

## ENVIRONMENT

### Gardens and beaches

#### **We have nature as a backyard.**

From the south coast to ridgeline walks, the city's parks, gardens and coastline are a natural playground. They provide locations for relaxation, recreation, enjoyment, and spaces for community gatherings and events.

Our overall aim is to ensure that the city continues to offer high-quality outdoor environments that are attractive, accessible, and enhance the city's unique 'sense of place'.

#### **Our aim is to balance ecological needs with opportunities for enjoyment.**

- We look after the city's parks and gardens, including the Wellington Botanic Garden, Otari Wilton's Bush, Bolton Street Memorial Park, Truby King Park, and many other reserve areas – these areas provide beautiful, high-quality venues for recreation and community festivals/events (the Wellington Botanic Garden alone has more than 1.3 million visitors a year)
- We protect native plants through our work in the gardens and at the Berhampore Nursery, which grows around 80,000 plants each year for use in parks, gardens and open spaces
- We look after the city's beaches and coastline, from the wild south coast to Oriental Bay Beach – this work includes dune protection, planting, erosion control and maintenance of boat ramps, slipways and jetties.

## MEASURING OUR PERFORMANCE

Our targets for 2008/09 are:

- 90% of residents surveyed have visited a park at least once in the previous 12 months, and 80% of those rate the quality and maintenance of the parks as good or very good (these targets are unchanged from 2007/08)
- 80% of residents surveyed have visited one of the city's four botanical gardens at least once in the previous 12 months (target unchanged)
- 90% of the plant collection held by the botanical gardens meet our defined WCC plant performance standards for health and quality (target unchanged)
- 75% of residents surveyed have visited one of the city's beaches or used wharves, jetties or boat ramps in the previous 12 months, and 85% of those rate the cleanliness and maintenance of the city's beaches and coastline as good or very good (target unchanged).

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## WHAT IT WILL COST

What it will cost <i>Activity</i>		Operational Spending			Capital Spending
		User charges and other revenue \$000	Expenditure 2008/09 \$000	Net expenditure / rates funding requirement \$000	Expenditure 2008/09 \$000
4.1.1	Local parks and open spaces	(397)	7,331	6,934	1,082
4.2.1	Botanical gardens	(370)	4,138	3,768	544
4.2.2	Beaches and coast operations	(54)	888	834	561
<b>Total for 2008/09</b>		<b>(821)</b>	<b>12,357</b>	<b>11,536</b>	<b>2,187</b>

## VARIANCES

For the 2008/09 financial year, we are planning the following variance from our 2006-16 long-term plan: Wellington Botanic Gardens – defer \$1 million of capital spending for the replacement of the nursery buildings until 2009/10 (this will allow the heritage status of the nursery buildings to be confirmed and for our designs to reflect that).

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### Green open spaces

#### **Wellington is literally surrounded by nature.**

One-eighth of Wellington's area is reserve land, much of it rugged and covered in bush. This land, protected for generations, is a vital part of Wellington's landscape. It contributes to the city's identity, and offers opportunities – within minutes of downtown – for walking, mountain biking and other outdoor recreation activities.

Our long-term vision is to substantially improve natural biodiversity on the Town Belt, Outer Green Belt land and other reserve land. We aim to protect these areas from development, restore native ecosystems, provide opportunities for enjoyment that do not compromise environmental values, and maintain these areas in ways that enhance the city and make it more attractive for residents and visitors.

We recognise that the key to protecting the city's open spaces is for Wellington residents to feel a sense of ownership and kaitiakitanga/guardianship over those spaces, and we aim to foster that feeling by sharing information and supporting volunteer/community initiatives.

#### **The Town Belt and other natural areas need to be protected – and, over time, enhanced through the regeneration of native bush.**

We:

- look after the city's 34.7 square kilometres of Wellington Town Belt, Outer Green Belt and other reserve land
- look after more than 300km of tracks extending throughout the city's open space areas – including 160km of walking tracks, 25km of mountain bike tracks, 14km of four-wheel-drive tracks, and 100+ kilometres of dual use tracks
- remove exotic trees that may be in danger of falling during storms and replace them with native trees – one example is the mass planting of northern rata, with their distinctive red flowers, on Tinakori Hill
- support community volunteers who help to look after reserve land – each year, volunteers plant 18,000-25,000 eco-sourced native plants throughout the city
- provide grants for projects that benefit the city's environment, promote sustainability, raise awareness of environmental issues, or otherwise contribute to our environmental objectives
- work with community groups to restore and protect the city's streams and surrounding areas
- support facilitators to implement the national EnviroSchools programme in Wellington schools
- protect native ecosystems by controlling weeds and pest animals such as possums and goats on open space land
- maintain roadside verges and clean city and residential streets, keeping them safe and attractive, through litter collection, planting, mowing, and controlling pest plants and other weeds.

## We're increasing our protection for native wildlife.

Wellington has a wide range of native plants, insects and birds, from little blue penguins to giant weta to native grasses and giant trees. Animal pests such as possums, rats and stoats eat native plants, trees and prey on native insects and birds, while weeds strangle or take over habitat from native plants.

Since 2005, we have been working with volunteers who give thousands of hours each year to remove weeds and animal pests from 12 'key native ecosystems' (areas of environmental significance) around the city.

Under our Biodiversity Action Plan, developed in 2007 with the aim of protecting and enhancing the city's natural areas, we aim to extend our weed and pest control work to an additional three key native ecosystems each year.

To achieve this, additional funding is required. We are increasing our pest management budget by \$74,000 in the coming year. In total, we're investing more than \$7 million to manage pest plants and animals over the next eight years.

We're also increasing funding by \$20,000 from 2009/10 onwards for work related to classifying reserves.

## MEASURING OUR PERFORMANCE

Our targets for 2008/09 are:

- to carry out four hectares of restorative planting on Wellington Town Belts and reserves (this target is unchanged from 2007/08)
- 60% of residents surveyed have visited the Wellington Town Belt or Outer Green Belt at least once in the previous 12 months, and 85% of those who had visited rate the cleanliness and maintenance of the Wellington Town Belt and Outer Green Belt as good or very good (targets unchanged)
- for community groups and volunteers to plant 26,000 (a 1,000 increase from 2007/08's target) eco-sourced native plants supplied by the Council
- 80% of residents surveyed rate the maintenance and quality of open space walkways and tracks as good or very good, and 80% of the walkway and track network meet required quality service standards (target unchanged)
- to apply Project Kaiwharawhara model, including regulatory tools, to Porirua and Owhiro catchments, and develop and implement catchment plans
- to continue existing service levels for weed and pest management (based on pest management plans for 15 areas defined as 'key native ecosystems')
- 95% compliance with performance standards for CBD street cleaning (target unchanged)
- 83% of residents surveyed agree that street cleaning in central Wellington is of a good or very good standard (target unchanged)
- 83% of residents surveyed agree that roadside vegetation is maintained to a good or very good standard (target unchanged).

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We also record the number of environmental grant applications we receive, the number receiving grants, and the total budget allocation. Our target is for all environmental grants to be distributed in accordance with eligibility criteria.

## WHAT IT WILL COST

What it will cost <i>Activity</i>		Operational Spending			Capital Spending
		User charges and other revenue \$000	Expenditure 2008/09 \$000	Net expenditure / rates funding requirement \$000	Expenditure 2008/09 \$000
2.3.2	Roads Open Spaces	(546)	8,011	7,465	
4.2.3	Town belts	(236)	4,555	4,319	786
4.3.1	Community environmental initiatives		346	346	
4.4.1	Walkways		418	418	422
4.7.1	Stream protection		15	15	21
4.7.2	Pest plant and animal management		871	871	
<b>Total for 2008/09</b>		(782)	14,215	13,433	1,229

## ENVIRONMENT

### Water

#### Water is a fundamental need.

It's crucial for people's health, and for quality of life. A city cannot survive without a steady supply of clean, safe, drinkable water.

It's also a resource that's in limited supply. Before it can be supplied to Wellington households, it has to be gathered in rainwater catchments, stored, and treated to ensure it is free of contamination. It is then piped to Wellington city. All of this requires extensive and costly infrastructure – reservoirs, pipes, treatments stations and so on.

Already, every day, more than 450 litres of water is consumed per person in Wellington city. And consumption has been increasing. If a one in 50 year drought occurs anytime from this year, the region's water supply may not be able to meet demand.

Our goal is to continue to provide safe, drinkable water to all households and businesses – while also moving the city towards a more sustainable approach in which water is used wisely and without waste.

#### We own and operate the water supply network, and promote conservation measures.

We:

- own a water supply network that includes 75 reservoirs, 34 pumping stations and about 1,000km of underground pipes
- contract Capacity, a company that we own jointly with the Hutt City Council, to manage, maintain, monitor and operate the network and carry out upgrades and renewals
- buy more than 30,000 million litres of water per year from the Greater Wellington and supply the water to Wellington properties.

We are currently investigating future water needs and conservation targets in conjunction with three councils in the region. As these plans are finalised, decisions will need to be made about what water conservation tools are implemented in each city.

## MEASURING OUR PERFORMANCE

Our targets for 2008/09 are:

- 97% of service requests relating to the water network are responded to within one hour of the request being received ('response' includes initial investigation and prioritisation of work) (this target is unchanged from 2007/08)
- 75% (target unchanged) of residents surveyed about water network service are satisfied with work carried out

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- all water delivered to Wellington properties complies with Drinking Water Standards for New Zealand (2005)
- no more than 18% (1% decrease since 2007/08) of water in the network is unaccounted for.

## WHAT IT WILL COST

What it will cost		Operational Spending			Capital Spending
		User charges and other revenue \$000	Expenditure 2008/09 \$000	Net expenditure / rates funding requirement \$000	Expenditure 2008/09 \$000
4.5.5	Water network	(30)	16,511	16,481	11,610
4.6.1	Water collection and treatment		13,187	13,187	
<b>Total for 2008/09</b>		(30)	29,698	29,668	11,610

## VARIANCES

For the 2008/09 financial year, we are planning the following variances from our 2006-16 long-term plan:

- water reservoir/pump station renewals – reduce capital spending by \$1 million by deferring the final stages of the Messines Road water reservoir until 2009/10 (this will allow for further consideration to be given to the best option for the project)
- water reservoir/pump station upgrades – reduce capital spending by \$50,000 by deferring the water reservoir/pump station upgrade project (delays to the project in 2007/08 have led to consequential delays for the 2008/09 programme).

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### Wastewater and stormwater

**We want to safeguard public health and safety, and protect the city's waterways from pollution.**

Wellington's stormwater network keeps residents and property safe by protecting the city from flooding. Each year, the network carries about 80 million cubic metres of runoff from roofs, paths, kerbs and channels and drains to streams and the harbour.

The sewage network, which carries about 29 million cubic metres of wastewater a year, protects human health and the environment by removing wastewater from homes and treating it to make it safe for disposal.

In this work, our key aims are safety and sustainability: wastewater should be disposed of in ways that protect public health and don't compromise ecosystems.

**To achieve this, we provide comprehensive stormwater drainage and sewage networks.**

We:

- own the city's stormwater and wastewater network, including thousands of kilometres of pipelines, as well as pumping stations and sewage treatment plants
- contract Capacity, a company that we own jointly with the Hutt City Council, to manage, maintain, monitor and operate the networks and carry out upgrades and renewals
- ensure that sewage and trade waste is treated to safe levels before disposal
- monitor and regulate trade wastes to ensure that harmful substances don't enter the sewage system.

**We're planning improvements to the Moa Point wastewater plant.**

We've lodged an application with Greater Wellington Regional Council to renew our resource consent to operate the Moa Point wastewater treatment plant. As part of our resource consent application, we have committed to two projects that will reduce the risk and impact of discharges from the plant's short outfall.

- We plan to add to the capacity of the Moa Point inlet by increasing the number of pumps, and make improvements to the screens and grit removal systems to handle the increased flow – we have budgeted \$1 million for this work in 2008/09 and \$1 million in 2009/10
- We also plan to treat any bypass flows – overflows that can occur during very heavy rainfall – with ultra violet light. This two-year pilot will be met from existing budgets, and funding requirements for a full-size UV treatment plant will be confirmed as part of an assessment of the effectiveness of the pilot.

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## MEASURING OUR PERFORMANCE

Our targets for 2008/09 are:

- 97% (unchanged from 2007/08's target) of service requests relating to the stormwater network are responded to within one hour of the request being received ('response' includes initial investigation and prioritisation of work)
- 75% (unchanged) of residents surveyed about stormwater network service are satisfied with work carried out
- stormwater discharges are free of scums or foams, floating or suspended material, abnormal colour or clarity, and fats or gross solids, on 100% (unchanged) of sampling days
- annual faecal coliform counts are less than 1,000 per 100ml at 90% (10% increase from 2007/08's target) of monitored freshwater sampling sites (lower levels of bacteria mean the water is cleaner)
- water quality at monitored bathing beaches comply with Ministry for the Environment guidelines on 90% (unchanged) of sampling days (green status).

Our 2008/09 wastewater network (sewage collection and disposal) and treatment targets are:

- 97% (unchanged) of service requests relating to the wastewater network are responded to within one hour of the request being received ('response' includes initial investigation and prioritisation of work)
- 75% (unchanged) of residents surveyed about wastewater network service are satisfied with work carried out
- annual median faecal coliform counts are less than 2,000 per 100ml at 80% (unchanged) of monitored harbour/coastal sampling sites (lower levels of bacteria mean the water is cleaner)
- 100% (unchanged) of businesses producing trade waste are inspected throughout the year
- no infringement notices are received for breaches of resource consents relating to wastewater treatment plants (unchanged).

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What it will cost		Operational Spending			Capital Spending
		User charges and other revenue \$000	Expenditure 2008/09 \$000	Net expenditure / rates funding requirement \$000	Expenditure 2008/09 \$000
4.6.2	Stormwater management	(8)	12,442	12,434	3,354
4.6.3	Sewage collection and disposal network	(650)	15,554	14,904	8,865
4.6.4	Sewage treatment	(736)	20,229	19,493	
<b>Total for 2008/09</b>		<b>(1,394)</b>	<b>48,225</b>	<b>46,831</b>	<b>12,219</b>

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### Waste reduction and energy conservation

**Sustainability is about meeting today's needs in ways that don't cause future harm.**

A truly sustainable city meets its energy needs from renewable supplies. It uses resources efficiently, and it finds ways to re-use or recycle instead of adding to the amount of rubbish sent to landfills. Wellington can't yet claim to be a truly sustainable city – but in some areas we are heading in the right direction. The city's recycling volumes, for example, have been steadily increasing in recent years.

**We want Wellington to be a sustainable city.**

We:

- provide weekly household recycling collections in suburban areas and the CBD – residents strongly support this work and the vast majority recycle
- provide weekly rubbish collections from households and daily collections in the CBD
- operate the Southern Landfill, with the aims of minimising the amount of waste disposed of and ensuring that waste is disposed off safely – the landfill operates a transfer station where recyclables are separated, a Second Treasure Shop where second-hand items can be dropped off, and facilities for collection and disposal of hazardous waste such as paints, batteries, gas bottles, garden chemicals, oils and solvents
- manage the city's 30+ closed landfills to reduce any environmental impacts
- provide residents with information about waste reduction, and carry out research about the impact of waste on the city
- operate a Kai to Compost programme, collecting food scraps from restaurants, hotels and other businesses
- enforce waste bylaws (which can include fines for disposing of waste in inappropriate ways)
- are working to encourage energy efficiency in the city by looking for ways to reduce our own energy use, and by developing guidelines on sustainable building covering areas such as water conservation, energy reduction and waste reduction.

**In 2008/09, we'll be investigating the viability of turning sewage sludge into energy using a bioreactor.**

We are committed to reducing our impact on the environment and in 2008/09 we'll undertake a feasibility study that will canvass options for the future disposal of Wellington's sewage sludge. The feasibility study will assess both the financial and environmental costs and benefits of any options investigated. The study will focus on the following two options:

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- converting organic waste (primarily sewage sludge) into electricity or LPG using a bioreactor
- working with the Porirua City Council in a joint approach for the disposal of sewage sludge using a sewage drying plant.

We're budgeting \$50,000 to undertake the feasibility study.

## We'll also investigate whether it's feasible to establish micro wind turbines in Carey's Gully

We take climate change seriously and are committed to implementing measures that will contribute to our long-term goal of becoming a carbon neutral city. The development of renewable energy has become a priority in recent years and wind energy technology has matured to become a major source of sustainable energy.

In 2008/09, we're investigating the feasibility of establishing a commercially viable micro wind-farm within Carey's Gully – the site of the Southern Landfill. If viable, we will look to partner with a commercial energy company on the development of the project. We're budgeting \$50,000 for the feasibility study.

## MEASURING OUR PERFORMANCE

Our targets for 2008/09 are:

- collect 13,500 (a 900 increase from 2007/08's target) tonnes of kerbside recycling
- 86% (1% increase) of residents surveyed say they have used kerbside recycling weekly in the previous 12 months
- 77% (1% increase) of residents surveyed say our kerbside recycling service is good or very good
- divert 35,500 (1600 increase) tonnes of recyclable waste from the landfill, while total waste to the landfill will be maintained at no more than 65,000 tonnes (this target is unchanged from 2007/08)
- maintain domestic waste collection once a week and inner-city waste collection six days a week (excluding Christmas, New Year and Easter)
- landfill and hazardous waste facility open 9.5 hours a day, seven days a week, 52 weeks a year (excluding Christmas, New Year and Easter)
- landfill resource consent quality standards are met on all occasions
- 94% (18% increase) of closed landfills that need monitoring systems have systems in place measured as a percentage of all known landfills requiring such work (NB: our long-term target is 100%).

We have also set a longer-term target of stabilising Wellington City Council (corporate) greenhouse gas emissions at 2003 levels by 2009/10 and reducing them by 20% by 2020.

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## WHAT IT WILL COST

What it will cost <i>Activity</i>		Operational Spending			Capital Spending
		User charges and other revenue \$000	Expenditure 2008/09 \$000	Net expenditure / rates funding requirement \$000	Expenditure 2008/09 \$000
4.5.1	Energy efficiency and conservation		109	109	124
4.5.4	Waste minimisation, disposal and recycling management	(8,218)	9,231	1,013	759
<b>Total for 2008/09</b>		(8,218)	9,340	1,122	883

## VARIANCES

For the 2008/09 financial year, we are planning the following variance from our 2006-16 long-term plan: Southern Landfill Improvements – reduce capital spending by \$700,000 (previously planned tunnelling work is no longer required because we have identified a more cost effective solution).

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### Environmental conservation attractions

#### Nature is one of Wellington's biggest attractions.

In the Karori Sanctuary and Wellington Zoo, Wellington has two facilities that play crucial roles in wildlife conservation, and educating people about nature. The sanctuary has a 500-year vision of restoring pristine native forest and bird life in a valley just minutes from the city.

The Zoo has a programme of breeding and rearing endangered species from New Zealand and abroad. In the next few years, these facilities will be joined by the Aquarium of New Zealand – Te Moana Tamariki. Together, these will make vital contributions to conservation while also benefiting the economy by positioning Wellington as a centre of nature-based visitor attractions.

#### We're supporting initiatives that put conservation at the heart of the city's visitor experience.

We:

- support the sanctuary by providing land and offering to provide a loan to contribute to development of new visitor facilities
- fund Wellington Zoo (which attracts more than 160,000 visitors each year)

#### We're providing transitional funding to the Karori Sanctuary over the next two years

The Karori Sanctuary is a world-first conservation attraction located minutes from downtown Wellington. We have previously agreed to provide a loan to contribute towards the development of a new visitor centre that would allow the Sanctuary to generate revenue. Delays to this project have meant that revenues will now be recognised later than expected. We're providing transitional funding to the Sanctuary to ensure they can continue to operate. We're budgeting \$300,000 in 2008/09 and \$700,000 in 2009/10 for this work.

## MEASURING OUR PERFORMANCE

Our targets for 2008/09 are:

- Karori Sanctuary will attract 90,000 visitors. We had previously indicated 180,000 visitors but this increase was linked to the opening of the (now delayed) visitor centre.

We will also monitor the number and type of endemic bird species recorded at the Karori Sanctuary.

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Performance measures for Wellington Zoo are shown in the council-controlled organisations section of this annual plan – see the appendix.

## WHAT IT WILL COST

What it will cost <i>Activity</i>		Operational Spending			Capital Spending
		User charges and other revenue \$000	Expenditure 2008/09 \$000	Net expenditure / rates funding requirement \$000	Expenditure 2008/09 \$000
4.8.1	Environmental and conservation attractions		4,421	4,421	2,272
<b>Total for 2008/09</b>			4,421	4,421	2,272

## VARIANCES

For the 2008/09 financial year, we are planning the following variance from our 2006-16 long-term plan: defer \$1 million (to 2009/10) of our \$8 million loan to the Karori Sanctuary for their Visitor Centre project and rephase our \$7 million loan to the Marine Education Centre to 2010/11 to reflect updated information on when this will likely be required.

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## ENVIRONMENT

### Quarry

#### Wellington needs roads and other infrastructure.

The Kiwi Point Quarry's output is needed for the region's roads and other infrastructure. It contributes to a community goal of ensuring that 'Wellington's long-term environmental health is protected through well-planned and well-maintained infrastructure'.

#### We ensure raw materials are provided for this infrastructure, while also aiming for long-term restoration of the environment.

We own the Kiwi Point Quarry in Ngauranga Gorge and manage a contract for the operation of the quarry, which provides aggregate to the local construction market. Each year, about 250,000 tonnes of rock are extracted for use on roading and other infrastructure. In our management of this resource, we aim to minimise environmental impacts by restoring and developing the area while contributing to the city's development needs.

## MEASURING OUR PERFORMANCE

Our targets for 2008/09 are to meet all commercial objectives, and to comply with all District Plan, resource consent and quarry licence requirements.

## WHAT IT WILL COST

What it will cost		Operational Spending			Capital Spending
		User charges and other revenue \$000	Expenditure 2008/09 \$000	Net expenditure / rates funding requirement \$000	Expenditure 2008/09 \$000
4.5.2	Quarry	(497)	195	(302)	
<b>Total for 2008/09</b>		(497)	195	(302)	