

Environment - Taiao

We have a close relationship with our environment

This chapter will be introduced with a double page graphic, including the following information:

We are committed to restoring native ecosystems in the city. Restoration involves a long-term commitment, as sites take up to 15 years of development before they become self-sustaining.

Planning for a site is crucial – control of pest species needs to occur before restoration can begin.

We collect native seeds from local sources. This ensures that the resulting seedlings are well adapted to the Wellington climate.

Initially, we select native plants that grow quickly to form a canopy of cover. This prevents weed species re-establishing.

Volunteers are critical and donate tens of thousands of hours each year. They donated over 31,000 hours of time this year.

These ‘did you know’ facts will be used in the body of the chapter:

- Native bush now thrives on hillsides where weeds used to grow. In the last 10 years we have restored 42.5 hectares of land through our revegetation programme, and the work of community groups considerably adds to this total.
- Our Berhampore nursery produces over 80,000 plant seedlings annually. These are used in both Council projects and donated to community groups who plant them on public land.
- Birds we haven't seen in a long time are coming back. Tui are flourishing, and species like kaka and kereru are no longer an uncommon sight in parts of the city.
- 87% of Wellington residents think the environment is well protected and managed.
- Native wildlife can be attracted to the site by providing a good variety of food sources; we ensure that we plant a range of species that flower at different times.

2.1 GARDENS AND BEACHES

Balancing caring for the natural environment with opportunities for recreation.

What we do:

- We manage and maintain the city's parks, open spaces and associated assets such as buildings.
- We manage and maintain the city's botanic gardens.
- We manage and maintain the city's beaches and coastal areas.

This activity contributes towards us being:

More liveable: Our open spaces provide opportunities for outdoor leisure and recreation for residents and visitors alike.

Better connected: Parks, gardens and beaches are natural gathering places and, by bringing people together, enhance social cohesion.

Healthier: Open spaces help in the conservation and protection of native species.

Key projects

During the year:

Parks

- As part of a Council review, we approved some guiding principles for the management of the Town Belt. The principles ensure community aspirations and values are reflected in day-to-day management and will guide the review of policies within the Town Belt Management Plan.
- We completed a reserve upgrade at the Lynfield Lane Park and play area in Newlands. This included an upgraded entrance way to make it more pedestrian and vehicle friendly, new pathways and fencing, an upgrade of the existing play area, a new bush track, community orchard planting and general amenity planting.
- The Council acquired 1.8 hectares of coastal escarpment next to Oruaiti Reserve in Seatoun (Point Dorset). The reserve is owned by the Port Nicholson Block Settlement Trust. Both areas will be managed and protected under the Oruaiti Management Plan which outlines the upgrade and ongoing management of the area. We began the upgrade work (funded through the Plimmer Project) which includes upgrading the existing walkways, upgrading entrance ways into the reserve, developing and installing interpretation signage and designing and installing a pa site landscape feature. We worked with the Port Nicholson Block Settlement Trust on this project which will be completed by October 2012. It was also the site for Arbour Day planting and will continue to be a site for habitat planting.
- We completed a refurbishment of the Kelburn Park fountain including painting the structure and refurbishment of the motor and pump.

Beaches and coastline

- We completed the bi-annual sand shifts at Oriental Bay Beach. Completed every year, this involves shifting the sand from the east end to west end on the beach to retain sand in the beach environment. Without this work the sand would be lost in the harbour.
- We completed landscaping at Te Kopahou Reserve integrating the undeveloped land on the south east corner into the surrounding landscape. The work included new pathways, carparking, stonework and new seating.
- We completed work replacing some of the old piles on the access finger jetty at Evans Bay boat ramp and replaced the damaged timber staircase on Seatoun Wharf.
- We completed an underwater inspection of the condition of the wharf piles, beams and bearers at the Evans Bay Yacht Club. This will allow us to plan future maintenance requirements.

Botanic gardens

- We held another successful Spring Festival. This focused around the Rugby World Cup and included bedding and tulip displays of participating countries flags while the Innovation Garden had a large rugby ball made of woven flax.
- We completed an upgrade at the Cockayne Lookout at Otari-Wilton's Bush which included the realignment of pathways and collection area, new plantings and some minor drainage works – this work was identified through the Landscape Development Plan.
- For the second year, we completed a successful Harvest Festival in April. This included a pumpkin growing competition, vegetable garden workshop and community group displays.
- Our 'The Meet the Curator' series included workshops on rose pruning and the fragrant garden.
- At the Treehouse in the Botanic Garden, we hosted an exhibition on James Hector, the first director of the Botanic Garden.
- We completed our two-yearly customer survey programme in the Gardens. The analysis was completed by the University of South Australia and gave the Botanic Garden a score of 6.4 out of 7 and Otari 6.7 out of 7.

What it cost

	Actual 2012	Budget 2012	Variance 2012	Actual 2011
Operating Expenditure (\$000)				
2.1.1 Local Parks and Open Spaces ¹				
Expenditure	8,049	7,665	(384)	7,424
Revenue	(1,233)	(445)	788	(481)
Net Expenditure	6,816	7,220	404	6,943
2.1.2 Botanical Gardens				
Expenditure	4,444	4,522	78	4,248
Revenue	(384)	(456)	(72)	(417)
Net Expenditure	4,060	4,066	6	3,831
2.1.3 Beaches and Coast Operations				
Expenditure	1,041	1,057	16	1,028
Revenue	(49)	(51)	(2)	(98)
Net Expenditure	992	1,006	14	930
	Actual 2012	Budget 2012	Variance 2012	Actual 2011
Capital Expenditure (\$000)				
2.1.1 Local Parks and Open Spaces ²				
Expenditure	1,893	952	(941)	877
Unspent portion of budget to be carried forward	N/A	529		N/A
2.1.2 Botanical Gardens ³				
Expenditure	444	444	0	956
Unspent portion of budget to be carried forward	N/A	364		N/A
2.1.3 Beaches and Coast Operations				
Expenditure	168	163	(5)	374

¹ Under budget due to assets which have been vested to Council. The value of these assets is reflected in income.

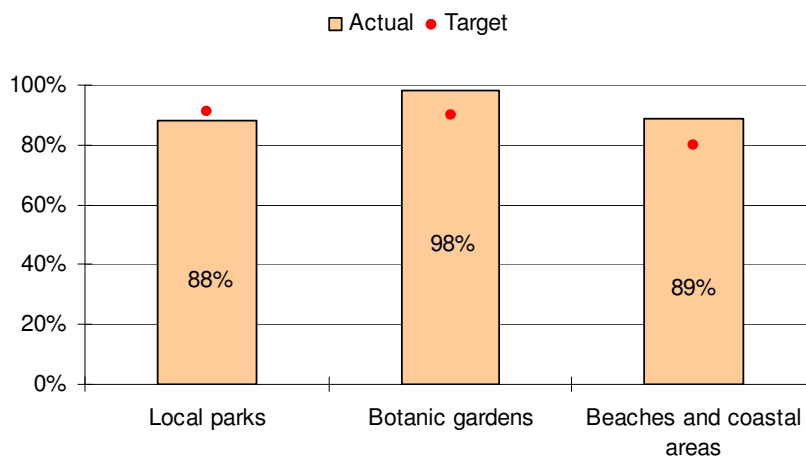
² Over budget due to the unbudgeted purchase of Point Dorset approved by Council in October 2011.

³ Under budget due to the timing of renewal work at the Treehouse in the Botanical Gardens. This work will now be completed in the next financial year.

How we performed

We aim to protect Wellington's ecology and unique natural environment while keeping the city's parks, gardens, beaches and coastlines attractive and accessible. We assess our performance by measuring compliance with quality standards and surveying residents' use of, and satisfaction with, beaches and coastal areas.

Residents' (%) satisfaction with the quality and maintenance of parks, gardens and beaches



Source: WCC Residents' Monitoring Survey 2012

City mowing sites (%) compliance with quality performance standards

Result: 85% (target: 90%; 2010/11: 87%). Quality performance standards include optimal grass length and health.

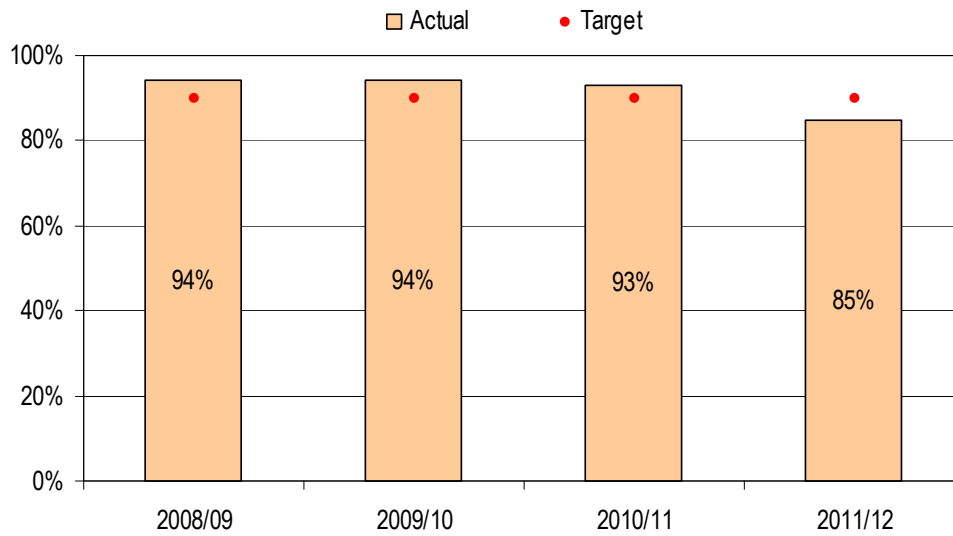
Source: WCC Parks and Gardens

Beaches areas (%) compliance with quality performance standards

Result: 95% (target: 90%; 2010/11: 98%). Quality performance standards cover maintenance, boat ramp spraying, removing sand build-up from sea walls and litter removal.

Source: WCC Parks and Gardens

Botanic Gardens' plant collection (%) compliance with quality standards



This measure includes the Wellington Botanic Garden, Truby King Garden and Bolton Street Memorial Park. Otari-Wilton's Bush compliance is 88%. Criteria include plant health, presence of weeds, pruning, and general presentation.

Performance was affected this year due to damp conditions lengthening the growing season and a consequent increase in the maintenance workload.

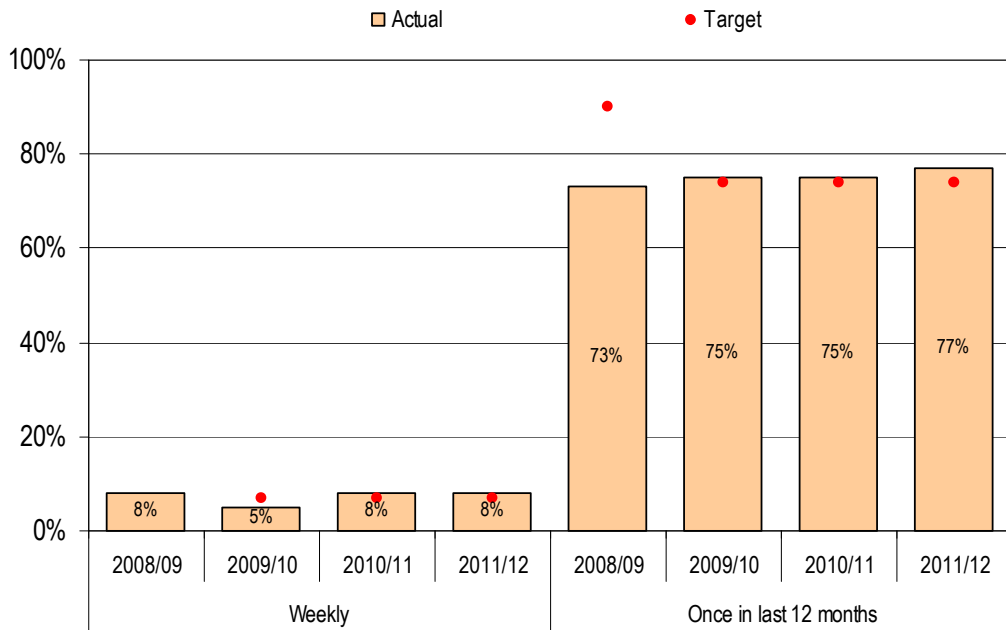
Source: WCC Parks and Gardens

Reported hazards (%) that are made safe (or secured) within 24 hours

Result: 100% (target: 100%; 2010/11: 100%).

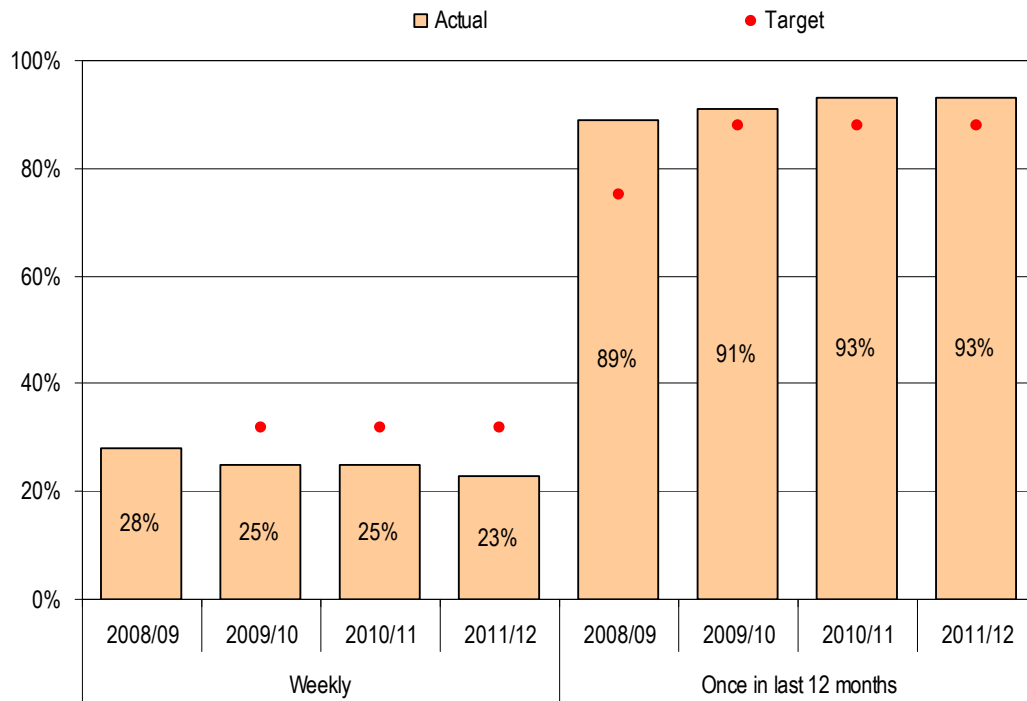
Source: WCC Parks and Gardens

Residents (%) usage of the Botanic Gardens



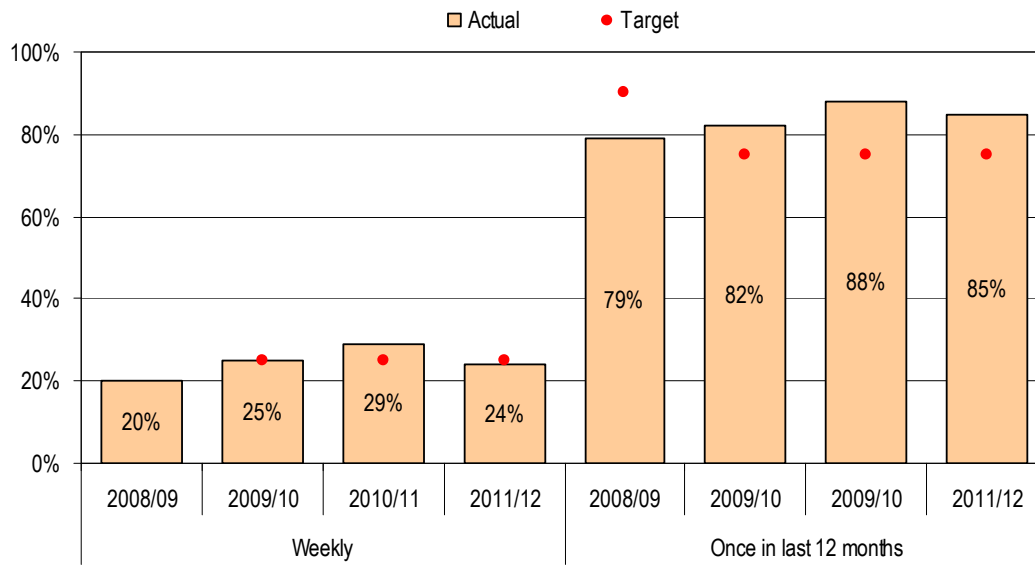
Source: WCC Residents' Monitoring Survey 2012

Residents (%) usage of beaches and coastal areas



Source: WCC Residents' Monitoring Survey 2012

Residents (%) usage of Wellington City Council parks



Source: WCC Residents' Monitoring Survey 2012

Residents' (%) ratings of ease of access to local gardens and beach areas

Result: 92% of residents surveyed rated beaches and coastal areas easy to access (target: 90%; 2010/11: 90%); 95% of residents surveyed rated local parks easy to access (target: 90%; 2010/11: 94%).

Source: WCC Residents' Monitoring Survey 2012

Residents (%) who agree that gardens and beaches provide good value for money

Result: 90% (target: 90%; 2010/11: 91%).

Source: WCC Residents' Monitoring Survey 2012

2.2 GREEN OPEN SPACES

Protecting Wellington's rugged and beautiful landscape.

What we do:

- We manage and maintain more than 4,000 hectares of protected Town Belt, Outer Green Belt and other reserve land.
- We support and provide grants to volunteers from community groups, schools, and other organisations to maintain and improve the city's parks and open spaces.
- We work with community groups to restore and protect the city's streams and surrounding areas.
- We provide and maintain tracks and walkways throughout the city to provide residents with safe access to recreation and leisure opportunities.
- We control weeds and pest animals at high priority sites to protect native ecosystems.
- We support volunteer groups and individuals who want to beautify the roadside corridor and maintain the roadside vegetation for road safety reasons.

This activity contributes towards us being:

More liveable: Our reserve land enhances economic well-being by attracting tourists and people to live in the city.

Healthier: It also provides unrivalled opportunities for outdoor recreation and leisure activities which benefit physical and mental health.

Key projects

During the year:

- We ran the Living Legends' Planting Day for Rugby World Cup where the public planted 5,000 plants on the Berhampore Town Belt with Sir Brian Lahore.
- We undertook the planting of 3,000 plants for Arbour Day at Oruaiti Reserve in Seatoun. This involved the local community, schools and iwi.
- We focused on continuing our pest plant programme in 33 key native ecosystems across the city. A highlight this year was launching the South West Peninsula Goat programme, with funding from Department of Conservation Biodiversity Funds and Regional Council. We are seeking to eradicate feral goats in the South Karori/Makara area.
- Environmental volunteers donated more than 31,000 hours of time to projects on Council owned or managed land.
- Key walkway renewals this year have included Wrights Hill, Khandallah Park, Tawatawa Reserve and along the Eastern Walkway.
- Our maintenance team are implementing hand held technology to assist with maintenance reporting.

What it cost

Operating Expenditure (\$000)	Actual 2012	Budget 2012	Variance 2012	Actual 2011
2.2.1 Road Open Spaces ¹				
Expenditure	9,706	9,780	74	8,830
Revenue	(603)	(526)	77	(567)
Net Expenditure	9,103	9,254	151	8,263
2.2.2 Town Belts ²				
Expenditure	4,197	4,502	305	4,145
Revenue	(773)	(209)	564	(231)
Net Expenditure	3,424	4,293	869	3,914
2.2.3 Community Environmental Initiatives				
Expenditure	421	376	(45)	415
Revenue	(10)	0	10	(9)
Net Expenditure	411	376	(35)	406
2.2.4 Walkways				
Expenditure	469	503	34	455
Revenue	0	0	0	0
Net Expenditure	469	503	34	455
2.2.6 Pest Plant and Animal Management				
Expenditure	1,111	964	(147)	962
Revenue	(85)	0	85	(1)
Net Expenditure	1,026	964	(62)	961
	Actual 2012	Budget 2012	Variance 2012	Actual 2011
Capital Expenditure (\$000)				
2.2.2 Town Belts				
Expenditure	276	302	26	294
2.2.4 Walkways				
Expenditure	337	337	0	335

¹ The net operating variance is due to lower level of activity than planned for the Rugby World Cup 2011.

² Under budget due to lower than budgeted interest costs, as well as assets which have been vested to Council. The value of these assets is reflected in income.

How we performed

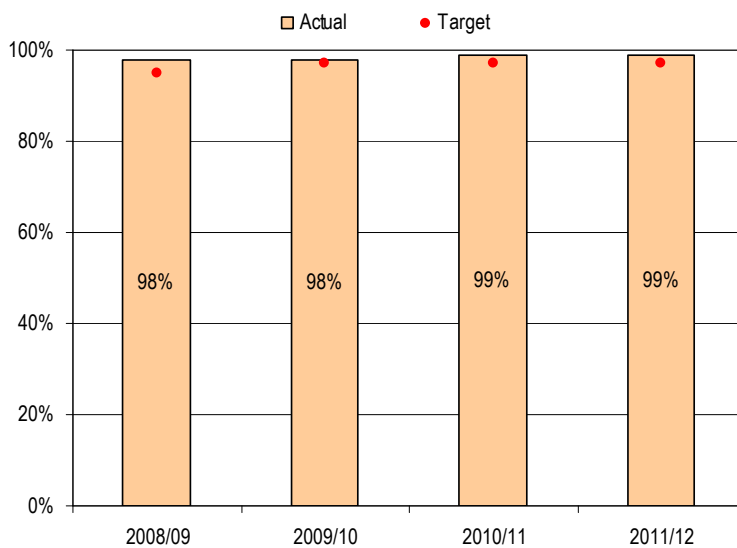
We aim to ensure that the city's green open spaces are well used, attractive and safe. We assess our effectiveness by measuring residents' use of, and satisfaction with, green open spaces. We also measure the amount of restorative planting and pest management that takes place, and record how long it takes to make hazards safe.

Residents' (%) satisfaction with the quality and maintenance of green open spaces



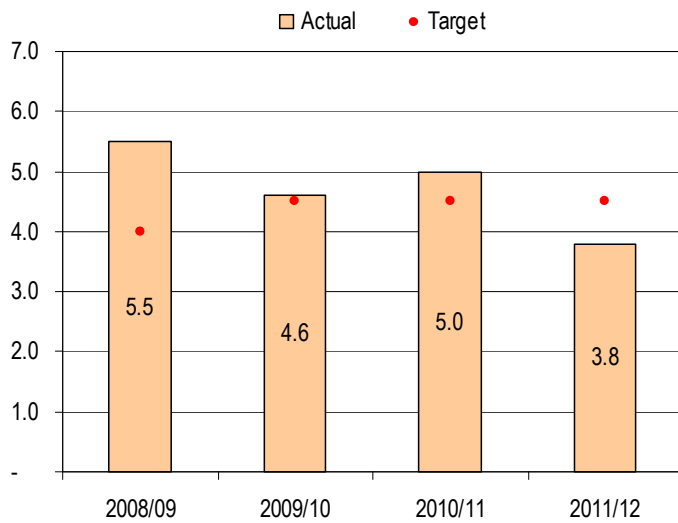
Source: WCC Residents' Monitoring Survey 2012

Street cleaning (%) compliance with quality performance standards



Source: WCC CitiOperations

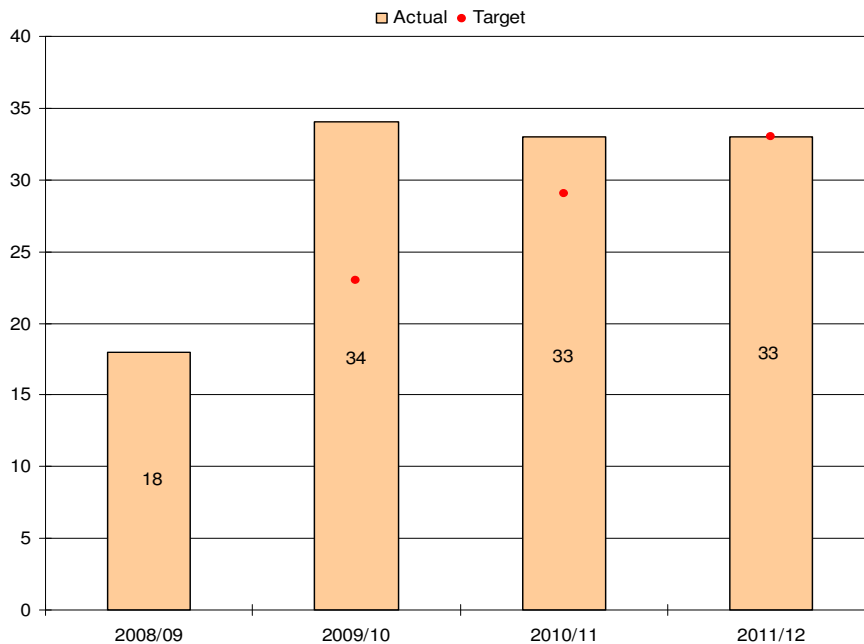
Total area of restorative planting (hectares) along the Town Belt



The 2011 planting season was shifted forward to ensure that planting was completed well in advance of Rugby World Cup 2011, resulting in more plantings in the 2010/11 and less in the 2011/12 financial year.

Source: WCC Parks and Gardens

'Key native ecosystems' with operational pest management plans



A 'key native ecosystem' is an ecosystem that is exceptionally important in terms of ecological value and/or diversity of plant life and wildlife. This year we focused on continuing our pest plant programme across the 33 areas.

Source: WCC Parks and Gardens

Walkways (%) – compliance with national standards

Result: 100% of primary walkways and tracks were compliant with national standards (target: 100%; 2010/11: 100%). The standards cover a range of criteria including integrity of structures and maintenance.

Source: WCC Parks and Gardens

Reported hazards (%) that are made safe (or secured) within 24 hours

Result: 100% (target: 100%; 2010/11: 100%. This is the same measure as recorded in 2.1 Gardens and Beaches).

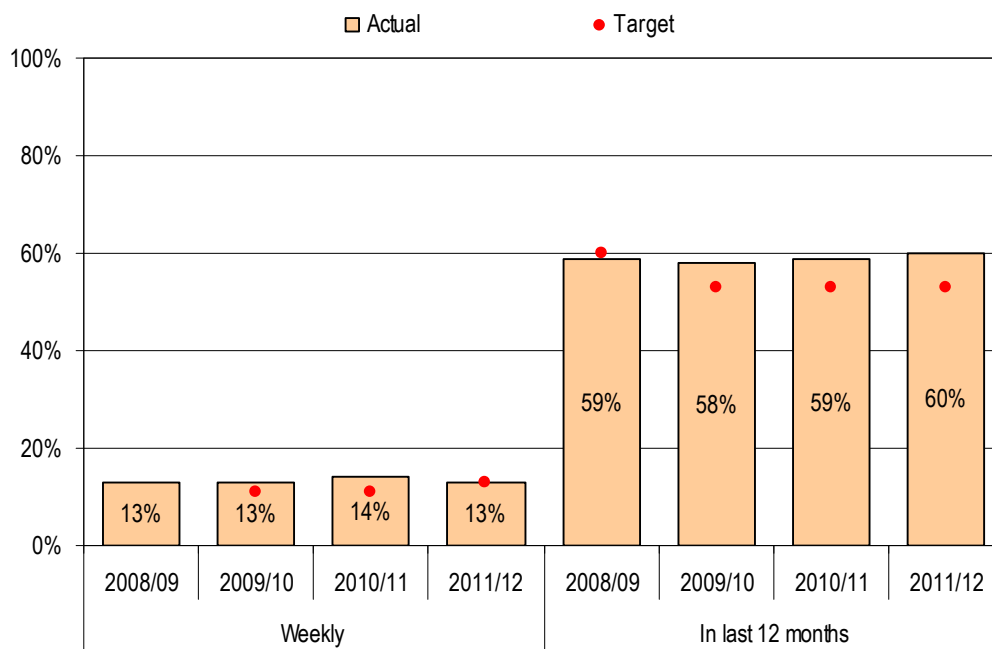
Source: WCC Parks and Gardens

Residents' (%) ratings of ease of access to green open spaces

Result: 94% (target: 90%; 2010/11: 94%).

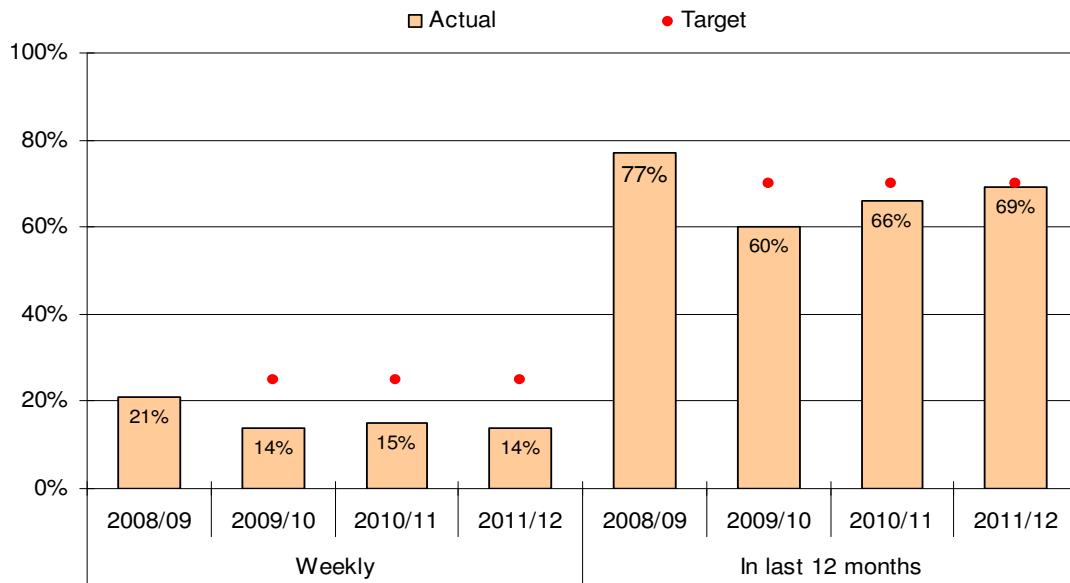
Source: WCC Residents' Monitoring Survey 2012

Residents (%) usage of town belts



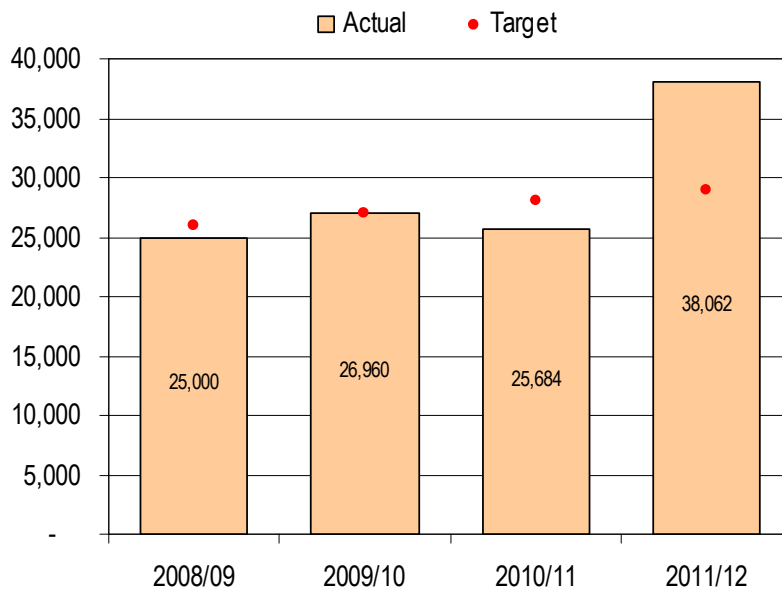
Source: WCC Residents' Monitoring Survey 2012

Residents (%) usage of WCC walkways



Source: WCC Residents' Monitoring Survey 2012

Number of Wellington City Council supported plantings by community groups



Community group plantings were under target last year and over target this year due to phasing changes required around the Rugby World Cup. The overall number of plantings undertaken over the two years is above target.

Source: WCC Parks and Gardens

Environmental grants

There are no performance targets for this measure. We aim to support initiatives that contribute to environmental well-being in line with eligibility criteria.

ENVIRONMENTAL GRANTS	2008/09	2009/10	2010/11	2011/12
Total number of grant applicants	26	28	21	14
Total number of applicants receiving	13	17	20	13
Total budget available to applicants	\$80,000	\$78,170	\$80,000	\$66,252
Total budget distributed to applicants	\$56,052	\$75,170	\$80,000	\$65,752

Environmental grants support projects which contribute to a range of outcomes on biodiversity, stream protection and waste minimisation. This year we supported a range of initiatives including work on a fire break on Makara Peak, in-water marine conservation/education to school children in Wellington, and a three day climate leadership workshop for young people. A major commitment during the year was to support the establishment of Conservation Volunteers in the city.

Source: WCC City Communities and Grants

Residents' (%) agreement that green open spaces provide good value for money

Result: 86% (target: 90%; 2010/11: 88%).

Source: WCC Residents' Monitoring Survey 2012

2.3 WATER

We provide a high-quality water supply to Wellington's residents and businesses

What we do:

- We own a water network which connects to more than 65,000 domestic properties and includes more than 1,000km of pipes, 81 reservoirs, 34 pumping stations and more than 7,300 hydrants.
- We contract Capacity Infrastructure Services Limited (Capacity) – a company we jointly own with Hutt City Council – to manage, maintain and operate our water network on our behalf.
- We purchase water in bulk from the Greater Wellington Regional Council and supply it to Wellington properties.

This activity contributes towards us being:

More liveable: A safe, reliable water supply is a fundamental need for a city.

Healthier: Water is critical for the health and well-being of residents.

More sustainable: Wellington's population is increasing and as such, water conservation, leak detection and remediation, as well as more efficient use of water, are increasingly important.

Key projects

- Active leak detection was carried out in Johnsonville, Northland, Roseneath, Brooklyn, Onslow, Wadestown, Woodridge and Kilbirnie water supply zones. Leaks that were detected were scheduled for repair.
- District Meter Area water meters were installed in Horokiwi Road, Fitzpatrick Street, Glanmire Road, Newlands Road and Fraser Avenue to measure flows and pressures within the suburbs of Newlands and Johnsonville. These meters aid in leak detection.
- Water use per capita dropped again this year, this time by 5,840 litres per person. This is a result of leak detection work, education and public messaging.
- Network renewals/upgrades comprising approximately seven kilometres of pipelines were completed during the year throughout the city and we also replaced the machinery in two pump stations.
- A draft regional water services Code of Practice (COP) was developed for adoption across the region. The COP will be implemented in the 2012/13 year following consultation with stakeholders and provides for consistency in how water, stormwater and wastewater assets are designed, built and operated.
- The Messines Road Reservoir(s) Project is ahead of schedule with the two tanks commissioned. The project is now programmed for completion in October 2012. This upgrade of the reservoirs, including improvements to its seismic performance, will increase the storage available to the Karori area.

- The seismic performance of the Carmichael Reservoir was improved during an upgrade project carried out. This in turn will increase the potential water storage available to Wellington City in the event of an earthquake.
- A professional services contract for the proposed Hospital Prince of Wales (CBD) reservoir was commissioned. The proposed 35 mega litre reservoir will improve the available water storage in Wellington City as well as provide a supply of water to Wellington Regional Hospital following an earthquake event.

What it cost

	Actual 2012	Budget 2012	Variance 2012	Actual 2011
Operating Expenditure (\$000)				
2.3.1 Water Network ¹				
Expenditure	23,656	22,779	(877)	20,823
Revenue	(1,360)	(31)	1,329	(657)
Net Expenditure	22,296	22,748	452	20,166
2.3.2 Water Collection and Treatment ²				
Expenditure	13,012	13,240	228	12,720
Revenue	(3)	0	3	(3)
Net Expenditure	13,009	13,240	231	12,717
Capital Expenditure (\$000)				
2.3.1 Water Network ³				
Expenditure	12,223	12,493	270	11,258
Unspent portion of budget to be carried forward	N/A	1,030		N/A

¹ The revenue variance is due to the recognition of unbudgeted vested asset income. The expenditure variance is due to increased depreciation as a result of revaluation of the asset base 30 June 2011.

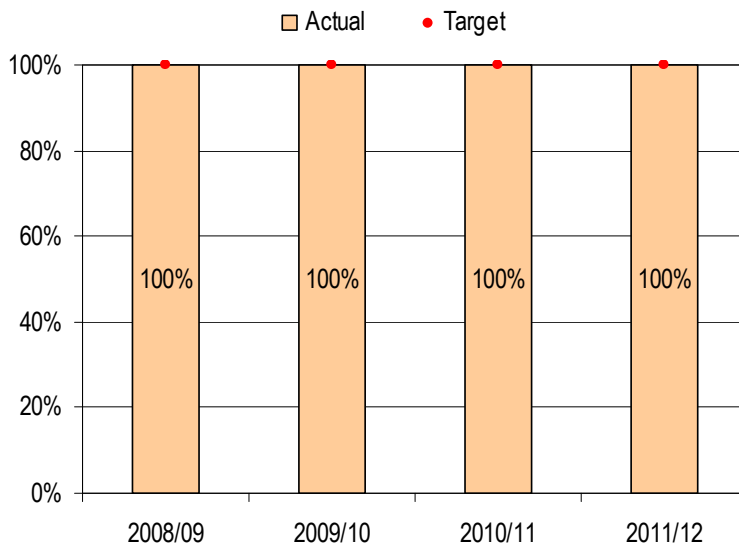
² Bulk water contract fees lower than budget.

³ Under budget due to Tasman Street Trunk water main renewal delayed whilst other priority renewals work was completed.

How we performed

We aim to supply safe, reliable drinking water. We measure our effectiveness by monitoring water consumption, residents' satisfaction with water quality and the water network, compliance with New Zealand Drinking Water Standards and response times for service requests.

Compliance with Drinking Water Standards for New Zealand 2005 (revised 2008)



Source: Capacity Infrastructure Services Ltd

Water distribution network – quality grading

Result: all parts of the network retained the grading of ‘a’ to ‘b’ in the Ministry of Health quality grading (target: ‘a’ to ‘b’ grading).

An ‘a’ grading refers to assets that are completely satisfactory with negligible or very low levels of risk. A ‘b’ grading refers to assets that are satisfactory with very low levels of risk. A ‘c’ grading refers to assets that are marginally satisfactory with moderate-low risk.

In 2008, the Ministry of Health graded the entire network. Annually, they ensure this grading has been retained by reviewing the Council’s replacement and/or maintenance of water pipes.

Source: Capacity Infrastructure Services Ltd

Customer complaints regarding water quality (taste and odour)

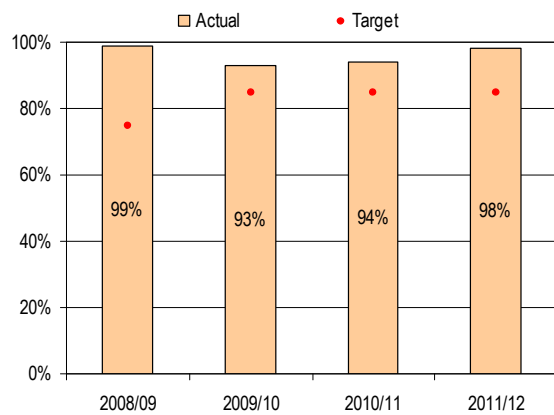
Result: 202 complaints (target: fewer than 80; 2010/11: 289).

The majority of these complaints continue to be associated with either the change of supply (lake to river) or when using the river supply where there is low rainfall. We continue to work with the Greater Wellington Regional Council on this matter.

New Zealand Drinking Water Standards have been met at all times.

Source: Capacity Infrastructure Services Ltd

Customer (%) satisfaction with water network



Source: Capacity Infrastructure Services Ltd

Water pressure

Result: 96% of properties had appropriate water pressure i.e. minimum 250kPa (target: 98%; 2010/11: 96%). Some older water supply zones have lower pressure and this cannot be improved without significant cost.

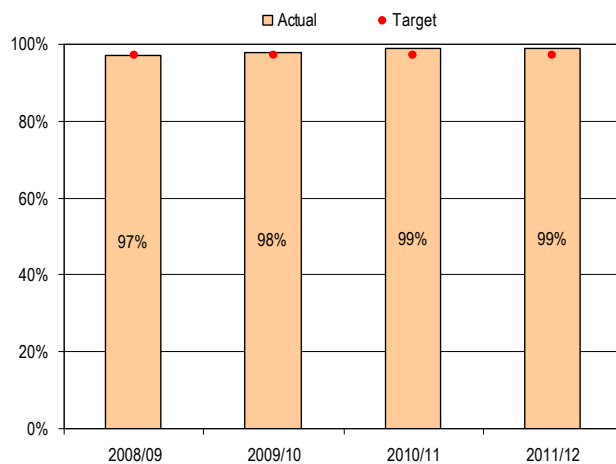
Source: Capacity Infrastructure Services Ltd

Fire hydrants

Result: 100% of hydrants tested met New Zealand Fire Service Code of Practice fire fighting water supply requirements (target: 95%; 2010/11: testing not carried out).

Source: Capacity Infrastructure Services Ltd

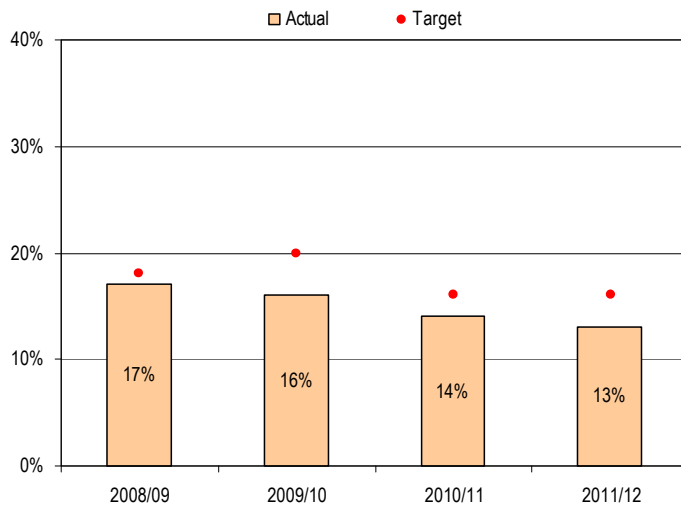
Water network service requests (%) that are responded to within one hour of notification



Response includes initial investigation and prioritisation of the work.

Source: Capacity Infrastructure Services Ltd

Unaccounted water from the network – estimated water loss (%)



Unaccounted for water includes leaks from the public and private network. The reduction observed from last year is due to targeted leak detection programmes based on area meter data analysis. This has been accompanied by increased water conservation messages that may also be affecting consumption behaviour.

Source: Capacity Infrastructure Services Ltd

Residential water consumption

Result: 282 litres per person per day (target: less than 340 litres per person per day; 2010/11: 297).

This is the sixth consecutive year that we have seen a reduction in water consumption. Over this six year period the city's overall water consumption has come down 14 per cent. This is a result of leak detection work, water conservation projects and public education.

Source: Capacity Infrastructure Services Ltd

Residents' (%) agreement that water services provide good value for money

Result: 84% (target: 90%; 2010/11: 85%).

Source: WCC Residents' Monitoring Survey 2012

2.4 WASTEWATER AND STORMWATER

Wastewater and stormwater needs to be disposed of so the public is protected and our natural environment isn't compromised.

What we do:

- We own the city's stormwater network and contract Capacity Infrastructure Services Limited (Capacity) to manage, maintain and operate the network.
- We own the city's wastewater network and contract Capacity to manage, maintain and operate the network.
- We own Karori and Moa Point treatment plants, and co-own the Porirua treatment plant with Porirua City Council.

This activity contributes towards us being:

Safer: Disposing of wastewater and stormwater adequately is essential to public health and safety.

Healthier: Responsible handling of stormwater and wastewater means that the health of the surrounding environment is protected.

Key projects

Stormwater

- Network renewals/upgrades comprising approximately 1.3 km of pipelines were completed during the year throughout the city.
- The Tacy Street stormwater pump station in Kilbirnie was commissioned. The pump station will reduce flooding in the Kilbirnie area by pumping stormwater from the low lying area to the ocean outfall as required.
- A draft regional water services Code of Practice (COP) was developed for adoption across the region. The COP will be implemented in the 2012/13 year following consultation with stakeholders and provides for consistency in how water, stormwater and wastewater assets are designed, built and operated.

Wastewater

- Network renewals and upgrades comprising approximately five kilometres of pipelines were completed during the year throughout the city.
- We replaced the machinery in three of the city's wastewater pump stations.
- A draft regional emergency sewage disposal plan was completed identifying options for disposal of sewage following a major earthquake.
- The Carey's Gully Sludge Dewatering Plant was granted new resource consents, for the discharge of contaminants to air and for the disposal of the dewatered sludge to land in May 2012. These consents expire in 2026.

What it cost

	Actual 2012	Budget 2012	Variance 2012	Actual 2011
Operating Expenditure (\$000)				
2.4.1 Stormwater Management ¹				
Expenditure	16,564	17,016	452	14,337
Revenue	(2,632)	(45)	2,587	(1,036)
Net Expenditure	13,932	16,971	3,039	13,301
2.4.2 Sewage Collection and Disposal Network ²				
Expenditure	16,278	15,321	(957)	14,091
Revenue	(2,780)	(579)	2,201	(1,038)
Net Expenditure	13,498	14,742	1,244	13,053
2.4.3 Sewage Treatment ³				
Expenditure	21,364	20,122	(1,242)	20,146
Revenue	(1,262)	(694)	568	(1,348)
Net Expenditure	20,102	19,428	(674)	18,798
Capital Expenditure (\$000)				
2.4.1 Stormwater Management				
Expenditure	4,001	3,957	(44)	5,040
2.4.2 Sewage Collection and Disposal Network ⁴				
Expenditure	8,069	8,014	(55)	7,910
Unspent portion of budget to be carried forward	N/A	397		N/A

¹ The revenue variance is due to the recognition of unbudgeted vested asset income. The expenditure variance is due to lower interest costs.

² The revenue variance is due to the recognition of unbudgeted vested asset income. The expenditure variance is due to increased depreciation as a result of revaluation of the asset base 30 June 2011.

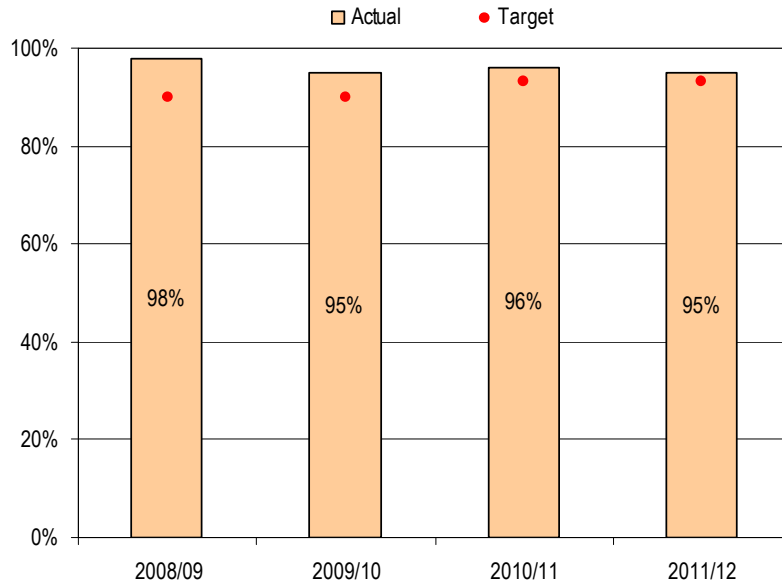
³ The expenditure variance is due to higher contract fees for the treatment of waste at our treatment plants.

⁴ Under budget with investigations for alternative treatment options of overflows at Moa Point Treatment Plant delayed due to limited sampling opportunities in overflow conditions

How we performed

Our stormwater and wastewater activities should protect public health and property without compromising the environment. We measure our effectiveness by monitoring freshwater and beach water quality, resident satisfaction with the water and stormwater networks and response times for service requests.

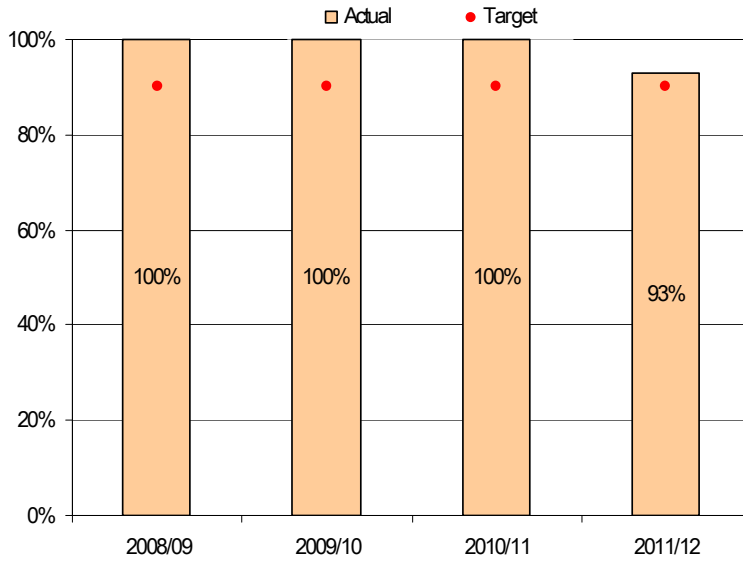
Monitored bathing beaches (% of sampling days) that comply with Ministry for the Environment guidelines (Green Status)



Eight of the 21 coastal water monitoring sites in Wellington City breached the guidelines during the bathing season (November 2011 – March 2012). The majority of these coincided with heavy rainfall. In 2010/11, this figure was ten sites and results for the two preceding years were three and two. All immediate follow up samples were within the guidelines, except for three sites. Owhiro Bay was closed for one day on 13 March 2012.

Source: Capacity Infrastructure Services Ltd

Freshwater sites (%) within acceptable faecal coliform counts

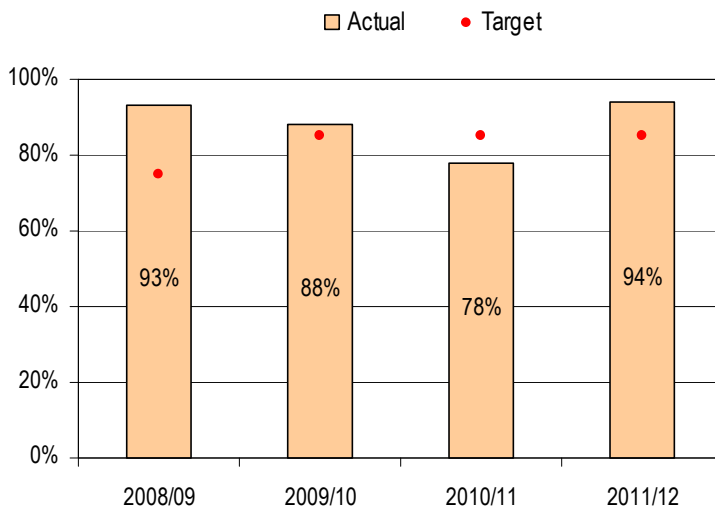


SS

The drop in performance is related to two sites in particular – Ngauranga and Johnsonville. A broken sewer in Ngauranga contributed to this which has since been rectified. There are on-going investigations at three of the freshwater sites – Ngauranga, Johnsonville and Karori to identify sources of contamination.

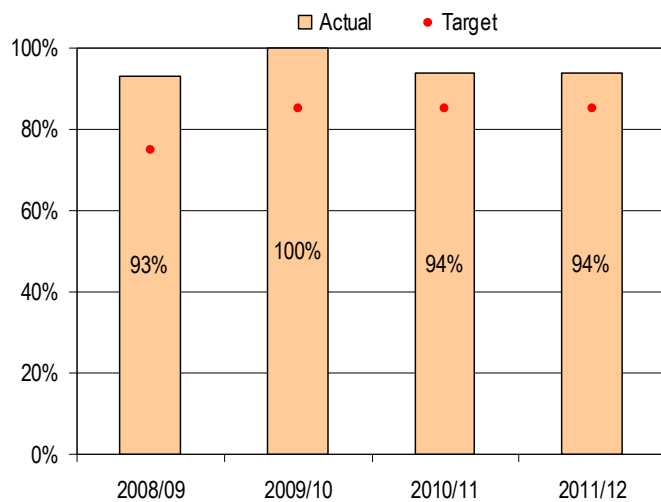
Source: Capacity Infrastructure Services Ltd

Customer (%) satisfaction with stormwater services



Source: Capacity Infrastructure Services Ltd

Customer (%) satisfaction with wastewater services



Source: Capacity Infrastructure Services Ltd

Response time to service requests

Result: 96% of requests were responded to within one hour of notification (target: 97%; 2010/11: 91%).

Source: Capacity Infrastructure Services Ltd

Flooding

Result: There were no one-in-50-year rain events this year and as such no properties were flooded as a consequence of such an event (target: no properties; 2010/11: no properties).

Source: Capacity Infrastructure Services Ltd

Stormwater network – resource consent compliance

Result: 100% compliance (target: compliance; 2010/11: 100% compliance).

Source: Capacity Infrastructure Services Ltd

Wastewater network – resource consent compliance

Result: 100% compliance (target: compliance; 2010/11: No consents held).

Source: Capacity Infrastructure Services Ltd

Residents (%) who agree wastewater and stormwater services provide good value for money

Result: 70% (target: 90%; 2010/11: 71%).

Source: WCC Residents' Monitoring Survey 2012

2.5 WASTE REDUCTION AND ENERGY CONSERVATION

We aim to ensure waste is disposed of safely, without causing harm to the environment and for Wellington to be a sustainable city by encouraging energy efficiency.

What we do:

- We collect waste and recycling, manage the Southern landfill, manage environmental impacts of waste disposal and enforce waste bylaws. Under the Waste Minimisation Act 2008 we are required to promote effective and efficient waste management and minimisation within the city, and ensure that waste is disposed of safely.
- We support households and businesses to be energy efficient and use renewable energy as well as improving the energy efficiency of our own activities.

This activity contributes to us being:

More liveable: Having warm, healthy and energy efficient homes is an important part of retaining and attracting talented people to Wellington.

More competitive: Environmental reputation will influence where people want to live and do business.

Healthier: Safe waste disposal is critical for the health and well-being of residents.

More sustainable: A truly sustainable city meets its energy needs from renewable supplies, uses resources efficiently, and finds ways to minimise waste and to re-use or recycle instead of sending rubbish to landfills.

Key projects

During the year:

Energy efficiency and conservation

- We launched the Home Energy Saver programme in August 2011 which provides free, household sustainability assessments to residents. This provides householders with a tailored action plan providing them with tips on how to make their homes warmer, healthier and less expensive to run. More than 470 households received assessments during the year with at least 255 having had energy saving measures installed as a result of the assessment. Further analysis will be carried out to understand the total value of actions taken-up by households as a result of the programme.

- We undertook a number of energy efficiency measures across our operations including correcting excessive shower flows, automating lighting controls and levels, and installing a thermal blanket on the pool at the Wellington Regional Aquatic Centre.
- The Council has had an independent assessment of our greenhouse gas inventories carried out by CarboNZero Limited. This has established that our reporting is generally sound. However, some gaps exist in specific areas which will be addressed through continued improvements.
- Through the Council's Warm Up Wellington partnership with Energy Efficiency and Conservation Authority (EECA), the Sustainability Trust and Capital and Coast District Health Board, more than 155 low-income households received a partially subsidised insulation retrofit. The Council's \$44,000 investment was leveraged against \$290,000 from its partnering funders. A recent study conducted by EECA indicated that insulation retrofits provide \$3.90 worth of benefits to society for every \$1 spent.
- The Council-led electric vehicle (EV) project has continued this year, with a survey of users showing overwhelming support for the cars. A high level of interest was generated from the Council's EV display day held at Te Papa on 20 June featuring a range of electric cars, motorcycles, scooters and bicycles. The trial project runs through to September 2012 and Council is working with others to develop an online tool for comparing EV costs with conventional vehicles.

Waste minimisation and recycling

- We celebrated our first anniversary of the new recycling service in May 2012. Recycling volumes collected are 10% higher than this time last year, and the amount of glass contamination has reduced to practically zero. This is attributed to the better capacity of wheelie bins and from not having to sort recyclables post-collection. The new service is also significantly safer for staff.
- The sludge pyrolysis pilot commenced in May. This project will pilot an emerging technology to reduce the volume of sewage sludge being sent to landfill.
- We delivered public waste education to over 1,200 people, through presentations to community groups and schools. In addition to this we provided tours of the landfill site to 700 members of the public.
- Options for the development of Stage 4 of the landfill have been finalised and will be a top-to-bottom of the gully approach. All required site investigations have been completed and applications for resource consent are ready to be submitted.
- We recovered over 500 tonnes of scrap metals and other materials for sale to merchants and in our second treasure shop.
- We recycled 6,700 tonnes of green waste and food waste into compost and other products for sale to distributors, retailers and the public.

What it cost

	Actual 2012	Budget 2012	Variance 2012	Actual 2011
Operating Expenditure (\$000)				
2.5.1 Energy Efficiency and Conservation ¹				
Expenditure	173	312	139	186
Revenue	0	0	0	0
Net Expenditure	173	312	139	186
2.5.2 Waste Minimisation Disposal and Recycling Management ²				
Expenditure	11,244	10,067	(1,177)	9,855
Revenue	(11,962)	(10,055)	1,907	(11,338)
Net Expenditure	(718)	12	730	(1,483)
2.5.3 Closed Landfills Aftercare ³				
Expenditure	(181)	162	343	727
Revenue	0	0	0	0
Net Expenditure	(181)	162	343	727
	Actual	Budget	Variance	Actual
Capital Expenditure (\$000)	2012	2012	2012	2011
2.5.1 Energy Efficiency and Conservation 4				
Expenditure	97	148	51	168
Unspent portion of budget to be carried forward	N/A	95		N/A
2.5.2 Waste Minimisation Disposal and Recycling Management				
Expenditure	1,103	731	(372)	756
Unspent portion of budget to be carried forward	N/A	393		N/A

¹ Under budget due to the take up of Business/Home energy efficiency programmes being lower than anticipated.

² The revenue variance is due to high levels of contaminated soil waste being disposed at the Landfill.

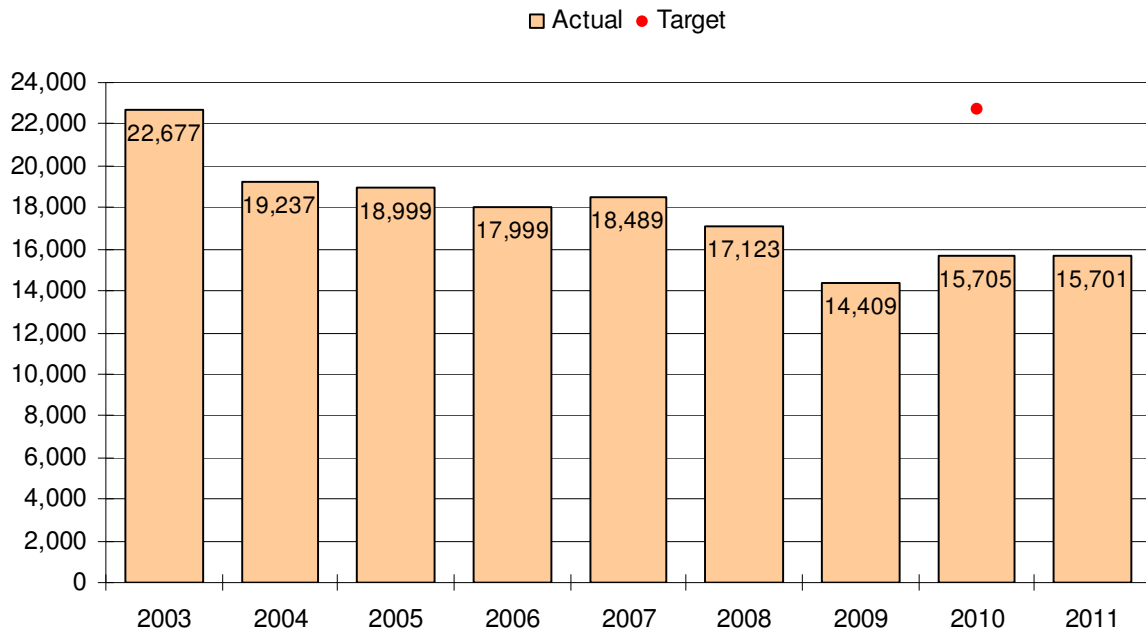
³ The expenditure variance is due to the reassessment of the Closed Landfill provision.

How we performed

We assess energy efficiency by measuring city and Council greenhouse gas emissions, and Council energy use. We assess our effectiveness in waste disposal and minimisation by monitoring resource consent compliance and by measuring resident use of, and satisfaction with, waste management services.

Greenhouse gas emissions

WCC Corporate greenhouse gas emission (Tonnes Co2-e)



WCC emissions remain on track for a 40% reduction by 2020.

Source: WCC Climate Change Office

City wide emissions

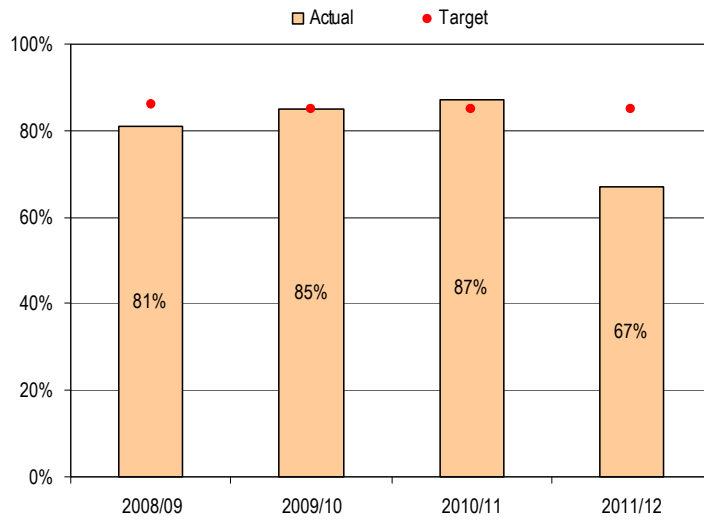
The city greenhouse gas inventory was last completed in 2010 and is completed every three years. The latest inventory indicates that emissions have stabilised at 1.1 million tonnes CO₂-e, meeting our target to stabilise city emissions at 2001 levels by 2010.

The Council has set its next interim target of reducing city-wide emissions by 3% (below 2001 levels) by 2013, as a stepping stone towards a target of 30% emissions reduction by 2020.

It is difficult to predict whether Wellington will achieve its 2013 target of 3% reduction but there is a growing renewable profile in New Zealand's electricity sector as well as lower consumption of liquid fuels.

Source: WCC Climate Change Office

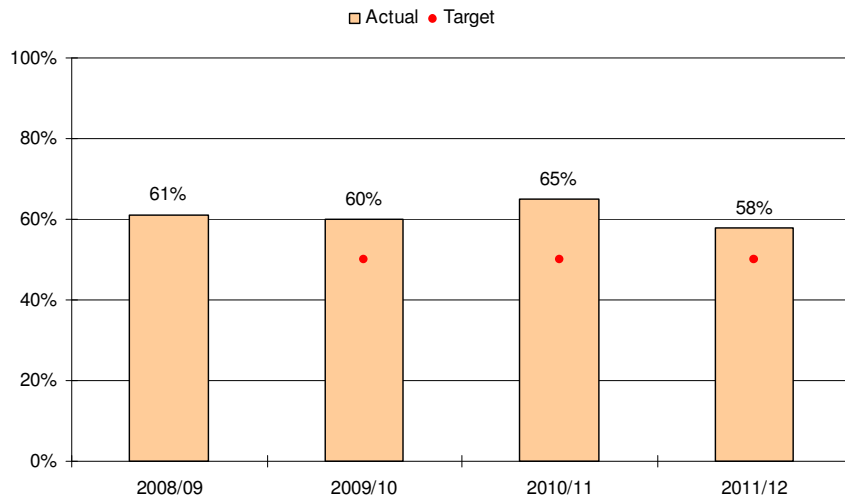
Residents (%) who use kerbside recycling weekly



Changes to the recycling system have meant that while overall tonnage of recycling has increased, weekly usage of the system has decreased and there has been a consequent increase in fortnightly usage of the service.

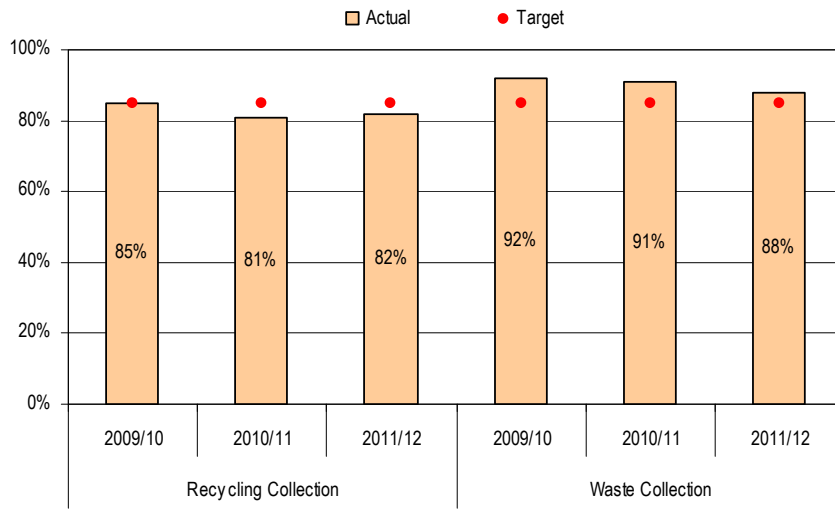
Source: WCC Residents' Monitoring Survey 2012

Residents (%) who use rubbish collection services weekly



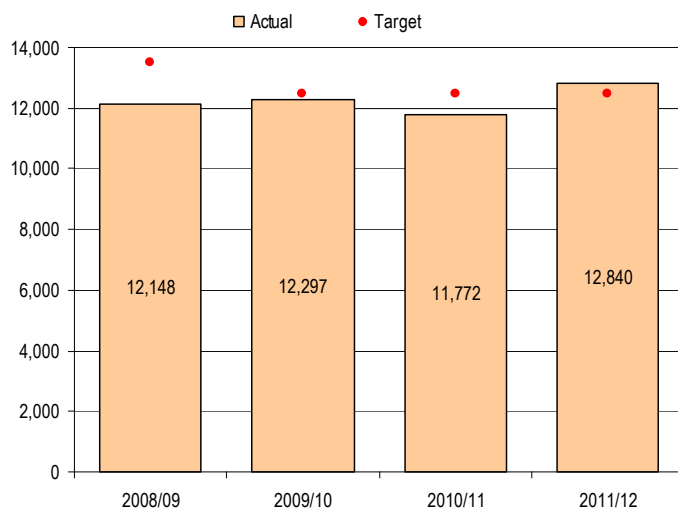
Source: WCC Residents' Monitoring Survey 2012

Resident satisfaction with recycling and waste collection services



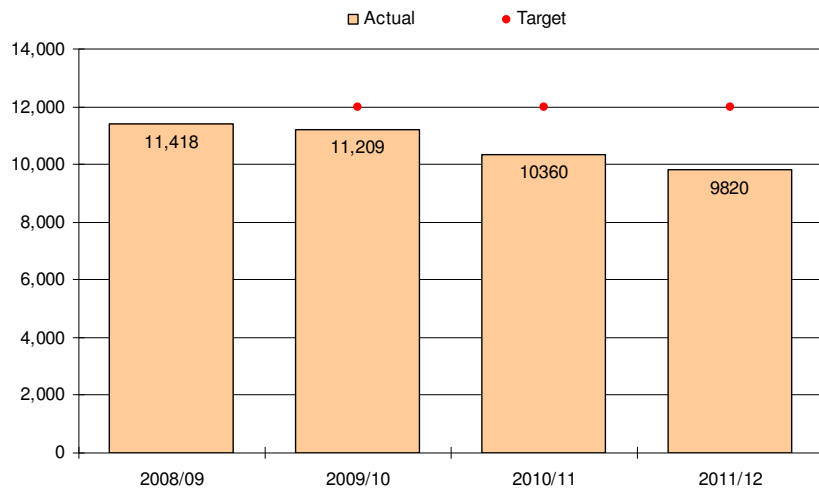
Source: WCC Residents' Monitoring Survey 2012

Kerbside recycling collected (tonnes)



Source: WCC CitiOperations

Kerbside waste collected (tonnes)



Kerbside waste volumes continue to be affected by an increasing move towards private providers as well as increasing kerbside recycling volumes.

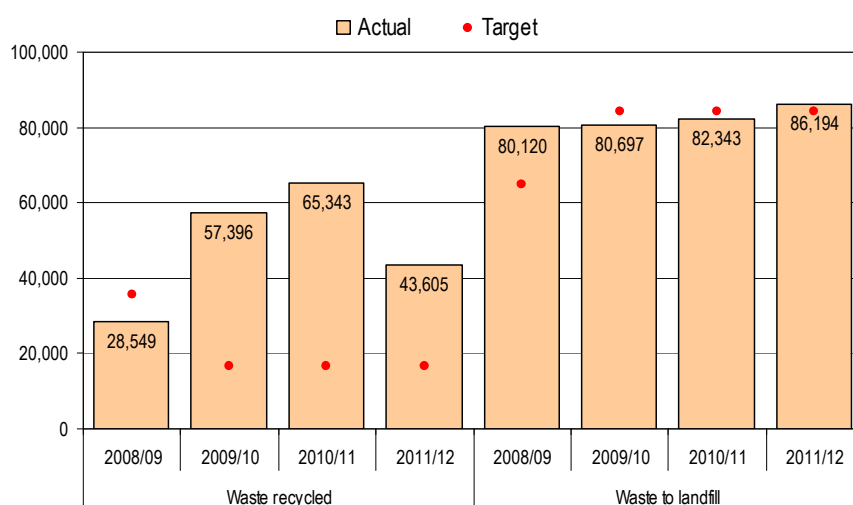
Source: WCC CitiOperations

Landfill – resource consent compliance

Result: compliance was achieved in 2010/11. This was the most recent full compliance check completed (target: compliance; 2009/10: compliant).

Source: WCC CitiOperations

Recyclable material diverted from the landfill vs. waste deposited in the landfill (tonnes)



The ‘waste recycled’ material diverted from the landfill includes 7,275 tonnes of scrap, second hand goods and composted material and 23,490 tonnes of contaminated soil. Contaminated soil is generally excavated from the sites of major construction projects. This material is used to remediate closed sections of the landfill with the benefit of making the land more useable for operational uses.

Source: WCC CitiOperations

Energy sourced from the Southern Landfill

Result: 8.3GWh (target: 8GWh; 2009/10: 7.4GWh).

Source: Todd Energy

WCC corporate energy use (electricity and natural gas)

Properties	Target	Result
Civic complex	7,096,200 kWh	6,703,464 kWh (2010/11: 6,888,844)
Pools and recreation facilities	16,017,200 kWh	16,728,055 kWh (2010/11: 16,216,342)
Wellington Convention Centre	4,110,900 kWh	4,157,328 kWh (2010/11: 4,201,540)

Pools consumed more energy than targeted this year due to cooler climatic conditions over the year.

Source: WCC Energy Management

Residents' (%) agreement that waste management services provide good value for money

Result: 78% (target: 90%; 2010/11: 82%).

Source: WCC Residents' Monitoring Survey 2012

2.6 ENVIRONMENTAL CONSERVATION ATTRACTIONS

Our natural attractions make Wellington unique.

What we do:

We support Wellington Zoo and Zealandia, which provide the city with a range of facilities that play crucial roles in wildlife conservation, educating people about nature and attracting visitors. Both the Zoo and Zealandia are on Council land and receive Council funding.

This activity contributes to us being:

Healthier: These facilities play important conservation roles, protecting native and exotic flora and fauna.

More sustainable: Our attractions inform and educate, attract visitors, and create economic incentives for the city's environment to be protected and enhanced.

Key projects

Wellington Zoo

- 'Kamala's' in the heart of the Zoo was opened in September 2011. This area creates a hub of relaxation for zoo visitors, with improved exhibits for reptiles, a themed play area for children, an improved café experience inside the Zoo and a multi-use function centre.
- The Asian Precinct began construction in February 2012. This precinct will improve housing for the iconic ASB Malayan sun bears and the Pub Charity Sumatran tigers, as well as providing themed spaces for visitor engagement, conservation messaging and education. It is estimated that this precinct will be open in September 2012.

Zealandia

- Thirty three bellbirds and twenty seven kakariki were transferred from Kapiti Island in July.
- Zealandia hosted Sirocco the kakapo during the year and attracted over 4,300 visitors on Sirocco tours.

- Zealandia banded its 300th kākā and had one of the most successful hihi breeding seasons with the release of over 80 fledglings.
- Populations of native freshwater species in the upper Karori reservoir and the streams flowing into it are making a dramatic comeback. A record numbers of banded kokopu and koura have been seen a year after the programme was undertaken to eliminate brown trout at Zealandia with the support of the Department of Conservation.
- Fifteen juvenile tuatara were released into their nurseries.
- The *Zealandia Exhibition* has won a silver award for Best Spatial Design (Exhibitions Installations and Temporary Structures) at the The Best Design Awards. The awards are an initiative of the Designers Institute of New Zealand, an annual showcase of excellence in graphic, spatial, product and interactive design.
- Zealandia attracted 26% more international visitor numbers this year compared to last year, despite the depressed international market. This was due to the introduction of the free shuttle bus from downtown, the Rugby World Cup, and greater awareness of Zealandia and what it offers. The increase was primarily from independent travellers rather than tours.
- Stephen Fry visited Zealandia and 70 delegats from the American Travel Writers Association were also hosted.

What it cost

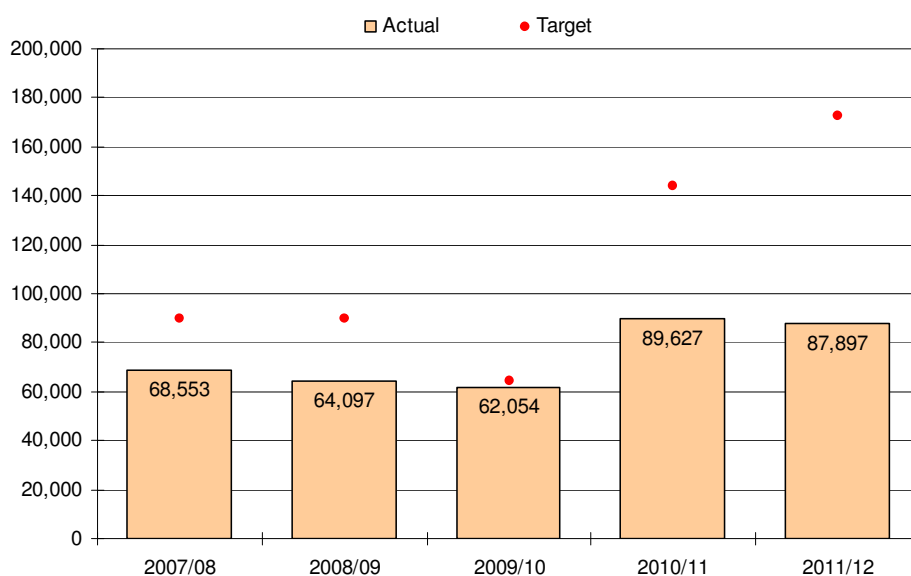
Operating Expenditure (\$000)	Actual 2012	Budget 2012	Variance 2012	Actual 2011
2.6.1 Zoo				
Expenditure	4,236	4,180	(56)	4,092
Revenue	0	0	0	(1)
Net Expenditure	4,236	4,180	(56)	4,091
2.6.2 Karori Sanctuary				
Expenditure	649	727	78	1,324
Revenue	0	0	0	0
Net Expenditure	649	727	78	1,324
Capital Expenditure (\$000)	Actual 2012	Budget 2012	Variance 2012	Actual 2011
2.6.1 Zoo¹				
Expenditure	2,105	2,085	(20)	2,854
Unspent portion of budget to be carried forward	N/A	2,446		

¹ Under budget due to re-phasing of the Zoo capital programme. Upgrade projects will continue to be worked on in 2012/13.

How we performed

We support the Zoo and Zealandia for their conservation roles and for their status as nature-based visitor attractions. We assess their success on the basis of visitor numbers, completion of projects that enhance appeal to visitors, and the amount of non-Council income they generate.

Zealandia – Karori Wildlife Sanctuary visitors



As part of an extensive review, the visitor forecasts set in the *Long-Term Plan 2009–19* were found to be overly optimistic and have subsequently been decreased for future years.

Actual visitors numbers were not as high as last year, as a result of the continual recessionary economic conditions and a high number of wet days. It was particularly wet for this years open day which traditionally attracts a large amount of visitors. When open day visitors are excluded, visitor numbers actually grew 8% as compared to the previous year. In particular, international visitors grew by 26% due to the introduction of a free shuttle from the city centre, the growing awareness of the brand, and the buoyant cruise season.

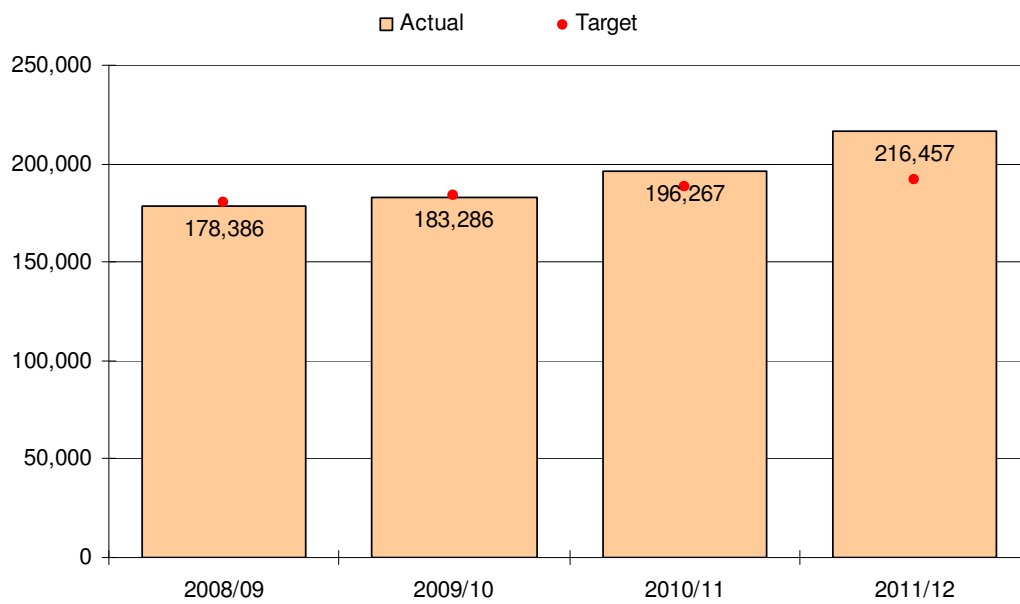
Source: Zealandia

Sanctuary – education programme attendance

Result: 6,556 (target: 6,000; 2010/11: 7,068).

Source: Zealandia

Number of visitors to the Wellington Zoo



This result exceeds the record for visitor numbers to the Zoo for the second year running.

Source: Wellington Zoo Trust

Wellington Zoo – Trust income

Result: the Trust generated income equivalent to 107% of the WCC grant (target: 102%; 2010/11: 94%).

Source: Wellington Zoo Trust

Wellington Zoo – average WCC subsidy

Result: \$12.93 per visitor (target: \$14.58; 2010/11: \$14.26).

Source: Wellington Zoo Trust

2.7 QUARRY

Growing cities need a reliable source of reasonably priced aggregate to meet their infrastructure needs

What we do:

- We own the Kiwi Point Quarry in Ngauranga Gorge, which provides hundreds of thousands of tonnes of aggregate to the local construction market for use in roading and other projects. The quarry is managed by an external contractor.

This activity contributes to us being:

More competitive: Ownership secures our direct access to a constant supply of product, and it enables us to retain a degree of influence over the price of that product in the local market.

More sustainable: Once the quarry reaches the end of its life, we can control the most appropriate use of the site.

What it cost

Operating Expenditure (\$000)	Actual 2012	Budget 2012	Variance 2012	Actual 2011
2.7.1 Quarry Operations				
Expenditure	192	218	26	183
Revenue	(404)	(398)	6	(428)
Net Expenditure	(212)	(180)	32	(245)

How we performed

We manage the quarry to meet the demands of the market and the city's infrastructure needs. We assess its effectiveness by measuring production, and monitoring compliance with the quarry licence, resource consents, and the District Plan.

Aggregate produced from the Quarry

The quarry produced the targeted amount as agreed between Council and the quarry contractor (Holcim NZ Limited). The specific tonnage of aggregate produced is commercially sensitive information.

Source: WCC Infrastructure

Compliance

Result: we complied with all resource consent, District Plan, and quarry license requirements (target: compliance; 2010/11: compliant).

Source: WCC Infrastructure