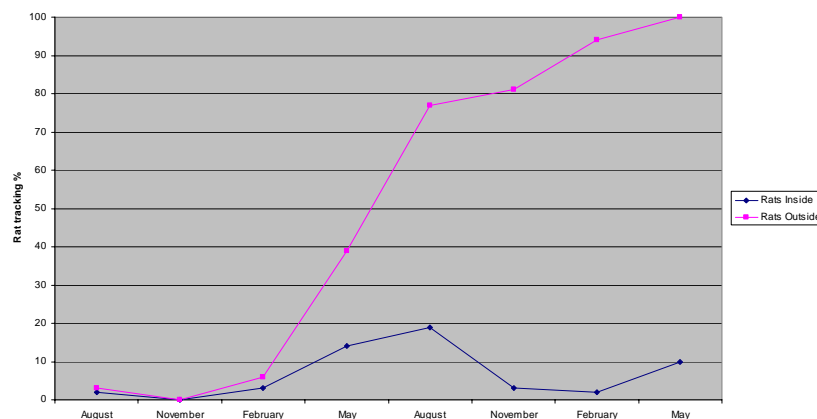
Infestations of over 40 pest plant species were controlled by a contractor in the parks and forests. The weed team completed more work on the climbing asparagus in East Harbour Regional Park and made a major effort to control the holly in the Battle Hill bush remnant. In Queen Elizabeth Park, pest plant work was focussed on pampas, Cape ivy and gorse.

The monitoring staff were pleased to report good growth of seedlings found when re-measuring permanent vegetation plots in the Hutt water collection area, Belmont Regional Park and Battle Hill Farm Forest Park. Seedlings of *Raukaua simplex*, which are now rare in the Tararua Ranges (because they are palatable to Deer) were reported in the Hutt catchment. Other vegetation monitoring work completed included the re-measurement of the tawa and hinau fruit-fall plots, a survey of *Rhabdothamnus solandri* (a rare plant in Battle Hill bush remnant) and the re-measurement of the water collection area photopoints.

Rodent monitoring was completed in Battle Hill bush remnant, Queen Elizabeth Park and, in East Harbour Regional park mainland island site. This information was used to feedback information about pest control in these areas. Healthy foliage cover in the forested areas was reported during an aerial survey for introduced insects and fungi.

1.3 Wainuiomata Mainland Island update

Bait fills continued at two-monthly intervals within the 1,200ha mainland island intensive pest control site. To date, 228 possums, 25 mustelids and 122 hedgehogs have been trapped in the area. A major ungulate hunt in the mainland island was completed, resulting in the culling of thirty one pigs and ten deer. The rodent/mustelid monitoring continued to show pleasing results with rats staying at much lower levels than those recorded in the non-treatment site outside the mainland island. Mice numbers continue to be higher inside the mainland island in comparison to outside. Tawa and hinau fruit-fall plots measured inside the mainland island showed low numbers of fruit predation.



Rat numbers recorded since the start of the mainland island

1.4 Wetlands programme

Background

Eight key actions were identified in the Wetland Action Plan, which was approved by the Council in March 2003. The 2006/2007 year was the fourth year of implementation. Day to day implementation of the Wetland Action Plan is undertaken by staff across a number of Greater Wellington departments; notably Environmental Policy, Environmental Education, Environmental Regulation, Environmental Monitoring and Investigations, Biosecurity, Parks, Land Management and Flood Protection.

Progress

- The wetland database has been up and running since the beginning of the year. It is helping us with the review of the Wetland Action Plan and is used for general planning purposes. We are also making it available to city and district councils. An example is its use by Wellington City Council in the preparation of their Biodiversity Action Plan. This database is updated as additional wetlands are found.
- Many wetlands in the region depend on groundwater. Work is underway on a groundwater model for the Wairarapa that will improve our understanding of aquifers and how wetlands in the Wairarapa function. A monitoring programme has begun at Te Harakiki Wetland on the Kapiti and we are investigating monitoring wetlands the Wairarapa. Greater Wellington is also supporting a Crown Research Institute research programme that is hoping to develop simple and low cost methods for monitoring wetland hydrology. Work is continuing on this project.
- 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 land managed by the Parks and Forests Department. The public have also been involved in a number of corporate and community planting days at wetlands on Queen Elizabeth Park and Battle Hill Farm Forest Park. Weed control has been undertaken in several wetlands by Parks staff.
- 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 land around the Lake and is responsible for controlling water levels through the operation of the barrage gates. Discussions with the Department of Conservation over the governance structure for the proposed regional park are ongoing. Work is ongoing by the Parks Department on an ecological restoration plan and strategy for ecological monitoring and weed control.
- Greater Wellington has funded ongoing pest management in Key Native Ecosystem (KNE) wetlands. This programme is being carried out by the Biosecurity Department. The KNE wetlands include Te Harakiki (Waikanae), Nga Manu Reserve (Waikanae) O

te Pua (Otaki), Lake Pounui (South Wairarapa), Waingawa Swamp (Masterton), Taumata Oxbow (east of Carterton), Waimeha Lagoon (Waikanae), Lake Onoke (South Wairarapa) and Pikes Lagoon (Gladstone). A number of wetlands also benefited from pest control carried out as part of the Animal Health Board TB vector programme, including the Pencarrow Lakes.

- The Wetland Incentives Programme was launched in November 2003 after being developed with input from wetland landowners. An additional 27 landowners have joined the programme this year, making a total of 109 landowners. Under the programme the fencing of twelve wetlands was subsidised and weed control was undertaken on eleven properties. The budget was fully spent last year and \$20,000 of the \$50,000 available for spending in the 2007/08 financial year has already been committed.
- A review of the Wetland Action Plan has commenced. A big part of the review is a survey of landowners that have been assisted through the Wetland Incentive Programme. A good proportion of surveys (approximately 20%) were returned and the data has been analysed. Analysis of expenditure through the Wetland Incentives Programme has also been done. Staff in the Parks Department are satisfied that they have improved management of wetland areas on our land since the Action Plan was approved by Council.

1.5 Biodiversity Implementation Plan (BIP)

A Biodiversity Implementation Plan for Greater Wellington is now in a final draft form and is being considered by the Biodiversity Co-ordinating Group before coming to EMT later in the year.

1.6 QEII National Trust Covenant Programme

There are now 274 approved or registered covenants in the Wellington region protecting a total of 5,801 hectares of indigenous ecosystems in perpetuity.

The following table shows what was achieved last year through the joint GW/QEII covenant programme, within a budget of \$70,000:

QEII National Trust Covenants established 2006/07

Type	No.	Area (hectares)
Lowland forest remnants	8	225.3
Coastal or semi-coastal forest	3	119.0
Wetlands	1	5.3
Total	12	349.6

A highlight this year included working with a landowner, Horizons Regional Council and the Department of Conservation to secure significant valuable forest areas on Patitapu Station near Mt Bruce. (160 hectares within the Wellington region).

1.7 Key Native Ecosystem Programme

Pest control was undertaken in 78 Key Native Ecosystem sites in 2006/07. GW continued to assist landowners, DoC and the Wildlife Trust for the Mt Bruce (Pukaha) pest eradication programme. We also assisted the Montfort Trimble Foundation with pest management planning and implementation at the Rewanui site (333 hectares) east of Masterton. Staff assisted private landowners to control pests in 28 Key Native Ecosystems.

Under the Territorial Authority Reserves programme, GW completed pest control on 50 sites (6,885 hectares) throughout the Region. Most of these sites are in Wellington, Porirua, Lower and Upper Hutt Cities and the Kapiti District. The biodiversity benefits of this work is enormous, with landowners and interest groups reporting large increases in native birds, flowering native flora and natural plant regrowth in the controlled areas. Relationships with our city partners are very good. Their financial and staff commitment to the Reserves programme is progressively increasing

1.8 Review of implementation of eco-sourcing policy

This has been completed and is the subject of a separate report.

2. Looking ahead

- Completion of Regional Policy Statement Ecosystems section
- Completion of Biodiversity Implementation Plan
- Working with the Wairarapa TAs on a Wairarapa Biodiversity Strategy
- Appointing a Catchment Coordinator for the Pauatahanui Catchment Project
- Completing the reviews of the wetland and riparian programmes
- Commencing the Waiwhetu contaminated sediments clean up programme

3. Business Plan Performance Indicators

3.1 Environment Management Division

Performance Indicator	YTD Actual	FY Budget	Progress
<p>Activity: The following programmes and plans will be implemented and a progress report will be approved by Council, within budget:</p> <p>QEII National Trust covenant assistance programme</p> <p>Freshwater ecosystems programme</p> <p>Kaiwharawhara Stream Plan</p> <p>Waiwhetu Stream Action Plan</p> <p>Pauatahanui Inlet Action Plan</p> <p>Coastal and marine ecosystem programme</p> <p>The Council will assist landowners wishing to enter into perpetual covenants to protect biodiversity on their land. Funding assistance is available to cover part of the costs of fencing and survey and, in some instances, for one-off pest control.</p>	440	667	<p>Wetland Action Plan</p> <ul style="list-style-type: none"> • Implementation of the Wetland Action Plan continues. Newly found wetlands are being added to the wetland inventory as they are discovered. • Kapiti Coast District Council has agreed to add some additional wetlands to their District Plan as a part of Plan Change 55B. A survey of these areas has been recently completed by Wildlands Consultants. • A review of the Wetland Action Plan has commenced. All landowners that have been part of the Wetland Incentives Programme have been surveyed and a review of the active management of wetlands on council managed land is also complete. • In the last quarter, seven landowners joined the Wetland Incentives Programme making a total of 104 landowners involved since the programme started. Subsidised fencing and weed control remain the most popular ways to use the incentives offered. <p>QEII National Trust private land protection programme</p> <ul style="list-style-type: none"> • Commitments totalling \$67,723 have been made to covenant projects which, when finalised, will protect 349 hectares of predominantly lowland forest. <p>Freshwater Ecosystems Programme</p>

Performance Indicator	YTD Actual	FY Budget	Progress
			<ul style="list-style-type: none"> • <i>Following completion of two native fish passes in the Kaiwharawhara Stream catchment, we are now working with care groups on fish passes in the Owhiro Stream and at Hull's Creek. A resource consent application has been granted for the Hull's Creek fish pass and construction of the pass will be in the new financial year. Consent applications have been prepared for the Ohiro Stream and will be lodged in the new year.</i> • <i>A hydrological investigation of how the Pencarrow Lakes are linked to the sea was commissioned because there are concerns about whether there is adequate fish passage through the existing culverts. Both lakes and their catchments have valuable native fish habitats. The modelling work showed that there may be some problems with the current functioning of the culverts out of Lake Kohangapiripiri.</i> <p>Kaiwharawhara Stream Plan</p> <ul style="list-style-type: none"> • <i>Work with care groups and Wellington City Council in the Kaiwharawhara catchment is ongoing. The success of approaches taken in the Kaiwharawhara catchment are being examined to see how they can be usefully applied to other urban streams in the region.</i> • <i>The following are being looked at to help assess the state of our urban streams: the classification of urban streams based on existing ecological and physical information; the use of GIS information (stormwater piping, percentage of impervious vs. natural ground cover); and the use of stream walks to help assess the state of streams.</i> <p>Waiwhetu Stream Action Plan</p> <ul style="list-style-type: none"> • <i>Discussions between the Minister for the Environment and Greater Wellington continue regarding the level of central government contribution to the estimated \$6 million cost of cleaning up the contaminated sediments</i>

Performance Indicator	YTD Actual	FY Budget	Progress
			<p><i>from the lower reaches of the stream. A decision is expected shortly.</i></p> <p><i>Pauatahanui Inlet Action Plan</i></p> <ul style="list-style-type: none"> • <i>The “vegetation frameworks” project working with private landowners in the Pauatahanui catchment has continued to make significant progress. Whole-farm planning exercises are underway with three major landowners in the catchment with the aim of improving stream quality by reducing soil erosion and establishing planted riparian buffers. A grant of \$60,000 from the Biodiversity Condition Fund was secured for catchment enhancement works on one of the larger properties. In addition, a number of landowners with smaller properties have also joined the project.</i> • <i>Since 1 July 2006 the project has been co-ordinated on an interim basis by Peter Handford, jointly funded by Greater Wellington and Porirua City Council. An application to the Ministry for the Environment’s Sustainable Management Fund was made by the New Zealand Landcare Trust on behalf of the two councils for funding for a co-ordinator for the Pauatahanui and Waikanae catchments. The application was successful with funding being secured for a two year period. The position is currently being advertised. This will allow the councils’ budget allocations to be used to support “on the ground” works such as fencing and planting.</i> <p><i>Coastal and marine ecosystem programme</i></p> <ul style="list-style-type: none"> • <i>Greater Wellington has received submissions from DoC and KCDC on the draft Coastal and Marine Action Plan. Their comments have proved useful and will be incorporated into the draft plan. The plan will be presented to Ara Tahī for any further comment. Following this work the plan will be submitted to Council for final approval.</i>

Performance Indicator	YTD Actual	FY Budget	Progress
			<ul style="list-style-type: none"> • <i>Consultants have completed their survey and report on the intertidal zone and nearshore habitats of the Eastern Wairarapa coast to Baring Head. This completes the coastal survey for the region. This work was reported to the Environment Committee in June 2007.</i> • <i>The annual progress report for these programmes will be reported to the 16 August meeting of the Environment Committee.</i>
<p>Activity: <i>Take Care programme</i></p> <p><i>Through the Take Care community environmental education programme, five new Care Groups will be established and assisted to care for degraded local ecosystems and existing Care Groups will be maintained, within budget.</i></p>	171	220	<p><i>Thirty one care groups have worked at sites across the region to restore the environment. Six of these are either new or groups that had come to the end of their previous funding arrangement and been renewed. These are groups at Hull's Creek, Henley wetlands, Waitohu, Waihora, Makara, and Onehunga Bay (Whitirea Park). In the last quarter most groups have started their winter planting programmes. Some of the major achievements this year are listed below:</i></p> <ul style="list-style-type: none"> • <i>Planting continued at the Island Bay dunes and an open day was held in June to attract more members. The group's successful pingao restoration led us to nominate them for an award in the 2007 Conservation Awards (to be determined in August).</i> • <i>The Makara Estuary group prepared a management plan to guide the future restoration of this site.</i> • <i>The Friends of the Otaki River completed a walkway from State Highway 1 to the sea and continued their restoration of Chrystal's Bend. This group was also nominated for a 2007 Conservation Award.</i> • <i>The Waitohu Stream care group has continued its work to restore the lower reaches of the stream. These efforts resulted in their winning the supreme award (Heritage and Environment) at the 2006 Wellington Airport Regional Community Awards.</i> • <i>At Kaitawa, the local Forest & Bird group has been planting the margins of the Wharemaukau Stream for a decade. Take Care will continue to fund this group for</i>

Performance Indicator	YTD Actual	FY Budget	Progress
			<p><i>the next three years.</i></p> <ul style="list-style-type: none"> • <i>The Churton Park group cleared a site at Wingfield Place and replanted it in native species.</i> • <i>The Glenside Group prepared its site at Rowell's Rd and has been raising 100's of plants in its nursery for the site.</i> • <i>The Waimeha wetland restoration group built a new nursery to raise plants for its project. After Greater Wellington's Biosecurity Department undertook control of blackberry and honeysuckle in the wetland, group members replanted locally sourced native species. A wetland plants workshop for all care groups was held at this site in February.</i> • <i>In its first year the Onehunga Bay group began clearing marram grass and replanting with spinifex. Bollards have been installed to keep vehicles out of this fragile ecosystem,</i> • <i>At the Otaki North site a rabbit control operation was carried out. Fencing was put in place by Flood Protection to reduce use of the area by vehicles but some of the fence was lost when the Waitohu Stream changed its course.</i> • <i>The DUNE group (Paraparaumu Beach) has enjoyed considerable success in combating erosion at the north end of the beach. A planting day in early June saw 2000 spinifex planted. The group assiduously maintains the areas it has planted and has benefited from rabbit control in the neighbouring Waikanae Estuary.</i> • <i>The Eastbourne Dunes group has successfully removed weed marram at one of its sites and planted 2500 plants between May and September 2006. Group members work on a monthly basis, all year round.</i> • <i>At Hull's Creek the Silverstream care group has used funds from the Sustainable Management Fund to remove willows from the stream and to commence the construction of a fish pass at the junction with the Hutt River.</i>

Performance Indicator	YTD Actual	FY Budget	Progress
			<ul style="list-style-type: none"> • <i>The Waikanae Estuary group has cleared dense weed infestations and replanted in a number of areas, funded largely by a \$38,000 grant from the Sustainable Management Fund. A second shade house has been set up to provide plants for their expanding activities.</i> • <i>A willow clearing demonstration at the Papawai Stream in March was attended by many local people and farmers.</i> • <i>The Friends of the Millenium Trust continue to raise a large number of native plants to support their restoration plan.</i> • <i>The Henley group used funding from Banrock Wines to enlarge two bird wader ponds and has continued its planting programme with local schools. Tennick Dennison and the Henley Trust won the Habitat Restoration Award at the 2006 Conservation Awards.</i> • <i>Jo and Trish Taylor (Riversdale Beach) and the Greendale Care Group received Merit Awards during Conservation Week.</i> <p><i>The application round for 2007-08 was held in February. There were eight applications for care funds, seven of which were approved.</i></p> <p><i>A Greater Wellington environmental awards programme has been developed (for schools, care groups, and others working on sustainability issues) and is currently open for applications.</i></p>

3.2 Catchment Management Division

Performance Indicator	YTD Actual	FY Budget	Progress
Activity: Riparian programme			
Five kilometres of riparian management, focusing on increased biodiversity along stream banks, will be implemented, within a budget of \$190,000.	175	190	<i>This financial year there has been 8,880 native plants established on fifteen properties covering 3.7 km of stream banks. Within this total there is 2.0 km of new planting and 1.7 km of maintenance planting. Expenditure totalled \$174,500.</i>
Activity: Key Native Ecosystems programme			
Implementing the relevant section of the Regional Pest Management Strategy	525	612	<i>Pest control was undertaken in 78 Key Native Ecosystems in 2006/07. Of these 50 sites were as part of the Territorial Authority reserves programme covering 6,885 hectares and 28 sites were on private land.</i>

3.3 Water Supply, Parks and Forests Division

Performance Indicator	YTD Actual	FY Budget	Progress
Activity: Regional Parks and Forests			
Environmental assets and settings within the regional parks and forests will be managed in accordance with the Parks and Forests Environmental Asset management Plan service levels.	639	782	<i>All ongoing possum control operations were completed as planned, while initial control work was undertaken in Dry Creek and at Cannon's Point. Some funds were carried over to next financial year for Dry Creek as there were some delays due to a lack of contractors. Major preparation work for the Akatarawa 1080 operation was completed. The pest plant programme proceeded as planned. The monitoring programme was completed. Work included permanent plot re-measurements, fruit-fall plots and rodent monitoring in three parks. An aerial survey for introduced insects and fungi was undertaken for Kaitoke and East Harbour Regional Parks, as well as the future water collection areas. All planned work was achieved. Savings during the year were due to staff vacancies and delays in taking over the management of Whitireia Park</i>
Activity: Water Group contract			
An annual report will be submitted to the Divisional Manager, Water Supply on the forest health and pest control activities undertaken in the current and future water catchments.	156	170	<i>A major goat control operation was completed in the Hutt catchment. Savings were due to the weed contractor being unable to complete a follow-up operation due to an injury to his back. Buddleia was controlled in Wainuiomata/Orongorongo water collection area. Permanent plots were re-measured in the Hutt catchment and hinau fruitfall plots, plus photopoints re-measured in both water collection areas. An aerial survey for introduced insects and fungi was also completed in the water catchments.</i>

Performance Indicator	YTD Actual	FY Budget	Progress
Activity: Wainuiomata Mainland Island			
An Annual Report will be produced on the mainland island detailing the work undertaken and the results obtained from monitoring	61	90	<i>Four bait station fills were completed, as well as two rodent/mustelid monitors. A major ungulate control operation was undertaken and hinau fruit-fall plots established and measured. Low numbers of pests continue to be maintained within the mainland island site. All planned work was achieved and \$30K was carried over, as it will be needed in the next financial year.</i>