2010 ANNUAL REPORT

water Care
services limited

Performance Measurement

Watercare measures its performance against 19 objectives covering six key policy areas:

POLICY 1 — Environmental Care
To minimise the adverse impact of the company's operations on the environment

POLICY 2 — Health, Safety and Well-Being
To be an industry-best workplace

POLICY 3 — Stakeholder Relationships
To be responsive to stakeholder requirements

POLICY 4 — Customer Service
To provide high-quality products and meet customer service level requirements

POLICY 5 — Asset Management
To manage and maintain the long-term integrity of assets

POLICY 6 — Economic Performance
To manage the business efficiently at minimum prices

Company Vision

Outstanding and affordable water services for all the people of Auckland.

Front cover: The ageing sewer that crosses Hobson Bay is demolished as part of Project Hobson. It has been replaced with a high-capacity storage tunnel that runs from Parnell to a pump station in Orakei.

About Watercare

Watercare Services Limited (Watercare) is the bulk water and wastewater service provider for the Auckland region of New Zealand. The company draws water from twelve sources, treats it to A-grade quality and supplies it to six local network operators (LNOs) that retail it to more than 1.2 million consumers.

Watercare operates a regional wastewater network, receiving wastewater from Metrowater (Auckland City), Manukau City, Waitakere City Council and United Water (Papakura district) and treating it at the Mangere Wastewater Treatment Plant.

The company is owned by the city and district councils of Auckland, Manukau, Waitakere, North Shore, Papakura and Rodney.

From 1 November 2010, as a result of regional governance changes, Watercare will become the integrated water and wastewater company, providing water and wastewater services directly to the people of Auckland and be a wholly owned subsidiary of the new Auckland Council. United Water will continue to retail water and wastewater services in the Papakura area under an existing franchise agreement. However, Watercare will continue to provide wholesale services and own the assets.

Project One, referred to throughout this report, consists of relevant experts tasked with the process of integrating the LNOs and their retail water and wastewater services into Watercare.

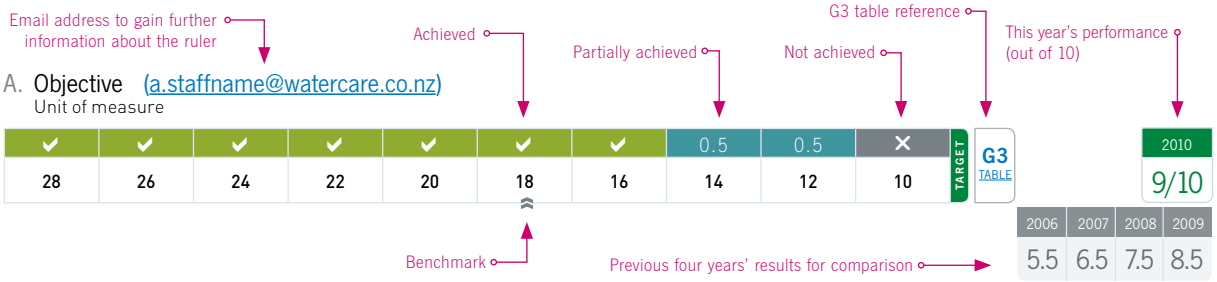
Integrated Reporting

Watercare is committed to being a good corporate citizen, providing cost-effective services that balance the social, cultural, economic and environmental impacts of its decisions. As the company responsible for delivering high-quality water and wastewater services to the people of Auckland it is recognised that our services contribute significantly to the health and well-being of our community. However, it is acknowledged also that our operations can have both positive and negative impacts on people and the environment. It is due to this belief and a commitment to transparency that Watercare's Annual Report is following the objectives of integrated reporting as outlined by the Prince of Wales Accounting for Sustainability Project and the Global Reporting Initiative providing integrated information on the company's environmental, social and governance issues.

How to Read the Sustainability Performance Rulers

(PAGES 23 – 60)

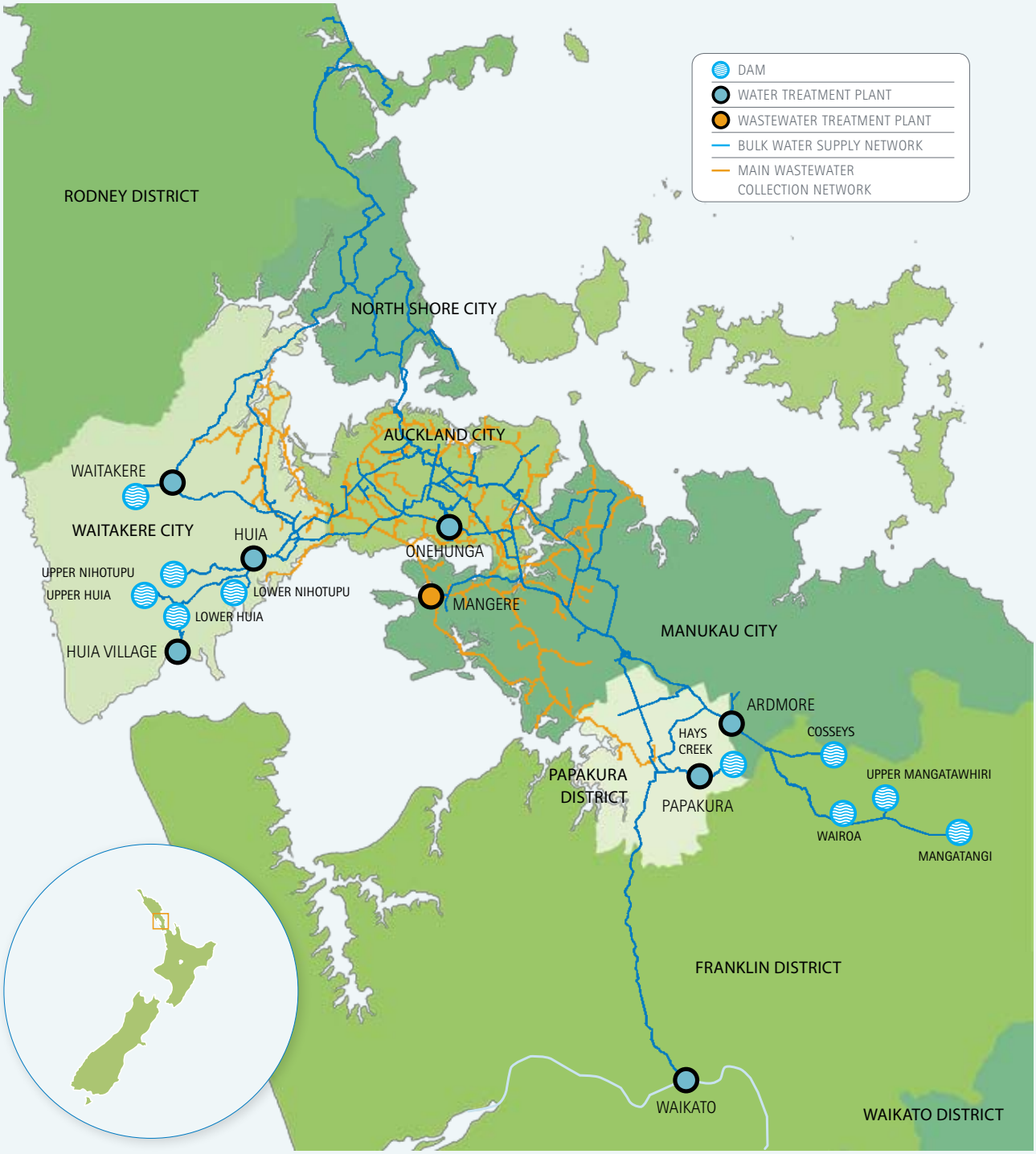
Watercare uses sustainability rulers to measure achievements against 19 objectives in six key policy areas. These are intended to allow stakeholders to compare our performance against that of previous years. Each ruler comprises 10 units, which are either a measure or an action to be achieved, giving Watercare's performance a score out of 10.



Results in each policy area are summarised at the start of the chapter in which they are covered. For ease of reading, Watercare's performance against targets in all six policy areas is presented in chart form on page 5.

ONLINE USE: Click the 'previous page' (left arrow) button in the Adobe Reader window to return to the last page viewed.

Water and Wastewater Networks



Water Supply System	Water Treatment	▸ Sources: 10 dams, one river and one underground water source ▸ 7 water treatment plants
	Water Supply Network	Includes: ▸ 76km of raw water mains ▸ 469km of treated water mains ▸ 53 reservoirs ▸ 31 pump stations ▸ Produced 139,164,000,000 litres of A-grade drinking water
Wastewater System	Wastewater Collection Network	Includes: ▸ 316km of sewers ▸ 53 pump stations ▸ 102 controlled overflow structures
	Mangere Wastewater Treatment Plant	▸ Treats 111,378,000,000 litres of wastewater annually, equivalent to 260 litres per person per day ▸ Produces 108,900 tonnes of treated biosolids annually ▸ Recovers biogas from the wastewater treatment process to generate 44 per cent of its electricity needs

2009/10

This year Watercare supplied nearly 135 billion litres of A-grade drinking water to our customers, the local network operators (LNOs), at an average price of 53 cents per 1,000 litres. Collectively, the LNOs onsold that water to more than 1.2 million consumers in the Greater Auckland area.

The company treated 111 billion litres of wastewater at its Mangere Wastewater Treatment Plant and produced around 109,000 tonnes of treated biosolids. Over 50 per cent of the electricity used this year at the Mangere Wastewater Treatment Plant was generated from methane extracted from biogas, a by-product of the wastewater treatment process.

The company's annual turnover in 2009/10 was $198 million and its assets were valued at $2.4 billion.

Mangatangi Dam is one of five in the pristine Hunua Ranges, south of Auckland. Water entering the dam is exceptionally clean because there is little human activity in the catchment area. In addition, water quality improves while it is in the dam as sediment comes to rest on the bed of the lake and bacteria die off in the sunlight.

Watercare's Achievements

This has been an especially busy year for Watercare. As well as delivering high-quality water and wastewater services and making significant progress on infrastructure projects, the company implemented plans to become the integrated water and wastewater supplier to the people of Auckland, and also responded to a record dry spell over the first four months of 2010.

Project One: working to integrate water and wastewater services across the region into Watercare

Excellent progress on Project One was made over the year and it remains on target to deliver services direct to the people of Auckland, with minimal disruption to them, from 1 November 2010. Watercare's customer base will grow from six customers to over 430,000 bill payers as a result.

Watercare and LNO experts worked to integrate LNO asset management and billing systems. A new system was built and configured during the financial year, ready for stringent testing.

A new customer centre was established at the Manukau Water premises, with the fitout commencing in July 2010. In addition, new regional operations hubs were established and the logistics for information transfer and control commenced.

Project One adhered to thorough project management and reporting principles throughout the year and elements of the project were subject to independent audits. Rigorous programme management ensured the project remained on track and within budget, offering the greatest opportunity for success from 1 November.

Other significant company achievements included:

Project Hobson nears completion

Project Hobson entered the final stage in June when hydraulic jaws began demolishing the ageing sewer pipe that bisects Hobson Bay. Works to replace the sewer pipe with a tunnel, and the pump station it connects to, have been under way for three years. In May 2010, the replacement tunnel and pump station entered service full time, providing significantly greater capacity and reducing the number of wet-weather overflows into Hobson Bay. By the final quarter of 2010, the people of Auckland will be able to enjoy a greater range of recreational activities in the bay as the sewer pipe will be gone, along with all signs of construction.

Construction of the Hunua No. 4 Trunk Watermain commences

Construction of the $250 million Hunua No. 4 Trunk Watermain began in 2009 with sections of the watermain being installed under the deck of the new Manukau Harbour Bridge.

The project involves laying a 28-kilometre-long watermain from Manukau to Epsom via Mangere and Onehunga to boost the security of supply. While work on most of the route is not scheduled to begin until 2012, work on the section that crosses the harbour was carried out in 2009/10 in conjunction with the New Zealand Transport Agency's (NZTA) Manukau Harbour Crossing Project.

This is a good example of Watercare working with other authorities to benefit the people of Auckland. It minimises the period of disruption caused by construction and helps Watercare to maintain its position as a least-cost provider of water and wastewater services.

The company has applied for regulatory approvals and entered the detailed design phase for the remainder of the watermain.

Central Interceptor project making good progress

The Central Interceptor was confirmed through the Regional Three Waters Strategic Planning Programme, as the preferred solution to provide additional trunk sewer capacity for Auckland. When completed, the new interceptor will collect wastewater flow from parts of central Auckland and Waitakere City and pipe it to the existing Mangere Wastewater Treatment Plant. The Central Interceptor will also meet the wastewater needs of a growing population and help to reduce overflows during wet weather – improving the health of the environment. Over the past year the design and consenting phase of the project has progressed.

Puketutu Island biosolids rehabilitation proposal passes significant milestone

The proposal to rehabilitate a former quarry on Puketutu Island with biosolids, and in the process to make it a regional park, was set back when planning regulators declined it primarily on cultural grounds. Over the year, Watercare listened and worked collaboratively with local iwi, Auckland Regional Council, and Manukau and Auckland city councils towards resolving outstanding issues.

Above: Risk Management Specialist Brian Park and Principal Engineer Alastair Stewart oversee the installation of a new section of the North Shore No. 1 watermain which runs under the Auckland Harbour Bridge.

Contents

Overview of Company Activities

The Watercare-specific provisions of the Local Government Act 1974 require the company to "manage its business efficiently with a view to maintaining prices for water and wastewater services at the minimum levels consistent with the effective conduct of that business and the maintenance of the long-term integrity of its assets". A description and map of the water and wastewater networks are shown on page 1.

	Water	Wastewater
Annual quantities	139,164,000,000 litres	111,378,000,000 litres
Daily average quantities	381,270,000 litres	283,954,000 litres
Population served	1,318,000	985,000

	Total	Water	Wastewater
Annual turnover ($000)	198,116	75,679	122,437
Asset value ($000)	2,470,790	1,391,228	1,079,562

Shareholders and Customers

Watercare's Owners	Share-Holding %	Customers	Water	Wastewater
Auckland City Council	41.6	Metrowater (wholly owned by Auckland City Council)	✔	✔
Manukau City Council	25.1	Manukau Water (wholly owned by Manukau City Council)	✔	✔
Waitakere City Council	16.7	Waitakere City Council	✔	✔
North Shore City Council	11.5	North Shore City Council	✔	–
Papakura District Council	3.7	United Water (under a franchise agreement with Papakura District Council)	✔	✔
Rodney District Council	1.4	Rodney District Council	✔	–

Responsiveness to Stakeholders

Watercare encourages the exchange of information with its many stakeholders through a wide range of forums. The company has regular meetings with both its customers and its shareholders, has established community liaison groups associated with its projects and operations, and has Maori, environmental and customer advisory groups to review and advise on its activities. Other stakeholders with whom the company engages are employees, contractors, suppliers, financiers and the wider public. The company interacts with other groups including regulatory and legislative bodies in the course of its operations and projects.

The company, as part of preparation to be the integrated water and wastewater company for Auckland, has recently established a Consumer Advisory Group to provide independent advise on the commitment to treat all consumers in a fair and equitable manner.

Watercare continues to evolve the manner in which it reports its activities in response to feedback from its stakeholders. The stakeholder materiality matrix, published to the right, is Watercare's summary of issues and their relative importance to some key stakeholder groups. This matrix reflects Watercare's understanding of the perspectives offered by stakeholders.

Stakeholder Materiality Matrix

Key:
- ■ very important
- ▣ important
- □ less important

Issues	Shareholders	Customers	Wider public	Employees	Suppliers and contractors	Regulators	Environmental groups	Maori groups	Financiers
Delivery of high-quality water	■	■	■	■	■	■	■	■	■
Water conservation and energy efficiency	■	■	■	■	■	■	■	■	▣
Climate change and carbon management	■	■	■	■	■	■	■	■	■
Minimisation of environmental effects	■	■	■	■	■	■	■	■	▣
Pricing of services	■	■	■	■	■	■	■	■	■
Integrated regional planning	■	■	▣	■	□	▣	■	■	▣
Talent recruitment and retention	▣	▣	□	■	□	□	▣	▣	■

For this year's report, Watercare has:

- Scaled back some reporting as staff focus on Project One; the project to integrate water and wastewater services across the region into Watercare. This meant the company did not seek an independent verification report or formal LNO and customer feedback. Similarly, no WSAA Asset Management benchmarking was undertaken.
- Incorporated information on integration of the Auckland regional water and wastewater services into the report where relevant.

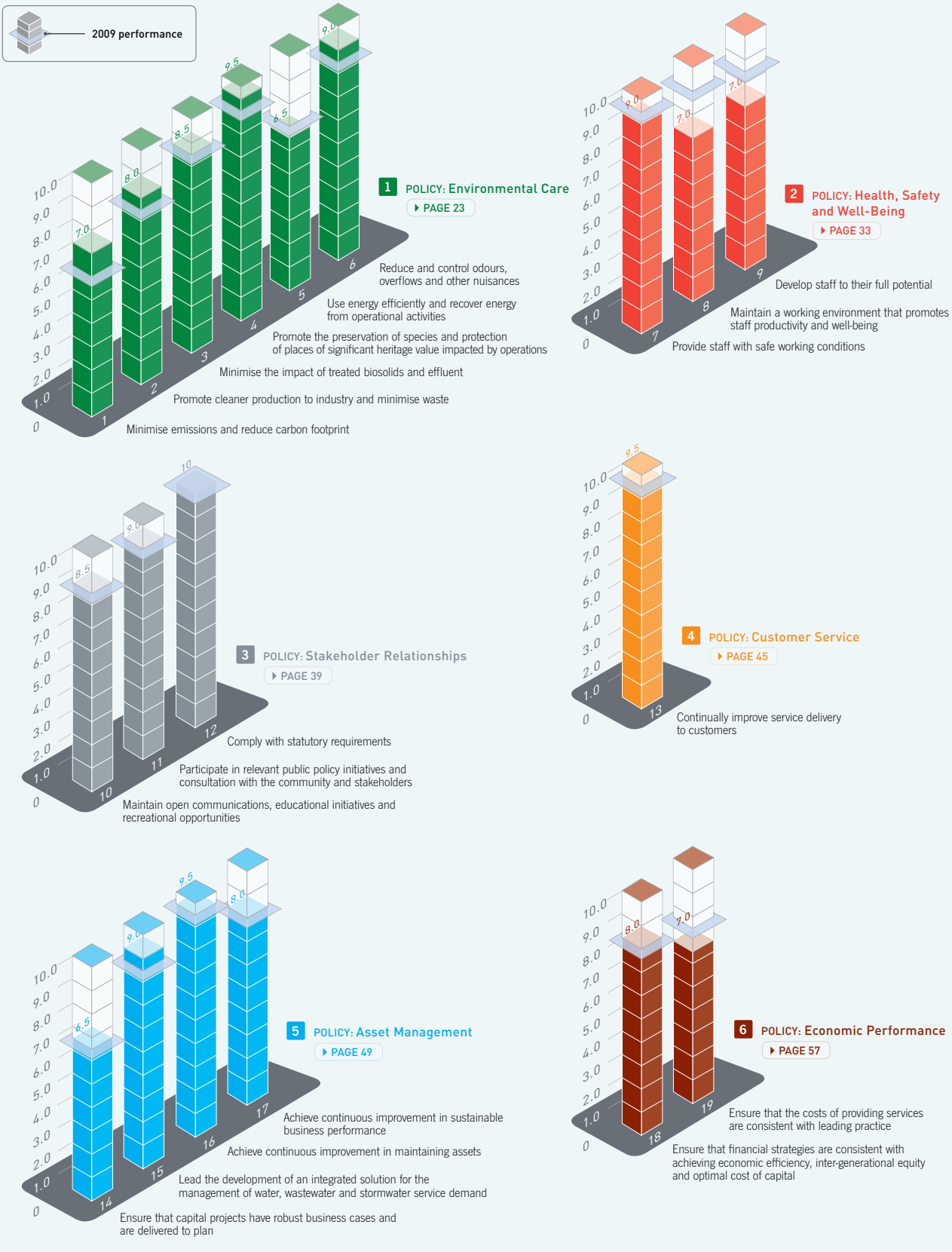
This is Watercare's last Annual Report as a wholesale company. Next year's report will examine performance and results of the integrated company. Feedback on this report, ideas or suggestions for future reports are welcomed either online at www.watercare.co.nz or by emailing Brent Evans, Business Planning Manager, at bevans@water.co.nz.

Weblinks

Figures:
Water and wastewater facts Fig. 1
Shareholding Fig. 2
Customers Fig. 3
Financial overview Fig. 4
Taxation Fig. 5
Local rates Fig. 6
Population and water sales Fig. 7

Measuring Watercare's Performance

Watercare measures and manages its sustainability performance against 19 objectives in six policy areas. The policy areas are: environmental care; health, safety and well-being; stakeholder relationships; customer service; asset management; and economic performance. The charts below show Watercare's performance this year against a target of 10. For comparison purposes, last year's level of performance is shown in pale blue.



ONLINE USE: Click the 'previous page' (left arrow) button in the Adobe Reader window to return to the last page viewed.



Sustainability Impacts of Company Activities

This table provides an overview of the sustainability impacts of the company's major initiatives. Projects are listed in detail in Watercare's Asset Management Plan, available on its website: www.watercare.co.nz

Impact on key areas: Social Economic Environmental

Initiative	Sustainability Impacts	Outcome to Date	Outlook 2010/11	
Project Hobson: Replace the 98-year-old sewer that bisects Hobson Bay with a three-kilometre-long tunnel	By offering greater capacity and storage, the Hobson tunnel allows for population growth and substantially reduces wet-weather overflows into the bay. The removal of the old sewer will increase recreational opportunities in the bay.	• Completed the construction works • Pump Station 64 handed over to Operations • Demolition of old sewer commenced • Continued to engage with the local community	• Complete all outstanding works by 30 September 2010 • Complete demolition of all old structures by 30 September 2010 • Complete demobilisation from project sites by December 2010 • Continue to engage with the local community	
Puketutu Island Rehabilitation: Rehabilitate a former quarry with treated biosolids over a 35-year period	The proposal offers a long-term solution for the beneficial use of treated biosolids that is cost effective, minimises truck movements through urban areas and results in a new regional park for the people of Auckland	• Reconfirmed economics of project after the Auckland Regional Council (ARC) declined applications for resource consent and the Manukau City Council (MCC) recommended Watercare's Notice of Requirement be withdrawn in 2008/09 • Worked with affected stakeholders towards resolving outstanding issues	• Obtain endorsement of Waikato-Tainui • Settle final appeals to the Environment Court • Commence detailed design	
Central Interceptor: Construct a central wastewater and wet-weather interceptor from central Auckland to the Mangere Wastewater Treatment Plant	The project will provide for mitigation of pipe failure risks, reduce wastewater overflows and provide for population growth	• Continued focus on concept design, consultation and preparation of resource consent application	• Commence the concept design and resource consent process for completion by 2014 • Complete work on Phase 1 of the project by 2025	
Hunua No. 4 Trunk Watermain Project: Installation of approximately 35 kilometers of trunk watermain from Manukau City to central Auckland	The watermain will provide for population growth and will increase the security of the water supply to the Auckland region	• Engaged in public consultation. Particular effort has been targeted at contentious areas of the alignment • Applied for regulatory approvals (Resource Consent and Notices of Requirement) • Detailed design under way • Completed construction of the new pipeline on the SH20 Manukau Harbour bridge crossing • Worked collaboratively with stakeholders to maximise mutual benefit, e.g. working with planned road work programmes.	• Complete regulatory consents process • Maintain ongoing stakeholder relationships with affected parties • Continue with detailed design and procurement strategy for long-lead items	
Reliability-Centred Maintenance (RCM) Programme: A programme to identify when to repair or replace assets	RCM continues to identify the optimum maintenance frequency for assets and determines where assets can continue to be used until they need replacing; RCM has also improved the prioritisation of maintenance work during	• Optimisation of the RCM programme is now under way. The objective is to deliver the most efficient and cost-effective maintenance programme for Watercare • Work commenced on replacing the existing computerised maintenance management system (CMMS)	• Optimise RCM models • Modify and align RCM models to suit CMMS requirements • Develop RCM asset hierarchy for Rosedale Wastewater Treatment Plant and associated water and wastewater pumping stations as part of integration • Progress replacement CMMS implementation	
Three Waters Plan: Continue implementation of the Three Waters joint planning process that considered region-wide issues in the management of drinking water, wastewater and stormwater	The Three Waters implementation plan will provide a coordinated approach to managing the three waters to ensure the needs and expectations of a growing population are met	• Draft Three Waters Implementation Plan prepared • Investigations and planning for the new Central Interceptor sewer, identified as part of Three Waters planning, which extends from central Auckland to Mangere, are progressing	• Communicate with the Auckland Council regarding input to finalise the draft implementation plan • Develop a water demand management plan and prepare long-term infrastructure development plans for delivering water supply and wastewater services through to 2062	
Western Dams Upgrade: Provide environmental flows into streams below dams	The upgrades of compensation and free discharge valves will improve the quality of the water and aquatic life in the streams below the dams, and increase Watercare's ability to control lake levels	• Completed work on Lower Huia, Lower and Upper Nihotupu and Waitakere dams • Commenced work on Upper Huia Dam	• Complete work on Upper Huia Dam	
Rehabilitation of Pond 2: Rehabilitate a former oxidation pond, adjacent to the Mangere Wastewater Treatment Plant, with treated biosolids	The site will be used in the future as an ecological reserve. The rehabilitation is a least-cost solution and its proximity to the treatment plant minimises truck movements of biosolids in urban areas	• Engaged in public consultation regarding landscaping plans • Submitted landscaping plans to the ARC and MCC for approval • Continued progress with rehabilitation e.g. planting	• Continue rehabilitation (The capacity of Pond 2 for rehabilitation by biosolids will last until 2013) • Obtain approval of landscaping plans from ARC and MCC	

ONLINE USE: Click the 'previous page' (left arrow) button in the Adobe Reader window to return to the last page viewed.

Opposite: Left: Reticulation Serviceperson Trevor Pimlott services an air valve on the Waikato watermain.
Middle: A kingfisher watches the demolition of the ageing sewer that crosses Hobson Bay.
Right: Data Technician Sarah Muir and Water Resources Manager Deborah Corneby look at rain level data for the Lower Nihotupu Dam.

Initiative	Sustainability Impacts	Outcome to Date	Outlook	
Energy Focus: Increasing internal power-generation facilities and minimising energy consumption	Internal power-generation facilities meet 44 per cent of Watercare's total energy needs. Capturing biogas for energy generation minimises damage to the atmosphere because – if released – it is 21 times more damaging than carbon dioxide Hydro generation also provides a carbon free contribution of electricity from energy stored in the water supply dams	• Improved availability of hydroelectric generator and signed off completion of the project with the Ministry for the Environment • Developed optimisation tool to help identify when biogas cogeneration engines should be started and stopped to minimise energy costs • Completed feasibility study on wind power • Investigated Electricity Commission incentive programmes for motor replacement and power 'interruptibility'	• Optimise engine running routines • Identify opportunities to deploy pump efficiency monitoring and control routines together with condition monitoring • Review opportunities for implementing real-time energy optimisation tools • Monitor power prices to determine when wind-generated power becomes financially feasible • Replace selected motors under the motor bounty scheme run by the Electricity Commission • Obtain operating data to determine viability of the Electricity Commission power interruptibility scheme	
Water Demand Management: Coordinate regional management	Water use per capita declined by 6.1 per cent across the region compared with the base year of 2004 due to the economic downturn and LNO water demand management initiatives such as leak control	• Furthered development of the regional demand forecasting model to include a cost-benefit analysis of demand management initiatives • Identified a future target of 15 per cent reduction in water demand by 2025	• Use survey results to target areas for implementing water demand management and communications strategies • Undertake further surveys to improve Watercare's understanding of demand drivers	
Graduate Engineering Programme: To support Graduates in gaining chartered status and raise Watercare's profile as an employer	The programme will enable engineering graduates to gain widespread experience and exposure during their early career with Watercare. The Trio Programme involves young engineers from Watercare, McConnell Dowell and GHD undertaking experience in a range of significant projects at each company	• Graduate Trio Programme continues and six Graduate Engineers gained Certified Professional Engineer status • Continued support of graduate engineering group activities • IPENZ mentors' group formally established • Professional Development Partner Status renewed	• Continuous improvement of programme • Development of quarterly reporting framework to facilitate experience recording for graduates • Refinement of Graduate Trio Programme • Extend renewal period for graduate engineers in the programme	
Project Improve: Staff generate ideas through the Continuous Improvement scheme	The scheme is delivering improvements to business practices through the generation of efficiency, effectiveness and health and safety ideas	• Implemented several ideas from staff including a contractor tracking system at plants and a trolley for sewer maintenance work • Fortnightly presentations to senior management on all aspects of business performance were suspended in 2010 to concentrate on Project One work	• Project Improve's fortnightly presentations will resume in 2011 • Continue to encourage and recognise ideas from staff consistent with company values e.g. 'efficient' – more for less	
Engaging with the community	The company engages in communication with stakeholders using a variety of media	• Increased the number of schools participating in Adopt A Stream programme • Continued to provide Rain Forest Express service • Established a Consumer Advisory Group to consult on customer and community issues in preparation for integration	• Continue Adopt A Stream programme and Watercare-led science lessons • Continue the Rain Forest Express service • Continue with stakeholder newsletters as appropriate • Implement retail services as part of integration including the development of a customer centre based at East Tamaki • Establish customer centres around the region in preparation for integration	
Midge Control: At the Mangere Wastewater Treatment Plant	The programme reduces midge populations and habitats, and consequently minimises nuisance midge outbreaks in the local community	• Conducted regular field surveys of midge species and numbers • Implemented proactive measures based on monitoring results including targeted control of juvenile midge stages prior to hatching • Worked with the ARC to revise resource consents related to midge control. Based on research and new information, the monitoring requirements were relaxed resulting in significant cost savings	• Continue the intensive midge control programme	
Odour Control: From the Mangere Wastewater Treatment Plant and the wastewater network	Odour control measures minimise the impact of odour on the local community	• Completed odour buffer land adjacent to Greenwood Road, Mangere • Managed odorous processes and maintained effective operation of biofilter odour beds • Extended fixed deodoriser dispensing fence to cover wider area with two standby mobile deodoriser units • Implemented the monthly boundary odour survey	• Continue the monthly boundary odour survey • Continue the odour monitoring programme • Assess the plant odour control system performance • Manage community relations regarding odours	
Tree Planting: In a range of areas throughout the Greater Auckland area	The projects support community-led tree planting initiatives	• Continued riparian planting with the Waikato RiverCare Trust • Continued riparian planting on public and private property in the Waitakere and Hunua ranges • Planted 4km of riparian margin in Ororangi Creek • Continued native tree-planting programmes for local schools through Trees For Survival	• Continue to manage the riparian planting project for the Waikato RiverCare Trust • Undertake a revegetation trial at Ardmore Water Treatment Plant on the edge of the sludge placement area • Continue riparian planting in the Waitakere and Hunua ranges • Continue support of Trees For Survival programme	
Watercare Coastal Walkway: 13-kilometre public walking track	The public track links important public reserves to the north (Ambury Farm Park) and south (Otuataua Stonefields) of the Mangere Wastewater Treatment Plant	• Planted over 1,400 native plants in 2009/10 to improve planting density and replace failures	• Ongoing maintenance of plants	
Master Planning: Planning to ensure facilities and infrastructure can meet the needs of a growing region	Master plans involve a comprehensive review of major facilities to ensure they are able to meet future capacity requirements and predicted regulatory requirements in a cost-effective manner	• The Huia Water Treatment Plant Master Plan is being prepared • The Mangere Wastewater Treatment Plant Master Plan is being prepared	• Continue with the Huia Master Plan • Continue work on the Mangere Master Plan • Commence work on the Water and Wastewater Network Master Plan	

Chairman and Transition Chief Executive's Report

Graeme Hawkins
Chairman

Ian Parton
Transition Chief Executive

"Watercare is about to enter a challenging new era as the provider of water and wastewater services to the people of Auckland. A great deal of effort has gone into ensuring the costs of integration were accommodated within existing budgets, maintaining our minimum cost commitment and reducing the risk of future price shocks."

Graeme Hawkins, Chairman

"Over the last 12 months, the company has made many important steps towards becoming the integrated water services company for Auckland while at the same time managing services over a record dry spell and continuing to deliver important projects on time and within budget."

Ian Parton, Transition Chief Executive

This past year has been one of the most significant in Watercare's history as the company has prepared to integrate the assets and services of the region's local network operators (LNOs). On 1 November 2010, Watercare will assume responsibility as the water services company for the people of Auckland[1] and will gain close to 430,000 new customers. It will become one of the largest infrastructure companies in New Zealand with assets in excess of $6 billion, annual turnover exceeding $500 million and 650 staff.

The logistics and scale of work required to bring together the region's water and wastewater service providers with their different asset, billing and financial systems and processes have been significant. In order to manage the change process a team of Watercare and LNO experts were brought together to form 'Project One'. Over the past 12 months, the primary focus of Project One has been on making certain the people, processes and procedures are in place to ensure levels of service are maintained to all customers from 1 November 2010.

The executive management team has been established and the recruitment of staff for the integrated company is well advanced. One of the most significant areas of work was the development of a common asset management and billing system to replace the various LNO systems. This new system was built and configured and is now undergoing testing. A new customer centre was established at the Manukau Water premises and regional operations hubs were identified for managing regional services.

In keeping with the scale and significance of Project One, we were careful to ensure that rigorous project management and reporting practices were followed. These included independent audits of the programme office, the key work-streams and tasks as well as a readiness audit for 1 November. Rigorous project management discipline and project governance has kept Project One on track and within budget, with a minimal amount of disruption offering the greatest opportunity for success.

We would like to thank Gary Swift for his contribution as Acting Chief Executive from June 2009 to December 2009. Gary stepped up to take on the role after Mark Ford left to become Executive Chairman of the Auckland Transition Agency. Gary's leadership helped to prepare the organisation for a period of significant change associated with integration while also ensuring business continuity was maintained.

It is particularly pleasing to note that the whole company has worked to manage and reprioritise the timing of expenditure to ensure the integration costs could be accommodated within existing budgets whilst maintaining our minimum cost commitment. Our staff have maintained a high level of commitment to the change process as well as to the ongoing delivery of high-quality water and wastewater services. It is heartening to have such passionate and committed people who will be fundamental to the success of the integrated business.

The change process affected the composition of the Watercare board too. In January 2010 the board said farewell to Terry Kayes whose term as a director for the company ended. Ian Parton resigned also, to take up the role of Transition Chief Executive for the company. In March, Ross Keenan, Chairman of Metrowater, and Peter Drummond, a Manukau Water director, both joined the Watercare board, bringing

1. United Water will continue to retail water to customers in the Papakura area under an existing franchise agreement; however Watercare will own the assets.

Water Network Operator Merrik Pirake (rear) and reticulation servicemen Phillip Pirake and Trevor Pimlott shut down the North Shore Watermain in preparation for upgrade work on the Auckland Harbour Bridge.

Auckland Transition Agency Executive Chairman Mark Ford sounds a horn to signal the start of demolition work being undertaken as part of Project Hobson. He is joined by Auckland City Councillor Douglas Armstrong (far left), Watercare Chairman Graeme Hawkins, Auckland Regional Council Chairman Mike Lee and Watercare Transition Chief Executive Ian Parton.

extensive experience in the retail water and wastewater sector. In the interests of transparency, independent observer Jane Latimer and Auckland Transition Agency representative Brian Monk attended board meetings also over the transition period.

Over the past year, demands on the board have increased significantly. Directors moved to fortnightly meetings in 2010 to manage the information and decision workload associated with integration. Furthermore, an amendment to the Trade Waste Bylaw, as a result of integration, created additional demands on directors' time.

The company undertook a comprehensive strategic planning process as it prepared for integration and developed a strategic framework, new vision and company values. The strategic framework will help to coordinate and drive decision-making to address the challenges associated with being the water and wastewater services company for the people of Auckland.

Regionally-focused initiatives began to be developed, such as the preparation of a Regional Asset Management Plan which covers a 20-year period and will represent Watercare's tactical plan for managing the company's infrastructure cost-effectively to achieve it's long-term goals. A regional plan offers the opportunity for the integrated management of bulk and local networks to provide future prospects for regional prioritisation and coordination of initiatives to deliver efficiencies and cost savings. Long Term Infrastructure Plans (50-year plans) and Facility Plans (five-year plans) also are being developed in support of the regional plan.

Despite the extra work created by integration, the company maintained its focus on the delivery of some significant projects. This year construction work was completed on Project Hobson, with the wastewater storage tunnel and high-capacity pump station entering full-time operation. Already, the number of wet-weather overflows occurring in Hobson Bay has reduced. Work to demolish the ageing sewer that bisects the bay has begun. This will enhance the area both in terms of aesthetics and recreational opportunities.

Good progress was made on the Hunua No. 4 Trunk Watermain Project. Watercare worked cooperatively with other agencies and stakeholders to maximise opportunities to construct sections in conjunction with other works. Most significant has been the construction of the section suspended under the new Manukau Harbour Bridge. Such cooperation minimises future public disruption and maximises efficiencies of working together for public benefit. Regulatory consents and notices have been applied for and a hearing is scheduled for August 2010. Consultation with people most affected by the alignment and construction of the watermain continues.

Weblinks

Figure:
Directors' meeting attendance Fig. 8

Chairman and Transition Chief Executive's Report continued

The proposal to rehabilitate a former quarry on Puketutu Island with treated biosolids progressed after the consents were declined in 2009. Watercare worked constructively and cooperatively with iwi to resolve outstanding issues and is now looking to settle the appeals to the Environment Court which will allow the project to proceed. The company's relationship with iwi is important to the success of these types of projects. In 2009, a Memorandum of Relationship with Tainui was signed that recognises both parties' roles and the desire to work together to build a strong, balanced and enduring relationship.

The team working on the Central Interceptor Project, which involves the development a large-diameter tunnel to store and move wastewater from parts of Auckland and Waitakere to the Mangere Wastewater Treatment Plant for processing, continued to make good progress on the design and consenting phase.

On top of the usual project workload and additional demands of preparing for integration, the Auckland region faced the driest four-month period (January to April) in 100 years of records for the Waitakere catchment and 50 years of records for the Hunua catchment. In response, Watercare maximised production from the Waikato Water Treatment Plant to preserve lake storage and ran a 'use water wisely' publicity campaign to reduce demand. As a result of these actions, combined with high rainfall over winter 2009, the region avoided mandatory water restrictions. Water levels in the storage dams returned to normal in May.

The record dry spell highlighted some of the challenges we face in delivering high-quality undisrupted water to a region which continues to grow. Over the year planning work progressed on the timing of the next Waikato Water Treatment Plant upgrade to take and treat additional water from the Waikato River and a decision was made to increase plant capacity in 2012. While the additional water sourced from the river remains within the limits of the current resource consent, future water sources for Auckland will be more costly to both source, treat and distribute than our gravity-fed dam supplies.

This year Watercare achieved an operating surplus from trading of $9.1 million. This was primarily due to maintaining tight control over operating costs and increased revenue as a result of good water sales over the summer drought period.

Watercare actively uses interest rate swaps to manage its interest costs from borrowing. As a result of the revaluation of these interest rate swaps to market values, which is required under current accounting standards and tax rate changes to the depreciation of buildings, the reported net loss after tax was $27.7 million.

We would like to thank our existing customers – the councils and LNOs – for their cooperation and support through this period of significant change. Furthermore, we would like to also acknowledge our shareholders for their support over the transition period. We look forward to continuing the productive relationships with the new shareholder, the Auckland Council, following integration.

As we move into a new era of local government, the company remains committed to delivering outstanding services at an affordable price. Our focus on business efficiency and minimising costs will continue while ensuring reliable services are delivered to our customers. We will also continue our commitment to being a good corporate citizen and to integrated reporting that reflects the important role we play in contributing to the health and well-being of our communities.

On 30 August 2010 the company announced the price for water effective from 1 July 2011 at $1.30 (including 15% GST) for 1,000 litres. It was particularly pleasing for the board to note that the long awaited benefits from industry integration in Auckland were able to be delivered at such an early date, a great tribute to management and staff involved. Watercare pricing and its tariff structure will be the subject of discussions with the new Auckland Council and will come into force on 1 July 2012, the date at which the new property rating system for the region commences.

This will be the last annual report we complete in our current roles as we both finish our terms with Watercare in the current financial year. It is with tremendous pride that we review the company's performance over my eight years as Chairman and Ian's ten years, first as a director, then Deputy Chairman and finally as Transition Chief Executive. We are delighted to have played a part in the company's success and thank management, staff and fellow directors for their support over this time.

G S Hawkins
CHAIRMAN

I Parton
TRANSITION CHIEF EXECUTIVE

Terry Kayes

Director of Watercare Services Ltd (2007 to 2010)

Terry was managing director of Tonkin and Taylor Ltd, a specialist environmental and engineering consultancy, for 17 years. He joined the Board in 2007 and served for three years until his tenure expired in January 2010. Terry's former experience and engineering expertise were welcomed by the Board during his term as a director. Over this time Terry made a valuable contribution to the Board as the company achieved some significant milestones including the completion of the Three Waters Strategy, excellent progress on Project Hobson, the Puketutu Island rehabilitation project, the Hunua No. 4 upgrade as well as the early stages in preparation for integration of the water industry. Terry's service and commitment to the success of Watercare are gratefully acknowledged.

Weblinks

Stories:
Hydraulic jaws take first bite out of ageing sewer
Staff in awe of the scale of Hobson
Hobson's Heroes
Construction underway on Hunua 4
Campaign heats up despite break in dry spell
Figure:
Organisational structure Fig. 9

Directors' Profiles

1


1 Graeme Hawkins, 63

BSc BCom ACA FInstD
Chairman

Graeme Hawkins has extensive experience in senior management roles in the private sector and as a professional director. He has held senior roles in Fletcher Challenge and was the chief executive of Dominion Breweries in the late 1980s.

General disclosure of interests: Chairman: Southern Cross Medical Care Society; Southern Cross Health Trust. Director: Biomed Holdings Ltd; Cavalier Corporation Ltd; Stableburn Farms Ltd; Hawkins Consulting Services Ltd; Ports of Auckland Ltd.

2


2 David Clarke, 51

BE (Hons) ME BBS MBA MInstD FNZIM

David Clarke has considerable experience in the areas of biotechnology, IT, health, food and related sectors. He has been the inaugural chair for multiple technology industries and has strong commercial and governance skills. His background includes engineering, finance, marketing and sales. He is a fellow of the New Zealand Institute of Management, a member of the Royal Society and member of the Institute of Directors.

General disclosure of interests: Chairman: Hawkins Watts Ltd; Optima Corporation Ltd; TRGG Ltd; NZ Institute of Rural Health; Kordia Ltd. Director: Cranleigh Merchant Bankers; Ngai Tahu Tourism Ltd; Hynds Group Ltd; KODE Biotec Ltd. Trustee, South Auckland Foundation (Middlemore/CMDHB).

3


3 Peter Drummond, 57

FInstD

Peter Drummond is an experienced director and chairman with extensive international business management and marketing experience. He was chairman of Watercare previously and brings extensive knowledge of both the wholesale and retail water services industry. Peter rejoined the Watercare board in March 2010 and remains a director with Manukau Water. He has also served on the board of Vector, Mid Central Health and Hort Research Ltd as well as a large range of community organisations like Variety, the children's charity.

General disclosure of interests: Chairman: United Fire Brigade Association; Appliance Connection Ltd; Waitemata Harbour Clean Up Trust; Motat, Variety Medical Missions South Pacific. Director: Manukau Water Limited; NARTA New Zealand Ltd; NARTA International pty Ltd.

4


4 Susan Huria, 50

FPRINZ MInstD

Susan Huria is a specialist in the Maori sector working with Maori organisations on constitutional reviews, board appointments, support and strategic advice. She has extensive governance, marketing communications and general management experience. Susan was an executive at Auckland International Airport and worked in marketing and communications for 10 years, before starting her own management practice in 2000, Huria Anders.

General disclosure of interests: Deputy Chair: AgResearch Ltd. Director: Manukau Leisure Services Ltd; Northland Port Company Ltd; Director and Shareholder: Huria Anders Ltd; Susan Huria (2003) Associates Ltd; Te Ara Tika Properties Ltd. Director: Vermilion Design Ltd; Airways Corporation of New Zealand Ltd. Trustee, First Foundation.

5


5 Ross Keenan, 66

BCom FCIT
Deputy Chairman

Ross Keenan joined the board in March 2010 and is an experienced company director with corporate governance and executive experience across a diverse range of companies including airways, tourism, telecommunications, health and property development. He has particular knowledge and experience in the retail and wholesale water and wastewater services industry and is currently chairman of Metrowater.

General disclosure of interests: Chairman: Metrowater Ltd; Allied Work Force Group Ltd; Ngai Tahu Tourism Ltd. Director: Ngai Tahu Seafood Ltd; Ngai Tahu Holdings Corporation; Touchdown Ltd; Auckland Regional Transport Network Ltd.

6


6 Patrick Snedden, 55

BCom BA

Patrick Snedden has considerable experience in corporate governance. He is chairman of both the Auckland District Health Board and Housing New Zealand Corporation. He also has extensive commercial experience with Maori organisations and has a sound understanding of the role public sector organisations play in the community.

General disclosure of interests: Chairman: Auckland District Health Board; Housing New Zealand Corporation Ltd; Hobsonville Land Company Ltd; Tamaki Plan Development Board; Quality Improvement Committee. Director: Snedden Publishing and Management Consultants Ltd.

7


7 Jeff Todd, 68

CBE BCom FCA FInstD
Chairman of the Audit and Risk Committee

Jeff Todd is a chartered accountant and company director and was formerly managing partner for New Zealand and the Pacific for Price Waterhouse (now PricewaterhouseCoopers). He is a former chairman of the Southern Cross Medical Care Society, Southern Cross Healthcare Trust and the New Zealand Guardian Trust Company Ltd; and a director of the Reserve Bank of New Zealand and the ANZ Banking Group (NZ) Ltd. He has a particular interest in corporate governance and is a fellow of the Institute of Directors.

General disclosure of interests: Chairman: Dynasty Hotel Group Limited. Deputy Chairman: Sanford Limited. Director: National Research Centre for Growth and Development; Medical Research Foundation. Trustee, Goodfellow Foundation and Postgraduate Medical Society (School of Medicine, University of Auckland); Christian Healthcare Trust. Member, Aotea Centre Board of Management.

NOTES: The company has a deed of indemnity with each director that indemnifies the director in accordance with the company's constitution and grants certain rights in respect of access to documents and the maintenance of liability insurance cover.
There were no specific disclosures of interests by directors in 2009/10.

Watercare Services Limited head office building in Newmarket.

Executives' Profiles

1


1 Ian Parton, 64

BE (Hons) PhD DistFIPENZ FInstD
Transition Chief Executive

Ian Parton became the Transitional Chief Executive for Watercare in January 2010 with the role of overseeing the transition from a wholesale company to the integrated retail provider of water and wastewater services for Auckland from 1 November 2010. Ian was previously the Deputy Chairman of Watercare and has been a director of the company since 2001. He has a long career in consulting engineering and was previously Chief Executive of Worley (now AECOM). Ian is a distinguished fellow of the Institution of Professional Engineers and a fellow of the Institute of Directors.

2


2 Gary Swift, 62

BCA CA CTP
Chief Financial Officer

A chartered accountant and former councillor and Board member of the New Zealand Institute of Chartered Accountants with nearly 30 years' experience in corporate financial management, Gary's responsibilities include business information systems, commercial services, procurement, treasury and accounting. He was Acting Chief Executive of Watercare between Mark Ford's departure in June 2009 and the appointment of the Transition Chief Executive in January 2010.

Team Results: Maintained the funds from operations to interest rate cover above 2.5 times before any price adjustment as part of the debt guarantee with shareholders; organised new funding to replace maturing debt and to fund future business requirements; achieved financial targets.

Outlook: Continue to meet financial targets with a focus on maximising cost effectiveness in the integrated business; optimise funding arrangements; manage implementation of new IT system (SAP); undertake expanded credit management and accounting associated with the integrated business.

3


3 Tim Munro, 48

BE (Hons) MIPENZ CPEng IntPE
Acting Chief Infrastructure Officer

Tim has worked for Watercare for 15 years, most recently as Manager Projects. He has managed a number of significant and complex infrastructure projects to completion and has an excellent understanding of the company's business and asset management requirements. In 2009, he was seconded to the role of Acting Chief Infrastructure Officer while Graham Wood managed the integration of water and wastewater services for the Auckland region.

Team Results: Oversaw the Fletcher-McConnell Dowell joint venture completion of the pump station constructed as part of Project Hobson and demolition of the old sewer; progressed negotiations regarding the Puketutu Island proposal; continued planning for the Central Interceptor Project; completed sections of the Hunua No. 4 Trunk Watermain Project including lodgement of consents; successfully executed major projects on time and within budget; began preparation of Regional Asset Management Plan (RAMP).

Outlook: Complete Puketutu Island proposal and resolve all appeals; gain consents for the Hunua No. 4 Trunk Watermain Project; progress master plans for water treatment plants; complete the RAMP.

4


4 Raveen Jaduram, 48

ME BE (Hons) FIPENZ
Chief Operating Officer

Raveen was appointed to the role of Chief Operations Officer in early 2010. He has also retained his role as Chief Executive at Manukau Water Limited during the transition period to help manage the integration of services to Watercare. Raveen has extensive experience in the New Zealand water industry and has previously held management roles at Metrowater and Watercare. He also has significant local government experience, having held various management and engineering positions at Auckland City, Manukau City and Auckland Regional councils. Raveen is a former president and board member of the New Zealand Water and Wastes Association, and New Zealand delegate to the Water Environment Federation, USA.

Team Results: Met customer contract obligations fully; maintained Ministry of Health 'Aa' grades for water treatment and supply; maintained ISO 9001 and ISO 14001 accreditation, safety and environmental management systems; implemented operational efficiency gains across water and wastewater operations.

Outlook: Maintain service delivery standards to regional customers; continue to comply with requirements of the Resource Management Act; maintain optimisation of regional water and wastewater operations; continue introduction of improved maintenance strategies to key water and wastewater assets; engage proactively with the infrastructure business unit to ensure operational issues are fully considered.

5


5 Mark Lawrence, 44

Chief Customer Officer

Mark Lawrence joined Watercare in January 2010 to take up the new position of Chief Customer Services Officer responsible for establishing and managing the new customer services function of the integrated Watercare. Mark has over 20 years' experience within customer services and over eight years in utility customer services and management. He was most recently with Ergon Energy in Australia, responsible for frontline customer service to over 650,000 customers.

Team Results: Mark is a member of the Project One team preparing for integration and has led the development of the new customer business unit. This has involved work to establish the customer centre at Manukau, design of the customer invoice and contract as well as preparation of new customer processes and the appointment of customer services staff.

Outlook: From 1 November 2010, the Customer Services Business Unit will begin to manage retail services to almost 430,000 customers across the Auckland region. The team's aim is to create as little disruption as possible to new customers while helping to also build a customer-focused company that is reliable and easy to do business with.

6


6 Graham Wood, 53

MIM BA(Hons) FIE (Aust) MCIWEM CPEng (Aust) CPEng (UK)
Chief Infrastructure Officer (Currently Programme Manager of Project One)

Graham Wood is a chartered mechanical engineer with 20 years' experience in the water industry across four continents. As an experienced executive and project manager, Graham is currently responsible for Project One, planning for and implementing the integration of water and wastewater services for the Auckland region. Following integration, Graham will take up his role as Chief Infrastructure Officer.

7 Peter Gaskin, 61

Certificate Industrial Relations, Victoria University

Acting Human Resource Manager

Peter is a human resource contractor and is filling the role of Acting Human Resource Manager. Peter is an HR management specialist with over 30 years of experience and an excellent understanding of the water and wastewater services industry having worked for Watercare in the mid 1990s. His responsibilities include human resource planning, health and safety, security, development and employment relations. Peter also led the human resource work stream of Project One coordinating recruitment of 250 roles associated with integration.

Team Results: Continued to focus on health and safety achieving safety targets; maintained high standards of staff training and co-operative employment relations. Participated in Project One managing human resource management and recruitment in preparation for the integrated company's go live on 1 November 2010.

Outlook: Undertake induction and orientation for new staff. Continue to manage implementation and deployment of HR systems in the integrated company; continue focus on minimising accidents.

8 David Hawkins, 56

MPP TTC JP

Corporate Relations Manager

A former Auckland Regional Councillor and Mayor of Papakura District Council, David is responsible for government and community relations. During the past year David was seconded by the Auckland Transition Agency to work part time as an advisor on local government issues.

Team Results: Participated in and responded to requests on Auckland Governance legislation. Made submissions to select committees on national legislation including the Infrastructure Bill and the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Bill; made a submission to the Ministry for the Environment on the proposed National Policy Statement – Coastal, the Foreshore and Seabed Legislation review and National Environmental Standards for Ecological Flows and Water Levels.

Outlook: Maintain positive relations with local and central government and other stakeholders; contribute to positive community relations.

9 Jim Hodges, 62

BE MIPENZ CPEng

Chief Engineer

A chartered engineer with 30 years' experience in the water industry, Jim's responsibilities include advising the Acting Chief Executive on engineering matters, Three Waters Strategic Planning, research, development and innovation, business improvement and quality management. Jim is also a member of the Research Council of the Water Environment Research Foundation in the United States which guides international research on wastewater and stormwater issues.

Team Results: Established Policy Integration Group to look at how best to provide for Watercare's input to new regional planning documents. Progressed master planning and research, development and innovation programmes; provided comprehensive input to central and regional government policy development and resource consent processes; prepared Three Waters Implementation Plan.

Outlook: Provide engineering advice to the Chief Executive; continue to promote excellence in all company activities; continue participation in regional and national planning process; advance research, development and innovation.

10 Clive Nelson, 44

MBA

Corporate Strategy and Communications Manager

A former journalist and newspaper editor with general management experience, Clive's responsibilities include strategic planning, media relations, publications, education programmes and internal and external communications. Clive has been seconded to the Auckland Transition Agency and his function is currently being performed by Owen Cook. Clive returns in November 2010.

Team Results: Developed Strategic Framework and Business Plan; Prepared communication material and collateral for Project One related to integration; maintained shareholder and community information channels; and maintained contact with schools and general public.

Outlook: Maintain clear communication channels with stakeholders; contribute to positive community relations around Watercare's operations and projects; further enhance strategic planning processes and communications.

11 David Sellars, 43

BCA CA

Risk and Assurance Manager

David is a chartered accountant with experience in banking and audit functions. He has previously been responsible for risk assurance, reporting on the internal control environment and governance of major projects. David has recently been appointed to the new role of Risk and Assurance Manager responsible for Internal Audit, Risk Management and Quality Assurance.

Team Results: Completed annual audit plan; reviewed major projects; conducted risk assurance covering Watercare's financial, project-related and operational processes.

Outlook: Maintain the risk and assurance function, including the risk management framework and systems.

Governance

The board and management of Watercare are committed to ensuring that the company applies best-practice governance policies and procedures.

Background

Watercare Services Limited (Watercare) is a limited liability company registered under the Companies Act 1993 which governs the conduct of companies in New Zealand. The Local Government Acts of 1974 and 2002 define the role and duties of local government organisations in New Zealand and contain specific provisions for Watercare. The company is defined as a 'council organisation' for which the voting rights to appoint directors are controlled by the shareholding councils. As a consequence of the legislative framework:

- Watercare must set the bulk prices for water and wastewater services in the Greater Auckland area and may arrange such borrowing as it needs to finance its activities.
- The company must manage its infrastructure efficiently while maintaining prices at minimum levels consistent with maintaining the long-term integrity of the assets.
- The company's shares are held by the six territorial authorities identified under Ownership, below, with the shareholders appointing the directors through a Shareholders' Representative Group (SRG).
- Elected members and employees of local authorities are prohibited from being Watercare directors.
- The company is prohibited from paying a dividend to its owners or any shareholder; however, a surplus may be returned to customers by way of rebate, discount or price adjustment.
- The company's financial statements must be audited by the Auditor-General, or by an auditor acting on her behalf.

Ownership

Watercare's shareholding councils are: Auckland City Council (41.6 per cent); Manukau City Council (25.1 per cent); Waitakere City Council (16.7 per cent); North Shore City Council (11.5 per cent); Papakura District Council (3.7 per cent); and Rodney District Council (1.4 per cent). Each of the owners appoints two representatives to the SRG. A shareholders' agreement sets out the role of the SRG and the relationships between shareholders.

From 1 November 2010, the existing shareholders will no longer exist and Watercare will become a wholly owned subsidiary of the Auckland Council, the new unitary authority replacing the regional and local councils.

New Governance Legislation

From 1 November 2010, Watercare will become the regional provider of water and wastewater services in Auckland. The legislative framework enabling and governing Watercare's new operations is largely found in four Acts:

1. Local Government (Tamaki Makaurau Reorganisation) Act 2009
2. Local Government (Auckland Council) Act 2009
3. Local Government (Auckland Council) Amendment Act 2010
4. Local Government (Auckland Transitional Provisions) Act 2010

Under the new legislation, the company will continue to operate as a council organisation until 2015 and will continue to operate under similar legislative requirements to those already in place.

Board of Directors

Responsibilities

The board is appointed by the shareholders to govern Watercare in accordance with the statutory obligations and with the statement of corporate intent (SCI) agreed annually with the shareholders through the SRG. The board is ultimately responsible for all decision-making within the company. Operational responsibility is delegated to the chief executive by way of a formal delegated authority framework. The performance of the chief executive is reviewed annually by the board. The SCI lays out the activities to be undertaken by Watercare, sets specific economic, social and environmental objectives for the company and establishes performance targets which will be used to measure the company's performance. The SCI is published on Watercare's website www.watercare.co.nz

Corporate Governance Charter

This charter defines the duties and obligations of the board and board members in areas such as fiduciary duty, duty of care, diligence, legal and statutory duties and conflicts of interest. It incorporates the principles of the New Zealand Institute of Directors' Code of Proper Practice for Directors, relevant sections of the New Zealand Exchange Limited (NZX) Corporate Governance Best Practice Code and the Securities Commission's nine principles of corporate governance.

Board Membership and Composition

The board currently comprises seven independent, non-executive directors. Their profiles and disclosures of interests are published on page 12. Directors, including the chairman, are appointed by shareholders through the SRG. Board appointments are for a term of three years in accordance with the company's constitution. Retiring directors are eligible for reappointment at the discretion of the shareholders.

Board Performance

The board undertakes its own internal review of performance annually, both in relation to the board as a whole and the contribution of individual board members. Due to the impending industry integration and changes to the Board membership, no review was conducted in 2010.

Board Remuneration

The board remuneration is determined by the SRG after taking external advice.

Indemnity and Insurance

Watercare has executed a deed of indemnity with each director which indemnifies the director in accordance with the company's constitution and grants certain rights in respect of access to documents and the maintenance of liability insurance cover.

Board Meetings

Watercare's board has 11 scheduled meetings per year. In 2010 the board met on a twice monthly basis in order to manage the information and governance workload associated with the integration of water and wastewater services for the Auckland region. A special meeting was also held in May 2010 in preparation for an amendment to the Trade Wastes Bylaw 1991.

Audit and Risk Committee

The board is responsible for appointing the members of the Audit and Risk Committee. The committee's role is to assist the board to fulfil its responsibilities in the areas of financial reporting and to provide assurance regarding compliance with internal controls, policies and procedures. Its responsibilities are established in the Audit and Risk Committee Charter which is reviewed annually. The committee has no delegated authority. In carrying out its duties, the committee meets regularly with the external and internal auditors (both with and without management present) and the management of the company. At least one member must have accounting or financial management expertise. The chairman of the board may not be chairman of the Audit and Risk Committee. The current members of the Audit and Risk Committee are: Jeff Todd (Chairman), Graeme Hawkins and Ross Keenan. All Watercare directors receive the papers of the Audit and Risk Committee in advance and all are invited to attend committee meetings.

Risk Management

Watercare's framework for risk identification, measurement and reporting is well developed, and meets the requirements of the Australian and New Zealand Standard 4360. There are regular external reviews of Watercare's framework to ensure the company meets and exceeds good practice measures in risk management. As part of the risk management framework, the company has established a Risk Steering Committee which meets six times per year to monitor emerging risk and risk-mitigating actions and strategies. The committee comprises the chief executive, senior management, the internal auditor and the risk manager. Risks that have serious consequences are in turn directly monitored by the board.

External Auditors

The Auditor-General is the auditor of the company's financial statements. The Auditor-General has appointed Jamie Schmidt from Deloitte to undertake the external audit work on behalf of her office, in accordance with the Auditor-General's Audit Standards, which incorporate New Zealand Auditing Standards. Deloitte has no relationship with the company outside of the audit and related assurance activities it undertakes under its mandate from the Auditor-General. This satisfies the independence requirements of the Auditor-General and the Institute of Chartered Accountants of New Zealand.

Transparency in Reporting

Watercare is committed to transparent reporting. Recognising this, Watercare publishes:

- An annual Statement of Corporate Intent
- An annual Funding Plan
- An annual Asset Management Plan
- An annual report that records performance against guidelines developed under the United Nations' Global Reporting G3 Initiative (see page 109)
- Special project newsletters for interested parties.

Additionally, the company's website www.watercare.co.nz gives an overview of Watercare and provides a live update of current water storage levels and other data as well as information on education and recreation, major projects and publications. Laboratory Services and Trade waste also have dedicated sections of the website. Information is presented on working for Watercare and electronic tenders can be submitted via the website. Watercare closely monitors the quality and format of the information that it reports. Feedback on the annual report from interested parties and professional reviewers is incorporated into future reports. Feedback forms can be downloaded from www.watercare.co.nz

Setting Standards of Conduct for Staff

Watercare demands the highest standards of behaviour from its staff. Among the company's policies governing employee behaviour, a specific ethics policy addresses employees' responsibilities with regard to contractual relationships with suppliers of goods and services to Watercare, and conflicts of interest. All contracts managed by staff must be in writing. The policies set out the delegated authority within the company. All policies governing the conduct of staff are published on the company's intranet. Watercare's projects are subject to internal probity reviews, and external probity auditors are appointed to provide additional assurance on major projects.

Whistleblowing

The company has a specific policy to receive and deal with information about any serious wrongdoing within the company, as required by the Protected Disclosures Act 2000. Watercare's policy prescribes how Watercare staff and others would report matters of serious wrongdoing, and provides contacts to whom such reporting can be made. The policy defines serious wrongdoing and applies to present and past employees, and to any individual either seconded to, or working on a contract basis for, Watercare.

Responsiveness to Stakeholders

The Shareholders' Representative Group (SRG)

Watercare provides a written quarterly report on its operations to the SRG. Additionally the board and management meet the SRG two times a year to brief them and supply any further information requested. The Chairman and Transition Chief Executive also attend regular SRG meetings.

Other Stakeholders

The company consults extensively with its shareholders, customers, environmental regulators, special interest groups, advisory groups and the community. The company engages with customers in regular management meetings, quarterly operational meetings, regular project meetings and workshops to set priorities for the development and maintenance of assets in the Asset Management Plan and to consult on the price path and Funding Plan processes.

Watercare consults closely with all its communities and aims to build long-term relationships. Project-specific community liaison groups are convened as deemed necessary and communication occurs through a wide range of stakeholder contact mechanisms.

Advisory Groups

Watercare has three standing consultative and advisory committees that comment on company plans and projects. They are the Environmental Advisory Group, the Maori Advisory Group and the Consumer Advisory Group. The Environmental Advisory Group comprises experts who advise on how the company's activities impact on the environment. The Maori Advisory Group advises Watercare on how its plans and operations impact on Maori and on the relationship between the natural environment and Maori. The group also provides advice that enhances the company's relationship with Maori. The Consumer Advisory Group was established in 2009 in response to integration and Watercare's new relationship with customers across the region. The group provides independent advice on Watercare's commitment to treat all consumers in a fair and equitable manner. The reports of the Maori Advisory Group, the Environmental Advisory Group and the Consumer Advisory Group for 2009/10 can be found on pages 19, 20 and 21.

Regulators

Watercare is subject to regulation in planning, health and environmental matters. The principal regulators include: the Auckland Regional Council, Environment Waikato, the city and district councils and the Ministry of Health. The company also engages with these bodies by providing input on the impacts of existing and proposed policy and regulation on Watercare's activities.

Regular Independent Reviews

Watercare validates its planning, operations and reporting with independent consultants on a regular basis. In addition, the SRG commissions regular external reviews of various aspects of company performance. This year, as a result of the extensive work required for integration of the water and wastewater industry, less emphasis has been placed on process reviews. However, Watercare has continued to follow best-practice processes which include feedback and continuous improvements from previous reviews.

▲ CLICK FOR MAIN CONTENTS PAGE

Tukoroirangi Morgan, Chairman Waikato-Tainui Te Arataura and Graeme Hawkins, Chairman of Watercare, sign a Memorandum of Relationship that recognises both parties' desire to work together to build a strong, balanced and enduring relationship.

Advisory Group Reports

Maori Advisory Group

1 July 2010

Ko te awa ko au, I am the river
Ko au ko te awa, the river is me

Kia ora

I want to share with you the significance of the proverb above and how it relates to the Waikato Tainui Raupatu Claims (Waikato River) Settlement Act 2010 and Watercare. The 50/50 governance arrangement with the Crown is an acknowledgement of a relationship that exists between Maori and their river. "I am the river, the river is me" echoes a peoples' lifelong commitment to preserving its well-being for the benefit of the generations to come.

A traditional relationship and practice now firmly back in the hands of the Waikato people in the form of the new Waikato River Authority. This couldn't have happened at a better time when water demands and costs are high on everyone's agenda. Having Waikato Maori at the decision making table gives me a great deal of confidence that water security, supply and quality are in good hands.

How does this affect Auckland? Well, for close to a hundred years the Waitakere and Hunua water supply dams have provided Auckland with that all important ingredient of life, potable water. Since 2002, supply has been supplemented by abstraction from the Waikato River. While Watercare's current water take consent is sufficient it will not be enough to quench the thirst of a growing super city in the future.

On 1 November 2010, when Watercare becomes the single largest water and wastewater utility in the country, you will be pleased to know that Auckland's future water needs are also in good hands. This is thanks to the signing a Statement of Understanding between Watercare and the Tainui Maori Trust Board, a member of the new authority, in October 1998. As for the proverb it marries well with Watercare's commitment to help enhance the well-being of the Waikato River.

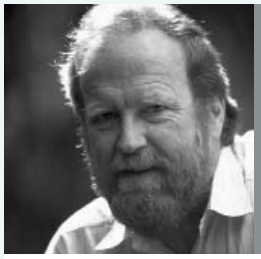
So to the Waikato and its people, I acknowledge you not once, not twice but thrice.

Kia ora

William Kapea
Chairman
Maori Advisory Group

Members	Affiliation
William Kapea	Ngati Whatua
Gary Thompson	Ngati Paoa
Kowhai Olsen	Tainui
Pamera Warner	Ngati Whatua
Paul Brown	Tainui
Norma Arlidge	Ngati Whatua
Dennis Ngataki	Tainui
Tim Manukau	Tainui
Brownie Rauwhero	Tainui
Carmen Kirkwood	Tainui

Advisory Group Reports



Environmental Advisory Group

1 July 2010

The Environmental Advisory Group has continued to engage in thoughtful discussions with Watercare on the environmental effects of its decisions and to give informed input into its plans, projects and operations.

Each of us is well placed to challenge Watercare's thinking, offering insights from our area of individual expertise. Our experience as advocates in community organisations and in the development of public policy gives us keen insights into areas of public concern.

Over the last 12 months, we have been actively engaged in discussions with Watercare about how the environmental implications of the following can best be addressed:

- The integration of water and wastewater services in the region as a result of the local government reforms.
- Plans for the future development of Watercare's wastewater treatment plants and network, including the proposed construction of a central wastewater interceptor, the proposed rehabilitation of Puketutu Island with biosolids, plans to construct three new pump stations in west Auckland, and plans to review the condition of the rural plants Watercare will be responsible for after 1 November 2010.
- The Three Waters project, integrating the management of water supply, wastewater and stormwater.
- The role of small-scale wastewater treatment systems.
- Watercare's response to proposed policy and plan variations that have the potential to affect extraction from the Waikato River for municipal water supply.
- Watercare's response to national freshwater and coastal policies that have the potential to impact its wastewater operations.
- Amendments to the Trade Wastes Bylaw.

We have also stressed the need to future proof current positive environmental outcomes through the impending regional governance changes.

We look forward to another year of working with Watercare and to ensuring a focus on environmental sustainability is retained in the incoming structure. Key challenges we see in the near future include:

- The need to ensure the management of stormwater is handled in an integrated manner in light of its separation from wastewater and water supply in the new regional governance structure. While the group acknowledges that Watercare inherits no direct responsibility for stormwater, there is a need to develop stretch targets and effective solutions to its (at times) major environmental impacts. Watercare can contribute to this via integration of management across the interface between stormwater and those elements of the three waters under its control.
- Opportunities for reduction of water consumption and realisation of appropriate re-use initiatives.

Paul Walbran
Chairman
Environmental Advisory Group

Members	Focus
Paul Walbran (Chairman)	Water quality, harbour health and heritage
Ken Catt	The water cycle
Anne Fenn	Environmental policy and implementation
Carol McSweeney	Air quality, ecosystems and botany
Dr Peter Maddison	Entomology, flora and fauna
Judy Bischoff	Water and land use, energy
Bob Tait	Biosolids

Advisory Group Reports

Consumer Advisory Group

1 July 2010

The Consumer Advisory Group was established by Watercare in 2009 and aims to provide ongoing independent advice to the company on its commitment to treat all consumers in a fair and equitable manner.

Our group consists of six members who have experience in issues covering social, health and family services, public housing, migration and cultural diversity as well as an understanding of tikanga Maori and Pacific Island affairs. All members are well placed to provide Watercare with independent advice on the impact of the company's activities on the consumer.

We first met on 24 September 2009 and have continued to meet on a quarterly basis since then.

A major focus of our meetings has been the review of new Watercare policies and procedures that impact the customer. These include documents such as the customer contract, customer communications plan, the hardship policy, emergency water supply, leak remissions and the complaints process.

As a group, we acknowledge the comprehensive amount of work Watercare has undertaken to understand the issues and the willingness to share information listen and consider feedback.

We have welcomed the opportunity to be involved and have offered different perspectives for Watercare to consider. In future, we will continue to review relevant policies and procedures, and provide feedback and advice on implementation issues as required.

We look forward to a productive ongoing relationship with Watercare, helping to ensure the needs of diverse communities are understood and considered in the provision of essential water and wastewater services.

Sir Paul Reeves
Chairman
Consumer Advisory Group

Members

Sir Paul Reeves (Chairman)	Chancellor, Auckland University of Technology (AUT)
Tunumafono Ava Faamoe	Community Worker, First 5 Enterprise
Ian Leader	Community Relations Manager, AUT
John Murray	Superintendent/Executive Director, Lifewise
Peta Si'ulepa	Strategic Partnerships Advisor, Waitakere City Council
Nicole Walker	Barrister, specialising in the Family Court

▲ CLICK FOR MAIN CONTENTS PAGE

Policy 1 | Environmental Care

To Minimise the Adverse Impact of the Company's Operations on the Environment

◄ Data Technician Sarah Muir reviews rain level data at Upper Mangatawhiri Dam in the Hunua Ranges.

Policy 1 | Environmental Care

Watercare's commitment to protecting the environment is embedded in its business practices and operations. The company is focused on reducing its carbon footprint by increasingly using water and wastewater to generate electricity through hydroelectric and biogas cogeneration facilities. Initiatives in power generation are coupled with practical steps to reduce energy consumption, encourage recycling and reduce paper use.

Policy 1 | Overall performance out of 10

OBJECTIVE **1**

Minimise emissions and reduce carbon footprint

OBJECTIVE **2**

Promote cleaner production to industry and minimise waste

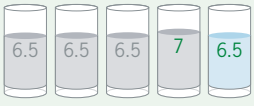
OBJECTIVE **3**

Minimise the impact of treated biosolids and effluent

OBJECTIVE **4**

Promote the preservation of species and protection of places of significant heritage value impacted by operations

OBJECTIVE **5**



Use energy efficiently and, where practical, recover energy from operational activities

OBJECTIVE **6**

Reduce and control odours, overflows, noise and other nuisances

Case Study

WATERCARE AT WORK:

Milestone passes in a gush of water

A view from the top of Upper Nihotupu Dam looking down to where the compensation valve was opened for the first time in September, releasing the flow of water.

A gush of water signalled the start of a new era for Nihotupu Stream in the Waitakere Ranges. For over 70 years, the stream had been affected by the Upper Nihotupu Dam which had blocked its major tributary and reduced its water level. Now, thanks to the installation of a compensation valve, flows are making it past the dam.

Headworks Engineer Suzanne Naylor opened the new valve for the first time on 30 September 2009, releasing water into the plunge pool at the base of the dam's spillway which flows into the stream below. She says the compensation flows are significant for the local community.

"When new resource consents were granted in 2005, one thing the public and council were really concerned about was making sure we released flow continuously from the dam to mimic what would happen if it wasn't there," says Suzanne.

"This valve has the ability to release 30, 60 or 90 litres of water a second, depending on the combined water levels in all of Watercare's dams – if they are full, more will be released because it assumes greater rainfall and higher natural water levels."

Watercare's Project Engineer Neil Jacka managed the upgrade. He says the work also included the installation of a free discharge valve to enable Watercare to drain the lake in an emergency.

This valve can be used to flush water downstream during the summer months as well, as Neil explains: "In summer, the low stream flows and increased sunlight can cause algae growth which reduces the available oxygen in the water, affecting the fish. With the free discharge valves we can mimic the summer storms that naturally flush away the algae, and therefore improve aquatic life."

The work was undertaken as part of the Western Dams Upgrade Project. Compensation and free discharge valves have also been installed at Lower Huia, Lower Nihotupu and Waitakere dams and work has commenced at Upper Huia Dam.

Atmospheric Emissions – Carbon Reduction

Watercare continued its work to reduce atmospheric emissions of carbon. The company has now achieved an 86 per cent reduction in carbon dioxide (CO_2) equivalent emissions since 1990, largely as a result of improved wastewater treatment processes. The single largest contributing factor since 1990 has been the decommissioning of the oxidation ponds and sludge lagoons at the Mangere Wastewater Treatment Plant. Other company initiatives such as collecting methane for electricity generation and optimising the efficiency of hydro generation at water storage dams has also helped to reduce reliance on the use of external energy. The slight increase in CO_2 production this year was due to the greater quantity of wastewater treated as a result of a growing population. Furthermore, operational requirements of the plant resulted in a need for increased volumes of natural gas.

Watercare has continued to review its approach to measuring greenhouse gas emissions to ensure consistency with best practice as methods for carbon accounting develop.

Management of Carbon Footprint

Watercare is continuing to measure its performance against 10 initiatives of practical value to minimise the company's carbon footprint. The company is seeking ways to reduce its carbon footprint and is working with customers and suppliers in this area.

Some projects identified as part of the future capital works programme beyond 2010 will also provide opportunities to lower greenhouse gas emissions and in the process reduce our carbon footprint. Re-roofing of the digesters at the Mangere Wastewater Treatment Plant and the proposed development of a biogas storage unit will help to reduce gas emissions and the unnecessary flaring of gas. These initiatives will help to increase the volume of biogas captured and the amount of electricity generated at the plant.

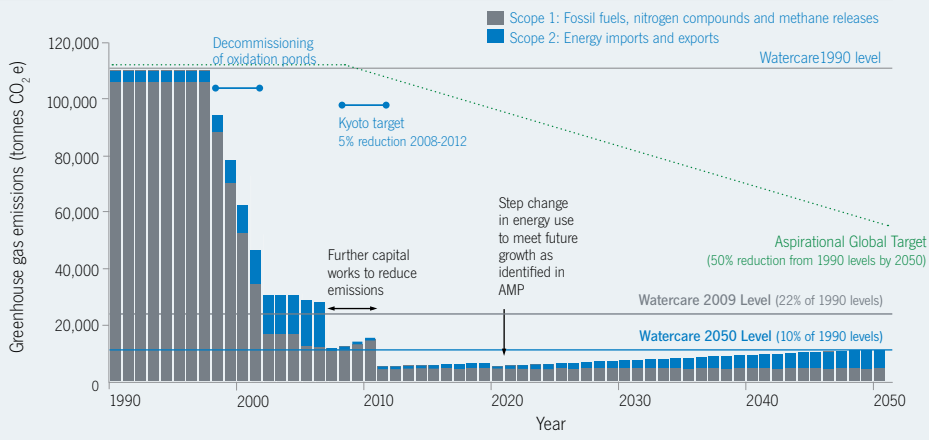
A graph of Watercare's greenhouse gas emissions from 1990 to today, with projections to 2050 and the company's long-term target, is shown below.

Biogas Utilisation

Biogas is a by-product of the wastewater treatment process and comprises approximately 60 per cent methane. If it escapes into the atmosphere, it is 21 times more damaging than CO_2.

At the wastewater treatment plant, biogas is captured and used to run four gas engines that this year met 56 per cent of the plant's energy needs. Watercare is looking to increase the amount of energy produced using biogas. This will be achieved through the construction of biogas holders to reduce the quantity of gas that flares, and by re-roofing the digesters to reduce gas emissions. These initiatives are included in future capital works programmes beyond 2010.

Watercare's greenhouse gas emissions 1990-2010, with projections and targets to 2050



Weblinks

Figures:
Sustainability accounting analysis Fig. 10
Watercare's greenhouse gas emissions Fig. 11
Initiatives to reduce greenhouse gas emissions Fig. 12
Significant gaseous emissions by weight Fig. 13
Watercare's ecological footprint Fig. 14
Sources of emissions Fig. 15

Objective 1 Minimise Emissions and Reduce Carbon Footprint

A. Atmospheric emissions – carbon reduction (nwoodley@water.co.nz)

% CO_2 equivalent reduction from 1990 levels

✔ 10%	✔ 20%	✔ 30%	✔ 40%	✔ 50%	✔ 60%	✔ 70%	✔ 80%	0.5 90%	✕ 100%	TARGET

G3 EN 16-20

2006	2007	2008	2009	2010
7	8.5	8.5	8.5	8.5/10

B. Carbon footprint management (nwoodley@water.co.nz)

✔ Develop objective	✔ Identify targets	✔ Influence suppliers	✔ Influence customers	0.5 Verify carbon accounting	0.5 Identify studies and opportunities	0.5 Implement studies	0.5 Implement opportunities	0.5 Staff education and initiatives	0.5 External recognition	TARGET

2006	2007	2008	2009	2010
1.5	2	5	7	7/10

C. Biogas utilisation (stan@water.co.nz)

% of WTP energy supplied by methane capture

✔ 10%	✔ 20%	✔ 30%	✔ 40%	✔ 50%	0.5 60%	✕ 70%	✕ 80%	✕ 90%	✕ 100%	TARGET

2006	2007	2008	2009	2010
5.5	5.5	5.5	6	5.5/10

Impact on key areas:
- Social
- Economic
- Environmental

Minimise emissions and reduce carbon footprint
Overall performance scores out of 10

2006	2007	2008	2009	2010
5	5	6	6	7

Trade Waste Control

Watercare works with approximately 580 customers in administering the Trade Waste Bylaw. The company sets out to:

- Preserve safe working conditions in the sewer network and the Mangere Wastewater Treatment Plant
- Protect the integrity of the wastewater treatment process
- Ensure the longevity of the sewer network and the reticulation assets
- Enhance the potential for the reuse of treated biosolids
- Assist in ensuring that wastewater treatment plant discharges meet consent requirements.

As the regulator, Watercare is responsible for enforcing trade waste compliance.

The number of customers complying with consent conditions in 2009/10 has improved. Trade waste staff have been continuing to work closely with industry to educate customers on their waste discharges, improvement of treatment processes, and reduction of waste volumes.

Watercare is seeking an amendment to the Trade Wastes Bylaw in order to achieve equitable charging for trade waste services following the integration of wastewater services in Auckland on 1 November 2010.

Recycling

The quantity of recyclable waste going to landfill increased slightly this year. It was identified that the integration project may divert staff attention resulting in more non-Watercare staff in the workplace and less recycling. In response, waste minimisation signage and bin labelling was increased and standardised. This year around 70 per cent of the waste sent to landfill is incapable of being recycled, consistent with last year, according to independent analysis by Waste Not.

Trade Waste Compliance Advisor Hamish Jones gathers a sample at ChemWaste in Onehunga, Auckland; pictured with ChemWaste's Technical Operations Manager Colin Jowett.

This leaves 30 per cent of waste which is still suitable for composting or reuse. Planning is underway to promote waste minimisation measures to new staff joining Watercare. The waste minimisation initiative is led by employees who volunteer to participate in the company's Zero Waste programme.

Paper Use

Watercare paper use per employee remained unchanged, with 12.2 reams of paper consumed per office-based employee this year, despite the increased staff and workload involved with integration of the water industry.

Paper use is measured against the Ministry for the Environment's benchmark of 11 reams of paper per office-based employee per year.

Weblinks

Stories
Zero waste expands
Figures:
Trade waste customers Fig. 16
Trade waste sampling programme Fig. 17
Key trade waste substances Fig. 18
Materials and chemicals Fig. 19
Biosolids metal levels Fig. 20
Wastewater treatment plant effluent discharge Fig. 21
Treated wastewater standards Fig. 22
Solids disposal Fig. 23
Weight of hazardous substances in waste Fig. 24

Objective 2 Promote Cleaner Production to Industry and Minimise Waste

A. Trade waste control (progers@water.co.nz)

% customer compliance with consent conditions

✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	TARGET
91%	92%	93%	94%	95%	96%	97%	98%	99%	100%	

2006	2007	2008	2009	2010
7	5	5	6	7/10

B. Recycling (rgallagher@water.co.nz)

% waste going to landfill that could be recycled

✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	TARGET
90%	80%	70%	60%	50%	40%	30%	20%	10%	0%	

2006	2007	2008	2009	2010
5.5	6.5	7.5	7.5	7/10

C. Paper use (rgallagher@water.co.nz)

Number of paper reams used per office-based employee

✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	TARGET
28	26	24	22	20	18	16	14	12	10	

MINISTRY FOR THE ENVIRONMENT BENCHMARK

2006	2007	2008	2009	2010
6.5	7.5	8.5	9	9/10

Impact on key areas:
- Social
- Economic
- Environmental

Promote cleaner production to industry and minimise waste
Overall performance scores out of 10

2006	2007	2008	2009	2010
6.5	6.5	7	7.5	8

Biosolids Research and Development

Field trials for the use of treated biosolids as a soil conditioner and fertiliser have been successfully completed. The trial found that the use of biosolids in a range of end-uses outperforms the use of an equivalent commercially available fertiliser. These results at the field site, alongside the Mangere Wastewater Treatment Plant, confirm that biosolids have considerable benefit when used as a fertiliser over and above commercially available fertilisers for the uses trialled.

As the field trials are now complete, regionally valid data is available with which to promote the use of biosolids for a diverse range of end-uses. Discussions with potential users have commenced and will continue through 2010/11.

Biosolids Management

The Mangere Wastewater Treatment Plant produces around 108,000 tonnes of biosolids annually. Watercare submitted a resource consent application to use the treated biosolids in the rehabilitation of a former quarry on Puketutu Island, adjacent to the Mangere Wastewater Treatment Plant. The proposal was subject to the company obtaining the necessary statutory approvals from the Auckland Regional Council. Unfortunately, Commissioners declined the company's applications in 2009, citing cultural concerns as a major reason. A review of the Commissioners' decisions was undertaken which was followed by intensive negotiations. These negotiations have progressed well and agreement is close to being reached. Subject to final settlement of the appeals, Puketutu Island will be available for rehabilitation with biosolids from 2013/14.

Biosolids Project Engineer Bernice Chiam discusses road construction details for Pond 2 with Paul Southen of Fletchers Construction. Pond 2 is a former oxidation pond next to the Mangere Wastewater Treatment Plant that is being rehabilitated using biosolids.

Treated Wastewater Research and Development

The company has completed work with local industries to investigate further uses for treated wastewater in processes where it could take the place of A-grade drinking water such as for industrial coolant. The results of the investigation have determined that the cost of supplying treated wastewater to industrial users is currently prohibitive. Methods to expand the on-site use of treated wastewater have been reviewed and implemented. These include the use of treated wastewater for cooling pumps and the ongoing use of treated water for wash-down purposes at the Mangere Wastewater Treatment Plant.

Over the next 12 months, a trial of new valves on one of the reactor clarifiers at the Mangere Wastewater Treatment Plant will be undertaken to see whether it can enhance the denitrification process and, in doing so, improve the quality of the effluent.

Manukau Harbour Health – Metals and Water

The health of the Manukau Harbour – in the area adjacent to the Mangere Wastewater Treatment Plant – has shown significant improvement since the plant upgrade in 2003. The company continues to meet strict discharge consent conditions and the ultraviolet (UV) disinfection facility ensures that the area of harbour close to the discharge is safe for recreational use, with the exception of the gathering of shellfish following extreme wet weather. Studies are continuing to determine the effectiveness of UV treatment after extreme rainfall events.

Weblinks

Stories:

Day in the life of Bernice Chiam

Annual overhaul underway for solids treatment process

Objective 3 Minimise the Impact of Treated Biosolids and Effluent

A. Biosolids research and development (bchiam@water.co.nz)

Consider treated biosolids quality in planning	Investigate cost-effective options	Meet targets for beneficial use	Maximise on-site use	Implement volume reduction methods	Promote regional solutions	Secure a long-term rehabilitation scheme	Promote market diversity	Develop long-term markets	Diversify the use of Mangere biosolids	TARGET
✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	

2006	2007	2008	2009	2010
5.5	6.5	6.5	6.5	7/10

B. Biosolids management (bchiam@water.co.nz)

Consider biosolids quality in planning	Investigate cost-effective options	Meet targets for beneficial use	Maximise on-site use	Implement volume reduction methods	Promote regional solutions	Secure a long-term rehabilitation scheme	Promote market diversity	Develop long-term markets	Diversify the use of Mangere biosolids	TARGET	G3 EN22
✓	✓	✓	✓	✓	0.5	0.5	0.5	✗	✗		

2006	2007	2008	2009	2010
5	6.5	6.5	6.5	6.5/10

C. Effluent research and development (pjaggard@water.co.nz)

Preliminary effluent reuse study	Study to maximise effluent reuse at treatment plant	Study to prove effectiveness of ultraviolet dose-based consent	Undertake effluent toxicity monitoring	Thickening trial for primary sludge	Improved dissolved oxygen control	Update effluent reuse study for Auckland Regional Council	Irrigate biofilters	On-site reuse implemented	Denitrification optimisation	TARGET
✓	✓	✓	✓	✓	✓	✓	✓	✓	0.5	

2006	2007	2008	2009	2010
8	9	9	9	9.5/10

D. Manukau Harbour health – metals (ashanks@water.co.nz)

Number of sediment samples exceeding ANZECC ISQG low-level value

9	8	7	6	5	4	3	2	1	0	TARGET	G3 EN22, 24
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

2006	2007	2008	2009	2010
9	10	10	10	10/10

E. Manukau Harbour health – water (ashanks@water.co.nz)

Number of dry-weather days when sampling at Nga Kui e Toru Reef not compliant with Ministry of Health's water quality standards for shellfish gathering

9	8	7	6	5	4	3	2	1	0	TARGET	G3 EN21, 25
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

2006	2007	2008	2009	2010
10	10	10	10	10/10

Impact on key areas:
- Social
- Economic
- Environmental

Minimise the impact of biosolids and effluent

Overall performance scores out of 10

2006	2007	2008	2009	2010
7.5	8.5	8.5	8.5	8.5

Species Preservation Initiatives

Compensation valves have been installed at most of the Watercare dams which enable the release of continuous flows downstream, while free discharge valves allow flushing flows to occasionally be released to simulate floods and help remove any algae build-up downstream. The valves also increase Watercare's ability to control lake levels, including the capability to control the release of water in the event of an emergency such as a major earthquake.

Native fisheries management works continued within various Watercare catchments to ensure that necessary migratory paths of native fish species are not interrupted by the dams. This involves capturing juvenile galaxiid species (whitebait) and young migrating eels (elvers) from the downstream river systems and transferring them upstream. Adult migrating eels are also caught within the dams and transferred to suitable locations downstream to carry on to the sea in order to complete their life cycles.

Environmental Planner Andrew Kantor helps a pupil from Clevedon School with planting being undertaken as part of the Trees For Survival programme. Watercare is an ongoing sponsor of the programme which has been providing hands-on environmental education to schools, promoting the growing of native trees and shrubs, since 1991.

Weblinks

Stories:
Green conscious upgrade scoops award
A million trees and counting
First eels released in Huia Dam
Guardians of the west
Environmental awards roll in
Figures:
Protected areas of high ecological value Fig. 25
Significant biodiversity impacts Fig. 26

Habitat Improvement Schemes

Watercare continues to support the Waikato RiverCare initiative and tree-planting activities for local schools through its sponsorship of the Trees For Survival programme. With the Trees For Survival programme, schools within the Wairoa River catchment area are supplied with resources to plant trees and to educate their students on the relationship between the forest and the catchment environment. Growing units have been established at Hunua, Paparimu, Ararimu, Ardmore and Clevedon schools. Watercare also supports Waikato RiverCare to achieve the society's goal of planting 240 kilometers of the Waikato River's banks in native plant species.

The company undertook riparian planting around its water supply sources. In the vicinity of the Mangere Wastewater Treatment Plant, Watercare maintains 13 kilometres of coastal walkway and associated planting. This area includes significant bird roost areas where more than 30 different species have been observed.

Environmental Management

Watercare's specialist in-house environmental team is involved in the development of local, regional and national environmental policies. The company, as part of the Waikato River Municipal Users Group, is responding to a variation to Environment Waikato's regional plan. The group is involved in seeking to protect priority allocation of Waikato River water for domestic and municipal water supply.

The in-house team manages resource consent processes on projects and advises colleagues on policies that affect the business to ensure environmental issues are an integral and consistent part of the decision-making process. Consents for the new Mt Wellington Watermain, Redoubt Road reservoirs, the Waitakere Dam raw watermain replacement, the extension of the South Western Interceptor and for methoprene use for the control of midges at the Mangere Wastewater Treatment Plant were obtained this year. Consent applications for the proposed Hunua No. 4 Trunk Watermain were lodged this year. Other ongoing projects include the proposed rehabilitation of a former quarry on Puketutu Island with biosolids, the proposed Central Interceptor and the regional wastewater network consents. With integration on 1 November 2010, other regional projects that require consenting will also be dealt with by the team in the coming year.

The team has continued to develop a staff training programme and has been working with other business units to increase awareness of resource management issues.

Objective 4 Promote the Preservation of Species and Protection of Places of Significant Heritage Value Impacted by Operations

A. Species preservation initiatives (snaylor@water.co.nz)

Bird roost management plan	Bird populations monitored	Adequate bird roost capacity	Macro-invertebrate monitoring	Trout management plan	Flushing flow release – southern dams	Fish passages over weirs – southern dams	Fish trap and haul – southern dams	Fish trap and haul – western dams	Flushing flow release – western dams	TARGET	G3 EN14
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

2006	2007	2008	2009	2010
6.5	7.5	8	9	10/10

B. Habitat improvement schemes (snaylor@water.co.nz)

Rural: Trees For Survival sponsorship	Freshwater: Downstream water quality monitoring – southern dams	Freshwater: Residual flows maintained – southern dams	Freshwater: Downstream water quality monitoring – western dams	Increase in marine diversity	Coastal: Projects complete	Freshwater: Riparian planting programme at dams	Freshwater: Residual flows implemented – western dams	Urban: Restoration projects planned (Meola Creek)	Urban: Restoration projects complete (Hobson Bay)	TARGET	G3 EN14
✓	✓	✓	✓	✓	✓	✓	✓	0.5	0.5		

2006	2007	2008	2009	2010
7.5	7.5	8	8.5	9/10

C. Environmental management (ashanks@water.co.nz)

Watercare has sought EAG's input on potential impacts of operations	Watercare aims to avoid/minimise environmental impacts	New initiatives employed to minimise environmental impact	Watercare's decision-making reflects consultation with EAG	Watercare's accreditation of environmental management system	Demonstrate proactive approach to the environment	Environmental issues made an integral and consistent part of all decision-making	Strive for continuous improvement in environmental management	Show leadership in management of environmental reporting	Staff trained/exposed to environmental issues	TARGET	G3 EN14
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

2006	2007	2008	2009	2010
9.5	9.5	9.5	10	10/10

Impact on key areas:
- Social
- Economic
- Environmental

Promote the preservation of species and protection of places of significant heritage value impacted by operations
Overall performance scores out of 10

2006	2007	2008	2009	2010
8	8	8.5	9	9.5

ONLINE USE: Click the 'previous page' (left arrow) button in the Adobe Reader window to return to the last page viewed.

Water Energy Efficiency

Watercare aims to use energy efficiently in the treatment and delivery of water. This year, 27 gigawatt-hours were used in the production and delivery of around 139 billion litres of water. The index used to monitor water energy efficiency is the kilowatt-hours of energy consumed per cubic metre of water delivered. In 2009/10 this increased from 0.18 to 0.20 kilowatt-hours per cubic metre of water. The increase was due to very dry weather during the first four months of 2010 which forced Watercare to increase production and pumping from the Waikato Water Treatment Plant at Tuakau. Water from this source is more expensive to treat and transport than from the gravity-fed dams. Around 3.7 per cent of all energy used by the company was produced by five hydroelectric generators at the dams.

Wastewater Energy Efficiency

Energy consumption for the collection and treatment of wastewater was 0.75 kilowatt-hours per cubic metre of wastewater treated, which was on target. Over the year, some 84 gigawatt-hours were used to collect and treat 111 billion litres of wastewater. A total of 56 per cent of the energy required by the Mangere Wastewater Treatment Plant was generated by the cogeneration biogas facility.

Energy Management Programme

The Energy Focus programme oversees all energy management and improvement initiatives throughout Watercare. In 2009/10, this programme included the completion of the optimisation of the hydroelectric generators at Cosseys and Wairoa dams to improve their availability. Watercare's five generators are projected to produce 7,000 megawatt-hours of electricity annually – which is equivalent to the amount of energy required to power approximately 800 homes. The Energy Focus team continues to investigate options and technologies for improving the internal generation and utilisation of electricity. Work has commenced this year on the development of a real-time model to evaluate the most cost-effective option for providing energy to the Mangere Wastewater Treatment Plant, taking into account the cost of electricity and availability of biogas at any time of day and season of the year.

This year, generating energy at Watercare sites using wind sources was explored. After the initial review of 10 sites was carried out last year, two were shortlisted for further modelling and economic assessment. While it was determined that it is not economic to harness energy from wind with current electricity pricing, the price envelopes at which investment becomes economically viable is now understood. Initial reviews into the viability of participating in the national initiative to implement load interruptibility have commenced. This scheme identifies loads that can be turned off to support Transpower in maintaining national grid stability. This work is ongoing and provides potential opportunity for financial benefit as well as contributing to national security of supply.

The Waikato Water Treatment Plant in Tuakau, south of Auckland. The plant ran at full capacity during the dry summer and autumn months, producing 75 million litres of water a day.

Weblinks

Figures:

Electricity used summary Fig. 27
Travel and transport Fig. 28
Direct energy consumption by primary source Fig. 29
Indirect energy consumption by primary source Fig. 30
Energy efficiency Fig. 31
Energy summary Fig. 32
Energy savings Fig. 33

Objective 5 Use Energy Efficiently and, where Practical, Recover Energy from Operational Activities

A. Water energy efficiency (scrisford@water.co.nz)

kWh electricity consumed per cubic metre water delivered

✔	✔	✔	✔	✔	✔	✔	✘	✘	✘	TARGET	G3 EN 5-7
0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.10	0.05		

2006	2007	2008	2009	2010
7	7	6.5	7.5	7/10

B. Wastewater energy efficiency (scrisford@water.co.nz)

kWh electricity consumed per cubic metre wastewater treated

✔	✔	✔	✔	✔	✔	0.5	✘	✘	✘	TARGET	G3 EN 5-7
1.9	1.7	1.5	1.3	1.1	0.9	0.7	0.5	0.3	0.1		

2006	2007	2008	2009	2010
6.5	6.5	6.5	7	6.5/10

C. Energy management programme (scrisford@water.co.nz)

✔	✔	✔	0.5	0.5	0.5	0.5	0.5	0.5	0.5	TARGET	G3 EN 5-7
Energy management system policies and target	Energy savings opportunities register	External supply is 100% renewable	Internal supply 50% of own consumption	Staff training implemented	Energy management system expanded (software)	Energy efficiency criteria standards	Benchmark for energy consumption	Real-time energy optimisation implemented	Energy KPIs optimised		

2006	2007	2008	2009	2010
5.5	5.5	6.5	6.5	6.5/10

Impact on key areas:
- Social
- Economic
- Environmental

Use energy efficiently and, where practical, recover energy from operational activities
Overall performance scores out of 10

2006	2007	2008	2009	2010
6.5	6.5	6.5	7	6.5

Midge Complaints

Midge breeding at the Mangere Wastewater Treatment Plant was kept under control and no midge complaints were received during the year. The result can be attributed to a year-round monitoring and management programme that focuses on controlling midge breeding grounds around the plant and on reducing midge breeding grounds in the community through public awareness initiatives. Effective response continues to be required particularly when warm, wet weather creates conditions in which midges thrive.

Odour Complaints at the Mangere Wastewater Treatment Plant

There were six verified odour complaints received during the year compared to 11 in 2008/09. All complaints were responded to in a timely manner. Odour control measures continue to be an important focus at the plant and include the use of covers and odour filter beds as well as stationary and mobile deodoriser spraying units.

Wastewater Overflows

Three dry-weather overflows occurred in Watercare's wastewater network. Two incidents were from pump stations and the third from a sewer the result of breakages and leaks. All incidents were responded to in a timely and appropriate manner to minimise adverse environmental effects. A debrief occurred in all instances as part of continuous learning to identify and avoid future occurrences. The three dry-weather overflows were one more than last year, yet still represent the company's best performance over a five-year period. Project Storm 2, the award winning initiative completed in 2008 to identify improvements in Watercare's network model, was used to support the need for capacity upgrade projects where required to help reduce the risk of overflows. Watercare continues to invest in the wastewater network to reduce both the number and impact of overflow events. The short-term target is to have fewer than six dry-weather overflows annually; however, the stretch target indicated in the ruler is for zero.

Combined System Storm/Wastewater Overflows

The completion of Project Hobson was a substantial achievement in terms of work to reduce combined storm and wastewater overflows. The new tunnel and pump station that were constructed are capable of storing wet-weather flows and thereby reducing the risk of combined overflows into Hobson Bay. The project will result in improvements to the local environment and increase the recreational opportunities in the bay, once the demolition of the old sewer is completed in the final quarter of 2010.

Weblinks

Figures:
Overflows from wastewater collection system Fig. 34
Odour, midge and noise complaints Fig. 35
Wastewater pump station overflows Fig. 36
Sewer overflows Fig. 37

Objective 6 Reduce and Control Odours, Overflows, Noise and other Nuisances

A. Midge complaints (stan@water.co.nz)

Number of complaints

✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	TARGET
45	40	35	30	25	20	15	10	5	0	

2010			
10/10			
2006	2007	2008	2009
10	7	9.5	10

B. Odour complaints at the Mangere Wastewater Treatment Plant (stan@water.co.nz)

Number of complaints

✓	✓	✓	✓	✓	✓	✓	✓	0.5	✗	TARGET
36	32	28	24	20	16	12	8	4	0	

2010			
8.5/10			
2005	2006	2007	2008
10	9.5	7.5	6

C. Wastewater overflows excluding storms and power failures (charbour@water.co.nz)

Number of overflows

✓	✓	✓	✓	✓	✓	✓	✓	0.5	✗	TARGET
18	16	14	12	10	8	6	4	2	0	

2010			
8.5/10			
2006	2007	2008	2009
6.5	5	8	9

D. Combined sewer overflow management programme (charbour@water.co.nz)

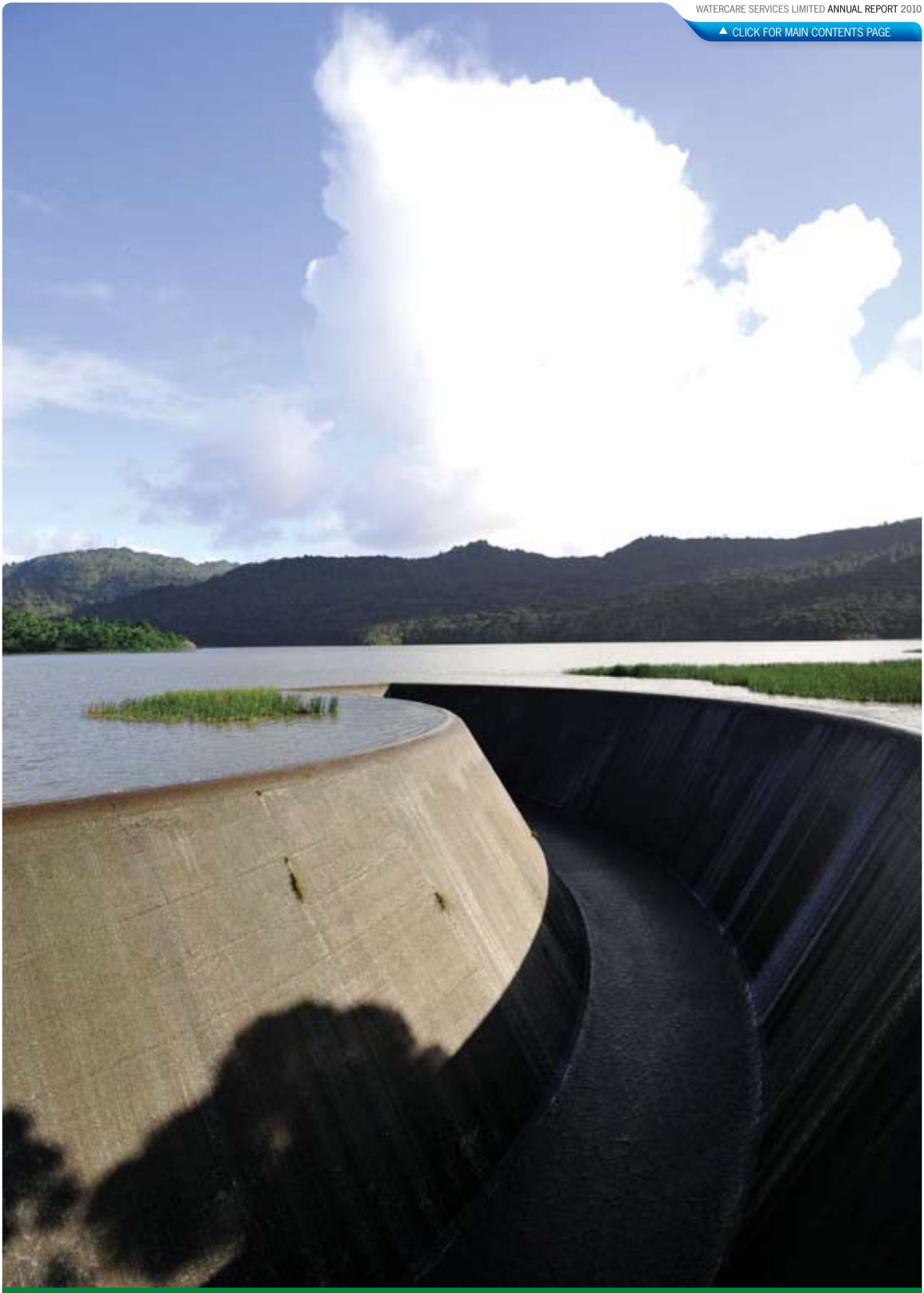
✓	✓	✓	✓	✓	✓	✓	✓	0.5	✗	TARGET
Prioritise risks for social, economic and environmental impacts	Overflows counted	Overflows modelled	Real-time monitoring	Compare across region	Complete regional vision	Implement short-term overflow management projects	Implement medium-term overflow management projects	Implement long-term overflow management projects	Full implementation of overflow regional vision	

2010			
8.5/10			
2006	2007	2008	2009
6.5	7	7	8

Reduce and control odours, overflows, noise and other nuisances
Overall performance scores out of 10

2010			
9			
2006	2007	2008	2009
8.5	7	8	8.5

ONLINE USE: Click the 'previous page' (left arrow) button in the Adobe Reader window to return to the last page viewed.



Lower Nihotupu Dam in the Waitakere Ranges was completed in 1948. The storage lake has the capacity to hold 4.6 billion litres of water which is treated at Huia Water Treatment Plant.

▲ CLICK FOR MAIN CONTENTS PAGE

Policy 2 | Health, Safety and Well-Being

To be an Industry-Best Workplace

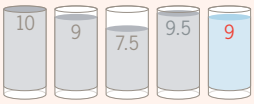
◄ Maintenance servicemen from the Managere Wastewater Treatment Plant visit the pump station that was constructed as part of Project Hobson with Health and Safety Manager Mike Wilson. From left: Senior Instrumentation Technician Charlie Claxton, Instrumentation Technician Nick Van Burick, Electrician Robin Allan and Mike Wilson.

Policy 2 | Health, Safety and Well-Being

Watercare's team approach to the culture of workplace safety continues, including working with contractors to achieve best practice. Staff identify and manage hazards; they look out for each other and ensure safe practices are in place before work commences. They also actively participate in the company's Health and Safety Committee work and in the prompt reporting and management of non-lost-time injuries to ensure best-practice outcomes.

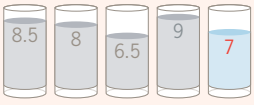
Policy 2 | Overall performance out of 10

OBJECTIVE **7**



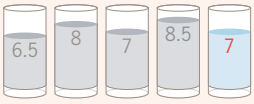
Provide staff with safe working conditions

OBJECTIVE **8**



Maintain a working environment that promotes staff productivity and well-being

OBJECTIVE **9**



Develop staff to their full potential

Case Study

WATERCARE AT WORK:

Tagging welcomed at Ardmore

Water Treatment Plant Operator Graham Head is congratulated by Watercare Transition Chief Executive Ian Parton.

Water Treatment Plant Operator Graham Head proved simple ideas can be the most effective with his contractor tracking system that won Watercare's 2009 Overall Continuous Improvement Award.

Graham's system, which uses a board with corresponding numbers and tags to quickly and clearly show which contractors are working on site, has improved safety measures at the Ardmore Water Treatment Plant. Staff can scan the board for a quick and easy headcount.

"Safety is a huge part of our work out here. It's a big place with a lot of contractors coming and going," says Graham.

"I actually got the idea after the Beaconsfield mining incident in Australia. When those freed miners walked out after being rescued, the first thing they did was hang up their tags on the tracking board. Those tags were the only reason people knew they were missing, and it made me think: why couldn't this work for us?

"We've been using the system for some time now and it's working well. Someone will occasionally take their tag home but that's cleared up with a head check and a phone call."

The system has been successfully replicated also at the Waikato Water Treatment Plant.

Lost Time

Three lost-time injuries were recorded for the year. Following investigation of each incident, the company reviewed and modified procedures to prevent reoccurrence. The procedures involved the use of semi-portable equipment, access to valve chamber operations and following documented procedures. The duration of the lost-time injuries was two days, four days, and eight days respectively.

Lost-Time Injury Frequency Rate

The lost-time injury frequency rate is an industry standard that measures the number of lost-time injuries per million hours worked and allows for comparisons across different industries. Watercare's injury frequency rate of 3.52 remains below the internal target of fewer than five and the InfoHRM 2009 benchmark* of 11.3. This year, the company held 463 health and safety inductions which were attended by 2,731 internal and external people. Additionally, 563 health and safety inspections were completed which is 201 more than the target set for the year.

Lost-Time Severity Rate

The severity rate measures the number of days lost from injury per 200,000 hours worked. Watercare has an injury severity rate of 3.75 which has increased from a rate of 2.20 last year. This reflects the increased severity of the lost-time injuries as noted above.

Zero Harm Workplace

This year Watercare joined the Business Leaders Forum "Zero Harm Workplaces" initiative. This initiative, led by the Prime Minister and Minister of Labour, has the objective of making workplaces "Zero Harm". Business leaders who have embraced the initiative and signed, The Pledge, have committed to taking responsibility for health and safety and sharing resources to make health and safety everyone's responsibility. The Chief Executive has visited Watercare offices to inform staff of the commitment the company has made.

* Watercare uses benchmarking reports from InfoHRM. InfoHRM is an international benchmarking organisation offering a comprehensive range of human resource metrics across a number of New Zealand and Australian organisations.

Trade Waste Compliance Advisor Hamish Jones signs in on arrival at ChemWaste in Onehunga, Auckland.

Weblinks

Figures:
Lost-time injury frequency rate Fig. 38
Health and safety notes Fig. 39

Objective 7 Provide Staff with Safe Working Conditions

A. Lost time (mwilson@water.co.nz)

Number of lost-time injuries

✓	✓	✓	✓	✓	✓	✓	✓	0.5	✗	
18	16	14	12	10	8	6	4	2	0	TARGET

2010
8.5/10

2006	2007	2008	2009
10	9.5	8	9

B. Lost time – injury frequency rate (mwilson@water.co.nz)

Number of lost-time injuries per year x 1,000,000/hours worked

✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	
36	32	28	24	20	16	12	8	4	0	TARGET

INFOHRM BENCHMARK

2010
9/10

2006	2007	2008	2009
10	9.5	8.5	9.5

C. Lost time – severity rate (mwilson@water.co.nz)

Number of days lost x 200,000/hours worked

✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	
36	32	28	24	20	16	12	8	4	0	TARGET

2010
9/10

2006	2007	2008	2009
10	8.5	6	9.5

Impact on key areas:
- Social
- Economic
- Environmental

Provide staff with safe working conditions
Overall performance scores out of 10

2006	2007	2008	2009
10	9	7.5	9.5

2010
9

Unplanned Absenteeism

Unplanned absenteeism increased slightly to 1.77 per cent which is still significantly below the InfoHRM 2009 benchmark of 2.55 per cent. There were no absences as a result of industrial action or absence without leave.

Staff Wellness

As a measure of staff wellness, Watercare reports the percentage of staff hours lost through illness. During 2009/10 the number of hours lost through staff illness increased marginally to 1.77 per cent of available hours compared to 1.69 per cent of available hours in 2008/09.

Watercare provides a comprehensive occupational health service to all staff. This year the service included:

- Medical consultation. The company's medical team provides a broad range of health checks and consultations for employees.
- Health seminars. There were 18 seminars on various health related topics presented to 311 staff.
- Influenza immunisation. The company provides free influenza vaccinations annually and a total of 48 per cent of staff members were immunised. This is considered to be a high uptake relative to similar workplaces.
- All staff required to work in any wastewater environment have mandatory vaccination for Hepatitis A and B, Tetanus, Typhoid, TwinRx and flu.
- Skin checks. The company's medical team offer a regular programme of free skin checks and sunscreen is readily available at all Watercare locations.
- Rehabilitation programmes. Watercare works closely with ACC in providing comprehensive rehabilitation and return-to-work programmes for both work-related and non-work-related injuries.
- Employee Assistance Programme. In 2009 the Watercare implemented a comprehensive Employee Assistance Programme providing all employees with access to a wide range of confidential counselling services.

Staff Turnover

Staff turnover reduced to historically low levels this year reflecting a very slow employment environment. This was primarily due to the global economic downturn but was also affected by the uncertainty of job security in the lead up to the integration of water and wastewater services for the Auckland region. The annualised turnover is expected to return to normal levels of 10 to 12 per cent as the economy improves and the changes associated with integration settle.

Weblinks

Stories:
Round the Bays 2010
On the trail to success
Figures:
Voluntary staff turnover Fig. 40
Unscheduled absences Fig. 41

Objective 8 Maintain a Working Environment that Promotes Staff Productivity and Well-being

A. Unplanned absenteeism (bchappell@water.co.nz)

% of unscheduled hours absent

✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	TARGET
3.2%	3.0%	2.8%	2.6%	2.4%	2.2%	2.0%	1.8%	1.6%	1.4%	

INFOHRM BENCHMARK

2010
8/10

2006	2007	2008	2009
8.5	9.5	7.5	8.5

B. Staff wellness (bchappell@water.co.nz)

% of hours absent due to illness

✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	TARGET
3.2%	3.0%	2.8%	2.6%	2.4%	2.2%	2.0%	1.8%	1.6%	1.4%	

2010
8/10

2006	2007	2008	2009
8.5	9.5	7.5	8.5

C. Staff turnover (bchappell@water.co.nz)

Voluntary leavers as a % of permanent staff – deviation from target range

✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	TARGET
9%	8%	7%	6%	5%	4%	3%	2%	1%	0%	

INFOHRM BENCHMARK

2010
5/10

2006	2007	2008	2009
9	5.5	4.5	10

Maintain a working environment that promotes staff productivity and well-being
Overall performance scores out of 10

2010
7

2006	2007	2008	2009
8.5	8	6.5	9

Training

The company invested an average of $1,395 per employee for educational and development purposes during 2009/10, providing an average of 25 hours of training per employee.

The Engineering Graduate Group, established in 2007 to support the development of young engineers, continued with six graduates achieving chartered status during 2009/10. Also maintained was the regular seminar series introduced in 2008 where engineering staff present their experiences and learnings from projects in which they have been involved.

In addition, training and development at operator level also maintained momentum with a further six staff completing formal qualifications during 2009/10 in either water or wastewater treatment or water reticulation.

External and Internal Appointments

This is a measure of the way in which positions are filled, by internal promotion and developmental moves or by external appointment. Watercare aims to develop staff and offer internal transfers and promotions wherever appropriate. This year the ratio of external to internal appointments is 2.4 (24 external appointments, 10 internal appointments) which is a reduction on the 2008/09 achievement of 1.3, partially due to increases in appointments from outside of Watercare due to integration.

As a result of integration, all vacancies since November 2009 have been advertised within Watercare, the LNOs and councils unless the necessary skills and experience were unavailable. If appointments from these organisations are considered 'internal' then the 2009/10 ratio drops significantly to 1.3.

Employment Equity and Diversity

Watercare continues to seek the best candidates for all jobs and has a diverse range of employees. The Watercare workforce is represented by over 35 different nationalities.

Reticulation Serviceperson Mihaka Williams undertakes training that was designed to teach staff who work in reservoirs about how their bodies react when submerged in very cold water.

Weblinks

Stories:
Idea of the year
Scrap-heap innovation makes task easy at Mangere
Hard work pays off
Chartering along the path to success
Good news arrives by post

Figures:
Investment in staff Fig. 42
Staff service profile Fig. 43
Staff demographics Fig. 44
Average staff numbers Fig. 45
Workforce by employment type, contract and region Fig. 46

Objective 9 Develop Staff to their Full Potential

A. Training (bchappell@water.co.nz)

Training/study hours per employee

✓ 3	✓ 6	✓ 9	✓ 12	✓ 15	✓ 18	✓ 21	✓ 24	0.5 27	✗ 30

TARGET — G3 LA11, HR3

INFOHRM BENCHMARK

2006	2007	2008	2009	2010
7	8.5	8.5	9	8.5/10

B. External and internal appointments (bchappell@water.co.nz)

Ratio of external/internal appointments

✓ 3.25	✓ 3.00	✓ 2.75	✓ 2.50	0.5 2.25	✗ 2.00	✗ 1.75	✗ 1.50	✗ 1.25	✗ 1.00

TARGET

INFOHRM BENCHMARK

2006	2007	2008	2009	2010
5.5	7.5	4.5	8.5	4.5/10

C. Employment equity and diversity (bchappell@water.co.nz)

✓ Measure and monitor demographic indicators	✓ Accredited employer with NZIS	✓ Freedom of association promoted	✓ Remuneration externally benchmarked	✓ Targeted employee development programmes identified	✓ Exit interview results incorporated into management decision-making	✓ Salaries assessed on performance	0.5 Address demographic trends	0.5 Targeted employee development programmes in place	0.5 Performance and development review PADR extended to all staff

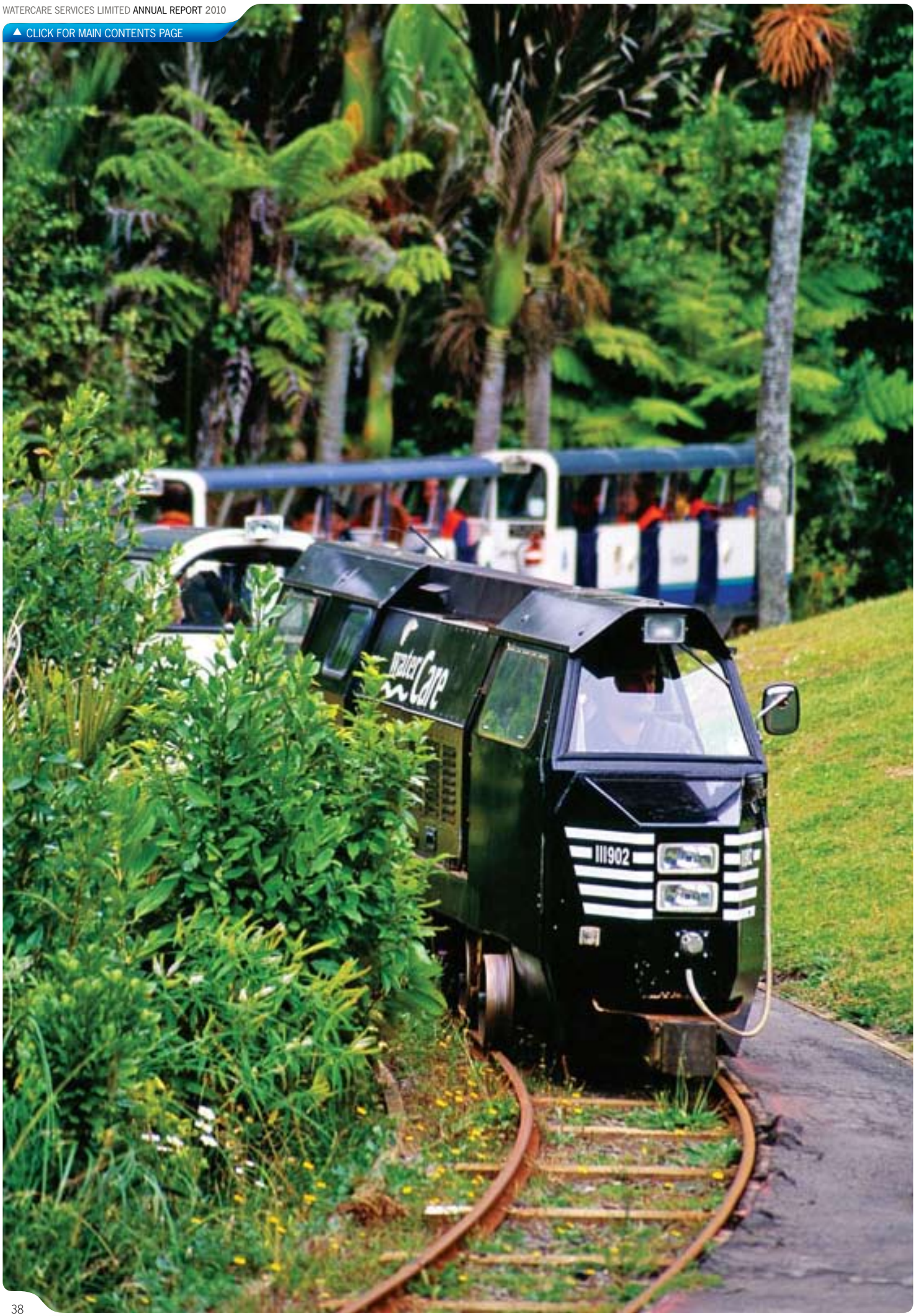
TARGET — G3 HR4, 9

2006	2007	2008	2009	2010
7.5	7.5	8.5	8.5	8.5/10

Impact on key areas:
- Social
- Economic
- Environmental

Develop staff to their full potential
Overall performance scores out of 10

2006	2007	2008	2009	2010
6.5	8	7	8.5	7



Policy 3 | Stakeholder Relationships

To be Responsive to Stakeholder Requirements

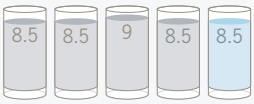
◄ Watercare offers the people of Auckland and visitors to the region the opportunity to venture deep into the Waitakere Ranges aboard the Rain Forest Express. Approximately 12,000 people enjoy the experience each year.

Policy 3 | Stakeholder Relationships

Watercare engages with the people of Auckland in many ways: from providing free tap water in recyclable cups to runners at the annual Round the Bays fun run, to encouraging visitors to travel to the Upper Nihotupu Dam on the company's narrow-gauge railway, the Rain Forest Express. Watercare staff are in regular contact with customers, shareholders, regulators and people who live and work near the sites of the company's projects and operations. Project newsletters and the company website keep the public up to date with latest developments and Watercare staff members meet regularly with Maori, customer and environmental advisory groups.

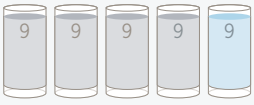
Policy 3 | Overall performance out of 10

OBJECTIVE **10**



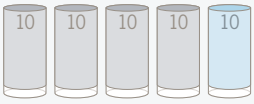
Maintain open communication, educational initiatives and recreational opportunities

OBJECTIVE **11**



Participate in relevant public policy initiatives and consultation with the community and stakeholders

OBJECTIVE **12**



Comply with statutory requirements

Case Study

WATERCARE AT WORK:

Water-wise campaign tackles record-breaking dry spell

Networks Manager Mark Bourne is interviewed by Josh Heslop for the Sunrise programme on Channel Three.

Watercare actively responded to the recording-breaking dry spell in the first four months of 2010 with a widespread 'use water wisely' campaign, targeting the people of Auckland, coupled with the prudent management of all water sources.

While the region entered summer with dams that were nearly full, water storage levels fell rapidly and dropped below normal as everyone enjoyed week after week of sunny, warm days.

As a result, the region faced a situation whereby if the dry spell had continued through winter, mandatory water restrictions may have been required over the summer of 2010/11.

Therefore Watercare sought to raise awareness of the situation in the community and to encourage sensible water use through the use of simple and consistent messages. By achieving voluntary savings earlier, the community could avoid or at least delay any restrictions.

To achieve this, Network Manager Mark Bourne liaised frequently with broadcast and print media, keeping them up to date on dam levels and rainfall as well as the company's operational response mechanisms and plans.

Mark's media reach was supplemented by advertisements which ran in the New Zealand Herald and suburban newspapers, and by updates to the corporate website.

The company liaised with the LNOs to ensure they gave their customers the same consistent information.

Provision of Information Channels

Watercare maintains a wide variety of stakeholder contact mechanisms. These include: regular project newsletters for communities affected by the company's projects and operations; communications to media; the Annual Water Quality Report to customers; the annual Asset Management Plan; the Annual Report; and the website www.watercare.co.nz. This year the company published two, rather than four, issues of its external publication 'Interflow' as it focused internal resources on integration projects.

Watercare ensured both company and LNO staff were informed of integration planning and progress through project newsletters and a publication called 'Your Source'. In addition, monthly update meetings were held with Newmarket-based staff. These messages were communicated to all staff via the intranet based newsletter, 'The Font'.

Staff members participate in industry forums, make presentations to industry seminars and community groups, and guest-lecture at tertiary institutions. The company runs an education programme – Adopt a Stream – that offers primary and intermediate-school pupils lessons about water quality, the water cycle, conservation and the environment. The programme is fully resourced with water quality testing kits, information packs and worksheets, and the coordinator, a trained teacher, educates school groups in the field and in the classroom.

Watercare ran a 'use water wisely' campaign that involved media briefings, advertising and website updates in response to very low rainfall in the first four months of 2010. Refer to the policy case study on page 40 for further details.

Provision of Recreational Channels

Watercare provides access to land adjacent to its facilities in the Waitakere and Hunua ranges and on the Manukau Harbour for recreational use. Walking tracks are maintained in both the Waitakere and Hunua ranges and fishing by boat is allowed by permit at Mangatangi and Mangatawhiri dams. The Watercare Coastal Walkway, adjacent to the Manukau Harbour, remains a popular recreational facility. This year saw the opening to the public of a walkway across land planted with native plants adjacent to Greenwood Road, Mangere.

The company continued to operate the Rain Forest Express, the narrow-gauge railway built to service the Upper Nihotupu Dam in around 1912. The line, which is still used for maintenance purposes, has carried more than 150,000 passengers since it was opened to the public and is a popular attraction for tourists and locals.

Watercare has provided ongoing support the Oxfam Water for Survival event each year by offering access to the Nihotupu Tramline for a charity walk.

A pupil from Hunua School carries out turbidity testing on a water sample, under the supervision of Adopt A Stream programme coordinator Sally Smith. Each year, Sally helps over 7,000 pupils carry out hands-on field studies of their local waterways and teaches them about the water cycle and the fundamental relationship between water and all living things.

Weblinks

Stories:
TV3 takes the plunge
Record year for Adopt A Stream
Figures:
Rain Forest Express passengers and trips Fig. 47
Communications with stakeholders Fig. 48
Community impact of operations Fig. 49

Objective 10 Maintain Open Communication, Educational Initiatives and Recreational Opportunities

A. Provision of communication channels (rhughes@water.co.nz)

Public liaison	Media liaison	Internal newsletter	Website	Brochures	Project newsletters	Educational programmes	Public awareness campaign	Quarterly external magazine	Direct mail	TARGET
✓	✓	✓	✓	✓	✓	✓	✓	0.5	✗	G3 S01

2006	2007	2008	2009	2010
8	8	9	9	8.5/10

B. Provision of recreational facilities (rhughes@water.co.nz)

Specific event sponsorship	Rain Forest Express	Birdwatching hides	Fishing access	Walking tracks: Western dams	Walking tracks: Southern dams	Walking tracks: Wastewater plant foreshore	Walking tracks: Adjacent to Greenwood Road, Mangere	Water For Survival sponsorship	Walking tracks: Puketutu Island	TARGET
✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	

2006	2007	2008	2009	2010
8.5	8.5	8.5	7.5	9/10

Impact on key areas:
- Social
- Economic
- Environmental

Maintain open communication, educational initiatives and recreational opportunities
Overall performance scores out of 10

2006	2007	2008	2009	2010
8.5	8.5	9	8.5	8.5

Participation in Policy Initiatives and Statutory Submissions

Watercare had a particularly busy year with regard to participation in the development of relevant legislation and policy initiatives to ensure the effective delivery of regional water and wastewater services.

The company made submissions to:

- The proposed National Environmental Standards on Ecological Flows and Water Levels.
- The review of the National Policy Statement – Coastal. The policy states objectives and policies to achieve the purpose of the Resource Management Act in relation to New Zealand's coastal environment.
- The Foreshore and Seabed Legislation Review.
- The Infrastructure Bill.
- Waikato-Tainui Raupatu Claims (Waikato River) Settlement Bill.
- The company also participated in and responded to requests on the Auckland Governance legislation:

  1. Local Government (Tamaki Makaurau Reorganisation) Act 2009
  2. Local Government (Auckland Council) Act 2009
  3. Local Government (Auckland Council) Amendment Act 2010
  4. Local Government (Auckland Transitional Provisions) Act 2010

In addition, Watercare made submissions to a number of district and regional plan reviews, and designations.The company also convened a Policy Integration Group to look at how best to provide for Watercare's interests in the new regional planning documents. The group is looking at how the company's engineering and asset needs can be accommodated most effectively within a complex regulatory framework. The group has worked to provide input to the regional planning process being developed for the new Auckland Council. This includes the development of the Spatial Plan, Infrastructure Plan and the supporting regional framework.

External Consultation

As a result of preparation for integration, Watercare has had a much closer relationship with the LNO staff over the past year with some staff participating in Project One to plan for and deliver integration. The organisations worked together in response to the dry-weather conditions that prevailed in early 2010. In addition, the Auckland Water Group continued to meet on a monthly basis to work on issues of mutual interest and to share information.

Environmental Planning Manager Garry Maskill reviews documents regarding the proposal to rehabilitate Puketutu Island with treated biosolids.

Work with the industrial trade waste customers continued through regular visits and through the forum of the Employers and Manufacturers Association. This year the level of consultation increased as Watercare worked to prepare an amendment to the Trade Wastes Bylaw required as a result of integration.

Consultation resumed in preparation for obtaining resource consents for the Hunua No. 4 Trunk Watermain Project; a critical infrastructure project to improve the security of the water supply and to meet future demand requirements. Similarly, consultation has also been held regarding other major Watercare projects. Communication with parties who are interested in Watercare's proposal to rehabilitate a former quarry on Puketutu Island with biosolids was maintained in order to settle outstanding matters of concern.

Community liaison group meetings continued with neighbours of the Mangere Wastewater Treatment Plant and Huia Water Treatment Plant.

Weblinks

Stories:

Digging into the past

Watercare to help people in difficulty paying their water bill

Figure:

Public policy participation Fig. 50

Objective 11 Participate in Relevant Public Policy Initiatives and Consultation with the Community and Stakeholders

A. Participate in policy initiatives and statutory submissions (bevans@water.co.nz)

✔ Identification of relevant issues	✔ Assess implications for Watercare/water industry	✔ Commitment to addressing issues	✔ Analysis and review of options	✔ Consultation	✔ Formulate policies or positions	✔ Lodge submissions	✔ Representations to decision-makers	0.5 Review key outcomes	0.5 Incorporate outcomes into policies and procedures	TARGET

G3 S05

2010	2006	2007	2008	2009
9/10	9	9	9	9

B. External consultation (bevans@water.co.nz)

✔ Project-specific: Environmental groups	✔ Project-specific: Tangata whenua	✔ Project-specific: Shareholders	✔ Project-specific: Customers	✔ General: Affected parties	✔ General: Shareholders	✔ General: Customers	0.5 General: Environmental groups	0.5 General: Tangata whenua	0.5 General: Public	TARGET

2010	2006	2007	2008	2009
8.5/10	8.5	8.5	8.5	8.5

Impact on key areas:
- Social
- Economic
- Environmental

Participate in relevant public policy initiatives and consultation with the community and stakeholders
Overall performance scores out of 10

2010	2006	2007	2008	2009
9	9	9	9	9

ONLINE USE: Click the 'previous page' (left arrow) button in the Adobe Reader window to return to the last page viewed.

Legal Compliance

Watercare is committed to being a good corporate citizen, providing cost-effective services that balance the social, cultural, economic and environmental impacts of the company's decisions. Reliance on Watercare to ensure the best long-term management of water and wastewater services requires legal compliance transparent reporting.

The company has many statutory obligations under a number of Acts and invests a considerable amount of resource in complying with and monitoring statutory requirements. One of the most significant areas is management of natural resources. The environmental planning team is responsible for developing policies and procedures necessary to achieve compliance with the Resource Management Act and resource consents. The team uses innovative systems to manage compliance with almost 2,500 consent conditions.

Each month, Resource Management Act compliance is reported to the Board and each quarter the Chief Executive reports on compliance with statutory obligations.

During the past year, the company achieved compliance with statutory obligations specified in all relevant Acts. However, Watercare has continued to work with the Auckland Regional Council to resolve technical non-compliance with the Resource Management Act in regard to a small number of consents.

The company is subject to the Local Government Official Information and Meetings-Act 1987. Watercare responded to all requests for information under the terms of this Act.

Watercare's laboratory staff take part in the Round the Bays annual fun run. The company supports the event by providing water at points along the 8.4-kilometre-long course.

Weblinks

Figure:
Resource consent compliance Fig. 51

Objective 12 Comply with Statutory Requirements

A. Legal compliance (bevans@water.co.nz)

Compliance risk assessment	Compliance monitoring	Compliance comparative performance	Compliance management plan	Compliance assurance	No successful prosecutions against Watercare	All potential legal issues identified	All legal issues effectively managed	All legal issues managed and resolved	No known pending legal issues	TARGET
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	

G3 S07, 08, PR4, 7 EN28

2006	2007	2008	2009	2010
10	10	10	10	10/10

Impact on key areas:
- Social
- Economic
- Environmental

Comply with statutory requirements
Overall performance scores out of 10

2006	2007	2008	2009	2010
10	10	10	10	10

▲ CLICK FOR MAIN CONTENTS PAGE

Policy 4 | Customer Service

To Provide High-Quality Products and Meet Customer Service Level Requirements

◄ Trade Waste Technical Specialist Richard Rollins delivers samples to Receptionist Nina Gasson. Watercare's laboratory carries out water, wastewater, environmental solids and air quality analyses for the company as well as four local authorities and private industry.

Policy 4 | Customer Service

Watercare supplies A-grade water to its primary customers – six LNOs – who onsell it to more than 1.2 million consumers. Watercare's Laboratory Services business unit processes more than 13,000 samples per month for a wide range of clients and continues to introduce initiatives to improve turnaround times. Additionally, the company fulfils a regulatory role in administering the Trade Waste Bylaw that maintains the integrity of the wastewater collection system and treatment process.

Policy 4 | Overall performance out of 10

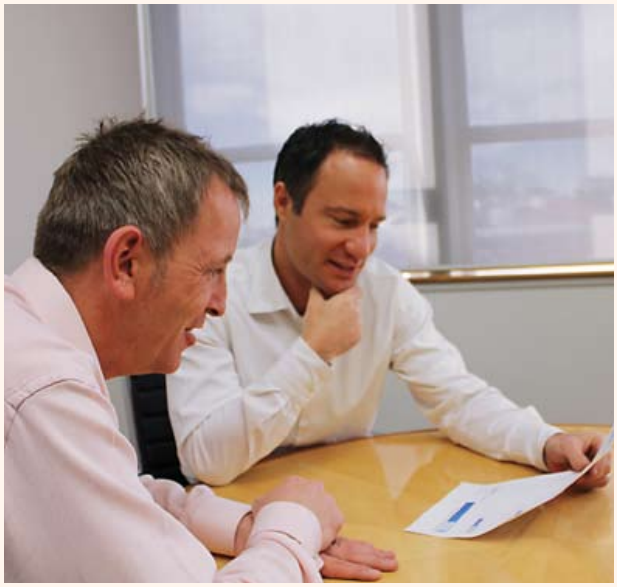
OBJECTIVE **13**

Continually improve service delivery to customers

Case Study

WATERCARE AT WORK:

Watercare prepares billing system to serve over 430,000 customers



Chief Customer Officer Mark Lawrence (left) and Jake Balle discuss the new Watercare bill design.

Watercare's aim for integration is for its customers to notice as little change as possible. However, this is easier said than done as there are different service structures in place across the region. The residential billing system alone involves different meter reading intervals, tariffs, incentives or penalties, and distribution methods.

The challenge of building a billing system and of designing a bill template that can accommodate these differences is being tackled by software and integration project teams.

Suzanne Burrell, who is overseeing this piece of work, says the software team is working very hard to make sure the migration of customer information from the LNOs to Watercare is correct. It will make sure the information from the LNOs is captured in the same way to enable consistent reporting.

Watercare recognises that the customer information needs to be 100 per cent accurate from the outset, especially given the billing system will generate several thousand bills per day.

Jake Balle, who is designing the bill, says that as with the billing system, the bill has to cater for the different billing nuances of each LNO.

"Some will have a wastewater component, others will not" explains Jake. "The template must accommodate a number of permutations and be able to display the information in a sensible way."

The key to effective bill design is the quality of the information presented, not the quantity. "We are aiming to make good use of the space on the bill," says Jake. "As a monopoly provider, we will have an obligation as water stewards to try and influence customer behaviour for the better on a conservation front. Therefore, the bill is likely to include a graphic that compares a household's water consumption to other households of a similar size."

Conveying relevant information in a clear and logical manner is very important as research indicates that around 75 per cent of our customers will have contact with us only via the bill.

Customer Satisfaction

This year, in light of government decisions on Auckland governance including the integration of the Auckland water and wastewater industry, and the move to retail distribution, the company liaised with its shareholders and made a decision to cancel the customer satisfaction survey for 2010. New customer satisfaction surveys will be developed in due course to meet the needs of the retail organisation.

Public Health Grading – Treatment and Distribution

Watercare continues to meet the requirements of the Drinking Water Standards for New Zealand and remains committed to working with its customers and the Ministry of Health on the development of the revised standards. The company also maintains its 'A' grade rating for treatment plants and 'a'-grade rating for the water-supply network as agreed with its customers.

Caretaker Dave Hodgson checks Lower Huia Dam's water level using a piezometer.

Weblinks

Figures:

Drinking water standards compliance Fig. 52
Typical analysis of Auckland's drinking water Fig. 53
Customer satisfaction feedback Fig. 54
Product life cycle health and safety impact assessment Fig. 55
Product information disclosure Fig. 56
Ethics and business integrity Fig. 57

Objective 13 Continually Improve Service Delivery to Customers

A. Customer satisfaction feedback* (bevans@water.co.nz)

% LNO customers that rate Watercare as 'very good' or 'excellent'

✔	✔	✔	✔	✔	✔	✔	✔	0.5	✕	TARGET
10	20	30	40	50	60	70	80	90	100	G3 PR1.5

*No customer satisfaction survey was conducted in 2010 as a result of the impending integration of the Auckland water services industry

2006	2007	2008
5.5	8.5	8.5

B. Public health grading – treatment (cwatson@water.co.nz)

✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	TARGET
Treatment plant 'D' grade			Treatment plant 'C' grade			Treatment plant 'B' grade			Treatment plant 'A' grade	

2010
10/10

2006	2007	2008	2009
10	10	10	10

C. Public health grading – distribution (cwatson@water.co.nz)

✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	TARGET
Water distribution network 'd' grade			Water distribution network 'c' grade			Water distribution network 'b' grade			Water distribution network 'a' grade	

2010
10/10

2006	2007	2008	2009
10	10	10	10

Impact on key areas:
- Social
- Economic
- Environmental

Continually improve service delivery to customers
Overall performance scores out of 10

2006	2007	2008	2009
8.5	9.5	9.5	9.5

2010
9.5

▲ CLICK FOR MAIN CONTENTS PAGE

Policy 5 | Asset Management

To Manage and Maintain the Long-Term Integrity of Assets

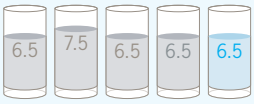
◄ Each year, one of the digesting tanks at the Mangere Wastewater Treatment Plant is taken out of service for three months while the condition of the roof and wall joints is assessed and the pumps and valves are overhauled. Here Wayne Poemare of Hydra-Care NZ Ltd is working to empty a tank before its inspection.

Policy 5 | Asset Management

Watercare remains committed to supplying water and wastewater services that meet the needs of its customers while ensuring that these services are economically viable, environmentally sound and socially responsible. The company's asset management programme and the capital expenditure that drives it are motivated by three factors: growth, asset renewal and service level improvement. Project Hobson, the replacement of an ageing and unsightly sewer bisecting Hobson Bay with a three-kilometre-long tunnel, is a high-profile example of that process. The increased capacity of the replacement asset caters for Auckland's continued population growth as well as achieving improved environmental standards by significantly reducing overflows.

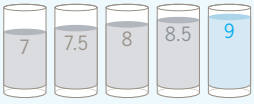
Policy 5 | Overall performance out of 10

OBJECTIVE **14**



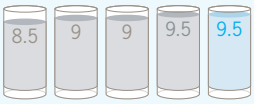
Ensure that capital projects have robust business cases and are delivered to plan

OBJECTIVE **15**



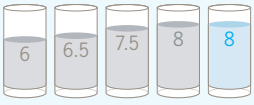
Lead the development of an integrated solution for the management of water, wastewater and stormwater service demand

OBJECTIVE **16**



Achieve continuous improvement in maintaining assets

OBJECTIVE **17**



Achieve continuous improvement in sustainable business performance

Case Study

WATERCARE AT WORK:

Construction under way on Hunua No. 4

A section of the Hunua No. 4 Watermain is lifted into position under the Manukau Harbour Bridge.

Watercare's approach to the Hunua No. 4 Trunk Watermain Project demonstrates its commitment to the people of Auckland.

The $250 million project involves laying a 28-kilometre-long watermain from Manukau to Epsom via Mangere and Onehunga. Principal Engineer Andy Spittal says that while work on most of the route is not scheduled to begin until 2012, work on the section that crosses the harbour was carried out in 2009/10 as part of the New Zealand Transport Agency's (NZTA) Manukau Harbour Crossing Project.

"This is a good example of Watercare working with other authorities to benefit the people of Auckland," explains Andy. "It minimises the period of disruption caused by construction and is good for our bottom line – helping us to maintain our position as a least-cost provider of water and wastewater services."

Andy says the watermain – which will carry 3,000 litres of water a second – will not only cater for population growth but also increase the security of the water supply.

"There are water supply risks that exist because of the degree of reliance on existing reticulation infrastructure," he says. "At the moment, it's impossible to shut the older lines down for more than a few hours.

"By duplicating sections of the existing Hunua 1, 2 and 3 watermains, the Hunua 4 will enable those mains to be taken out of service to carry out essential maintenance."

The company has applied for regulatory approvals and entered the detailed design phase for the rest of the watermain.

Capital Expenditure Variance with Asset Management Plan

The Asset Management Plan (AMP) represents indicative expenditure over a 20-year horizon. The plan is published annually and is available at www.watercare.co.nz. The capital expenditure budget for the 2009/10 year was set at 69 per cent of the AMP: $138.4 million. The actual expenditure of $120.1 million was 60 per cent of the AMP and 87 per cent of the budget. The year's variance was due to the reprioritisation of expenditure in a number of areas as detailed below:

- Deferment of the company's information system upgrade pending the outcome of the discussions as part of the integration of the water and wastewater services industry under Watercare: $8.6 million.
- Deferment of odour buffer and water reservoir land purchases due to changing market conditions and project reprioritisation: $8.3 million.
- Indefinite deferment of the Papakura Water Treatment Plant upgrade because it is more effective over the long term to upgrade the Waikato Water Treatment Plant: $12.2 million.
- Revised delivery Programme for the Northern Waitakere Wastewater Servicing project to ensure capital is used efficiently to meet development needs as they occur: $8.9 million.
- Revised delivery programme for the Titirangi Reservoir expansion: $6.8 million.
- Revised delivery programme for the South Western Interceptor extension: $6.6 million.
- Delays to the Mt Wellington Water Supply Project until the developer has obtained consent: $6.4 million.
- Extended tender selection process for the wastewater treatment plant centrifuge and alkaline stabilisation project, delaying expenditure: $3.3 million.

Major initiatives in 2009/10 were:

- Completion of construction work on Project Hobson – a project to replace the ageing sewer that bisects Hobson Bay with a three-kilometre-long tunnel. Project value: $118 million.
- Continued consultation on the proposal to rehabilitate a former quarry on Puketutu Island with treated biosolids. Project value: $32 million.
- Rehabilitation of a number of sewers by relining. Project value: $2.6 million.
- Continued construction of upgrades to the Mt Wellington water supply network. Project value: $16 million.
- Modelling and route selection for the Hunua No. 4 Trunk Watermain, together with the construction of the section under the new Manukau Harbour Bridge. Project value: $250 million.
- Continued construction of the New Lynn Sewer Overflow Mitigation Project. Project value: $8.8 million.
- Completed construction on the extension of the Mangere South Branch Sewer diversion resulting in increased capacity. Project value: $7.1 million.
- Rehabilitation works to the Hunua No. 1 Watermain. Project value: $5.1 million.
- Construction of the Ardmore Alum and Polymer Upgrade Project to enhance the security of the Ardmore Water Treatment Plant. Project value: $3.5 million.
- Commencement of the construction of Huia Water Treatment Plant disinfection system upgrade. Project value: $2.8 million.
- Pipe relocation works to Auckland Harbour Bridge and Victoria Park. Project value: $8.4 million.
- Commencement of the construction of the Waitakere No. 2 replacement watermain. Project value: $5.8 million.
- Commenced construction of the NorSGA wastewater system. Project value: $29.7 million.
- Project One to integrate regional water and wastewater services was included in this years' AMP.

Overall Performance in WSAA Asset Management Benchmarking

Watercare benchmarks its asset management processes against a framework developed by the Water Services Association of Australia (WSAA). WSAA-accredited auditors conduct a formal audit process every five years. During intervening years, Watercare undertakes a self-assessment using the same framework. In 2010, Watercare chose not to carry out a self-assessment, given staff demands for the impending integration of Auckland's water industry. In preparation for integration, Watercare is currently working with the LNOs on the development of a regional asset management plan that will help prioritise and manage regional infrastructure investment over the next 20 years.

Western Superintendent Priyan Perera discusses progress on the chlorine disinfection upgrade at the Huia Water Treatment Plant with Senior Engineer Matthew Tolcher.

Weblinks

Stories:
Hydraulic jaws take first bite out of ageing sewer
Staff in awe of the scale of Hobson
Hobson's Heroes
Construction underway on Hunua 4
Ageing tunnel undergoes repair work
Ardmore upgrade complete
Keeping the eastern suburbs flowing
Watermain eases past the finish line
Model balancing act
Figures:
Capital expenditure programmes Fig. 58
Infrastructure investments provided for public benefit Fig. 59

Objective 14 Ensure that Capital Projects have Robust Business Cases and are Delivered to Plan

A. Capital expenditure variance with Asset Management Plan (tmunrow@water.co.nz)

% variance

✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	TARGET
45%	40%	35%	30%	25%	20%	15%	10%	5%	0%	

2010
4/10

2006	2007	2008	2009
6.5	8	6.5	4

B. Overall performance in WSAA asset management benchmarking* (jlayyee@water.co.nz)

% achievement on WSAA evaluation

✓	✓	✓	✓	✓	✓	✓	✓	0.5	✗	TARGET
60%	63%	66%	69%	72%	75%	78%	81%	84%	87%	
WSAA BENCHMARK MEDIAN									WSAA BENCHMARK MAXIMUM	

2006	2007	2008	2009
8	8.5	8.5	8.5

* No WSAA benchmarking was undertaken in 2010 as a result of the impending integration of the Auckland water services industry.

Impact on key areas:
- Social
- Economic
- Environmental

Ensure that capital projects have robust business cases and are delivered to plan
Overall performance scores out of 10

2006	2007	2008	2009	2010
6.5	7.5	6.5	6.5	6.5

Regional Planning

Watercare's capital planning process is driven by the requirements of its customers and the region. The company follows a rigorous asset management planning process in consultation with the LNOs and incorporates assumptions for population growth, asset life, changing household and industrial demand, the future security of supply, level of service and regulatory compliance. Watercare and the LNOs have shared population forecasts and integrated computer models of the trunk and local water and wastewater pipe systems. As a result, Watercare has developed its preferred long-term master plans to deliver the most cost-effective water supplies and wastewater services for the Auckland region. These plans include water use projections to 2050, yet retain a high level of flexibility, allowing for changes in population and in patterns of consumption and conservation.

This year, the Project Storm 2 model used as the basis of capacity analysis requirements in the asset management plan (AMP) won several industry awards, demonstrating innovation and value in Watercare's asset management function.

Three Waters Planning

The Three Waters Planning Project – which began in 2004 – was a cooperative effort between Watercare and the LNOs of the Auckland region. The project involved comprehensive analyses to identify opportunities to improve the region's efficiency in the planning and delivery of the three core water services, drinking water, wastewater and stormwater, through to 2100 and beyond. A Three Waters Strategic Plan was published in December 2008 and a Draft Three Waters Implementation Plan was prepared in June 2010. The draft requires input from the new Auckland Council before it can be finalised. Three important strategic outcomes of the process to date are the setting of a target to reduce the 2004 per capita water demand by 15 per cent by 2025, the identification of the Waikato River as the main source of water to provide for future regional growth and the identification of the Mangere and Rosedale wastewater treatment plants as the main facilities to meet regional needs through to 2100. The next steps in three waters planning include further development of a water demand management plan and preparation of long-term infrastructure development plans for delivering water supply and wastewater services through to 2062. In the meantime, investigations and planning for the new Central Interceptor are progressing.

Hunua No. 4 Watermain Project Manager Andy Spittal and Project Engineer Sharon Danks discuss progress on the installation of pipe under the Manukau Harbour Bridge.

Objective 15

Lead the Development of an Integrated Solution for the Management of Water, Wastewater and Stormwater Service Demand

A. Regional planning (pjaggard@water.co.nz)

✔	✔	✔	✔	✔	✔	✔	✔	✔	0.5	TARGET
Involve LNOs in asset management planning	Address all issues raised by LNOs	Agree water demand savings targets	Agree demand savings initiatives	Progress wastewater network consents in an integrated manner	Develop joint water models	Progress joint water source options review	Agree on a regional vision for water, wastewater and stormwater	Develop joint wastewater models	Develop regionally coordinated implementation plans	

2006	2007	2008	2009	2010
8	8.5	9	9	9.5/10

B. Three Waters development (jhodges@water.co.nz)

✔	✔	✔	✔	✔	✔	0.5	0.5	0.5	0.5	TARGET
Recognise need for integrated, sustainable water services	Facilitate Three Waters vision	Consultation and enhancement of Three Waters vision	Leading development of Three Waters Strategic Plan	Support development of regional water, wastewater and stormwater master plans	Promote development and implementation of regional land use policies	Watercare trunk master plans (water and wastewater)	Pilot integrated regional planning and investment programme	Complete integrated water, wastewater and stormwater master plans	Implementation of Watercare trunk master plans	

2006	2007	2008	2009	2010
5.5	6	7	8	8/10

Impact on key areas:
- Social
- Economic
- Environmental

Lead the development of an integrated solution for the management of water, wastewater and stormwater service demand
Overall performance scores out of 10

2006	2007	2008	2009	2010
7	7.5	8	8.5	9

Maintenance Management Systems

Watercare's maintenance team continued to deliver consistent maintenance practices to improve plant performance, extend the life of assets and minimise operating costs. A key component of the project has been the implementation of reliability centred maintenance (RCM). RCM is a framework that identifies the optimum time to maintain or replace assets based on operational performance, cost, health and safety, and the environment. The roll-out of RCM across the organisation has been completed and the focus is now on progressing the optimisation of risk-based maintenance programmes, which aims to optimise the RCM models to determine the most efficient and cost effective maintenance programme. The RCM programme is used to assist with budgeting and support of the development of the AMP.

Maintenance Optimisation and Development

Watercare's maintenance management strategy was consistently applied throughout the company. Optimisation of the RCM programme is progressing to deliver the most efficient and cost-effective maintenance programme. Work started on the replacement of the existing computerised maintenance management system (CMMS). The new system will allow the RCM maintenance plans to link directly to maintainable assets within the CMMS. This will provide greater functionality resulting in improved maintenance activities.

Each year, one of the digesting tanks at the Mangere Wastewater Treatment Plant is taken out of service for three months while the condition of the roof and wall joints is assessed and the pumps and valves are overhauled. Here Process Controller Jonathan Piggot monitors the clean-out of a tank before its inspection.

Objective 16 Achieve Continuous Improvement in Maintaining Assets

A. Maintenance management systems (psoakell@water.co.nz)

✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
All assets recorded in asset register	Assets register computerised and available to staff	Asset financial information recorded	Key assets have assigned maintenance programmes	Maintenance programmes recorded in asset register	Maintenance programme based on criticality	Maintenance undertaken according to plan	Maintenance history recorded for key assets	Consistent maintenance practices company-wide	Maintenance programme prioritised using RCM	TARGET

2010
10/10

2006	2007	2008	2009
9.5	9.5	9.5	10

B. Maintenance optimisation development (psoakell@water.co.nz)

✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	
Develop maintenance philosophy	Develop action plan	Develop maintenance vision and strategy	Implement maintenance vision and strategy	Establish workflow management	Implement workflow management	Evaluate effectiveness with key performance indicators	50% of RCM strategy implemented	100% of RCM strategy implemented	Computerised maintenance management system	TARGET

2010
9/10

2006	2007	2008	2009
7.5	8	8.5	9

Impact on key areas:
- Social
- Economic
- Environmental

Achieve continuous improvement in maintaining assets
Overall performance scores out of 10

2006	2007	2008	2009
8.5	9	9	9.5

2010
9.5

Management Systems

Watercare's management systems were independently audited by Telarc SAI in the last 12 months against the appropriate standards: Environmental Management System (ISO 14001); Quality Management System (ISO 9001); and for the Health and Safety Management System (AS/NZS 4801).

Sustainable Management of External Suppliers

Watercare applies sustainable practices to the way in which it procures products and services, consistent with the Auditor-General's guidelines on procurement.

The company continued to be an active member of the New Zealand Business Council for-Sustainable Development.

Watercare's supplier selection and evaluation process has had the evaluation weighting for sustainability adjusted to both highlight and increase the focus on sustainability.

The company maintains its focus on the use of sustainable resources but also supports the use of contractors who have demonstrated sustainability policies and practices, including the management of waste streams. The code of conduct for suppliers helps to stress the importance of Watercare's sustainability guidelines for all of the company's suppliers.

The development and implementation of a code of ethics was postponed this year due to procurement resource limitations and work demands associated with the preparation for integration of the Auckland water and wastewater industry.

Continual Business Improvement

The Project Improve programme continued to deliver benefits. Launched in 2002, the programme was developed as a framework for the identification, capture and sharing of improvement ideas. The concept of a structured programme has helped to foster innovation and the development of an improvement culture within the company. Initiatives such as RCM, maintenance mobility via the use of information technology, research programmes, and business intelligence reporting are just some examples of initiatives that have been developed through the programme.

A Continuous Improvement feedback system is used to recognise and celebrate improvement ideas by Watercare staff. Among the ideas that received recognition and cash rewards were a contractor tracking system (refer page 34), a trolley for sewer maintenance work and a value-excercising ratchet.

Tikanga Maori

Quarterly meetings are held with the Maori Advisory Group to advise Watercare management on Tikanga Maori and other significant Maori issues that have the potential to impact on the company's projects and operations. Watercare also continues to maintain relationships with local Maori in the region. The company is currently consulting with local Maori concerning the proposed Hunua No. 4 Trunk Watermain, various works relating to the volcanic cones, the Pakuranga Wastewater Rising Main and activities associated with the Mangere Wastewater Treatment Plant and Puketutu Island.

Weblinks

Stories:
Digging into the past
Figures:
Major suppliers and contractors Fig. 60
Suppliers' spend by industry and sector Fig. 61

Objective 17 Achieve Continuous Improvement in Sustainable Business Performance

A. Management systems (vnaidoo@water.co.nz)

ISO 9001 and 14001: Trade waste	ISO 17025: Laboratory services	ISO 9001 and 14001: Water headworks, treatment plants and reticulation	ISO 9001 and 14001: Wastewater reticulation	ISO 9001 and 14001: Wastewater treatment plant	ISO 9001 and 14001: Project Delivery Manual	ACC tertiary level for workplace safety management	AS/NZS 4801: 2001 Health and Safety Management System	Company-wide ISO 14001 certification	Company-wide ISO 9001 certification	TARGET
✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	

2006	2007	2008	2009	2010
8	8	8	8	8/10

B. Sustainable management of external suppliers (mwray@water.co.nz)

Develop a code of conduct for suppliers	Integrate code of conduct into supplier selection process	Trial assessment criteria with selected existing suppliers	Adoption of sustainable procurement policy	Staff awareness training programme	Assess all existing top and preferred suppliers	Code adopted by top and preferred suppliers	Review supplier conformance to the code	Implement initiatives to improve conformance	Procurement policy recognised as industry best	TARGET
✓	✓	✓	✓	✓	0.5	0.5	0.5	0.5	0.5	

2006	2007	2008	2009	2010
0.5	2	5.5	7	7.5/10

C. Continual business improvement (bevans@water.co.nz)

First-generation projects identified by staff	Formal project governance in place	Staff continuous improvement feedback procedures in place	Business improvement programme in operation	Staff reward initiatives in place	Future-generation projects identified	First-generation projects implemented	Completed project outcomes show demonstrable changes in staff behaviour	Research, development and innovation programme initiated	Future-generation projects initiated	TARGET
✓	✓	✓	✓	✓	✓	0.5	0.5	0.5	0.5	

2006	2007	2008	2009	2010
6	6.5	8	8	8/10

D. Tikanga Maori (Maori Advisory Group assessment) (ashanks@water.co.nz)

Watercare has sought Maori opinion on potential impacts of operations	Watercare aims to avoid/ minimise adverse impacts on Maori values	Watercare's decision-making reflects consideration of Maori values	Watercare's adoption of cultural protocols for relevant projects	Watercare demonstrates a proactive approach to Maori issues	Watercare recognises the traditional concept of kaitiakitanga	Watercare seeks tangata whenua guidance in activities	Watercare seeks feedback from Maori on its consultative process	Key staff trained/ exposed to Maori values	Maori cultural initiatives actioned/ incorporated	TARGET
✓	✓	✓	✓	✓	✓	✓	✓	0.5	0.5	

2006	2007	2008	2009	2010
8.5	8.5	8.5	8.5	9/10

Impact on key areas:
- Social
- Economic
- Environmental

Achieve continuous improvement in sustainable business performance
Overall performance scores out of 10

2006	2007	2008	2009	2010
6	6.5	7.5	8	8

ONLINE USE: Click the 'previous page' (left arrow) button in the Adobe Reader window to return to the last page viewed.

Project Manager Mike Sheffield overlooks the dry well in the high-capacity pump station that was constructed in Orakei as part of Project Hobson.

▲ CLICK FOR MAIN CONTENTS PAGE

Policy 6 | Economic Performance

To Manage the Business Efficiently at Minimum Prices

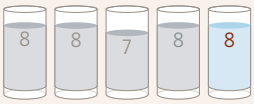
◄ Management Accountant Avinesh Lata, Financial Controller Richard O'Connor, Chief Financial Officer Gary Swift and Treasury Manager Jason Isherwood discuss the funding plan.

Policy 6 | Economic Performance

Watercare is driven to manage its business efficiently and to deliver value-for-money water and wastewater services to its customers. The company is required to operate, maintain, replace and develop assets over the long term to meet required delivery standards and foreseeable future needs at minimum cost. Savings continue to be made through strategic procurement practices and by actively pursuing cost-reduction opportunities across the company, such as energy-saving initiatives actively promoted by Watercare staff.

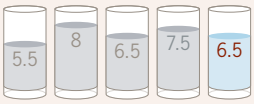
Policy 6 | Overall performance out of 10

OBJECTIVE **18**



Ensure that financial strategies are consistent with achieving economic efficiency, inter-generational equity and optimal cost of capital

OBJECTIVE **19**



Ensure that the costs of providing services are consistent with leading practice

Case Study

WATERCARE AT WORK:

Spring-clean for service reservoirs

Kirk Hannaford from DiveCo discusses the equipment used to clean out the Birkenhead Reservoir with Water Quality and Contracts Controller Chris Watson and Network Engineer Ian Winson.

Commercial divers gave the reservoirs that supply drinking water to Birkenhead and its surrounding suburbs a thorough spring-clean in September 2009.

Wearing weighted boots that enabled them to walk on the bottom of the reservoir, they used a vacuum hose to suck up sediment. This was only the third time Watercare had used the divers to clean company reservoirs. Since then, a further two have been cleaned using this method.

Water Quality and Contracts Controller Chris Watson, who developed the new method with the Operations team, says it is more resource efficient than traditional methods and enables all reservoirs to be cleaned regularly.

"In the past we were not able to clean some reservoirs because traditional cleaning methods took too long," says Chris. "We had to drain the water, hose, disinfect, refill and test the reservoirs: a process that took around two months."

The new method cuts down the cleaning time to around one week and results in significantly less water loss. Chris says the divers wear dry-suits and helmets that allow them to work in full reservoirs without compromising water quality.

"All of their gear is reserved for this purpose and is meticulously disinfected before use," he explains. "The reservoir is isolated while the divers carry out the cleaning. The water is then tested prior to it being returned to service."

The method was first trialled on the Redoubt Road North Reservoir in February 2009. Chris says they tested various suction heads and suction speeds to determine the most effective equipment. "The vacuum system selected minimises the amount of water sucked up with the sediment," he says.

The extracted water and sediment is treated on site using a mobile membrane plant. It separates out the sediment and treats the water to an acceptable standard for discharge to the stormwater system.

Chris says that the new method reduces the time and number of people required to clean each reservoir and significantly lowers the risk of a water quality incident as all of the reservoirs can now be cleaned on a regular basis.

Contracts with Customers

Current contracts for the supply of bulk water and the collection, treatment and disposal of wastewater have been in place since 1 July 2008.

The bulk wastewater contracts have been extended until 31 October 2010 when integration will occur and the LNOs will no longer exist. At that time, Watercare will begin a new relationship with over 430,000 new customers across the Auckland region. The exception will be United Water which will continue to provide retail water and wastewater services to the Papakura area under an existing franchise agreement. Watercare will negotiate a new wastewater contract with United Water and, when the water contract expires, a new water contract too. A contract will also be negotiated with the Waikato District Council, effective from 1 November 2010, for the provision of wastewater services to the township of Tuakau. Wastewater from Tuakau will be treated at Pukekohe.

Funds from Operations to Interest Ratio

The funds from operations (FFO) to interest cover was 2.93 times for the year ending 30 June 2010, higher than the required target of 2.50 times. The higher-than-targeted FFO reflects the lower interest costs than budget due to lower debt. This situation is the result of lower capital expenditure than budgeted and the savings achieved in operating costs as well as lower average interest rates than budgeted. The higher achievement will be taken into account when setting prices in subsequent years.

Savings Through Efficient Procurement

Watercare's improvement in strategic procurement continued, ensuring efficiency and savings are maximised through the use of standardised equipment, by reducing supply risks and conducting regular reviews. Good progress was made over the past year with the following reviews completed: midge control, cogenerator maintenance, electrical consumables, centrifuge maintenance, A4 paper, fire protection systems, treatment chemicals, smart purchasing, compressor maintenance, primary sedimentation tank maintenance and steel pipe supply. The reviews resulted in savings for the year of over $2.2 million, greater than the two per cent target. The strategic focus for the coming year will be on developing synergies following the integration of retail water and wastewater services.

Objective 18

Ensure that Financial Strategies are Consistent with Achieving Economic Efficiency, Inter-Generational Equity and Optimal Cost of Capital

A. Contracts with customers (bevans@water.co.nz)

✓	✓	✓	✓	✓	0.5	✗	✗	✗	✗	
No contracts in place or being negotiated	Contracts expire within 12 months and no plans to re-establish	Contracts expire within 12 months and being renegotiated	One-year contracts negotiated	Three-year contracts negotiated	Five-year contracts negotiated	10-year contracts negotiated	Contracts have pricing established on a rolling three-year basis	Contracts have pricing established on a rolling five-year basis	Contracts have pricing established on a rolling 10-year basis	TARGET

2010
5.5/10

2006	2007	2008	2009
5	5	5	5.5

B. Funds from operations to interest ratio (jisherwood@water.co.nz)

Ratio

✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2.05	2.10	2.15	2.20	2.25	2.30	2.35	2.40	2.45	2.50	TARGET

2010
10/10

2006	2007	2008	2009
10	10	4	10

C. Savings through efficient procurement* (mwray@water.co.nz)

✓	✓	✓	✓	✓	✓	✓	✓	✓	0.5	
Establish spend categories for benchmarking and reporting	Develop and implement a category review plan	Develop procurement systems for market review	Implement process for reviewing and monitoring preferred suppliers	Achieve savings of 0.5% of operating expenditure	Adopt a procurement policy for use of preferred suppliers	Achieve savings of 1% of operating expenditure	Achieve savings of 1.5% of operating expenditure	Achieve savings of 2% of operating expenditure	Recognise top-performing suppliers	TARGET

2010
9.5/10

2006	2007	2008	2009
4.5	5.5	6.5	9

*Against budget

Impact on key areas:
- Social
- Economic
- Environmental

Ensure that financial strategies are consistent with achieving economic efficiency, inter-generational equity and optimal cost of capital

Overall performance scores out of 10

2010
8

2006	2007	2008	2009
8	8	7	8

Interest Cost

The company underperformed relative to its interest cost benchmark. The actual weighted average interest rate for the year excluding credit margins and fees was 6.06 per cent, versus the benchmark rate of 5.04 per cent. The lower benchmark reflects the impact of lower 90-day bank bill rates, which comprise 35 per cent of the benchmark. Watercare's exposure to lower floating rates has reduced due to higher levels of fixed rate cover. Despite this, interest costs were lower than budgeted due to lower debt levels; the result of lower than budgeted capital expenditure as well as lower interest rates than budgeted.

Performance of Actual Operating Expenditure against Budget Targets

Operating costs, excluding interest and depreciation, were $4.07 million (4.4 per cent) lower than budget. Savings were largely achieved in asset operations, particularly in lower than projected chemical use, and also in professional services due to the business' focus on integration.

Plant Operator Nigel Prentice opens an isolation valve at the Mangere Wastewater Treatment Plant using a valve-exercising ratchet designed by him and Shift Engineers John Sutherland and Allan Julian. Their tool makes the opening and closing of these valves easy, whereas it used to take time and muscle power. The innovation was recognised with a Continuous Improvement Award.

Weblinks

Figures:

Revenue by customer Fig. 62
Watercare wholesale price and water retailers' average domestic price Fig. 63
Financial implications of climate change Fig. 64
Interest rate performance Fig. 65
Capital expenditure projections vs actual 2008/09 Fig. 66
Capital expenditure projections vs actual 2007/08 Fig. 67

Objective 19 Ensure that the Costs of Providing Services are Consistent with Leading Practice

A. Interest cost (jisherwood@water.co.nz)

%

✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	
6.7%	6.5%	6.3%	6.1%	5.9%	5.7%	5.5%	5.3%	5.1%	4.9%	TARGET

TREASURY BENCHMARK

2010
4/10

2006	2007	2008	2009
8	7.5	5.5	7.5

B. Performance of actual operating expenditure against budget targets (ro'connor@water.co.nz)

% movement against budget

✓	✓	✓	✓	✓	✓	✓	✓	✓	0.5	
4%	3%	2%	1%	0%	-1%	-2%	-3%	-4%	-5%	TARGET

2010
9.5/10

2006	2007	2008	2009
2.5	8.5	7.5	7.5

Impact on key areas:
- Social
- Economic
- Environmental

Ensure that the costs of providing services are consistent with leading practice
Overall performance scores out of 10

2006	2007	2008	2009	2010
5.5	8	6.5	7.5	6.5

FINANCIAL REPORT

FOR THE YEAR ENDED 30 JUNE 2010

Aerial view of the Mangere Wastewater Treatment Plant.

Contents

Historical Financial Summary and Key Statistics

AS AT 30 JUNE 2010

	2001	2002	2003	2004	2005*	2006	2007	2008	2009	2010
	$000	$000	$000	$000	$000	$000	$000	$000	$000	**$000**
FINANCIAL PERFORMANCE										
Operating revenue	156,978	160,397	163,627	165,240	166,628	167,899	168,983	167,345	184,629	**198,116**
Price adjustment	-	-	-	(15,711)	(10,000)	-	-	-	-	**-**
Operating expenses	95,120	109,197	137,628	133,470	137,713	144,070	159,196	165,763	170,427	**189,002**
Operating surplus/(deficit) before:	61,858	51,200	25,999	16,059	18,915	23,829	9,787	1,582	14,202	**9,114**
Gain/(Loss) on disposal and provision for redundant property, plant and equipment and other restructuring costs	(11,792)	-	(3,287)	(3,102)	(3,254)	(1,026)	(7,719)	(4,793)	(11,589)	**(6,140)**
Contributions towards cost of constructing property, plant and equipment						610	3,790	1,428	259	**1,111**
Revaluation of derivative financial instruments	-	-	-	-	(2,673)	2,561	3,021	(3,222)	(16,599)	**(20,483)**
Decommissioning of oxidation ponds	(4,623)	(5,442)	(2,770)	-	-	-	-	-	-	**-**
Operating surplus/(deficit) before tax	45,443	45,758	19,942	12,957	12,988	25,974	8,879	(5,005)	(13,727)	**(16,398)**
Current tax	3,766	4,814	1,611	2,478	(25)	2,079	(28)	-		
Deferred tax	17,443	14,540	10,516	8,508	4,303	7,909	3,639	(2,208)	(3,363)	**11,311**
Net surplus/(deficit) after tax	24,234	26,404	7,815	1,971	8,710	15,986	5,268	(2,797)	(10,364)	**(27,709)**
FINANCIAL POSITION										
Non-current assets										
Property, plant and equipment	1,266,663	1,338,191	1,569,273	1,571,546	1,585,453	1,959,687	1,977,280	2,025,034	2,357,369	**2,413,113**
Intangibles**						13,539	18,429	18,844	16,375	**14,374**
Investments	13,674	12,574	14,425	15,714	17,456	-	-	-	-	**-**
Other financial assets	-	-	-	-	-	-	-	5,579	12,220	**5,284**
Inventory	1,386	1,877	2,022	1,921	1,821	2,378	2,797	2,640	2,599	**3,237**
Future tax benefit	-	-	-	-	-	-	-	-	-	**-**
	1,281,723	1,352,642	1,585,720	1,589,181	1,604,730	1,975,604	1,998,506	2,052,097	2,388,563	**2,436,008**
Current assets	18,179	15,930	18,823	19,823	18,121	33,535	35,491	19,414	114,101	**34,782**
Total assets	1,299,902	1,368,572	1,604,543	1,609,004	1,622,851	2,009,139	2,033,997	2,071,511	2,502,664	**2,470,790**
Non-current liabilities										
Borrowings	129,000	229,000	229,000	129,000	200,000	200,000	200,000	200,000	350,000	**416,500**
Deferred tax	6,111	20,651	31,167	39,675	256,090	377,656	347,502	342,348	420,666	**402,049**
Financial liabilities	-	-	-	-	-	-	-	4,460	27,725	**40,298**
Payables, provisions and accruals	30,665	21,313	10,864	9,420	972	926	1,194	880	966	**1,053**
	165,776	270,964	271,031	178,095	457,062	578,582	548,696	547,688	799,357	**859,900**
Current liabilities										
Bank overdraft	227	115	-	458	44	148	132	111	-	**446**
Borrowings	187,869	143,894	130,293	241,954	175,713	161,505	174,174	207,349	204,560	**109,225**
Payables, provisions, accruals and financial liabilities	51,772	32,937	29,590	25,835	29,760	23,149	26,179	41,219	47,796	**48,606**
	239,868	176,946	159,883	268,247	205,517	184,802	200,485	248,679	252,356	**158,277**
Total liabilities	405,644	447,910	430,914	446,342	662,579	763,384	749,181	796,367	1,051,713	**1,018,177**
Equity										
Capital	260,693	260,693	260,693	260,693	260,693	260,693	260,693	260,693	260,693	**260,693**
Revaluation reserves	629,608	629,449	863,754	848,488	575,826	843,712	873,086	862,745	1,043,205	**1,071,655**
Retained earnings	3,957	30,520	49,182	53,481	123,753	141,350	151,037	151,706	147,053	**120,265**
Total equity	894,258	920,662	1,173,629	1,162,662	960,272	1,245,755	1,284,816	1,275,144	1,450,951	**1,452,613**
Total funds employed	1,299,902	1,368,572	1,604,543	1,609,004	1,622,851	2,009,139	2,033,997	2,071,511	2,502,664	**2,470,790**
CASH FLOW SUMMARY										
Net cash flows - operations	51,241	65,837	60,131	54,669	65,627	66,777	70,370	59,208	81.297	**87,118**
Net cash flows - investing	(151,810)	(121,750)	(46,349)	(66,854)	(69,972)	(52,673)	(83,023)	(92,362)	(138,387)	**(138,739)**
Net cash flows - financing	100,457	56,025	(13,601)	11,661	4,759	(14,208)	12,669	33,175	57,411	**50,965**
Net change in cash flows	(112)	112	181	(524)	414	(104)	16	21	321	**(656)**
Bank/(overdraft) at start of year	(115)	(227)	(115)	66	(458)	(44)	(148)	(132)	(111)	**210**
Bank/(overdraft) at end of year	(227)	(115)	66	(458)	(44)	(148)	(132)	(111)	210	**(446)**
KEY STATISTICS										
Debt to capitalisation (book value)	25%	28%	23%	23%	27%	22%	23%	24%	28%	**27%**
Debt to capitalisation (historical cost)	53%	55%	53%	53%	48%	47%	48%	50%	58%	**58%**
Funds flow from operations to interest ratio	5.6	4.1	3.9	3.6	3.5	3.7	3.6	2.9	2.9	**2.9**
EBITDA total interest ratio	5.8	4.3	4.0	3.7	3.5	3.7	3.6	2.9	2.9	**2.9**
EBITDA interest expense ratio	15.7	7.9	4.2	3.9	3.8	3.8	3.7	3.4	3.9	**3.5**
Total liabilities to total assets	31%	33%	27%	28%	41%	38%	37%	38%	42%	**41%**
Secured liabilities to total assets	2%	2%	2%	2%	2%	0%	0%	0%	0%	**0%**
Return on average equity	2.7%	2.9%	0.8%	0.2%	0.8%	1.5%	0.4%	(0.2%)	(0.8%)	**(2.0%)**
Economic value added/(deducted) ($000)	(54,342)	(75,395)	(75,237)	(109,876)	(93,980)	(99,499)	(123,577)	(130,737)	(128,769)	**(134,659)**
Capital expenditure ($000)	167,393	118,080	42,810	66,209	70,651	64,489	86,416	120,174	129,860	**123,324**
Number of employees	355	355	352	335	329	343	363	363	381	**387**

*The company adopted NZ IFRS with effect from 1 July 2005 and has restated the comparative information for the year ended 30 June 2005 in accordance with NZ IFRS.
**Intangibles have been disclosed separately from the June 2006 financial year onwards.

Financial Commentary

FOR THE YEAR ENDED 30 JUNE 2010

The financial result for the year was a net deficit after tax of $27.7 million, compared with a budgeted net surplus of $0.17 million (2009 – Net deficit after tax of $10.4 million). The deficit was primarily due to the revaluation of the company's interest rate swap contracts to market value and the change in deferred tax due to the reduction of the tax depreciation rates to zero on buildings with useful lives greater than 50 years.

Key Points

- On 1 November 2010 the company will acquire the water and wastewater businesses conducted by Metrowater Limited, Manukau Water Limited, North Shore City Council, Waitakere City Council, Rodney District Council and Franklin District Council in accordance with the Local Government (Tamaki Makaurau Reorganisation) Act 2009, the Local Government (Auckland Council) Act 2009 and the Local Government (Auckland Law Reform) Act 2010. The company will provide total water and wastewater services to the Auckland region from that date and as a result, the assets, liabilities, revenues and costs of the company will increase significantly.
- The company's Standard & Poor's corporate credit ratings remained unchanged at A– long-term and A–2 short-term. However the company's long-term debt rating was lowered during the year from AA to AA-, a similar reduction to that of Auckland City's due to the upcoming amalgamation of the existing councils in Auckland.
- No price adjustment was paid in the 2010 year (2009 - $nil).
- Under NZ IFRS, the company has chosen to revalue its interest rate and foreign exchange currency hedging contracts to fair value. These resulted in a decrease in current year operating surplus from trading operations by $20.5 million (2009 - decrease in operating surplus from trading operations by $16.6 million).
- Replacement revolving credit and commercial paper standby facilities were established with the BNZ in December 2009. The $25 million revolving credit facility and $150 million commercial paper standby facility are both due to mature in December 2011.
- A $50 million medium-term note issue was completed in December 2009, with ANZ acting as the lead manager. The new medium-term notes were for a term of 5 years, and the proceeds were used to fund capital expenditure.
- Operating costs were 4.4% lower than budget due to savings in asset operating costs and overheads.
- The deferred taxation liability has been adjusted to reflect the budget change reducing the corporate tax rate from 30% to 28% and the reduction of the tax depreciation rates to zero on buildings with useful lives greater than 50 years.
- This financial commentary includes the budget for the 2010 year and notes on significant variances.

Statement of Comprehensive Income

FOR THE YEAR ENDED 30 JUNE 2010

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
Net (deficit)/surplus after tax	**(27,709)**	169	N/A	(10,364)
Other comprehensive income, net of tax	**29,371**	-	100.0%	186,171
Total comprehensive income for the year, net of tax	**1,662**	169	883.4%	175,807

The statement of comprehensive Income also includes other comprehensive income of $29.3 million as a result of the change in deferred tax due to the reduction in the corporate tax rate from 30% to 28%.

Total comprehensive income for the year of $1.67 million after tax, compared with budgeted comprehensive income of $0.17 million after tax, represents a favourable variance of $1.50 million.

Other material variances include the negative revaluation of financial instruments of $20.5 million and depreciation of $0.9 million. The unfavourable variances were partially offset by favourable variances in operating costs of $4.0 million and loss on disposal and restructuring costs associated with the acquisition of the retail water and wastewater businesses in the Auckland region of $5.4 million.

The 2009 comprehensive income included $194.4 million, representing the impact of the triennial revaluation of property, plant and equipment to fair value.

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
REVENUE				
Water	**71,962**	71,767	0.3%	65,335
Wastewater	**106,922**	106,922	-	100,870
Trade waste	**11,763**	11,584	1.5%	11,667
Other	**7,469**	7,111	5.0%	6,757
Operating revenue	**198,116**	197,384	0.4%	184,629

Financial Commentary continued

Water revenue was $71.96 million for the year, 0.3% higher than the budget of $71.77 million due to slightly increased water sales volumes. The increase in water revenue from the prior year by 10.1% was due to the increase in price.

Wastewater revenue was $106.9 million for the year, in line with the budget. The increase over 2009 revenue of $100.87 million was due to the increase in price.

Trade waste revenue was $11.7 million for the year and was higher than the budget by 1.5% due to increased production for some customers.

Other revenue was $7.47 million for the year and was 5.0% above budget due to interest on a higher level of funds invested than budgeted and higher miscellaneous revenue.

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
PRICE ADJUSTMENT				
Water	-	-	-	-
Wastewater	-	-	-	-
Trade waste	-	-	-	-
	-	-	-	-

Price adjustments are unbudgeted discretionary payments. The directors determine the amount, and the distribution between customer groups, after having regard to the financial position of the company and future expenditure requirements. The directors decided that no price adjustment would be made for 2010 (2009 – $nil).

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
OPERATING EXPENSES				
Water				
Asset operating costs	**13,019**	12,992	(0.2%)	10,821
Maintenance	**7,660**	6,583	(16.4%)	7,638
Other expenses	**17,628**	19,875	11.3%	17,953
	38,307	39,450	2.9%	36,412
Wastewater				
Asset operating costs	**22,467**	24,436	8.1%	21,958
Maintenance	**11,615**	11,911	2.5%	14,051
Other expenses	**16,345**	16,999	3.8%	15,058
	50,427	53,346	5.5%	51,067
Total				
Asset operating costs	**35,486**	37,428	5.2%	32,779
Maintenance	**19,275**	18,494	(4.2%)	21,689
Other expenses	**33,973**	36,874	7.9%	33,011
	88,734	92,796	4.4%	87,479

Asset operating costs for the year were 5.2% below budget. The main driver for the favourable variance was as a result of savings in chemical costs due to lower prices and dose rate optimisation at the treatment plants. Additionally energy costs were lower than budget due to the delayed commissioning of pump station 64 (Project Hobson). Savings in other asset costs were due to biosolids production volume being down and the budgeted costs for other projects being deferred due to the focus on planning for the integration with the region's retail water businesses.

Maintenance costs were 4.2% higher than budget. The unfavourable variance was primarily due to equipment overhauls at the wastewater treatment plant and equipment failures at Waitakere, Waikato and Huia. The unfavourable variance also includes the cost of pipeline breaks at Church Street and Boston Road and watermain failures due to damage caused by external contractors and electrical instrumentation and mechanical faults at pump stations.

Other expenses for the year were 7.9% lower than budget primarily due to the professional services focus on integration and ERP systems projects meaning business as usual programmes were delayed. Other main areas of savings include lower recruitment costs and reduced travel, training and advertising due to the increased focus on cost control. Additionally environmental policy work is being conducted in-house rather than using external consultants.

Financial Commentary continued

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
DEPRECIATION				
Water	**34,680**	32,735	(5.9%)	30,608
Wastewater	**34,075**	35,105	2.9%	27,273
	68,755	67,840	(1.3%)	57,881

Depreciation for 2010 was 1.3% over budget primarily due to the loading of demolition cost estimates against the respective assets and accelerating the life of the asset to the date of the demolition completion date. The assets to be demolished include the Khyber 2 Reservoir, New Lynn Outfall tank, McLaughlins Mountain Reservoir and Ardmore Pumps. Previously demolition costs had been expensed within the period they were incurred.

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
FINANCE COSTS				
Water				
Paid and payable	**10,846**	10,629	(2.0%)	7,654
Capitalised on asset construction	**(1,060)**	(3,271)	67.6%	(940)
	9,786	7,358	(33.0%)	6,714
Wastewater				
Paid and payable	**26,502**	29,446	10.0%	25,346
Capitalised on asset construction	**(4,775)**	(5,224)	8.6%	(6,993)
	21,727	24,222	10.3%	18,353
Total				
Paid and payable	**37,348**	40,075	6.8%	33,000
Capitalised on asset construction	**(5,835)**	(8,495)	31.3%	(7,933)
	31,513	31,580	0.2%	25,067

Total finance costs of $31.5 million were 0.2% below budget. The lower interest costs were due to lower interest rates and lower debt due to lower capital expenditure than budgeted. This was partially offset by the amount of interest capitalised to assets under construction being lower than budget by $2.7 million.

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
TAX				
Current tax	**-**	-	-	-
Deferred tax	**11,311**	72	N/A	(3,363)
	11,311	72	N/A	(3,363)

The deferred tax balance reflects the change in deferred tax due to the reduction of the tax depreciation rates to zero on buildings with useful lives greater than 50 years. No tax was payable on the trading result for the year.

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
OTHER COMPREHENSIVE INCOME				
Gain on revaluation and impairment of property, plant and equipment and adjustments	**(557)**	-	-	267,852
Income tax relating to comprehensive income	**29,928**	-	-	(81,681)
	29,371	-	-	186,171

Other comprehensive income reflects the change in deferred tax due to the reduction in the corporate tax rate from 30% to 28%.

Statement of Financial Position

AS AT 30 JUNE 2010

The company is in a strong financial position with net equity of $1,453 million at year-end. The net equity increased by $1.6 million from 30 June 2009.

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
PROPERTY, PLANT AND EQUIPMENT				
Water	**1,366,844**	1,376,049	(0.7%)	1,330,249
Wastewater	**1,046,269**	1,059,139	(1.2%)	1,027,120
	2,413,113	2,435,188	(0.9%)	2,357,369

The analysis by business group for the movements in property, plant and equipment for 2010 is:

	Water $000	Wastewater $000	Total $000
Net additions	66,403	55,142	121,545
Asset revaluation (before tax)	-	-	-
Impairment	-	(557)	(557)
Depreciation	(32,925)	(32,319)	(65,244)
	33,478	22,266	55,744

The increase for property, plant and equipment during the year was a result of the normal capital expenditure programme. Significant capital expenditure projects in the year included work on the new Hobson Bay sewer tunnel and pump station and work on the new Hunua Number 4 trunk watermain.

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
INTANGIBLE ASSETS				
Water	**6,552**	8,319	(21.2%)	7,703
Wastewater	**7,822**	9,381	(16.6%)	8,672
	14,374	17,700	(18.8%)	16,375

The decrease in intangible assets during the year is due to the effect of amortisation.

	2010 Actual $000	2010 Budget $000	Variance to Budget %	2009 Actual $000
BORROWINGS				
	525,725	546,017	3.7%	554,560

Borrowings at year-end were 3.7% lower than budget, primarily due to lower than budgeted capital expenditure. Borrowings include commercial paper of $99.2 million, $16.5 million drawn under a revolving credit facility, a related party loan of $10 million, medium-term notes of $300 million and a bank loan of $100 million.

	2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
DEFERRED TAX LIABILITY				
	402,049	424,138	(5.2%)	420,666

The deferred tax liability primarily comprises temporary differences between the revalued property, plant and equipment and the values recognised for tax purposes plus differences in the company's depreciation rates and those permitted by the Inland Revenue Department. At 30 June 2010, deferred taxation was lower than budget, principally due to the budget change reducing the corporate tax rate from 30% to 28%.

Financial Commentary continued

Statement of Cash Flows

FOR THE YEAR ENDED 30 JUNE 2010

The Local Government Act 1974 precludes the company from paying a dividend. As such, all of the company's cash flow from operations is available for either capital expenditure or debt repayment. Borrowings increase as a result of any shortfall between operating cash flows and capital expenditure.

NET CASH FLOWS FROM OPERATING ACTIVITIES

2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
87,118	81,262	7.2%	81,297

Net operating cash flows at $87.1 million were 7.2% higher than budget for 2010, predominantly due to lower operating costs.

NET CASH FLOWS FROM INVESTING ACTIVITIES

2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
(138,739)	(158,928)	12.7%	(138,387)

The net cash flow from investing activities was 12.7% lower than budget due to delays in some capital expenditure projects.

NET CASH FLOWS FROM FINANCING ACTIVITIES

2010 Actual $000	2010 Budget $000	2010 Variance to Budget %	2009 Actual $000
50,965	77,666	(34.4%)	57,411

The net cash flow from financing activities shows a net increase in borrowings in 2010 from the prior year. The increase in debt resulted from the higher level of capital expenditure relative to the operating cash flows.

The audited financial statements are set out on pages 70 to 102.

Responsibility for the Financial Statements and Statement of Service Performance

Financial Statements

We have ensured that the financial statements fairly reflect the financial position of the company as at 30 June 2010 and its financial performance and cash flows for the year ended on that date.

We have ensured that the accounting policies used by the company accord with New Zealand Equivalents to International Financial Reporting Standards. This includes the early adoption of accounting standards issued by the New Zealand Institute of Chartered Accountants, to the extent that they do not conflict with an existing accounting standard and the information is available.

We believe proper accounting records have been kept enabling the financial position of the company to be determined and that the financial statements fully comply with the Financial Reporting Act 1993.

We consider adequate steps have been taken to safeguard the assets of the company and to prevent and detect fraud and other irregularities.

Statement of Service Performance

We are responsible for establishing a Statement of Corporate Intent, which sets targets and other measures by which the company's performance can be judged in relation to its objectives.

We consider the results reported in the statement of service performance fairly reflect the achievements for the year ended 30 June 2010.

We have pleasure in presenting the financial statements and the statement of service performance for Watercare Services Limited for the year ended 30 June 2010, which were approved and authorised for release on 17 September 2010.

For and on behalf of management:

I M Parton
Transition Chief Executive

G W Swift
Chief Financial Officer

For and on behalf of the Board:

G S Hawkins
Chairman

R B Keenan
Deputy Chairman

D J Clarke
Director

P S Drummond
Director

S M Huria
Director

P N Snedden
Director

J G Todd
Director

Audit Report

Deloitte.

TO THE READERS OF WATERCARE SERVICES LIMITED'S FINANCIAL STATEMENTS AND PERFORMANCE INFORMATION

FOR THE YEAR ENDED 30 JUNE 2010

The Auditor-General is the auditor of Watercare Services Limited (the company). The Auditor-General has appointed me, Jamie Schmidt, using the staff and resources of Deloitte, to carry out the audit of the financial statements and performance information of the company, on her behalf, for the year ended 30 June 2010.

Unqualified opinion

In our opinion:

- The financial statements of the company on pages 70 to 102:
  - comply with generally accepted accounting practice in New Zealand;
  - give a true and fair view of:
    - the company's financial position as at 30 June 2010; and
    - the results of its operations and cash flows for the year ended on that date.
- The performance information of the company on pages 103 to 108 gives a true and fair view of the achievements measured against the performance targets adopted for the year ended 30 June 2010.
- Based on our examination the company kept proper accounting records.

The audit was completed on 17 September 2010, and is the date at which our opinion is expressed. The basis of our opinion is explained below. We also outline the responsibilities of the Board of Directors and the Auditor, and explain our independence.

Basis of Opinion

We carried out the audit in accordance with the Auditor-General's Auditing Standards, which incorporate the New Zealand Auditing Standards.

We planned and performed the audit to obtain all the information and explanations we considered necessary in order to obtain reasonable assurance that the financial statements and performance information did not have material misstatements, whether caused by fraud or error.

Material misstatements are differences or omissions of amounts and disclosures that would affect a reader's overall understanding of the financial statements and performance information. If we had found material misstatements that were not corrected, we would have referred to them in our opinion.

The audit involved performing procedures to test the information presented in the financial statements and performance information. We assessed the results of those procedures in forming our opinion.

Audit procedures generally include:

- determining whether significant financial and management controls are working and can be relied on to produce complete and accurate data;
- verifying samples of transactions and account balances;
- performing analyses to identify anomalies in the reported data;
- reviewing significant estimates and judgements made by the Board of Directors;
- confirming year-end balances;
- determining whether accounting policies are appropriate and consistently applied; and
- determining whether all required disclosures are adequate.

We did not examine every transaction, nor do we guarantee complete accuracy of the financial statements and performance information.

We evaluated the overall adequacy of the presentation of information in the financial statements and performance information. We obtained all the information and explanations we required to support our opinion above.

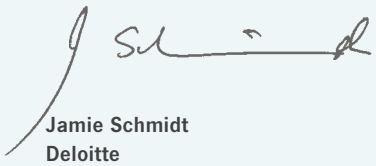
Responsibilities of the Board of Directors and the Auditor

The Board of Directors is responsible for preparing the financial statements in accordance with generally accepted accounting practice in New Zealand. The financial statements must give a true and fair view of the financial position of the company as at 30 June 2010 and the results of its operations and cash flows for the year ended on that date. The Board of Directors is also responsible for preparing performance information that gives a true and fair view of service performance achievements for the year ended 30 June 2010. The Board of Directors' responsibilities arise from the Financial Reporting Act 1993 and the Local Government Act 1974.

We are responsible for expressing an independent opinion on the financial statements and performance information and reporting that opinion to you. This responsibility arises from section 15 of the Public Audit Act 2001.

Independence

When carrying out the audit we followed the independence requirements of the Auditor-General, which incorporate the independence requirements of the New Zealand Institute of Chartered Accountants. Other than the audit and IT assurance and control work, which are compatible with those independent requirements, we have no relationship with or interests in the company.



Jamie Schmidt
Deloitte

On behalf of the Auditor-General
Auckland, New Zealand

Segment Comprehensive Income

FOR THE YEAR ENDED 30 JUNE 2010

	Water		Wastewater		Total	
	2010	2009	2010	2009	2010	2009
	$000	$000	$000	$000	$000	$000
REVENUE						
Bulk water and wastewater	**71,962**	65,335	**106,922**	100,870	**178,884**	166,205
Trade waste	**-**	-	**11,763**	11,667	**11,763**	11,667
Interest income	**384**	284	**384**	285	**768**	569
Other	**3,333**	3,044	**3,368**	3,144	**6,701**	6,188
Operating revenue	**75,679**	68,663	**122,437**	115,966	**198,116**	184,629
less Price adjustment	**-**	-	**-**	-	**-**	-
Total revenue	**75,679**	68,663	**122,437**	115,966	**198,116**	184,629
less **OPERATING EXPENSES**						
Asset operating costs	**13,019**	10,821	**22,467**	21,958	**35,486**	32,779
Maintenance costs	**7,660**	7,638	**11,615**	14,051	**19,275**	21,689
Employee benefit expenses	**7,352**	7,658	**7,283**	6,423	**14,635**	14,081
Other expenses	**10,276**	10,295	**9,062**	8,635	**19,338**	18,930
Total operating expenses	**38,307**	36,412	**50,427**	51,067	**88,734**	87,479
Depreciation and amortisation	**34,680**	30,608	**34,075**	27,273	**68,755**	57,881
Finance costs	**9,786**	6,714	**21,727**	18,353	**31,513**	25,067
Total expenses	**82,773**	73,734	**106,229**	96,693	**189,002**	170,427
Operating surplus (deficit) from trading operations	**(7,094)**	(5,071)	**16,208**	19,273	**9,114**	14,202
Gain/(Loss) on disposal and provision for redundant property, plant and equipment and other restructuring costs	**(4,100)**	(860)	**(2,040)**	(10,729)	**(6,140)**	(11,589)
Contributions towards cost of constructing property, plant and equipment	**275**	259	**836**	-	**1,111**	259
Revaluation of derivative financial instruments	**(6,805)**	(4,980)	**(13,678)**	(11,619)	**(20,483)**	(16,599)
Operating surplus (deficit) before tax	**(17,724)**	(10,652)	**1,326**	(3,075)	**(16,398)**	(13,727)
less **TAX**						
Current tax	**-**	-	**-**	-	**-**	-
Deferred tax	**3,362**	(3,196)	**7,949**	(167)	**11,311**	(3,363)
Tax expense (credit)	**3,362**	(3,196)	**7,949**	(167)	**11,311**	(3,363)
Net deficit after tax	**(21,086)**	(7,456)	**(6,623)**	(2,908)	**(27,709)**	(10,364)
OTHER COMPREHENSIVE INCOME						
Gain on revaluation and impairment of property, plant and equipment and adjustments	**-**	144,229	**(557)**	123,623	**(557)**	267,852
Income tax relating to comprehensive income	**18,633**	(45,424)	**11,295**	(36,257)	**29,928**	(81,681)
Total comprehensive income (deficit) for the year, net of tax	**(2,453)**	91,349	**4,115**	84,458	**1,662**	175,807

The financial statements should be read in conjunction with the accounting policies and notes on pages 75 to 102.

Statement of Comprehensive Income

FOR THE YEAR ENDED 30 JUNE 2010

	Notes	2010 $000	2009 $000
REVENUE			
Revenue	Note 1, page 81	**198,116**	184,629
less Price adjustment	Note 2, page 81	**-**	-
Total revenue		**198,116**	184,629
less **OPERATING EXPENSES**			
Asset operating costs		**35,486**	32,779
Maintenance costs		**19,275**	21,689
Employee benefit expenses		**14,635**	14,081
Other expenses		**19,338**	18,930
Total operating expenses	Note 3, page 81	**88,734**	87,479
Depreciation and amortisation	Note 4, page 82	**68,755**	57,881
Finance costs	Note 5, page 82	**31,513**	25,067
Total expenses		**189,002**	170,427
Operating surplus from trading operations		**9,114**	14,202
Gain/(Loss) on disposal and provision for redundant property, plant and equipment and other restructuring costs		**(6,140)**	(11,589)
Contributions towards cost of constructing property, plant and equipment		**1,111**	259
Revaluation of derivative financial instruments	Note 6, page 82	**(20,483)**	(16,599)
Operating deficit before tax		**(16,398)**	(13,727)
less **TAX**			
Current tax	Note 7, page 82	**-**	-
Deferred tax	Note 7, page 82	**11,311**	(3,363)
Tax expense (credit)		**11,311**	(3,363)
Net deficit for the year attributable to equity holders		**(27,709)**	(10,364)
OTHER COMPREHENSIVE INCOME			
Gain on revaluation and impairment of property, plant and equipment and adjustments		**(557)**	267,852
Income tax relating to other comprehensive income		**29,928**	(81,681)
Total comprehensive income for the year, net of tax attributable to equity holders		**1,662**	175,807

Statement of Changes in Equity

FOR THE YEAR ENDED 30 JUNE 2010

	Notes	Issued and paid-up capital		Asset revaluation reserve		Retained earnings		Total	
		2010 $000	2009 $000	2010 $000	2009 $000	2010 $000	2009 $000	2010 $000	2009 $000
Balance at 1 July		**260,693**	260,693	**1,043,205**	862,745	**147,053**	151,706	**1,450,951**	1,275,144
Net deficit for the year		**-**	-	**-**	-	**(27,709)**	(10,364)	**(27,709)**	(10,364)
Tax rate adjustment (30% to 28%)	Note 18, page 91	**-**	-	**29,761**	-	**-**	-	**29,761**	-
Transferred to retained earnings on disposal of property, plant and equipment	Note 18, page 91	**-**	-	**(1,315)**	(8,159)	**1,315**	8,159	**-**	-
Transfer to retained earnings on disposal of property, plant and equipment – net of deferred tax	Note 18, page 91	**-**	-	**394**	2,448	**(394)**	(2,448)	**-**	-
Deferred tax on asset impairment	Note 18, page 91	**-**	-	**167**	3,512	**-**	-	**167**	3,512
Impairments – property, plant and equipment	Note 18, page 91	**-**	-	**(557)**	(11,708)	**-**	-	**(557)**	(11,708)
Gain on revaluation of property, plant and equipment (net)	Note 18, page 91	**-**	-	**-**	194,367	**-**	-	**-**	194,367
Total comprehensive income (deficit) for the year, net of tax		**-**	-	**28,450**	180,460	**(26,788)**	(4,653)	**1,662**	175,807
Balance at 30 June		**260,693**	260,693	**1,071,655**	1,043,205	**120,265**	147,053	**1,452,613**	1,450,951

The financial statements should be read in conjunction with the accounting policies and notes on pages 75 to 102.

Segment Financial Position

AS AT 30 JUNE 2010

	Water		Wastewater		Total	
	2010	2009	2010	2009	2010	2009
	$000	$000	$000	$000	$000	$000
ASSETS						
Land	**49,290**	49,291	**25,872**	25,871	**75,162**	75,162
Buildings	**26,766**	27,313	**70,298**	61,404	**97,064**	88,717
Pipelines	**471,993**	472,568	**390,405**	378,275	**862,398**	850,843
Tanks, tunnels, roads and reservoirs	**376,970**	381,622	**238,183**	163,370	**615,153**	544,992
Dams	**188,132**	189,925	**969**	983	**189,101**	190,908
Machinery	**149,953**	155,757	**260,104**	242,722	**410,057**	398,479
Motor vehicles	**442**	308	**344**	206	**786**	514
Office equipment	**1,390**	1,580	**1,561**	1,886	**2,951**	3,466
Work in progress	**101,908**	51,885	**58,533**	152,403	**160,441**	204,288
Property, plant and equipment	**1,366,844**	1,330,249	**1,046,269**	1,027,120	**2,413,113**	2,357,369
Intangibles	**6,552**	7,703	**7,822**	8,672	**14,374**	16,375
Other financial assets – non-current	**1,849**	3,491	**3,435**	8,729	**5,284**	12,220
Short-term deposits	**5,000**	25,144	**5,000**	64,656	**10,000**	89,800
Inventories – non-current	**173**	410	**3,064**	2,189	**3,237**	2,599
Other current assets	**10,810**	9,352	**13,972**	14,949	**24,782**	24,301
Total assets	**1,391,228**	1,376,349	**1,079,562**	1,126,315	**2,470,790**	2,502,664
LIABILITIES						
Borrowings – non-current	**133,280**	100,000	**283,220**	250,000	**416,500**	350,000
Deferred tax	**236,508**	251,780	**165,541**	168,886	**402,049**	420,666
Other financial liabilities – non-current	**14,104**	7,921	**26,194**	19,804	**40,298**	27,725
Provisions – non-current	**533**	483	**520**	483	**1,053**	966
Current liabilities	**65,086**	71,716	**93,191**	180,640	**158,277**	252,356
Total liabilities	**449,511**	431,900	**568,666**	619,813	**1,018,177**	1,051,713
Equity	**941,717**	944,449	**510,896**	506,502	**1,452,613**	1,450,951
Total equity and liabilities	**1,391,228**	1,376,349	**1,079,562**	1,126,315	**2,470,790**	2,502,664

Segment Statement of Cash Flows

FOR THE YEAR ENDED 30 JUNE 2010

	Water		Wastewater		Total	
	2010	2009	2010	2009	2010	2009
	$000	$000	$000	$000	$000	$000
Net cash flows – operating activities	**31,928**	41,963	**55,190**	39,334	**87,118**	81,297
Net cash flows – investing activities	**(73,705)**	(56,393)	**(65,034)**	(81,994)	**(138,739)**	(138,387)
Net cash flows – financing activities	**40,377**	14,481	**10,588**	42,930	**50,965**	57,411
Net change in cash flows	**(1,400)**	51	**744**	270	**(656)**	321

The financial statements should be read in conjunction with the accounting policies and notes on pages 75 to 102.

Statement of Financial Position

AS AT 30 JUNE 2010

	Notes	2010 $000	2009 $000
ASSETS			
Non-current			
Property, plant and equipment	Note 8, page 83	**2,413,113**	2,357,369
Intangibles	Note 9, page 87	**14,374**	16,375
Other financial assets	Note 23, page 95	**5,284**	12,220
Inventories	Note 10, page 87	**3,237**	2,599
Total non-current assets		**2,436,008**	2,388,563
Current			
Cash and bank balances		**-**	210
Short-term deposits	Note 23, page 95	**10,000**	89,800
Trade and other receivables	Note 11, page 87	**19,047**	17,853
Other financial assets	Note 23, page 95	**162**	1,595
Prepaid expenses		**3,306**	2,483
Inventories	Note 10, page 87	**2,267**	2,160
Total current assets		**34,782**	114,101
Total assets		**2,470,790**	2,502,664
LIABILITIES			
Non-current			
Borrowings	Note 12, page 88	**416,500**	350,000
Deferred tax	Note 13, page 89	**402,049**	420,666
Other financial liabilities	Note 23, page 95	**40,298**	27,725
Provisions	Note 15, page 90	**1,053**	966
Total non-current liabilities		**859,900**	799,357
Current			
Bank overdraft		**446**	-
Borrowings	Note 12, page 88	**109,225**	204,560
Trade and other payables	Note 14, page 90	**8,299**	8,134
Other financial liabilities	Note 23, page 95	**1,026**	1,485
Provisions	Note 15, page 90	**6,264**	6,156
Accrued expenses	Note 16, page 90	**33,017**	32,021
Total current liabilities		**158,277**	252,356
Total liabilities		**1,018,177**	1,051,713
EQUITY			
Capital	Note 17, page 91	**260,693**	260,693
Revaluation reserves	Note 18, page 91	**1,071,655**	1,043,205
Retained earnings	Note 19, page 93	**120,265**	147,053
Total equity		**1,452,613**	1,450,951
Total equity and liabilities		**2,470,790**	2,502,664

The financial statements should be read in conjunction with the accounting policies and notes on pages 75 to 102.

Statement of Cash Flows

FOR THE YEAR ENDED 30 JUNE 2010

	Notes	2010 $000	2009 $000
OPERATING ACTIVITIES			
Cash (including GST received) was provided from:			
Customers		**221,039**	205,315
Dividends		**49**	33
Interest		**583**	124
		221,671	205,472
Cash (including GST paid) was applied to:			
Price adjustment		**-**	-
Employees and suppliers		**101,998**	99,780
Finance costs		**32,555**	24,395
		134,553	124,175
Net cash flows – operating activities	Note 20, page 93	**87,118**	81,297
INVESTING ACTIVITIES			
Cash was provided from:			
Contributions to fund property, plant and equipment		**1,111**	-
Sale of property, plant and equipment		**25**	531
		1,136	531
Cash was applied to:			
Purchase and construction of property, plant and equipment		**134,040**	130,985
Interest capitalised on construction of property, plant and equipment	Note 5, page 82	**5,835**	7,933
		139,875	138,918
Net cash flows – investing activities		**(138,739)**	(138,387)
FINANCING ACTIVITIES			
Cash was provided from:			
Short-term deposits		**85,000**	-
Revolving credit facility (net)	Note 20, page 93	**21,300**	-
Proceeds from medium-term notes issue		**50,000**	200,000
Proceeds from bank loan		**-**	100,000
Commercial paper issued (net)	Note 20, page 93	**44,665**	-
		200,965	300,000
Cash was applied to:			
Short-term deposits		**-**	85,000
Repay medium-term note issue		**150,000**	
Repay revolving credit facility (net)	Note 20, page 93	**-**	10,150
Repay commercial paper (net)	Note 20, page 93	**-**	147,439
		150,000	242,589
Net cash flows – financing activities		**50,965**	57,411
Net change in cash flows		**(656)**	321
Bank balance (overdraft) at beginning of year		**210**	(111)
Bank balance (overdraft) at the end of the year		**(446)**	210

2009 comparative figures adjusted in line with current year disclosure to show investing activities GST inclusive.

The financial statements should be read in conjunction with the accounting policies and notes on pages 75 to 102.

Statement of Accounting Policies

FOR THE YEAR ENDED 30 JUNE 2010

Reporting Entity

The financial statements are for Watercare Services Limited, a council organisation as defined in the Local Government Act 2002 incorporated and domiciled in New Zealand. As the company does not have any subsidiaries or associates, it is not required to prepare group financial statements.

The company's registered office and principal place of business is at 2 Nuffield Street, Newmarket, Auckland 1023.

Statement of Compliance

Watercare Services Limited is a public benefit entity (PBE) as defined under the New Zealand Equivalents to International Financial Reporting Standards (NZ IFRS). The financial statements and accounting policies comply with the specific recognition, measurement and disclosure requirements of NZ IFRS in relation to PBEs and New Zealand Generally Accepted Accounting Practice (NZGAAP).

Statutory Base

Watercare Services Limited is a company registered under the Companies Act 1993 and is a reporting entity as defined by the Financial Reporting Act 1993. The financial statements have been prepared in accordance with the requirements of the Financial Reporting Act 1993, the Local Government Acts 1974 and 2002 and the Companies Act 1993.

Measurement Base

The financial statements have been prepared on the historical cost basis, modified by the revaluation of land and buildings, certain infrastructural assets and derivative instruments as described in specific accounting policies below.

Functional and Presentation Currency

The financial statements are prepared in New Zealand dollars and all values are rounded to the nearest $1,000.

Key Management Decisions

The key areas where management has exercised its judgment in the preparation of these financial statements relate to the assessment of the replacement cost of property, plant and equipment and their useful lives (also refer to accounting policy 8 on property, plant and equipment and accounting policy 9 on intangibles below).

Accounting Policies

The financial statements have been prepared in accordance with NZ IFRS and NZGAAP. The accounting policies that materially affect the measurement of financial performance, financial position and cash flows are set out below.

1. Segments

Segmental information is based on two segments, bulk water and wastewater services reflecting the company's legislative requirements. The segment financial performance, financial position and cash flows are shown on pages 70 and 72. Revenues and expenses are apportioned to each segment on a direct basis plus an allocation of non-specific and overhead costs proportional to each segment's staffing levels. All operations are carried out within New Zealand. There are no material transactions between the two operating segments.

2. Goods and Services Tax (GST)

The statements of financial performance and the statement of financial position are stated excluding GST, with the exception of receivables and payables, which include GST. The net amount of GST recoverable from or payable to, the Inland Revenue Department is included as part of receivables or payables in the statement of financial position. Cash flows are included in the statement of cash flows including GST except that the GST component of cash flows arising from investing and financing activities, which is recoverable from, or payable to, the Inland Revenue Department, is disclosed as an operating cash flow.

3. Operating revenue

Operating revenue shown in the statement of comprehensive income is the amount received and receivable for goods and services supplied to customers in the ordinary course of business. Revenue mainly comes from selling bulk water and providing wastewater services within the greater Auckland region and is recognised on delivery of the goods or services.

Interest income is recognised using the effective interest rate method.

4. Finance costs

Finance costs directly attributable to the construction of new plant and equipment are capitalised as part of the costs of the new plant and equipment. Finance costs not directly attributable as part of the costs of the new plant and equipment are recognised as an expense in the period in which they are incurred.

5. Business integration costs

Costs associated with planning the integration of the water and the wastewater businesses in the Auckland region are expensed in the period in which they are incurred except for related capital projects (also refer Note 27 on page 102).

6. Leases

The company leases certain property, plant and equipment where the lessor effectively retains substantially all the risks and benefits of ownership. Amounts payable under the terms of these leases are recognised as an expense spread evenly over the term of the lease.

Statement of Accounting Policies continued

FOR THE YEAR ENDED 30 JUNE 2010

7. Research and development

Research costs are expensed as incurred. Development expenditure on individual projects is capitalised and recognised as an asset when it meets the definition and criteria for capitalisation as an asset and it is probable that the company will receive future economic benefits from the asset. Assets which have finite lives are stated at cost less accumulated amortisation and are amortised on a straight-line basis over their useful lives.

8. Property, plant and equipment

Classes of assets

Property, plant and equipment is allocated to classes, being:

- Land
- Buildings
- Pipelines
- Tanks, tunnels, roads and reservoirs
- Dams
- Machinery
- Motor vehicles
- Office equipment
- Work in progress

Initial recognition

The cost of purchased property, plant and equipment is the initial purchase price plus directly attributable costs of bringing the assets to the location and condition necessary for their intended use.

Constructed assets are initially recorded at the cost of construction (including materials and direct labour), finance costs and other direct costs. These are initially recorded as work in progress until the asset is ready for productive use. Finance costs incurred during the course of construction that are attributable to a project are capitalised, using the finance rate applicable to the funding. When the asset is ready for productive use the ongoing operating and finance costs are recorded as expenses.

Contributions towards cost of constructing property, plant and equipment

When amounts are received to subsidise the acquisition of property, plant and equipment, the amount received is recognised in determining the surplus or deficit for the year.

Subsequent recognition

Land and buildings are carried at fair values that reflect current market values, which is the amount that would be expected from an orderly sale, determined by an independent registered valuer every three years.

Pipelines, tanks, tunnels, roads, reservoirs, dams and machinery are also carried at fair value, which is deemed to be depreciated replacement cost because the assets are of a specialised nature. The depreciated replacement costs are determined on the basis of an independent valuation prepared by external valuers every three years. The revaluation process involves assessing the current replacement cost and remaining useful lives of the specialised property, plant and equipment.

Any property, plant and equipment that has been acquired after the most recent valuation is carried at cost less accumulated depreciation until the next revaluation.

Motor vehicles, office equipment and work in progress are carried at cost less accumulated depreciation.

The changes in the value of each class of property, plant and equipment as a result of the revaluations are recorded in other comprehensive income and accumulated in a revaluation reserve. The company maintains a revaluation reserve for each class of assets. Where cumulative decreases exceed cumulative increases in the value of a class of assets, the net amount is recognised as an expense in determining the surplus or deficit for the year. Any revaluation increase is credited to the asset class revaluation reserve, except to the extent that it reverses a revaluation decrease for the same asset previously charged as an expense in determining the surplus or deficit for the year. Any accumulated depreciation at the date of the revaluation is transferred to the gross carrying amount of the asset and the asset cost is restated to the revalued amount.

There are a number of assumptions and estimates used when performing depreciated replacement cost valuations of infrastructure assets. Estimates are made determining the remaining useful life over which an asset will be depreciated. If the estimated useful lives are not accurate this would lead to the annual depreciation charge being either higher or lower in the statement of comprehensive income. To minimise the estimation risk of asset useful lives the company continually assesses the condition of infrastructural assets and their remaining useful lives. Physical inspections and condition assessments are used by the company to insure that the condition of major assets are understood and the carrying value of an asset reflects its actual condition.

Impairment

Asset carrying values are reviewed at the end of each year (other than the year in which the assets are revalued) to determine whether there is any indication that those assets have suffered an impairment loss or increased in fair value. If any such indication exists, the fair value of the asset is estimated in order to determine the extent of the impairment loss or gain. If the fair value of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its fair value. An impairment loss is recognised as a revaluation decrease and any increase in fair value is recognised as a revaluation increase, for all classes of assets other than motor vehicles and office equipment. For motor vehicles and office equipment, impairment losses and gains are recognised in determining the surplus or deficit for the year.

Statement of Accounting Policies continued

FOR THE YEAR ENDED 30 JUNE 2010

8. Property, plant and equipment continued

Depreciation

Depreciation is provided on a straight-line basis on all property, plant and equipment, other than freehold land and the cost of tunnels, at rates calculated to allocate their cost or revalued amounts over their estimated useful lives. Assets are depreciated to a nil residual value.

Asset class	Range of useful lives in years for 2010	Average useful life in years 2010	2009
Buildings	3 to 134	**67**	68
Pipelines	1 to 227	**79**	79
Tanks, tunnels, roads and reservoirs	1 to 220	**85**	85
Dams	2 to 250	**189**	189
Machinery	2 to 110	**40**	40
Motor vehicles	5 to 5	**5**	5
Office equipment	3 to 15	**8**	8

9. Intangibles

Computer software assets are recorded at cost less accumulated amortisation and accumulated impairment losses. Amortisation is charged on a straight-line basis over their useful lives.

Easements are recorded at cost, being the costs directly attributable to bringing the asset to its intended use.

Resource Management Act consents are recorded at cost less accumulated amortisation and accumulated impairment losses. Amortisation is charged on a straight line basis.

Intangible assets carrying values are reviewed at the end of each year to determine whether there is any indication that those assets have suffered an impairment loss or increased in fair value. If any impairment loss or increase in fair value has occurred, the carrying value of the asset is adjusted and the loss or gain recognised in determining the surplus or deficit for the year.

Asset class	Range of useful lives in years for 2010	Average useful life in years 2010	2009
Intangibles	4 to 100	**28**	25

10. Receivables

Receivables are recorded initially at fair value and subsequently measured at amortised cost less any impairment loss. An impairment loss is recognised when there is objective evidence that the company will not be able to collect amounts due according to the original terms of the receivable. The amount of the impairment loss is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the effective interest rate. The amount of the impairment loss is recognised in determining the surplus or deficit for the year.

11. Income tax

Current tax

Current tax is calculated by reference to the amount of income taxes payable or recoverable in respect of the taxable profit or loss for the period. Current tax for current and prior periods is recognised as a liability (or asset) to the extent it is unpaid (or refundable).

Deferred tax

Deferred tax is accounted for using the comprehensive balance sheet liability method in respect of temporary differences arising from differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax base of those items.

In principle, deferred tax liabilities are recognised for all temporary differences. Deferred tax assets are recognised to the extent that it is probable that sufficient taxable amounts will be available against which deductible temporary differences or unused tax losses and tax offsets can be utilised.

Current and deferred tax assets and liabilities are measured at the tax rates that are expected to apply to period(s) when the asset and liability giving rise to them are realised or settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the reporting date.

12. Inventories

Inventories comprise consumables, spare parts and treated water.

Consumables are recorded at the lower of cost (determined on a weighted average basis) and net realisable value.

Spare parts are recorded at cost less an adjustment for the reduction in economic benefits due to obsolescence. The cost of spare parts is recorded as an expense when used for repairs and maintenance on existing plant and equipment, or recorded as part of the cost of the new asset if used in the construction of new property, plant and equipment.

Treated water in the network and reservoirs is recorded at the lower of cost and net realisable value.

Statement of Accounting Policies continued

FOR THE YEAR ENDED 30 JUNE 2010

13. Provisions

The company provides for the cost of employees' entitlements to annual leave, sick leave and gratuities under the terms of their employment contracts. These amounts are expected to be settled within one year and are therefore recorded in current provisions.

The company provides for the liability for employees' long service leave under the terms of their employment contracts. The liability is calculated as the present value of the expected future payments after allowing for wage and salary increases, the rate of staff turnover and term of service with the company. Long service leave is recorded in current and non-current provisions. The amount recorded in non-current provisions is expected to be settled beyond one year from the reporting date.

Other provisions are recognised when the company has a present obligation as a result of a past event and it is probable that there is a future outflow of resources and the amount of the provision can be reliably measured.

The amount recorded as a provision is the best estimate of the consideration required to settle the obligation at the end of each year.

14. Contract retentions

Certain construction contracts entitle the company to retain specified amounts to ensure the performance of contract obligations. These retentions are recorded as a liability, and either used to remedy contract performance or paid to the contractor at the end of the retention period.

15. Borrowings

Borrowings are recorded at fair value, net of transaction costs.

Borrowings are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective interest basis.

Fees and expenses for establishing new borrowings are amortised over the term of those borrowings using the effective interest rate method.

16. Foreign currencies

The cost of assets purchased with foreign currencies is calculated using the exchange rate on the date of purchase. Any difference between this cost and the amount later required to settle the transaction is recognised as a foreign exchange gain or loss.

Operating expenses in foreign currencies are converted at the rate of exchange on the date the transaction is settled.

17. Financial instruments

NZ IFRS defines a financial instrument as any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument in another. As such, the company recognises all its financial instruments as soon as it becomes a party to the contractual provisions of the financial instrument.

At each reporting date the company includes in its statement of financial position a range of financial assets that include cash and short-term deposits, trade and other receivables, and various derivatives (e.g. "in the money" interest rate swaps). Similarly it also reflects in its statement of financial position a number of financial liabilities that include bank overdrafts, trade and other payables, loans from banks and other related parties and derivatives (e.g. "out of the money" interest rate swaps).

A derivative is a financial instrument or other contract that satisfies all of the following characteristics: its value changes in response to the change in a specified variable such as an interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index; it requires no initial investment or an initial investment that is smaller than would be required for other types of similar contracts; and it will be settled at some future date.

Sourcing fair values

For financial instruments that are traded in active markets, quoted market prices or dealer price quotations are used as a measure of fair value. Where quoted market prices do not exist, fair values are estimated using present value or other market-accepted valuation techniques, using methods and assumptions that are based on market conditions and risks existing at year-end. An analysis of fair values of financial instruments and further details on how they are measured are explained in Note 23 on page 95.

Recognition and measurement of financial assets

For the purpose of subsequent measurement, financial assets other than those designated as hedging instruments are classified into one the following four categories upon initial recognition:

- loans and receivables;
- financial assets at fair value through profit or loss;
- held to maturity investments; and
- available-for-sale financial assets.

Each category determines the process of subsequent measurement and how the resulting surplus or deficit should be reflected in the statement of comprehensive income.

Loans and receivables

The company's cash and cash equivalents and trade and other receivables fall into this category of financial instruments. These are initially recorded at their fair value plus transaction costs because they have fixed or determinable payments that are not quoted in an active market.

After initial recognition, they are recorded at amortised cost using the effective interest rate method, less provision for impairment.

Statement of Accounting Policies continued

FOR THE YEAR ENDED 30 JUNE 2010

Trade and other receivables are considered for impairment when there is objective evidence that the company will not be able to collect all amounts due according to the original terms of the transaction. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation and default or delinquency in payments (more than 30 days overdue) are considered indicators that the receivable is impaired.

If there is objective evidence that individual loans and receivables should be impaired, the impairment loss is calculated as the difference between the carrying amount of the financial assets and the present value of estimated future cash flows using the original effective interest rate. Receivables with a short duration are not discounted.

The company creates a provision to reduce the carrying amount of trade and other receivables that are considered to be impaired (or in the case of a reversal of a write-down because of an event occurring after the impairment was recognised, an increase), unless there is no reasonable possibility of recovering the amount from the debtor. In this case, the company writes off the receivable directly (and transfers any impairment loss recognised in the provision account directly to the receivable).

Financial assets at fair value through profit or loss

All derivative financial instruments fall into this category, except for those designated as, and effective as, hedging instruments, for which the hedge accounting requirements apply.

Financial assets carried at fair value through profit or loss are initially recorded at fair value.

Financial assets at fair value through profit or loss include items that are either classified as held for trading or that meet certain conditions.

The company does not currently have any financial assets in this category.

Held-to-maturity investments

Held-to-maturity investments are financial assets with fixed or determinable payments and fixed maturities other than loans and receivables. Investments are classified as held to maturity if the company has the intention and ability to hold them until maturity.

All held-to-maturity investments are initially recorded at their fair value plus transaction costs.

Held-to-maturity investments are measured subsequently at amortised cost using the effective interest rate method. If there is objective evidence that the investment is impaired, determined by reference to external credit ratings, the financial asset is recorded at the present value of estimated future cash flows. Any changes to the carrying amount of the investment, including impairment losses, are recognised in profit or loss.

The company does not currently have any financial assets in this category.

Available-for-sale financial assets

Available-for-sale financial assets are financial assets that are either designated to this category or do not qualify for inclusion in any of the three other categories of financial assets.

Available-for-sale financial assets are initially recorded at their fair value plus transaction costs.

Available-for-sale financial assets are subsequently recorded at fair value. Gains and losses are recognised in profit or loss and reported within the available-for-sale reserve within equity, except for impairment losses, which are recognised in profit or loss. When the asset is disposed of or is determined to be impaired, the cumulative gain or loss recognised in other comprehensive income is reclassified from the available-for-sale equity reserve to profit or loss and presented as a reclassification adjustment within other comprehensive income. Interest calculated using the effective interest rate method and dividends are recognised in profit or loss. Reversals of impairment losses are recognised in other comprehensive income, except for financial assets that are debt securities which are recognised in profit or loss only if the reversal can be objectively related to an event occurring after the impairment loss was recognised.

The company does not currently have any financial assets in this category.

Recognition and measurement of financial liabilities

Financial liabilities are initially recorded at their fair value plus transaction costs.

Financial liabilities are recorded subsequently at amortised cost using the effective interest rate method, except for financial liabilities held for trading or designated at fair value through profit or loss. Those liabilities are recorded subsequently at fair value with gains or losses recognised in profit or loss.

The company does not currently have any financial liabilities held for trading or designated at fair value through profit or loss.

Borrowings are classified as current liabilities unless the company has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

Trade and other payables represent liabilities for goods and services provided to the company prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

Derivative financial instruments

Derivative instruments are used by the company to manage its exposures to interest rate and foreign currency risks

Any derivative financial instruments used for hedge accounting are recorded at fair value in the statement of financial position and accounted for at fair value through profit or loss.

Derecognition of financial instruments

Financial assets are derecognised only when the contractual rights to the cash flows from the financial asset have expired, or when the financial asset and all substantial risks and rewards associated with it have been transferred.

Financial liabilities are derecognised when they have either been extinguished, discharged, cancelled or have expired.

Statement of Accounting Policies continued

FOR THE YEAR ENDED 30 JUNE 2010

18. Statement of cash flows

For the purpose of the statement of cash flows, cash and cash equivalents include cash on hand net of outstanding bank overdrafts. The following terms are used in the statement of cash flows;

- "Operating activities" are amounts received for the supply of services by the company, and payments made to employees and suppliers necessary to support those services including finance costs. Operating activities also include any transactions or events that are not investing or financing activities;
- "Investing activities" are amounts paid or received for the acquisition, and disposal of property, plant and equipment and other investments not included in cash equivalents; and
- "Financing activities" are the receipt and repayment of the principal on borrowings, and contributions from, and distributions to, shareholders.

19. Insurance

The company has significant infrastructural assets that if damaged could lead to major losses. To minimise the financial impact of such exposures, the major portion of the risk is insured by taking out appropriate insurance policies with appropriate creditworthy counterparties. Any uninsured loss is recorded in determining the surplus or deficit for the year in which the loss is incurred.

20. Accounting Standards and Interpretations

The company's policy is to adopt accounting standards before they become mandatory. However, the following new accounting standard has been reviewed by the company for early adoption and has not been adopted for the current financial year:

- Financial Instruments – NZ IFRS 9 (Effective for accounting periods beginning on or after 1 January 2013). As NZ IFRS 9 is expected to be subject to significant amendments in future years the company has delayed adoption of this standard until the impact of future amendments is known. The company intends to early adopt this standard before the 2012/13 financial year. The impact of NZ IFRS 9 in its current state would require Watercare to make changes in accounting policies and disclosures relating to new classifications of financial assets but would not change the measurement of these assets.

These financials statements comply with the following new accounting standards. The impact on the financial statements is detailed below:

- Presentation of Financial Statements – NZ IAS 1. The required changes to the company's financial statements to comply with NZ IAS 1 were made last financial year. This included presenting all non-owner changes in equity in the statement of comprehensive income.
- Business Combinations – NZ IFRS 3 and Consolidated and Separate Financial Statements NZ IAS 27. Expenditure in the current year in connection with the integration of the Auckland water retailers has been expensed, with the exception of capital-related projects.
- Transfer of Assets from Customers – NZ IFRIC 18. The company currently complies with this standard. In future annual reporting periods assets vested in the company by customers will need to be reviewed as the income may have to be recognised over a period reflecting the useful life of the asset.
- Borrowing Costs – NZ IAS 23. The company already complies with this standard as borrowing costs for relevant assets are capitalised to the cost of the asset.
- Operating Segments – NZ IFRS 8. The required changes to the company's financial statements were made in previous financial years to segment reporting into Water and Wastewater segments.
- Related Party Disclosures (2009) – NZ IAS 24. The standard simplifies the disclosure requirements for entities controlled by government, in relation to transactions with government or its subsidiaries. The changes have not affected the company's current disclosures.
- Amendment to – NZ IFRS 7. Improving Disclosures about financial instruments. The amendment requires enhanced disclosures about fair value measurements and liquidity risk. The required changes have been made to the company's financial statements.

Application of the following new standards and interpretations will not have any impact on the financial statements of the company because they are not relevant to the company's current activities or are not required.

- Insurance Contracts – NZ IFRS 4. This standard is not relevant as the company does not issue insurance contracts.
- Amendment to Share-based Payments – NZ IFRS 2. This standard is not relevant as the company does not deal with share-based payments.
- Puttable Financial Instruments and Obligations arising on Liquidation – NZ IAS 32. This is not applicable as the company does not have any puttable financial instruments.
- Loss of Control of a Subsidiary – NZ IFRS 1 and NZ IFRS 5. These are not applicable as the company has no subsidiaries.
- Cost of an Investment in a Subsidiary, Jointly Controlled Entity or Associate – NZ IAS 27, NZ IAS 8 and NZ IAS 36. These are not applicable as the company has no subsidiaries, associates or jointly controlled entities.
- Recognition and Measurement around Hedge Accounting – NZ IAS 39. This is not applicable as the company does not apply hedge accounting.
- Agreement for the Construction of Real Estate – NZ IFRIC 15. This interpretation is not relevant as the company is not involved in the construction of real estate.
- Hedges of Net Investment in a Foreign Operation – NZ IFRIC 16. This interpretation is not relevant as the company does not have any investments in a foreign operation.
- Distribution of Non-Cash Assets to Owners – NZ IFRIC 17. This interpretation is not relevant as the company is not involved in any distribution of its non-cash assets to the shareholders.
- Extinguishing Liabilities with Equity Instruments – NZ IFRIC 19. This interpretation is not relevant to the company as it not involved in any debt for equity swaps i.e: issuing equity instruments to extinguish all or part of a financial liability.

Changes in Accounting Policies

There have been no changes in accounting policies other than those required by the adoption of the accounting standards disclosed above.

Notes to the Financial Statements

FOR THE YEAR ENDED 30 JUNE 2010

1. Revenue

The bulk water and wastewater operating revenue represents the amounts charged to customers under contracts with them. This revenue excludes any price adjustment.

	2010 $000	2009 $000
Revenue from sale of goods		
Bulk water	**71,962**	65,335
Revenue from rendering of services		
Wastewater services	**106,922**	100,870
Trade waste services	**11,763**	11,667
Other external charges	**6,652**	6,155
Other revenue		
Dividends from Auckland Energy Consumer Trust	**49**	33
Interest from short-term deposits	**768**	569
Total revenue	**198,116**	184,629

Major customers are those that contribute more than 10% of the company's water and wastewater revenue. The total revenue from major customers by operating segment is shown below:

- Water revenue $67,677, 000 (2009 – $60,977,000)
- Wastewater revenue $103,311,000 (2009 – $97,301,000)

2. Price Adjustment

Under Section 707ZZZS(1)d of the Local Government Act 1974, the company *"...must decide promptly in respect of any year in which a surplus arises, whether or not to return that surplus to its customers and, if it is to do so to determine and implement the method by which that surplus may be returned, whether by way of rebate, discount, price adjustment...."*. Pursuant to this section, the company decided that no price adjustment would be paid (June 2009 – no price adjustment was paid).

3. Operating Expenses

	2010 $000	2009 $000
Operating expenses include:		
Auditors' remuneration – audit fees	**180**	111
– other assurance services provided as detailed below	**108**	136
Directors' fees	**310**	337
Environmentally significant costs – chemicals	**9,813**	8,588
– energy	**9,442**	8,091
Cost of consumables and spare parts consumed	**8,928**	6,299
Inventory impairment	**29**	83
Operating leases and rent	**2,628**	2,419
Receivables provided for	**-**	-
Net receivables written off (recovered)	**2**	2
Research and development	**-**	2
Salaries and wages – paid to employees	**33,166**	31,739
– capitalised on construction of property, plant and equipment	**(19,429)**	(18,324)
– expensed in determining surplus or deficit for the year	**13,737**	13,415

Auditors' remuneration other assurance services included the review of the activities associated with the integration of the Auckland water retailers, company financial and information systems. Prior year other assurance services included the review of greenhouse gas footprint verification, detailed review of some financial systems and review of the company's information system facilities management.

4. Depreciation and Amortisation

	2010 $000	2009 $000
Buildings	**2,296**	2,011
Pipelines	**24,265**	18,643
Tanks, tunnels, roads and reservoirs	**10,740**	8,821
Dams	**1,749**	1,493
Machinery	**24,415**	22,009
Motor vehicles	**491**	329
Office equipment	**1,288**	1,190
Intangibles	**3,511**	3,385
Total depreciation and amortisation	**68,755**	57,881

5. Finance Costs

	2010 $000	2009 $000
Interest on bank overdraft and borrowings, paid and payable	**37,348**	33,000
Capitalised interest on construction of property, plant and equipment (2010: 7.09%) (2009: 7.08%)	**(5,835)**	(7,933)
Net finance costs	**31,513**	25,067

6. Revaluation of Derivative Financial Instruments

	2010 $000	2009 $000
Interest rate swaps contracts loss	**21,289**	16,369
Forward foreign exchange contracts (gain)/loss	**(806)**	230
Net revaluation loss	**20,483**	16,599

7. Tax

	2010 $000	2009 $000
Operating deficit before tax	**(16,398)**	(13,727)
Income tax calculated at 30% (2009: 30%)	**(4,919)**	(4,118)
Effect of revenue that is exempt from taxation	**-**	-
Effect of expenses that are not deductible in determining taxable profit	**255**	787
Imputation credits on dividends received	**(21)**	(15)
Prior year and other adjustments	**736**	(17)
Total tax effect of non-deductible/(taxable) items and prior period adjustments	**970**	755
The May 2010 NZ Government Fiscal Budget was substantively enacted in May 2010.		
As a result the following non-recurring items are required to be recognised as a tax expense:		
The impact of tax depreciation on buildings being non-deductible from 1 July 2011	**14,037**	-
The impact of deferred tax as a result of reducing the corporate tax rate from 30% to 28% from 1 July 2011	**1,223**	-
Total non-recurring items arising from May 2010 NZ Government Fiscal Budget	**15,260**	-
Income tax expense (credit) recognised in surplus or deficit	**11,311**	(3,363)
Represented by:		
Current tax	**-**	-
Deferred tax	**11,311**	(3,363)
Income tax expense (credit) recognised in surplus or deficit	**11,311**	(3,363)

The tax rate used for the reconciliation above for 2010 is the corporate tax rate of 30% payable by New Zealand corporate entities on taxable profits under New Zealand tax law. Although the corporate tax rate was reduced to 28% in the May 2010 budget it will not take effect until 1 July 2011 effective for the 2011/12 income year.

Notes to the Financial Statements continued

7. Tax continued

	2010 $000	2009 $000
Imputation credits		
Balance at beginning of year	**30,061**	30,046
Income tax payment/(refund)	**-**	-
Imputation credits attached to dividends received	**21**	15
Total imputation credits	**30,082**	30,061

The imputation credit account is a memorandum account and does not form part of the statement of financial position.

8. Property, Plant and Equipment

Property, plant and equipment movement in net book values – including revaluation

	2009 $000 Opening Value	$000 Additions	$000 Disposals	$000 Depreciation	$000 Impairment	$000 Revaluation	$000 Reclassification	2010 $000 **Closing Value**
Land	75,162	-	-	-	-	-	-	**75,162**
Buildings	88,717	10,643	-	2,296	-	-	-	**97,064**
Pipelines	850,843	36,612	235	24,265	557	-	-	**862,398**
Tanks, tunnels, roads and reservoirs	544,992	80,901	-	10,740	-	-	-	**615,153**
Dams	190,908	124	1	1,749	-	-	(181)	**189,101**
Machinery	398,479	37,348	1,536	24,415	-	-	181	**410,057**
Motor vehicles	514	767	4	491	-	-	-	**786**
Office equipment	3,466	776	3	1,288	-	-	-	**2,951**
	2,153,081	167,171	1,779	65,244	557	-	-	**2,252,672**
Work in progress	204,288	(43,847)	-	-	-	-	-	**160,441**
Total property, plant and equipment	2,357,369	123,324	1,779	65,244	557	-	-	**2,413,113**

The reclassification of assets between categories results from the ongoing project to improve asset data quality. The predominant reason for reclassification is to split broadly categorised assets into their component assets.

It is not practical to reclassify the prior year comparatives, due to the size of the asset register.

Property, plant and equipment movement in net book values – including revaluation

	2008 $000 Opening Value	$000 Additions	$000 Disposals	$000 Depreciation	$000 Impairment	$000 Revaluation	$000 Reclassification	2009 $000 Closing Value
Land	80,850	14	-	-	-	(5,702)	-	75,162
Buildings	82,273	669	14	2,011	-	7,807	(7)	88,717
Pipelines	671,805	27,000	130	18,643	-	146,755	24,056	850,843
Tanks, tunnels, roads and reservoirs	489,280	3,073	165	8,821	-	54,668	6,957	544,992
Dams	163,671	523	-	1,493	-	24,104	4,103	190,908
Machinery	410,357	5,829	813	22,009	-	40,220	(35,105)	398,479
Motor vehicles	730	120	7	329	-	-	-	514
Office equipment	4,389	272	1	1,190	-	-	(4)	3,466
	1,903,355	37,500	1,130	54,496	-	267,852	-	2,153,081
Work in progress	121,679	92,360	-	-	9,751	-	-	204,288
Total property, plant and equipment	2,025,034	129,860	1,130	54,496	9,751	267,852	-	2,357,369

8. Property, Plant and Equipment continued

Property, plant and equipment movement in revaluation or cost

	2009							2010
	$000	$000	$000	$000	$000	$000	$000	**$000**
	Opening Value	Additions	Disposals	Depreciation	Impairment	Revaluation	Reclassification	**Closing Value**
Land	75,162	-	-	-	-	-	-	**75,162**
Buildings	88,724	10,643	-	-	-	-	-	**99,367**
Pipelines	851,540	36,612	242	-	557	-	-	**887,353**
Tanks, tunnels, roads and reservoirs	545,031	80,901	-	-	-	-	-	**625,932**
Dams	190,908	124	1	-	-	-	(181)	**190,850**
Machinery	404,362	37,348	2,072	-	-	-	181	**439,819**
Motor vehicles	3,730	767	139	-	-	-	-	**4,358**
Office equipment	10,705	776	1,516	-	-	-	-	**9,965**
	2,170,162	167,171	3,970	-	557	-	-	**2,332,806**
Work in progress	204,288	(43,847)	-	-	-	-	-	**160,441**
Gross carrying value	2,374,450	123,324	3,970	-	557	-	-	**2,493,247**

Property, plant and equipment movement in revaluation or cost

	2008							2009
	$000	$000	$000	$000	$000	$000	$000	$000
	Opening Value	Additions	Disposals	Depreciation	Impairment	Revaluation	Reclassification	Closing Value
Land	80,850	14	-	-	-	(5,702)	-	75,162
Buildings	86,296	669	16	-	-	1,782	(7)	88,724
Pipelines	707,914	27,000	648	-	-	92,963	24,311	851,540
Tanks, tunnels, roads and reservoirs	505,953	3,073	174	-	-	29,025	7,154	545,031
Dams	166,400	523	-	-	-	19,618	4,367	190,908
Machinery	460,525	5,829	1,240	-	-	(24,950)	(35,802)	404,362
Motor vehicles	3,852	120	216	-	-	(26)	-	3,730
Office equipment	10,462	272	6	-	-	-	(23)	10,705
	2,022,252	37,500	2,300	-	-	112,710	-	2,170,162
Work in progress	121,679	92,360	-	-	9,751	-	-	204,288
Gross carrying value	2,143,931	129,860	2,300	-	9,751	112,710	-	2,374,450

Notes to the Financial Statements continued

8. Property, Plant and Equipment continued

Property, plant and equipment movement in accumulated depreciation

	2009							2010
	$000	$000	$000	$000	$000	$000	$000	**$000**
	Opening Value	Additions	Disposals	Depreciation	Impairment	Revaluation	Reclassification	**Closing Value**
Land	-	-	-	-	-	-	-	**-**
Buildings	7	-	-	2,296	-	-	-	**2,303**
Pipelines	697	-	7	24,265	-	-	-	**24,955**
Tanks, tunnels, roads and reservoirs	39	-	-	10,740	-	-	-	**10,779**
Dams	-	-	-	1,749	-	-	-	**1,749**
Machinery	5,883	-	536	24,415	-	-	-	**29,762**
Motor vehicles	3,216	-	135	491	-	-	-	**3,572**
Office equipment	7,239	-	1,513	1,288	-	-	-	**7,014**
Total accumulated depreciation	17,081	-	2,191	65,244	-	-	-	**80,134**

Property, plant and equipment movement in accumulated depreciation

	2008							2009
	$000	$000	$000	$000	$000	$000	$000	$000
	Opening Value	Additions	Disposals	Depreciation	Impairment	Revaluation	Reclassification	Closing Value
Land	-	-	-	-	-	-	-	-
Buildings	4,023	-	2	2,011	-	(6,025)	-	7
Pipelines	36,109	-	518	18,643	-	(53,792)	255	697
Tanks, tunnels, roads and reservoirs	16,673	-	9	8,821	-	(25,643)	197	39
Dams	2,729	-	-	1,493	-	(4,486)	264	-
Machinery	50,168	-	427	22,009	-	(65,170)	(697)	5,883
Motor vehicles	3,122	-	209	329	-	(26)	-	3,216
Office equipment	6,073	-	5	1,190	-	-	(19)	7,239
Total accumulated depreciation	118,897	-	1,170	54,496	-	(155,142)	-	17,081

Valuations

All assets subject to valuation are independently valued every three years. The most recent valuation was at 30 June 2009. AECOM New Zealand Limited (AECOM) completed the valuation in association with Darroch registered valuers. The assumptions used in determining the depreciated replacement cost of property, plant and equipment were that:

- construction costs based on recent contract-based construction work and the AECOM database reflect the costs of replacing assets; and
- the useful lives of assets are calculated as the lesser of their physical life or the point where the asset is to be replaced for economic reasons.

Land and buildings are valued at fair value.

The Local Government Acts 1974 and 2002 restrict the business activities of the company and effectively prevent selling of key assets. Many of the assets are specialised in nature, reflecting the activities of the company. As there is no active market for such assets and the income from them is not determined by the market, property, plant and equipment, other than land, buildings, motor vehicles and office equipment, are revalued to depreciated replacement cost, which reflects their deemed fair values.

Each year, other than in the years in which the assets are revalued, the company assesses whether there has been any material change in the value of property, plant and equipment. The movement in asset values between June 2009 and June 2010 was assessed using indices deemed suitable by AECOM and Darroch registered valuers. The increase in asset value of 1.1% was not considered material by management and accordingly the assets were not revalued at 30 June 2010.

8. Property, Plant and Equipment continued

Work in progress relates to the following projects:

	2010 $000	2009 $000
Water treatment plants	**12,587**	6,032
Wastewater treatment plant	**9,175**	6,244
Wastewater pump stations and sewers	**42,440**	140,953
Watermains, pump stations and reservoirs	**60,630**	35,028
Dams and raw water transmission pipelines	**21,032**	5,620
Other	**14,577**	10,411
Total work in progress	**160,441**	204,288

Property, plant and equipment movement in net book values – on historical cost basis

	2009							2010
	$000	$000	$000	$000	$000	$000	$000	**$000**
	Opening Value	Additions	Disposals	Depreciation	Impairment	Revaluation	Reclassification	**Closing Value**
Land	27,999	-	-	-	-	-	-	**27,999**
Buildings	50,414	10,643	15	1,200	-	-	-	**59,842**
Pipelines	237,789	36,055	42	5,228	-	-	-	**268,574**
Tanks, tunnels, roads and reservoirs	223,605	80,901	5	5,869	-	-	-	**298,632**
Dams	96,720	124	1	880	-	-	(148)	**95,815**
Machinery	303,512	37,348	1,102	19,794	-	-	148	**320,112**
Motor vehicles	514	767	4	491	-	-	-	**786**
Office equipment	3,466	776	3	1,288	-	-		**2,951**
	944,019	166,614	1,172	34,750	-	-	-	**1,074,711**
Work in progress	204,288	(43,847)	-	-	-	-	-	**160,441**
Total property, plant and equipment	1,148,307	122,767	1,172	34,750	-	-	-	**1,235,152**

Property, plant and equipment movement in net book values – on historical cost basis

	2008							2009
	$000	$000	$000	$000	$000	$000	$000	$000
	Opening Value	Additions	Disposals	Depreciation	Impairment	Revaluation	Reclassification	Closing Value
Land	27,985	14	-	-	-	-	-	27,999
Buildings	50,896	669	-	1,143	-	-	(8)	50,414
Pipelines	192,945	27,000	721	4,645	-	-	23,210	237,789
Tanks, tunnels, roads and reservoirs	214,855	3,073	4	4,510	-	-	10,191	223,605
Dams	95,606	523	-	848	-	-	1,439	96,720
Machinery	351,244	5,829	543	18,190	-	-	(34,828)	303,512
Motor vehicles	730	120	7	329	-	-	-	514
Office equipment	4,387	272	1	1,188	-	-	(4)	3,466
	938,648	37,500	1,276	30,853	-	-	-	944,019
Work in progress	121,679	92,360	-	-	9,751	-	-	204,288
Total property, plant and equipment	1,060,327	129,860	1,276	30,853	9,751	-	-	1,148,307

2009 comparative figures adjusted in line with current year disclosure.

The company has voluntary disclosed the historical cost property, plant and equipment table above which is in accordance with NZIAS-16.77(e).

Notes to the Financial Statements continued

9. Intangibles

2009						2010
$000	$000	$000	$000	$000	$000	**$000**
Opening Value	Additions	Disposals	Amortisation	Impairment	Reclassification	**Closing Value**
Cost	32,486	1,582	1,704	-	-	-	**32,364**
Accumulated amortisation	16,111	-	1,632	3,511	-	-	**17,990**
Net book value	16,375	1,582	72	3,511	-	-	**14,374**

2008						2009
$000	$000	$000	$000	$000	$000	$000
Opening Value	Additions	Disposals	Amortisation	Impairment	Reclassification	Closing Value
Cost	31,592	918	24	-	-	-	32,486
Accumulated amortisation	12,748	-	22	3,385	-	-	16,111
Net book value	18,844	918	2	3,385	-	-	16,375

10. Inventories

	2010	2009
	$000	$000
Spare parts at cost	**5,649**	5,068
Consumables at cost	**1,392**	1,209
Provision for obsolescence	**(1,751)**	(1,722)
Treated water at cost	**214**	204
Total inventory	**5,504**	4,759
Represented as:		
Non-current inventory	**3,237**	2,599
Current inventory	**2,267**	2,160
Total inventory	**5,504**	4,759

11. Trade and Other Receivables

	2010	2009
	$000	$000
Trade receivables – related parties	**16,223**	15,770
Trade receivables – other	**2,824**	2,083
Total trade and other receivables	**19,047**	17,853

Ageing of receivables

	2010			2009		
	Gross	**Impairment**	**Net**	Gross	Impairment	Net
Current	**18,852**	**-**	**18,852**	17,570	-	17,570
1 to 30 days overdue	**145**	**-**	**145**	212	-	212
30 to 60 days overdue	**35**	**-**	**35**	48	-	48
More than 60 days overdue	**15**	**-**	**15**	23	-	23
Total	**19,047**	**-**	**19,047**	17,853	-	17,853

12. Borrowings

	2010 $000	2009 $000
Non-current		
Medium-term notes (unsecured)	**300,000**	250,000
Term loan (unsecured)	**100,000**	100,000
Bank loan (unsecured)	**16,500**	-
Total non-current borrowings	**416,500**	350,000
Current		
Commercial paper (unsecured)	**99,225**	54,560
Medium-term notes (unsecured)	**-**	150,000
Related party term loan (unsecured)	**10,000**	-
Total current borrowings	**109,225**	204,560

REPAYMENT SCHEDULE:

Medium-term notes		
Less than one year	**-**	150,000
One to two years	**50,000**	-
Two to three years	**-**	50,000
Three to four years	**220,000**	-
Beyond four years	**30,000**	200,000
Term loan		
One to two years	**100,000**	-
Two to three years	**-**	100,000
Commercial paper		
Current	**99,225**	54,560
Bank loan		
One to two years	**16,500**	-
Related party term loan		
Current	**10,000**	-
Total borrowings	**525,725**	554,560

INTEREST RATES AT YEAR-END:

	2010 %	2009 %
Medium-term notes		
Average	**6.51**	6.62
Average including interest rate swaps	**7.89**	6.97
Commercial paper		
Average	**3.09**	3.24
Average including interest rate swaps	**4.88**	4.97
Term loan		
Average	**3.76**	3.69
Average including interest rate swaps	**6.78**	7.11
Bank loan		
Average	**4.27**	2.50
Average including interest rate swaps	**4.27**	2.50
Related party term loan		
Average	**4.80**	-
Average including interest rate swaps	**4.80**	-
Total debt		
Average	**5.24**	5.76
Average including interest rate swaps	**6.93**	6.80

Notes to the Financial Statements continued

12. Borrowings continued

Lenders under the bank loans and holders of medium-term notes and short-term commercial paper, receive the benefit of the negative pledge undertaking from the company. This undertaking limits the extent to which the company can give security to lenders and requires the company to ensure that the following financial ratios are achieved at all times:

- Total liabilities do not exceed 60 per cent of total tangible assets
- Total liabilities plus total contingent liabilities do not exceed 65 per cent of total tangible assets
- Shareholders' funds are not less than $500 million
- Earnings before interest, tax, depreciation and amortisation is greater than 1.75 times interest expense
- Total tangible assets of the company are to be greater than 90 per cent of total tangible assets of the borrowing group

The company complied with these financial covenant ratios during the years ended 30 June 2010 and 30 June 2009.

The company has an agreement with Auckland City Council (ACC) under which ACC guarantees repayment of the company's borrowings and its obligations under interest rate swap agreements.

The company has the following undrawn committed facilities available:

	2010 $000	2009 $000
Bank loan facility, expires December 2011 (2009: expires June 2010)	**8,500**	25,000
Commercial paper standby facility, expires December 2011 (2009: expires June 2010)	**150,000**	150,000

Commercial paper held by the company is represented by multiple issues that spread interest rate and maturity risk. As each issue matures the company replaces it with a new issue, if required. The provider of the commercial paper standby facility acts as a lender of last resort, should the company be unable to issue new commercial paper when it matures. The company's treasury risk management policy requires standby facilities to be maintained to meet 50% of outstanding commercial paper and other uncommitted short-term debt repayable within 60 days (2009: the company's treasury risk management policy required standby facilities to be maintained to meet 50% commercial paper maturing within the next 60 days). The company complied with its treasury risk management policy during the years ended 30 June 2010 and 30 June 2009.

13. Deferred Tax Liability

	2010 $000	2009 $000
Balance at beginning of year	**420,666**	342,348
Deferred tax recognised in other comprehensive income – resulting from the revaluation of property, plant and equipment	**(167)**	81,681
Deferred tax recognised in the deficit for the year	**(3,949)**	(3,363)
The impact of tax depreciation on buildings being non-deductible from 1 July 2011 recognised in the deficit for the year	**14,037**	-
The impact on deferred tax on property, plant and equipment due to asset revaluation as a result of the reduction of the corporate tax rate from 30% to 28% from 1 July 2011 recognised in other comprehensive income	**(29,761)**	-
The impact on deferred tax on tax losses and property, plant and equipment as a result of the reduction of the corporate tax rate from 30% to 28% from 1 July 2011 recognised in the deficit for the year	**1,223**	-
Total deferred tax liability	**402,049**	420,666
The balance relates to:		
Depreciation temporary differences	**423,395**	436,187
Provisions and accrued expenses temporary differences	**(12,405)**	(6,199)
Tax losses	**(8,941)**	(9,322)
Total deferred tax liability	**402,049**	420,666

The depreciation temporary differences for property, plant and equipment arise because the carrying value of property, plant and equipment is higher for accounting purposes than for taxation purposes due to:

- The revaluation of certain assets;
- The company's depreciation rates being lower than those permitted by tax legislation; and
- For certain constructed assets, the cost for accounting purposes being higher than the cost for taxation purposes.

The provisions and accrued expenses temporary differences principally relate to the mark-to-market revaluation of financial instruments. These expenses have been recognised for accounting purposes but cannot be deducted for tax purposes until the amounts become payable.

14. Trade and Other Payables

	2010 $000	2009 $000
Current		
Contract retentions	**4,591**	6,020
Trade creditors – other	**3,162**	1,763
Trade creditors – related parties	**546**	351
Total trade and other payables	**8,299**	8,134

15. Provisions

	2010 $000	2009 $000
Non-current		
Employee entitlements	**1,053**	966
Total non-current provisions	**1,053**	966
Current		
Employee entitlements	**2,498**	2,399
Decommissioning costs	**3,276**	3,276
Other provisions	**490**	481
Total current provisions	**6,264**	6,156
Total provisions	**7,317**	7,122

	Employee Entitlements $000	Decommissioning Costs $000	Other Provisions $000
Balance at 1 July 2009	3,365	3,276	481
Additional provisions recognised	2,601	-	561
Reductions resulting from payments/reduction on future economic costs	(2,415)	-	(552)
Balance at 30 June 2010	**3,551**	**3,276**	**490**

16. Accrued Expenses

	2010 $000	2009 $000
Current		
Accrued on capital work in progress	**20,880**	20,815
Other accrued expenses	**12,137**	11,206
Total accrued expenses	**33,017**	32,021

Notes to the Financial Statements continued

17. Capital

	2010 $000	2009 $000
Total authorised issued and paid-up capital of 260,693,164 ordinary shares of $1 each	**260,693**	260,693

Each share in the company confers on the holder the right to:

- one vote on a poll at a meeting of the company on any resolution: and
- an equal share in the distribution of the surplus assets of the company.

Under Section 707ZZZS(1)(c) of the Local Government Act 1974 the company is not permitted to pay dividends.

The capital management policy of the company is detailed in note 23 on page 95.

18. Revaluation Reserves

	2010 $000	2009 $000
Balances at beginning of year	**1,043,205**	862,745
Asset impairment	**(557)**	(11,708)
Tax rate adjustment (30% to 28%)	**29,761**	-
Revaluation – net of deferred tax	**-**	194,367
Deferred tax on asset impairment	**167**	3,512
Transfer to retained earnings on disposal of property, plant and equipment – net of deferred tax	**394**	2,448
Reclassification	**-**	-
Transferred to retained earnings on disposal of property, plant and equipment	**(1,315)**	(8,159)
Total revaluation reserves	**1,071,655**	1,043,205
Comprising:		
Land	**47,163**	47,163
Buildings	**33,319**	32,341
Pipelines	**569,176**	553,167
Tanks, tunnels, roads and reservoirs	**266,364**	258,630
Dams	**69,940**	67,941
Machinery	**85,693**	83,963
Total revaluation reserves	**1,071,655**	1,043,205

ANALYSIS:

	2010 $000	2009 $000
Land		
Balances at beginning of year	**47,163**	52,865
Asset impairment	**-**	-
Tax rate adjustment (30% to 28%)	**-**	-
Revaluation	**-**	(5,702)
Deferred tax on asset impairment	**-**	-
Transfer to retained earnings on disposal of property, plant and equipment – net of deferred tax	**-**	-
Reclassification	**-**	-
Transferred to retained earnings on disposal of property, plant and equipment	**-**	-
Total land revaluation reserves	**47,163**	47,163

18. Revaluation Reserves continued

	2010 $000	2009 $000
Buildings		
Balances at beginning of year	**32,341**	26,898
Asset impairment	**-**	-
Tax rate adjustment (30% to 28%)	**967**	-
Revaluation	**-**	5,465
Deferred tax on asset impairment	**-**	-
Transfer to retained earnings on disposal of property, plant and equipment – net of deferred tax	**(5)**	6
Reclassification	**-**	(8)
Transferred to retained earnings on disposal of property, plant and equipment	**16**	(20)
Total buildings revaluation reserves	**33,319**	32,341
Pipelines		
Balances at beginning of year	**553,167**	450,021
Asset impairment	**(557)**	(8,000)
Tax rate adjustment (30% to 28%)	**16,540**	-
Revaluation	**-**	108,569
Deferred tax on asset impairment	**167**	2,400
Transfer to retained earnings on disposal of property, plant and equipment – net of deferred tax	**60**	1,880
Reclassification	**-**	4,562
Transferred to retained earnings on disposal of property, plant and equipment	**(201)**	(6,265)
Total pipelines revaluation reserves	**569,176**	553,167
Tanks, tunnels, roads and reservoirs		
Balances at beginning of year	**258,630**	224,406
Asset impairment	**-**	-
Tax rate adjustment (30% to 28%)	**7,735**	-
Revaluation	**-**	38,268
Deferred tax on asset impairment	**-**	-
Transfer to retained earnings on disposal of property, plant and equipment – net of deferred tax	**-**	297
Reclassification	**-**	(3,351)
Transferred to retained earnings on disposal of property, plant and equipment	**(1)**	(990)
Total tanks, tunnels, roads and reservoirs revaluation reserves	**266,364**	258,630
Dams		
Balances at beginning of year	**67,941**	49,645
Asset impairment	**-**	-
Tax rate adjustment (30% to 28%)	**2,032**	-
Revaluation	**-**	17,257
Deferred tax on asset impairment	**-**	-
Transfer to retained earnings on disposal of property, plant and equipment – net of deferred tax	**-**	-
Reclassification	**(33)**	1,039
Transferred to retained earnings on disposal of property, plant and equipment	**-**	-
Total dams revaluation reserves	**69,940**	67,941
Machinery		
Balances at beginning of year	**83,963**	58,910
Asset impairment	**-**	(3,708)
Tax rate adjustment (30% to 28%)	**2,487**	-
Revaluation	**-**	30,510
Deferred tax on asset impairment	**-**	1,112
Transfer to retained earnings on disposal of property, plant and equipment – net of deferred tax	**339**	265
Reclassification	**33**	(2,242)
Transferred to retained earnings on disposal of property, plant and equipment	**(1,129)**	(884)
Total machinery revaluation reserves	**85,693**	83,963

The revaluation reserve arises on the revaluation of property, plant and equipment. Where revalued property, plant and equipment are sold, the portion of the revaluation reserve that relates to that asset, and is effectively realised, is transferred directly to retained earnings.

Notes to the Financial Statements continued

19. Retained Earnings

	2010 $000	2009 $000
Balance at beginning of year	**147,053**	151,706
Net deficit after tax	**(27,709)**	(10,364)
Transfer to retained earnings – net of deferred tax	**(394)**	(2,448)
Transfers from revaluation reserve on disposal of property, plant and equipment	**1,315**	8,159
Total retained earnings at end of year	**120,265**	147,053

20. Cash Flows

	2010 $000	2009 $000
Reconciliation of net surplus/(deficit) after tax to net cash flows from operating activities		
Net deficit for the year	**27,709**	10,364
Non-cash and non-operating items:		
Depreciation and amortisation of non-currrent assets	**68,755**	57,881
Redundant assets written off and gain or loss on disposal	**2,704**	10,975
Contributions towards cost of constructing property, plant and equipment	**(1,111)**	(259)
Deferred tax	**11,311**	(3,363)
GST on purchases of non-current assets	**12,735**	12,518
Movements in working capital:		
(Increase)/decrease in assets:		
Inventories	**(745)**	82
Trade and other receivables	**(1,194)**	(2,479)
Financial assets	**8,369**	(7,685)
Prepaid expenses	**(823)**	(1,194)
Increase/(decrease) in liabilities:		
Trade and other payables	**165**	2,215
Financial liabilities	**12,114**	24,285
Payables relating to investing activities	**1,356**	(4,742)
Provisions	**195**	3,685
Other accrued expenses	**996**	(258)
Net cash flows from operating activities	**87,118**	81,297

2009 comparative figures adjusted in line with current year disclosure to show investing activities GST inclusive.

NETTING OF CASH FLOWS

Bank loan and commercial paper

The company has a revolving credit facility with the Bank of New Zealand (2009: Commonwealth Bank of Australia), which allows it to draw up to $25 million. The facility is operated like a current account with day-to-day cash transactions being made through it.

The company issues commercial paper for periods up to 90 days. These are short-term loans similar to drawings under the bank facility.

Accordingly, the net amount of bank loans and commercial paper borrowed or repaid are shown as net borrowing activities and net repayments rather than the gross cash flows. Note 12, page 88, provides more information on these facilities. The net amounts borrowed or repaid during the year were:

- Commercial paper borrowed (repaid) $44,665,000, 2009: ($147,439,000)
- Bank loan borrowed (repaid) $21,300,000, 2009: ($10,150,000).

INVESTING CASH FLOWS

Increase in operating capacity

The capital expenditure programme is focused on the replacement and upgrading of the company's infrastructure property, plant and equipment.

21. Commitments

	2010 $000	2009 $000
CAPITAL EXPENDITURE		
The company has several major projects in progress. The capital expenditure committed to, but not recognised in the financial statements, at year-end was:		
Buildings	**97**	1,069
Pipelines	**10,722**	7,055
Tanks, tunnels, roads and reservoirs	**5,654**	18,615
Machinery	**-**	-
Other	**19,602**	21,715
Total capital expenditure commitments	**36,075**	48,454
Anticipated payment schedule:		
Current	**25,121**	32,947
One to two years	**3,651**	3,877
Two to five years	**7,303**	11,630
Beyond five years	**-**	-
Total capital expenditure commitments	**36,075**	48,454
The commitments relate to the following projects:		
Hobson Bay sewer replacement	**5,527**	18,536
Wastewater treatment plant	**15,793**	19,422
Water treatment plants	**1,712**	1,604
Other projects	**13,043**	8,892
Total capital expenditure commitments	**36,075**	48,454

	2010 $000	2009 $000
LEASES		
Anticipated payments under non-cancellable operating leases:		
Current	**2,411**	2,195
One to two years	**2,357**	2,027
Two to five years	**6,299**	5,896
Beyond five years	**49,859**	48,894
Total lease commitments	**60,926**	59,012

The major lease commitment is a long-term lease of the land forming the water catchment areas, which expires in July 2092. The annual rental of $510,000 has been included in these commitments at face value. Other leases include Newmarket office, parks, reservoirs and office equipment.

22. Contingencies

The Bank of New Zealand has issued performance bonds of $400,000 for 2010 (2009: $400,000). The performance bonds are to support the company's obligations to the Auckland Regional Council for risks of environmental damage arising from the upgrade and operations of the Mangere Wastewater Treatment Plant.

Notes to the Financial Statements continued

23. Financial Assets and Liabilities

Categories of financial assets and liabilities

The carrying amounts presented in the statement of financial position relate to the following categories of assets and liabilities:

	2010		2009	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
	$000	$000	$000	$000
FINANCIAL ASSETS				
Loans and receivables				
Trade and other receivables	**19,047**	**19,047**	17,853	17,853
Cash and cash equivalents	**-**	**-**	210	210
Short-term deposits and revolving credit	**10,000**	**10,000**	89,800	89,800
Fair value through profit or loss				
Derivative financial assets – current	**162**	**162**	1,595	1,595
Derivative financial assets – non-current	**5,284**	**5,284**	12,220	12,220
	34,493	**34,493**	121,678	121,678
FINANCIAL LIABILITIES				
Other amortised cost				
Trade, other payables and accrued expenses	**41,316**	**41,316**	40,154	40,154
Bank overdraft	**446**	**446**	-	-
Bank loan (unsecured)	**16,500**	**16,500**	-	
Medium-term notes (unsecured) – current	**-**		150,000	150,212
Medium-term notes (unsecured) – non-current	**300,000**	**314,191**	250,000	250,354
Term loan (unsecured) – non-current	**100,000**	**100,381**	100,000	100,477
Commercial paper (unsecured) – current	**99,225**	**99,554**	54,560	54,890
Related party term loan	**10,000**	**10,000**	-	-
Fair value through profit or loss				
Derivative financial liabilities – current	**1,026**	**1,026**	1,485	1,485
Derivative financial liabilities – non-current	**40,298**	**40,298**	27,725	27,725
	608,811	**623,712**	623,924	625,297

Fair value measurement methods

The methods and valuation techniques used for the purpose of measuring fair values are unchanged compared to the previous reporting period. Measurement methods for financial assets and liabilities accounted for at amortised cost are described below. Methods applied for items accounted for at fair value are also described below.

Loans and receivables

Due to their relatively short-term nature, the carrying amount of trade receivables is considered a reasonable approximation of fair value.

Due to their relatively short-term nature, the carrying amount of cash and cash equivalents is considered a reasonable approximation of fair value.

Liabilities at amortised cost

Due to their relatively short-term nature, the carrying amount of trade payables is considered a reasonable approximation of fair value.

The fair value of loans and borrowings is calculated based on the present value of contractual principal and interest cash flows, discounted at the market rate of interest in the reporting period.

Additional information on fair value measurements in the statement of financial position.

23. Financial Assets and Liabilities continued

Fair value hierarchy

The company adopted the amendments to NZ IFRS 7 Improving Disclosures about Financial Instruments, effective from 1 July 2009. These amendments require the company to present certain information about financial instruments measured at fair value in the statement of financial position. In the first year of application, comparative information need not be presented for the disclosures required by the amendment. Accordingly, the disclosure for the fair value hierarchy is only presented for the 30 June 2010 year-end.

The following table presents financial assets and liabilities measured at fair value in the statement of financial position in accordance with the fair value hierarchy. This hierarchy groups financial assets and liabilities into three levels based on the significance of inputs used in measuring the fair value of the financial assets and liabilities. The fair value hierarchy has the following levels:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2: Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and

Level 3: Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The level in which the financial asset or liability is classified is determined based on the lowest level of significant input to the fair value measurement.

The financial assets and liabilities measured at fair value in the statement of financial position are grouped in the fair value hierarchy as follows:

	2010		
	Level 1	Level 2	Level 3
	$000	$000	$000
Financial assets			
Derivative financial assets			
Interest rate swaps and forward foreign exchange contracts	-	5,446	-
Financial liabilities			
Derivative financial liabilities			
Interest rate swaps and forward foreign exchange contracts	-	41,325	-
Net fair value	-	(35,879)	-

There have been no transfers between levels 1, 2 and 3 during the year ended 30 June 2010.

The methods and valuation techniques used for the purpose of measuring fair value are unchanged compared to the previous reporting period.

Derivatives

Interest rate swaps are measured at the present value of future cash flows estimated and discounted based on the applicable yield curves derived from quoted interest rates.

Forward foreign exchange contracts are measured using observable market forward exchange rates.

Reclassification

No reclassification of financial assets was made during the years ended 30 June 2010 or 30 June 2009.

Financial instrument risks

Risk management objectives and policies

The company's management monitors and manages the financial risks relating to the operations of the company through internal risk reports which analyse exposures by degree and magnitude of risks. The main types of risks are market risk, credit risk and liquidity risk.

The company seeks to minimise the effects of these risks by using derivative financial instruments to hedge these risk exposures. The use of financial derivatives is governed by the company's policies approved by the Board of Directors, which provide written principles on interest rate risk, credit risk, the use of financial derivatives and non-derivative financial instruments, and the investment of excess liquidity. Compliance with policies and exposure limits is reviewed by the Board of Directors on a regular basis.

Market risk

The company is exposed to market risk through its use of financial instruments and specifically to interest rate risk, foreign currency and certain other price risks.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The company is exposed to interest rate risk when the company borrows funds at floating interest rates. The risk is managed by the company through monitoring market interest rates and reviewing the impact of these on interest rate exposure.

The company has a mixture of borrowings with both fixed rates and floating rates of interest. It is company policy to ensure that a proportion of interest rate exposure is maintained on a fixed-rate basis. To achieve this, the company enters into contracts that allow some of its floating interest rate exposure to be swapped from floating to fixed, and vice versa. The contracts are called interest rate swaps and interest rate options.

The company's exposure to market interest rates relates primarily to the company's debt obligations which are disclosed in note 12 on page 88.

The company regularly analyses its interest rate exposure. Within this analysis, consideration is given to potential renewals of existing positions, alternative financing, alternative hedging positions and the mix of fixed and variable interest rates.

Notes to the Financial Statements continued

23. Financial Assets and Liabilities continued

The notional principal, contract amounts of agreements and fixed interest rates in place, at 30 June, to manage interest rate risk were as follows:

	2010		2009	
	Fixed Interest Rate	Notional Amount	Fixed Interest Rate	Notional Amount
		$000		$000
Interest rate swaps				
Receivable maturities (the company receives a fixed interest rate and pays a floating rate):				
Current			6.79%	150,000
One to two years	**6.86%**	**50,000**	6.86%	50,000
Two to three years	**-**	**-**	-	-
Three to four years	**5.26%**	**170,000**	-	-
Four to five years	**-**	**-**	4.79%	130,000
Beyond five years	**5.10%**	**30,000**	5.10%	30,000
Payable maturities (the company receives a floating interest rate and pays a fixed interest rate):				
Current *	**6.54%**	**55,000**	6.13%	67,500
One to two years	**5.48%**	**125,000**	6.54%	55,000
Two to five years	**6.25%**	**15,000**	6.46%	45,000
Beyond five years	**6.35%**	**660,000**	6.32%	655,000

*The amount of $55,000,000 includes a 'knock out' interest rate swap of $25,000,000.

i) The $25,000,000 'knock out' interest rate swap provides for a fixed interest rate of borrowing of 6.36% unless the floating rate on a reset date is higher than 7.35%. In that event, the interest rate will revert to the floating rate.

ii) The remaining $30,000,000 of interest rate swap is floating interest rate to fixed interest rate which swaps at the fixed rate of 6.70%.

As interest rates change, these derivatives financial instruments are revalued to fair value and the change in value recorded in the statement of comprehensive income.

Interest rate sensitivity

The following sensitivity analysis is based on the interest rate risk exposures in existence at 30 June.

At 30 June, if interest rates had moved, as illustrated in the table below, with all other variables held constant, post-tax surplus and equity would have been affected as follows:

	Post-Tax Surplus Higher/(Lower)		Equity Higher/(Lower)	
	2010	2009	2010	2009
	$000	$000	$000	$000
Judgments of reasonably possible movements:				
Interest paid				
1% (100 basis points) higher for the year	**(501)**	(1,293)	**(501)**	(1,293)
1% (100 basis points) lower for the year	**501**	1,293	**501**	1,293
Revaluation of derivative financial instruments				
1% (100 basis points) higher at year-end	**20,080**	18,943	**20,080**	18,943
1% (100 basis points) lower at year-end	**(22,095)**	(20,980)	**(22,095)**	(20,980)

23. Financial Assets and Liabilities continued

Foreign currency risk

Foreign currency risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. Most of the company's transactions are carried out in New Zealand dollars.

From time to time the company is exposed to foreign currency risk on transactions denominated in foreign currencies. This is predominantly for the purchase of equipment, parts and chemicals in foreign currency. Where amounts exceed $100,000 the company hedges this risk with forward foreign exchange contracts or options.

The company has not adopted "hedge accounting" in respect of any derivative financial instruments.

The company has forward foreign exchange contracts at year-end as follows:

	Average Exchange Rate		Foreign Currency		Contract Value		Carrying Amount and Fair Value	
	2010	2009	**2010**	2009	**2010**	2009	**2010**	2009
			FC 000	FC 000	**NZ$000**	NZ$000	**NZ$000**	NZ$000
USD								
Less than 3 months	**0.719**	0.544	**1,740**	1,500	**2,420**	2,759	**96**	(449)
3 months and beyond	**0.713**	0.585	**1,000**	1,500	**1,403**	2,563	**66**	(225)
GBP								
Less than 3 months	**-**	-	**-**	-	**-**	-	**-**	-
3 months and beyond	**-**	-	**-**	-	**-**	-	**-**	-
AUD								
Less than 3 months	**0.789**	0.861	**90**	149	**114**	173	**(48)**	12
3 months and beyond	**0.801**	0.793	**140**	1,373	**175**	1,731	**(4)**	(32)
Total forward foreign exchange contracts					**4,112**	7,226	**110**	(694)

Foreign currency sensitivity

The following sensitivity analysis is based on the foreign currency risk exposures in existence at year-end. At 30 June, had the New Zealand dollar exchange rate changed, as illustrated in the table below, with all other variables held constant, post-tax surplus and equity would have been affected as follows:

	Post-Tax Surplus Higher/(Lower)		Equity Higher/(Lower)	
	2010	2009	**2010**	2009
	$000	$000	**$000**	$000
Sensitivity to reasonable movements				
Change in United States dollar exchange rate				
10% increase	**(256)**	(298)	**(256)**	(298)
10% decrease	**313**	365	**313**	365
Change in United Kingdom pound exchange rate				
10% increase	**-**	-	**-**	-
10% decrease	**-**	-	**-**	-
Change in Australian dollar exchange rate				
10% increase	**(18)**	(119)	**(18)**	(119)
10% decrease	**22**	146	**22**	146

Credit risk

Credit risk is the risk that a counterparty will default on its contractual obligations resulting in financial loss to the company. Financial instruments which potentially subject the company to credit risk principally consist of cash and cash equivalents, derivative assets held for risk management, and trade and other receivables.

The company's cash and cash equivalents are placed with major trading banks with a minimum AA- credit-rating assigned by international credit-rating agencies. The company performs credit evaluations on major customers requiring credit purchases.

The company's six major customers account for 90% of the revenue and they are responsible for retail water supply and wastewater collection within the Auckland region.

Outstanding amounts are closely managed. Because of the high credit rating of its customers, the company does not require collateral or other security to support these receivables.

There are no trade receivables whose terms have been renegotiated.

Notes to the Financial Statements continued

23. Financial Assets and Liabilities continued

Liquidity risk

Liquidity risk is the risk arising from the company not being able to meet its financial obligations.

Ultimate responsibility for liquidity risk management rests with the Board of Directors, which has an appropriate liquidity risk management framework for the management of the company's short, medium and long-term funding and liquidity management requirements. The company manages liquidity risk by maintaining adequate reserves and banking facilities, monitoring forecast and actual cash flows and by matching this with the maturity profiles of financial liabilities.

The company's objective is to maintain a balance between continuity of funding and flexibility through the use of the medium-term notes, term loans, overdraft, revolving credit facility and commercial paper.

The liquidity risk associated with the short-term commercial paper programme is mitigated by the commercial paper standby facility of $150 million.

The tables below detail the gross undiscounted cash flows of the company's financial liabilities on the basis of their earliest possible contractual maturity (including interest payments where applicable). Cash flows for financial liabilities without fixed amount or timing restrictions are based on the conditions existing at 30 June 2010.

Gross contractual maturity analysis

	Current		Non-current				
	0 – 6 months	7 – 12 months	1 – 2 years	2 – 3 years	More than 3 years	Gross nominal outflow	Carrying amount
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
30 JUNE 2010							
Financial liabilities							
Trade and other payables	**41,316**	**-**	**-**	**-**	**-**	**41,316**	**41,316**
Loan facilities and derivatives	**21,598**	**21,082**	**294,287**	**25,592**	**287,530**	**650,089**	**567,495**
	62,914	**21,082**	**294,287**	**25,592**	**287,530**	**691,405**	**608,811**

	Current		Non-current				
	0 – 6 months	7 – 12 months	1 – 2 years	2 – 3 years	More than 3 years	Gross nominal outflow	Carrying amount
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
30 JUNE 2009							
Financial liabilities							
Trade and other payables	40,154	-	-	-	-	40,154	40,154
Loan facilities and derivatives	166,930	70,515	29,721	169,889	237,401	674,456	583,770
	207,084	70,515	29,721	169,889	237,401	714,610	623,924

The company monitors rolling forecasts of liquidity reserves on the basis of expected cash flow. At 30 June 2010 the company had available $159.8 million of unused credit facilities (commercial paper, overdraft facility and revolving credit facility) available for its immediate use (2009: $221.4 million).

Capital management

The company considers share capital and retained earnings to be its capital for management purposes.

The company's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The impact of the level of capital on shareholders' return is also recognised. The company also recognises the need to maintain a balance between the higher returns that might be possible with greater gearing and the advantages and security afforded by a sound capital position.

Note 12 on page 88, outlines the covenants that the company is subject to for its borrowings. All covenants have been met during each reporting period.

In ensuring that the company has sufficient solvency to satisfy all it operational needs, it closely monitors the ratio between the funds that it receives from operation and its interest expense.

There has been no change in the company's management of capital during the years ended 30 June 2010 and 30 June 2009.

24. Related Parties

	%	Shares 2010	Shares 2009
Shareholders			
Auckland City Council	41.6%	**108,551,635**	108,551,635
Manukau City Council	25.1%	**65,481,895**	65,481,895
Waitakere City Council	16.7%	**43,400,849**	43,400,849
North Shore City Council	11.5%	**29,988,909**	29,988,909
Papakura District Council	3.7%	**9,667,225**	9,667,225
Rodney District Council	1.4%	**3,602,651**	3,602,651
	100%	**260,693,164**	260,693,164

Other related parties

Metrowater Limited (a subsidiary of Auckland City Council).

Manukau Water Limited (a subsidiary of Manukau City Council).

Transactions with related parties

The company supplies bulk water and wastewater services predominantly to related parties in the Auckland region. The company also pays rates and other operating expenses to these parties in the normal course of business.

	2010 $000	2009 $000
Sales to related parties	**173,610**	161,196
Purchases from related parties	**2,242**	2,908

	2010 $000	2009 $000
Trade receivables	**16,223**	15,770
Trade payables	**546**	351

	2010 $000	2009 $000
Loans from related parties	**10,000**	-

The company has an agreement with Auckland City Council (ACC) under which ACC guarantees repayment of the company's borrowings and its obligations under interest rate hedges.

Notes to the Financial Statements continued

25. Remuneration

The directors and key management personnel are included in this compensation.

Compensation of directors and key management personnel

	2010 $000	2009 $000
Employees' salaries and wages and directors fees	2,952	2,661
Post-employment benefits	-	-
Other long-term employee benefits	20	32
Termination benefits	260	-
Share-based benefits	-	-
Total compensation for directors and key executives	3,232	2,693

Directors' remuneration

	Appointed	2010 $000	2009 $000
Graeme Hawkins (Chairman)	December 2002	75	75
David Clarke	July 2008	38	38
Peter Drummond	March 2010	16	-
Catherine Handley (retired December 2008)	December 2002	-	19
Susan Huria	July 2008	38	38
Terry Kayes (retired January 2010)	January 2007	19	38
Ross Keenan (Deputy Chairman)	March 2010	18	-
Dr Ian Parton (resigned December 2009)	March 2001	24	47
Patrick Snedden	December 2002	38	38
Jeff Todd	May 2007	44	44
		310	337

Employee remuneration range

	2010 Number of Employees			2009 Number of Employees		
	Remuneration	Remuneration including Redundancy and Restructuring	Total	Remuneration	Remuneration including Redundancy and Restructuring	Total
$100,000 – $110,000	18	-	18	13	-	13
$110,001 – $120,000	15	-	15	17	-	17
$120,001 – $130,000	20	-	20	14	-	14
$130,001 – $140,000	8	-	8	3	-	3
$140,001 – $150,000	-	-	-	2	-	2
$150,001 – $160,000	2	-	2	4	-	4
$160,001 – $170,000	3	-	3	2	-	2
$170,001 – $180,000	3	-	3	1	-	1
$180,001 – $190,000	-	-	-	2	-	2
$190,001 – $200,000	1	-	1	2	-	2
$200,001 – $210,000	2	-	2	1	-	1
$210,001 – $220,000	2	-	2	-	-	-
$220,001 – $230,000	2	-	2	-	-	-
$230,001 – $240,000	-	-	-	-	-	-
$240,001 – $250,000	-	-	-	-	-	-
$250,001 – $260,000	-	-	-	1	-	1
$260,001 – $270,000	1	-	1	1	-	1
$270,001 – $280,000	-	-	-	1	-	1
$280,001 – $290,000	-	-	-	1	-	1
$290,001 – $300,000	-	-	-	-	-	-
$300,001 – $310,000	1	-	1	-	-	-
$310,001 – $320,000	1	-	1	-	-	-
$380,001 – $390,000	1	-	1	-	-	-
$570,001 – $580,000*	-	1	1	-	-	-
$660,001 – $670,000**	-	-	-	1	-	1

*Includes in 2010: $374,000 in respect of redundancy, annual leave and long service leave payments.
**Includes in 2009: $86,000 in respect of annual leave and long service leave payments.

26. Retirement Benefit Plans

The employees of the company can elect to join the KiwiSaver scheme. KiwiSaver is a work based savings scheme run through a selection of private providers. The obligation of the company is to contribute a specified percentage of payroll costs to the KiwiSaver scheme in line with employee contributions and the only obligation of the company to the KiwiSaver scheme is to make the specified contributions.

The total defined contribution expense recognised in the statement of comprehensive income for 2010 was $342,369 (2009: $147,567). This was partially offset by the employer tax credit of $Nil (2009: $89,598).

27. Events Occurring After Year-End

Auckland local government reorganisation

On 1 November 2010 the company will acquire the water and wastewater businesses conducted by Metrowater Limited, Manukau Water Limited, North Shore City Council, Waitakere City Council, Rodney District Council and Franklin District Council, in accordance with the Local Government (Tamaki Makaurau Reorganisation) Act 2009, the Local Government (Auckland Council) Act 2009 and the Local Government (Auckland Law Reform) Act 2010.

The company will provide total water and wastewater services to the Auckland region from that date and as a result, the assets, liabilities, revenues and costs of the company will increase significantly.

The company will be 100% owned by the new Auckland Council from 1 November 2010.

No other significant events have occurred since year-end requiring disclosure in the financial statements.

Economic Policy: To manage the business efficiently

1. ECONOMIC PERFORMANCE: To manage the business efficiently at minimum prices and to operate on a least-cost basis subject to fulfilling other environmental, social and legislative requirements.

a) To ensure that financial strategies are consistent with achieving economic efficiency, intergenerational equity and an optimal cost of capital.

i) To meet the requirements of the Auckland City Council Guarantee of Watercare's debt.

All requirements were met.

ii) To achieve a funds flow from operations (FFO) to interest cover of 2.5 times before any price adjustments.

The FFO to interest cover was 2.93 for the year, which exceeds the required target. The higher FFO reflects lower interest costs and operational cost savings.

b) To ensure that the regime for the pricing of water and wastewater services is enduring, transparent and reliable.

i) The pricing methodology enables the revenue to be set to recover all costs and provide for an adequate level of debt servicing.

Price increases as indicated in the February 2009 Funding Plan have been implemented from 1 July 2009. The 2010 Funding Plan pricing ensures revenue is set to recover all costs, including integration, and provides for an adequate level of debt servicing.

ii) The pricing methodology established cannot be changed without Watercare providing the LNO customers with three-year advance notification of a change.

The pricing methodology for water and wastewater is set out in the water and wastewater contracts which require three year's notice to be changed.

c) To promote continuous improvement in sustainable business performance.

i) To continue to use the Project Improve initiative as the vehicle to deliver continuous improvement in business performance.

Project Improve was developed in 2002 as a framework for the identification, capture and sharing of improvement ideas. Since then it has helped to foster innovation and a culture of improvement. Initiatives such as reliability centred maintenance, research programmes and business intelligence reporting are initiatives that were developed through the programme. A Continuous Improvement feedback system is used to recognise and celebrate improvement ideas by staff. Among the ideas that received recognition over the past 12 months are a contractor tracking system used at treatment plants and a trolley for sewer maintenance.

d) To ensure efficiency in operational expenditure is maintained.

i) To meet operational efficiency targets (operating expenses excluding depreciation and interest) established in the December 2008 AMP as follows: 2009/10 - $96.09 million; 2010/11 - $94.09 million; 2011/12 - $88.52 million.

Target achieved. 2009/10 actual cost $88.73 million.

ii) To report operational expenditure relative to budget for water, wastewater and capex.

Each year Watercare budgets for operational efficiency gains and tracks performance against budget which is reported to the executive and the Board on a monthly basis and to the shareholders every quarter. Operating expenditure (excluding depreciation and interest) was $4 million or 4.5% lower than budget. Capital expenditure was $18 million or 13% lower than budget.

2. ASSET MANAGEMENT: To manage and maintain the long-term integrity of assets.

a) To provide leadership in the development of an integrated regional solution for the management of water, wastewater and stormwater.

i) To develop a three-waters implementation plan by June 2010.

A Draft Three-Waters Implementation Plan has been prepared. Decisions on implementation aspects of the plan will be influenced by directions taken by the new Auckland Council in relation to stormwater and by decisions yet to be made in terms of integration of the local and trunk components of water supply and wastewater service delivery.

b) To promote continuous improvement in asset planning processes.

i) To achieve 80% overall performance in the WSAA asset management benchmarking.

Since 1998 Watercare has participated in a regular benchmarking process to measure its asset management processes against best practice. In recent years, Watercare adopted a benchmarking framework (AQUAMARK2) developed by the Water Services Association of Australia (WSAA). In 2008, WSAA combined with the International Water Association (IWA) in benchmarking water companies in Australia, New Zealand, the United States, Singapore, Hong Kong and the Middle East.

The benchmarking survey was undertaken in March 2008 and results were announced in October 2008. Watercare achieved a score of 83%. The next WSAA survey will be undertaken following integration.

Statement of Service Performance continued

c) To develop and implement effective and efficient capital investment and maintenance programmes.

i) To ensure that capital projects have robust business cases and are delivered to plan.

All of Watercare's capital projects are supported by robust business cases and are managed to ensure delivery to plan in a timely and cost effective manner. Project progress is reported regularly to the executive and the Board. Upon project completion, post completion reports are compiled for all projects greater than $2 million and reviewed to identify opportunities for improvement.

ii) To continue with the implementation of the reliability centred maintenance (RCM) system.

The RCM system offers the opportunity to plan asset maintenance in order to optimise the life of assets and maximise the potential of a cost-effective maintenance programme. Development and implementation of the system is now complete. An RCM based maintenance programme has been implemented for the Mangere Wastewater Treatment Plant, for the water and wastewater networks and for water treatment and head-works' assets. RCM models will be updated as needed. This system has been used to assist with the development of the maintenance budgets.

d) To maintain a focus on integrated planning with the customers to secure long-term wastewater solutions and manage regional wet-weather overflows.

i) To facilitate a process to agree regional environmental objectives, including the setting of wastewater overflow performance targets for each of the region's key receiving water environments, within three years.

Watercare established a Policy Integration Group to review opportunities that will help with efficient integration of water and wastewater service delivery and with future land-use planning under the new regional planning framework. The work includes consideration of options to manage and legally authorise wet-weather overflows. Watercare is also a member of the Regional Policy Steering Group, which provides an opportunity to input into regional policy and planning decisions related to infrastructure.

ii) To facilitate collaborative planning associated with the Central Interceptor.

A series of meetings has been held with Auckland City Council and Metrowater to facilitate catchment prioritisation for future upgrading works. The Motions Road and Grey Lynn catchments have been confirmed as the next priorities for detailed investigation. Following integration on 1 November 2010, Watercare will take full responsibility for the Central Interceptor and will work closely with the new Auckland Council to achieve effective outcomes.

ii) To commence the process to secure regional access for the use of the Rosedale Wastewater Treatment Plant.

Rosedale Wastewater Treatment Plant has been secured by Watercare as part of the integration of regional water services associated with the Auckland Governance changes. The Rosedale Wastewater Treatment plan will become one of four regional hubs for the monitoring and delivery of services.

Environmental Policy: To operate the business in a sustainable manner

3. ENVIRONMENTAL CARE: To minimise the adverse impact of the company's operations on the environment.

a) To promote conservation of the region's water resources.

i) To lead the development of a regional demand management strategy, including further testing/analysis of the economically viable levels of water conservation and reuse.

A draft framework has been prepared for the Regional Demand Management and Conservation Strategy. Further development of the regional demand management model is under way to incorporate cost/benefit analysis of water conservation initiatives.

b) To promote to industry cleaner discharges

i) To achieve a 'Bb' grade as set-out in the 2003 NZWWA guidelines for the safe application of biosolids to land.

The 'Bb' grade for biosolids has been maintained.

c) To minimise the impact of carbon on the environment.

i) To achieve a 75% CO_2 equivalent reduction from 1990 levels.

Watercare's focus on reducing atmospheric emissions of carbon continued. In comparison with levels in 1990, the company achieved an 86 per cent reduction in carbon dioxide (CO_2) equivalent emissions. The largest contributing factor since 1990 was the decommissioning of the oxidation ponds and sludge lagoons at the Mangere Wastewater Treatment Plant. Other initiatives, such as collecting methane for electricity generation and optimising the efficiency of hydro-generation at water storage dams, reduce reliance on external energy sources. Watercare continued to review its approach to measuring emissions to ensure consistency with best practice.

d) To use energy efficiently, and where appropriate, recover energy from operational activities.

i) To target 35% of energy needs sourced internally for each of the next three years.

The continued optimisation of hydro-generators helped to improve generator availability. However, this was offset by dry weather conditions which necessitated an increase in the use of the Waikato Treatment Plant, resulting in 44 per cent of Watercare's energy needs being sourced internally.

Social Policy: To act in a socially responsible manner

4. EMPLOYEE HEALTH, SAFETY and WELLBEING: To be an industry best work place.

a) To promote staff productivity and wellbeing.

i) To attain a lost-time injury frequency (LTIF) rate of less than or equal to 5.

The LTIFR for the year was 3.52 relative to the company target of less than or equal to 5.

ii) To target an unplanned absenteeism rate of less than 2.5%.

Unplanned absenteeism for the year was favourable at 1.77%. Absences were due primarily to sick leave.

b) To provide comprehensive training and development programmes.

i) To target over 20 training hours per employee.

The company invested an average of $1,395 per employee for educational purposes in 2009/10. An average of 25.45 hours of training per employee was completed for the year. This is well above the New Zealand Human Resources Benchmark of 14 hours per employee.

ii) To target a ratio of 2.25 of external to internal appointments.

Watercare aims to develop staff and offer internal transfers and promotions where appropriate. Year to date, the ratio of external to internal appointments is 2.4 (24 external appointments, 10 internal appointments) compared with the target of 2.25.

As a result of integration, all vacancies since November 2009 have been advertised within Watercare, the LNOs and Auckland councils unless the necessary skills and experience were unavailable. If appointments from these organisations are considered 'internal' then the ratio drops significantly to 1.3.

c) To provide employees with safe working conditions.

i) To maintain the tertiary level ACC workplace management practices accreditation.

Watercare has a comprehensive health and safety management programme that includes documented policies and procedures supported by a company culture that promotes a team approach to workplace health and safety, including working with contractors. As a result of these practices and the good safety record, Watercare once again successfully achieved tertiary level ACC accreditation in 1 February 2009. Accreditation is scheduled for review again in January 2011.

Social Policy: To act in a socially responsible manner (continued)

5. STAKEHOLDER RELATIONSHIPS: To be responsive to stakeholder needs and requirements.

a) To engage with stakeholders in a transparent and collaborative manner including the company's Maori and Environmental Advisory Groups.

i) To consult with all appropriate stakeholders in regard to key infrastructure projects.

Regular communication occurs between Watercare and its stakeholders in relation to key infrastructure projects. Communication plans are developed for significant projects such as 'Hobson Headlines' for the Hobson Bay Sewer Replacement. Community, iwi and interest group consultation has also taken place during the planning stages of the Puketutu Island Biosolids project.

The company retains its advisory groups with Maori and Environmental stakeholders who meet on a quarterly basis. A new Watercare Consumer Advisory Group was formed this year to assist the company with ongoing independent advice on its commitment to treat all consumers in a fair and equitable manner. Three meetings have been held to date.

ii) To consult with the Local Network Operators in the development of the Asset Management Plan, including major projects and to review the consultation process with them.

The preparation of the 2010 regional AMP is progressing to plan. Project definition sheets containing high level estimates of project costs and timing for all capital projects have been completed for LNOs and Watercare. Information gathering from LNOs for inclusion in the regional AMP is continuing. Given the dependency of the asset management planning process on the organisational structure and cost centre management being put in place, the first draft of the regional AMP forecasts is likely to be available as early as mid-September 2010. This will be followed by a period of discussion and approvals. The target release date for the 2010 regional AMP is 1 December 2010. This will be in line with traditional timing of the release of Watercare's AMP.

iii) To obtain annual feedback from the company's Advisory Groups on the consultation process.

The advisory groups meet on a quarterly basis during the year. Feedback has been included in the 2009/10 Annual Report.

b) To provide leadership within the water industry and participate in public policy initiatives and statutory submissions.

i) To report on the number of policy initiatives and key submissions made per annum.

The company made submissions to National Standards and Policy Statements, the Infrastructure Bill and the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Bill. Watercare has also participated in and responded to requests on the Auckland Governance legislation required for integration:

1. Local Government (Tamaki Makaurau Reorganisation) Act 2009
2. Local Government (Auckland Council) Act 2009
3. Local Government (Auckland Council) Amendment Act 2010
4. Local Government (Auckland Transitional Provisions) Act 2010

Updates on policy submissions and progress are reported monthly to the directors and on a quarterly basis to the shareholders.

c) To promote appropriate educational and recreational initiatives.

i) To continue with the Rain Forest Express, the 'Adopt a Stream' and other educational programmes as appropriate.

Both these community programmes continue to be very popular. Patronage on the Rain Forest Express also remains strong and is slightly below forecast levels for year-end. Confirmed bookings for Adopt a Stream in 2010 have remained strong and stand at 4,761 for the financial year-end.

d) To maintain sound governance

i) To maintain sound governance and contribute to the development of a productive working relationship with the SRG

The Board normally meets monthly. However, two meetings per month have been held in 2010 to keep pace with the information and decision-making requirements of Project One. Shareholder reporting continues on a quarterly basis with briefings held six monthly or earlier if requested. Meetings with individual shareholding councils are also held as requested.

Statement of Service Performance continued

6. CUSTOMER SERVICE COMMITMENT: To provide high-quality products and meet customer service level requirements.

a) To supply high-quality and reliable drinking water.

i) To maintain the public health grading of water treatment and networks of 'Aa'.

Grading of the water treatment plants and the distribution network was carried out by the Auckland District Health Board on behalf of the Ministry of Health. The treatment plants and the distribution network received an 'Aa' grading.

ii) To ensure that demand can be met in a drought with a 1% probability of occurrence with 15% residual capacity in its reservoirs

The water supply standard, part of the customer contracts, requires Watercare to plan to meet forecast demand in a drought with a 1% probability of occurrence (1 in 100 year drought) with a 15% residual capacity in the reservoirs. The standard has been achieved and was maintained even though a record dry spell was experienced over the period January to April 2010.

b) To provide for the safe transportation, treatment and disposal of bulk wastewater.

i) To target less than or equal to six dry-weather sewer overflows per annum.

Three dry-weather overflows were reported for the year.

c) To be responsive to customer needs and to deliver a service meeting contractual standards.

i) To achieve 100% compliance with the customer contracts.

Full compliance was achieved with all customer contracts.

G3 Cross-Reference Table

KEY:

- ● Fully reported
- ◑ Partially reported
- ○ Not reported

Watercare's Annual Report 2010 has been prepared in accordance with the G3 framework of the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines. This framework exists to assist organisations to report their economic, environmental and social performance in a consistent and comparable manner. The following pages show how Watercare reports its performance against the G3 indicators. Against each indicator, Watercare has either fully reported, partially reported or not reported. The key (left) explains the symbols used. The GRI disclosures for strategy and analysis, organisational profile, report parameters and governance (sections 1.1 to 4.17) are excluded from the G3 cross-reference table but are covered in pages 1 to 60 of this report.

The GRI aims, objectives and guidelines can be found on their website www.globalreporting.org

ECONOMIC INDICATORS

		ASPECT: ECONOMIC PERFORMANCE		REFERENCE	RULER
CORE	EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings and payments to capital providers and governments.	●	Pages 62-102	
CORE	EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change.	●	Figure 64	
CORE	EC3	Coverage of the organisation's defined benefit plan obligations.	●	Figure 42	
CORE	EC4	Significant financial assistance received from government.	●	Pages 62-102	
		ASPECT: MARKET PRESENCE		**REFERENCE**	**RULER**
ADD	EC5	Range of ratios of standard entry-level wage compared to local minimum wage at significant locations of operation.	●	Figure 42	5a to c
CORE	EC6	Policy, practices and proportion of spending on locally-based suppliers at significant locations of operation.	●	Figure 60	5a to c
CORE	EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.	●	Figure 45	5a to c
		ASPECT: INDIRECT ECONOMIC IMPACTS		**REFERENCE**	**RULER**
CORE	EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind or pro-bono engagement.	●	Figure 59	
ADD	EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	○		

ENVIRONMENTAL INDICATORS

		ASPECT: MATERIALS		REFERENCE	RULER
CORE	EN1	Materials used by weight or volume.	●	Figure 19	
CORE	EN2	Percentage of materials used that are recycled input materials.	●	Figure 19	
		ASPECT: ENERGY		**REFERENCE**	**RULER**
CORE	EN3	Direct energy consumption by primary energy source.	●	Figure 29	
CORE	EN4	Indirect energy consumption by primary source.	●	Figure 30	
ADD	EN5	Energy saved due to conservation and efficiency improvements.	●	Figure 33	
ADD	EN6	Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives.	◑	Figure 27	
ADD	EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	◑	Figure 27	
		ASPECT: WATER		**REFERENCE**	**RULER**
CORE	EN8	Total water withdrawal by source.	●	Figure 1	
ADD	EN9	Water sources significantly affected by withdrawal of water.	◑	Figure 1	
ADD	EN10	Percentage and total volume of water recycled and reused.	◑	Figure 1	
		ASPECT: BIODIVERSITY		**REFERENCE**	**RULER**
CORE	EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	●	Figure 25	
CORE	EN12	Description of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	●	Figure 26	
ADD	EN13	Habitats protected or restored.	●	Figure 25	
ADD	EN14	Strategies, current actions and future plans for managing impacts on biodiversity.	◑	Figure 25	4a to c
ADD	EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	◑		

G3 Cross-Reference Table continued

ENVIRONMENTAL INDICATORS (CONTINUED)

		ASPECT: EMISSIONS, EFFLUENTS AND WASTE		REFERENCE	RULER
CORE	EN16	Total direct and indirect greenhouse gas emissions by weight.	●	Figure 11	1a
CORE	EN17	Other relevant indirect greenhouse gas emissions by weight.	●	Figure 11	1a
ADD	EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	◑	Figure 12	1a
CORE	EN19	Emissions of ozone-depleting substances by weight.	●	Figure 11	1a
CORE	EN20	NO, SO, and other significant air emissions by type and weight.	●	Figure 13	1a
CORE	EN21	Total water discharge by quality and destination.	●	Figure 21	3e
CORE	EN22	Total weight of waste by type and disposal method.	●	Figure 20, Figure 23	3b + d
CORE	EN23	Total number and volume of significant spills.	●	Figure 34, Figure 36, Figure 37	
ADD	EN24	Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention Annexes I, II, III, and VIII, and percentage of transported waste shipped internationally.	●	Figure 24	3d
ADD	EN25	Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the reporting organisation's discharges of water and run-off.	◑	Figure 21	3e
		ASPECT: PRODUCTS AND SERVICES		**REFERENCE**	**RULER**
CORE	EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	◑	Page 6, Page 7	
CORE	EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	●	Figure 19	
		ASPECT: COMPLIANCE		**REFERENCE**	**RULER**
CORE	EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	●	Figure 51	12a
		ASPECT: TRANSPORT		**REFERENCE**	**RULER**
ADD	EN29	Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce.	○		
		ASPECT: OVERALL		**REFERENCE**	**RULER**
ADD	EN30	Total environmental protection expenditures and investments by type.	◑	Pages 62-102	

LABOUR PRACTICES AND DECENT WORK INDICATORS

		ASPECT: EMPLOYMENT		REFERENCE	RULER
CORE	LA1	Total workforce by employment type, employment contract and region.	●	Figure 46	
CORE	LA2	Total number and rate of employee turnover by age group, gender and region.	◑	Page 36, Figure 40, Figure 43	
ADD	LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	●	Figure 46	
		ASPECT: LABOUR/MANAGEMENT RELATIONS		**REFERENCE**	**RULER**
CORE	LA4	Percentage of employees covered by collective bargaining agreements.	●	Figure 46	
CORE	LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.	●	Figure 46	
		ASPECT: OCCUPATIONAL HEALTH AND SAFETY		**REFERENCE**	**RULER**
ADD	LA6	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programmes.	●	Figure 39	
CORE	LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	●	Figure 38, Figure 39, Figure 41, Page 35	
CORE	LA8	Education, training, counselling, prevention and risk-control programmes in place to assist workforce members, their families or community members regarding serious diseases.	◑	Figure 39	
ADD	LA9	Health and safety topics covered in formal agreements with trade unions.	●	Figure 39	

G3 Cross-Reference Table continued

LABOUR PRACTICES AND DECENT WORK INDICATORS (CONTINUED)

		ASPECT: TRAINING AND EDUCATION		REFERENCE	RULER
CORE	LA10	Average hours of training per year per employee by employee category.	◑	Page 37	
ADD	LA11	Programmes for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	◑	Figure 46	9a
ADD	LA12	Percentage of employees receiving regular performance and career development reviews.	●	Figure 46	
CORE	LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership and other indicators of diversity.	◑	Figure 44	
CORE	LA14	Ratio of basic salary of men to women by employee category.	◑	Figure 44	

HUMAN RIGHTS INDICATORS

		ASPECT: INVESTMENT AND PROCUREMENT PRACTICES		REFERENCE	RULER
CORE	HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	●	Figure 44	
CORE	HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	●	Figure 60, Page 54	
ADD	HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	●	Figure 42	9a
		ASPECT: NON-DISCRIMINATION		**REFERENCE**	**RULER**
CORE	HR4	Total number of incidents of discrimination and actions taken.	●	Figure 44	9c
		ASPECT: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING		**REFERENCE**	**RULER**
CORE	HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	●	Figure 44	
		ASPECT: CHILD LABOUR		**REFERENCE**	**RULER**
CORE	HR6	Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour.	●	Figure 44	
		ASPECT: FORCED AND COMPULSORY LABOUR		**REFERENCE**	**RULER**
CORE	HR7	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour.	●	Figure 44	
		ASPECT: TRAINING AND EDUCATION		**REFERENCE**	**RULER**
ADD	HR8	Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations.	◑	Figure 44	
		ASPECT: INDIGENOUS RIGHTS		**REFERENCE**	**RULER**
ADD	HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	●	Figure 44	9c

SOCIETY INDICATORS

		ASPECT: COMMUNITY		REFERENCE	RULER
CORE	SO1	Nature, scope, and effectiveness of any programmes and practices that assess and manage the impacts of operations on communities, including entering, operating and exiting.	●	Figure 49	10a
		ASPECT: CORRUPTION		**REFERENCE**	**RULER**
CORE	SO2	Percentage and total number of business units analysed for risks related to corruption.	●	Figure 57	
CORE	SO3	Percentage of employees trained in organisation's anti-corruption policies and procedures.	●	Figure 57	
CORE	SO4	Actions taken in response to incidents of corruption.	●	Figure 57	
		ASPECT: PUBLIC POLICY		**REFERENCE**	**RULER**
CORE	SO5	Public policy positions and participation in public policy development and lobbying.	●	Figure 50	11a
ADD	SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	●	Figure 50	
		ASPECT: ANTI-COMPETITIVE BEHAVIOUR		**REFERENCE**	**RULER**
ADD	SO7	Total number of legal actions for anti-competitive behaviour and anti-trust and monopoly practices and their outcomes.	●	Figure 51	12a
		ASPECT: COMPLIANCE		**REFERENCE**	**RULER**
CORE	SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	●	Figure 51	12a

G3 Cross-Reference Table continued

		PRODUCT RESPONSIBILITY PERFORMANCE INDICATORS			
		ASPECT: CUSTOMER HEALTH AND SAFETY		**REFERENCE**	**RULER**
CORE	PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	●	Figure 55	13a
ADD	PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	◑	Figure 51	
		ASPECT: PRODUCT AND SERVICE LABELLING		**REFERENCE**	**RULER**
CORE	PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	●	Figure 56	
ADD	PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes.	◑	Figure 51	12a
ADD	PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	●	Figure 54, Page 47	13a
		ASPECT: MARKETING COMMUNICATIONS		**REFERENCE**	**RULER**
CORE	PR6	Programmes for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion and sponsorship.	◑	Page 43	
ADD	PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship by type of outcomes.	◑	Figure 51	12a
		ASPECT: CUSTOMER PRIVACY		**REFERENCE**	**RULER**
ADD	PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	●	Figure 51	
		ASPECT: COMPLIANCE		**REFERENCE**	**RULER**
CORE	PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	●	Figure 51	

Report Application Levels

Under the G3 framework, annual reports are graded at three different levels (C, B and A) according to the extent to which the framework has been applied. Watercare's report has been self-declared.

		C	C+	B	B+	A	A+
MANDATORY	Self-declared					✔	
OPTIONAL	Third-party checked						
	GRI checked						

Index

IFC = INSIDE FRONT COVER

Glossary

Anaerobic digesters	A wastewater treatment process where acid-forming bacteria break down organic materials into organic acids which are in turn converted to methane and carbon dioxide gases.
Annual Water Quality Report	A report that outlines Watercare's water quality performance for the financial year.
Asset Management Plan	A document that defines Watercare's best engineering judgement of the revenue and capital investment required to maintain the integrity of its asset base over a 20-year period.
Biogas	A by-product of the wastewater process that is comprised of approximately 65 per cent methane.
Biosolids	A treated solid by-product of the wastewater treatment process.
Carbon footprint	A measure of the impact of activities on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide.
Energy Focus	A programme overseeing all energy improvement initiatives in Watercare.
G3	Version three of the Global Reporting Initiative guidelines for sustainability reporting. For more information, see page 106.
Greenhouse gases	Gases that trap heat in the atmosphere. Examples of greenhouse gases are methane, perflurocarbons and nitrous oxide.
Maintenance Optimisation Design (MOD)	An analytical approach to determine the likelihood and consequence of equipment failure.
Project One	Project to manage integration of regional water and wastewater services in 2010.
Reactor clarifier	A wastewater treatment process where activated sludge biologically removes organic pollutants from the wastewater stream. As well as separating solids and liquids, nitrogen is extracted and released in the form of a harmless gas.
Reliability-centred maintenance (RCM)	A framework which identifies the optimum time to maintain or replace assets based on operational performance, cost, health and safety, and the environment.
Trade waste	Any discharge into a sewer in the course of an industrial or trade process.
Ultraviolet (UV) disinfection	The use of ultraviolet light to kill viruses and bacteria in the wastewater.
Wastewater	Liquid and solid matter discharged into the sewer network from domestic, commercial and industrial locations.
Zero Waste	Watercare's project to minimise or eliminate waste throughout the company.

For more information about Watercare please visit our website www.watercare.co.nz

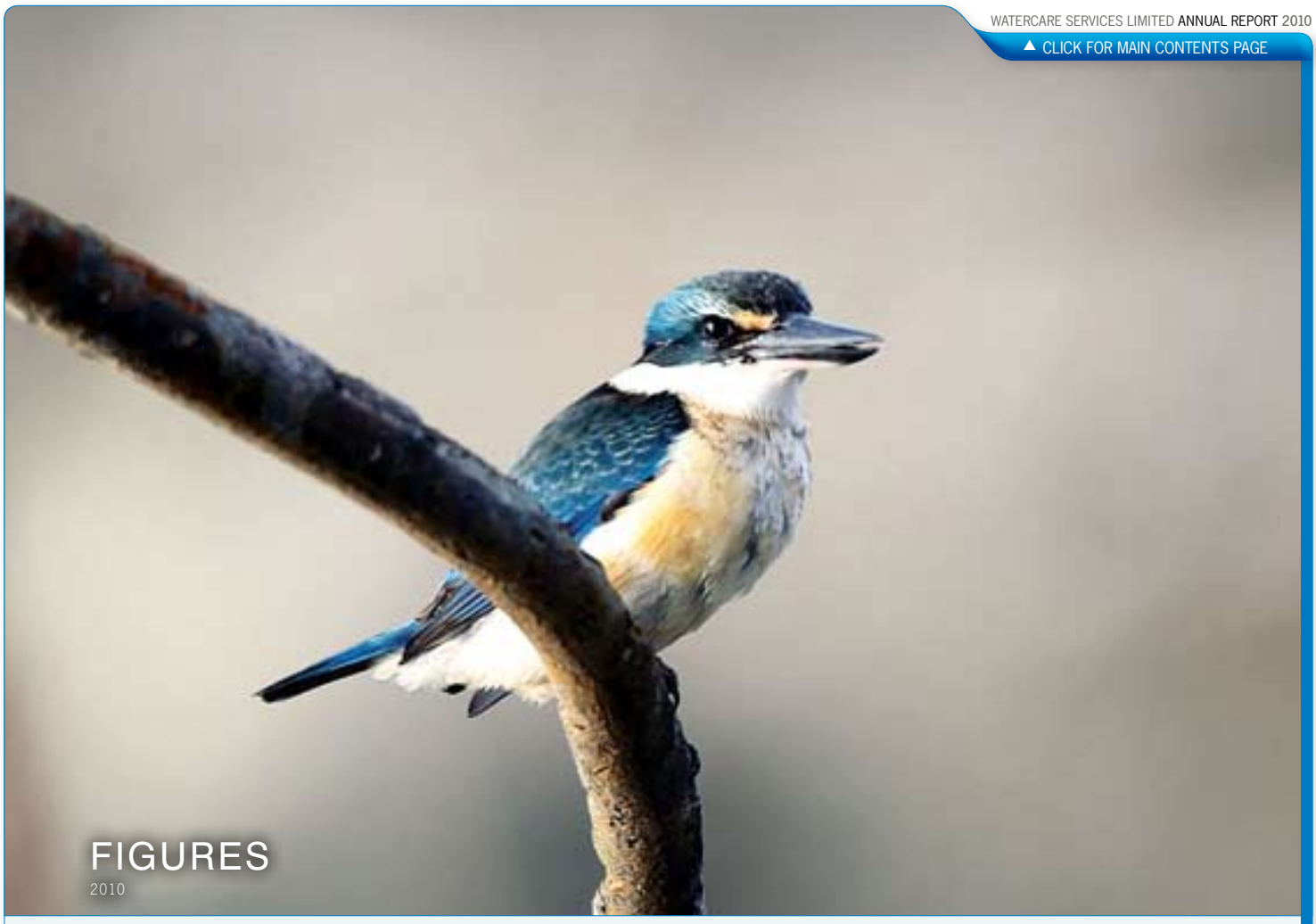
Watercare has been certified as meeting ISO 14001 and ISO 9001 for the company's water, wastewater and trade waste operations. This includes its water and wastewater treatment plants and networks. The company's project delivery is certified as meeting ISO 9001 and its Laboratory Services is certified as meeting ISO 17025.

WATERCARE SERVICES LIMITED
REGISTRATION NUMBER: AK/519049

REGISTERED OFFICE:

2 Nuffield Street, Newmarket
Auckland, Private Bag 92 521
Wellesley Street, Auckland 1141

Telephone: +64 9 539 7300
Facsimile: +64 9 539 7334
Email: communications@water.co.nz
Website: www.watercare.co.nz



FIGURES
2010

A kingfisher watches the demolition of the ageing sewer that crosses Hobson Bay.

Contents

FIGURE 1 Water and Wastewater Facts

Under the G3 reporting framework, Watercare is required to provide additional information on G3 environment indicators EN8, EN9 and EN10 relating to water.

WATER	
Water supply dams	10
River sources	1
Groundwater sources	1
Supply dam catchment area	15,856ha
Groundwater catchment area	2,395ha
Length of raw water mains	76km
'A' grade water treatment plants	6*
Length of treated water mains	469km
Service reservoirs	53
Pump stations	31
Annual volume sold	134,637,738,000 litres**

WASTEWATER	
Length of sewers	316km
Pump stations	53
Controlled overflow structures	102
Trade waste customers	601
Treatment plants	1
Volume treated annually	111,378,000,000 litres
Biosolids produced (wet) annually	108,877 tonnes
Effluent re-used annually	19,336,369,964 litres

VOLUME SUPPLIED BY SOURCE (litres)	2009/10 TOTAL	%
Waitakere Dam	3,470,199,748	2%
Upper Huia Dam	7,564,328,557	5%
Upper Nihotupu Dam	5,496,505,752	4%
Lower Huia Dam	7,149,808,388	5%
Lower Nihotupu Dam	5,895,646,033	4%
Cosseys Dam	13,641,706,172	10%
Upper Mangatawhiri Dam	25,378,452,773	18%
Wairoa Dam	11,863,603,278	9%
Mangatangi Dam	38,764,683,404	28%
Waikato River	15,773,918,171	11%
Onehunga Aquifer	4,164,668,966	3%
Total	**139,163,521,245**	

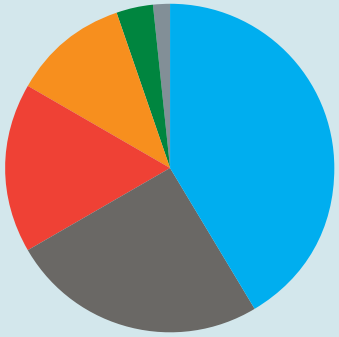
DAM STORAGE	30-JUN-10	30-JUN-09
Total storage volume (m^3)	71,020,268	81,186,000
% full	74.3%	85.0%

NOTE:

* Papakura is currently not in service
** Meters are accurate to ± 2%

FIGURE 2 Shareholding

SHAREHOLDING



Auckland City Council	41.60%
Manukau City Council	25.10%
Waitakere City Council	16.70%
North Shore City Council	11.50%
Papakura District Council	3.70%
Rodney District Council	1.40%

FIGURE 3 Customers

	WATER	WASTEWATER
Metrowater (Auckland City)	✓	✓
Manukau Water	✓	✓
Waitakere City Council	✓	✓
North Shore City Council	✓	–
United Water (Papakura District)	✓	✓
Rodney District Council	✓	–
Population served	**1,318,367**	**1,085,280**

FIGURE 4 Financial Overview

	ANNUAL TURNOVER	ASSET VALUE
	$000	$000
Water	75,679	1,391,228
Wastewater	122,437	1,079,562
Total	**198,116**	**2,470,790**

FIGURE 5 Taxation

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
	$000	$000	$000	$000	$000	$000	$000
Income tax paid	1,304	–	3,350	-	-	-	-
GST collected	18,619	19,448	20,857	21,119	20,913	23,207	24,727
Accident compensation levies	367	316	200	230	287	369	380
Local authority rates	379	414	461	1,324	381	298	734
Regional council rates	53	87	119	150	147	190	99
Regional council fees	850	940	1,152	1,335	1579	1618	1584
	21,572	**21,205**	**26,139**	**24,158**	**23,307**	**25,682**	**27,524**

FIGURE 6 Local Rates

COUNCIL	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
	$000	$000	$000	$000	$000	$000	$000
Auckland City Council	149	126	169	179	79	87	103
Manukau City Council	85	75	77	870	921	358	343
North Shore City Council	32	30	33	35	38	41	41
Papakura District Council	4	5	5	6	7	8	8
Rodney District Council	27	26	22	24	25	25	47
Waitakere City Council	82	76	81	88	96	83	87
Franklin District Council	19	77	74	79	85	83	86
Auckland Regional Council	53	76	107	126	123	81	80
Environment Waikato	8	11	12	15	19	20	21
Total	**459**	**502**	**580**	**1,422**	**1,393**	**786**	**816**

NOTE:

Prior to the declaratory judgement of the High Court in September 2008, Manukau City and Auckland Regional Councils levied rates charges on both structures and land. These councils have now ceased to levy rates on Watercare owned structures and refunded Watercare overpaid rates retrospectively from 2006. The remaining councils either rate on land only or have already excluded the levying of rates on structures.

FIGURE 7 Population and Water Sales

30-JUNE	CONNECTED POPULATION	SALES VOLUME (m^3)	LITRES PER PERSON PER DAY
2002	1,080,000	119,720,000	304
2003	1,145,000	124,514,000	298
2004	1,174,500	127,089,000	296
2005	1,193,500	131,052,000	301
2006	1,213,000	134,699,000	304
2007	1,232,000	136,220,334	303
2008	1,258,000	136,559,180	297
2009	1,298,144	131,111,976	277
2010	1,318,367	134,637,738	280

FIGURE 8 Directors' Meeting Attendance

		BOARD						AUDIT & RISK COMMITTEE					
	Appointed	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Graeme Hawkins (Chairman)	Dec-02	11/11	12/12	11/11	11/12	12/12	17/17	2/4	2/4	3/3	4/4	4/4	4/4
Dr Ian Parton (Deputy Chairman) (retired Nov-09)	Feb-01	10/11	12/12	11/11	12/12	12/12	6/6	3/4	3/4	3/3	4/4	4/4	1/1
Patrick Snedden	Dec-02	11/11	10/12	11/11	10/12	11/12	14/17						
Susan Huria	Jul-08					10/12	15/17						
David Clarke	Jul-08					12/12	15/17						
Ross Keenan (Deputy Chairman)	Mar-10						5/7						1/1
Peter Drummond	Mar-10						3/7						
Jeff Todd (Chairman, Audit & Risk)	May-07			2/2	10/12	12/12	17/17			1/1	4/4	4/4	4/4
Terry Kayes (retired Jan 10)	Jan-07			5/5	10/12	12/12	7/7						

NOTE:

In 2009/10 directors held additional Board meetings to manage governance associated with the integration of the regional water and wastewater services industry.

FIGURE 9 Organisational Structure

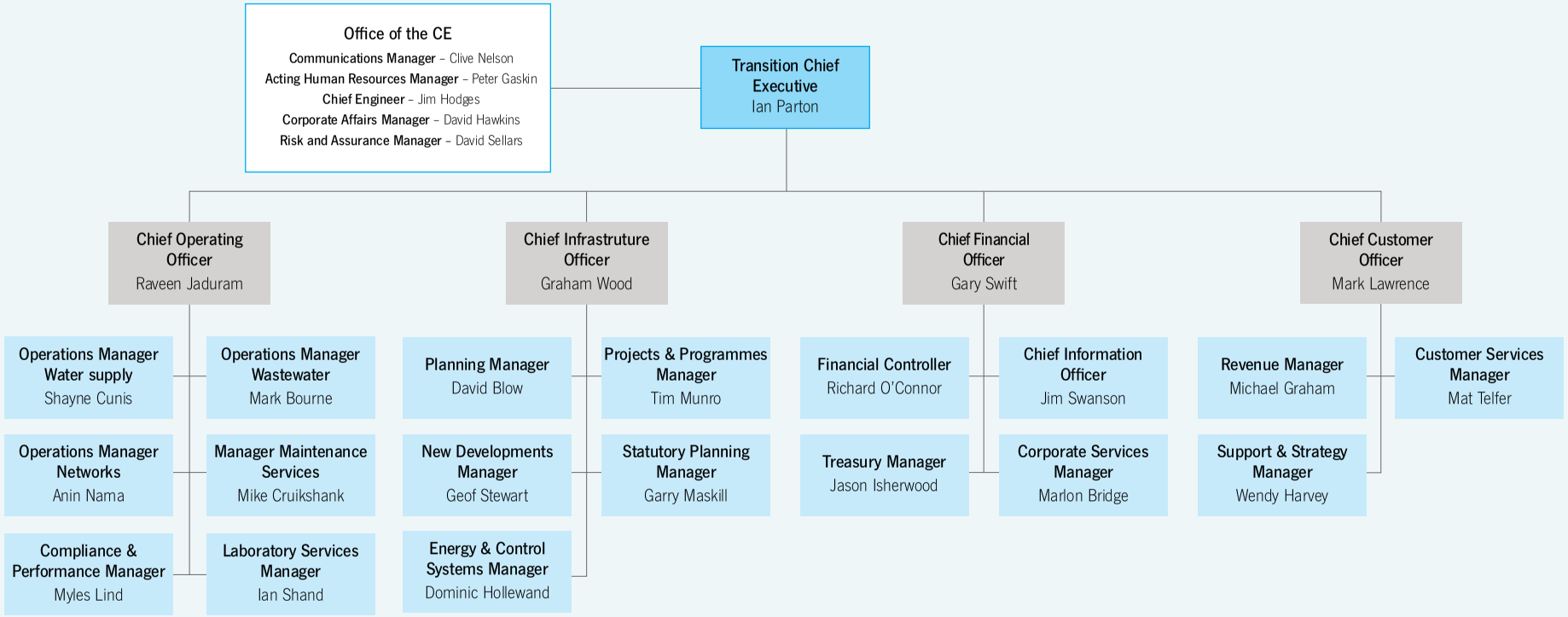


FIGURE 10 Sustainability Accounting Analysis

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
	$ million	$ million	$ million	$ million	$ million	$ million
Total expenditure including that necessary to meet the statutory and legal obligations	134.5	142.1	157.7	164.0	168.9	187.4
ADDITIONAL EXPENDITURE TO MEET THE STANDARDS EXPECTED OF WATERCARE						
1. Wastewater treatment plant midge control	1.8	0.3	0.6	0.6	0.5	0.5
2. Odour control	0.4	0.7	0.1	0.1	0.1	0.1
3. Wastewater overflow clean-up	0.1	0.1	0.1	0.1	0.1	0.1
4. Wastewater pump station 'failsafe' maintenance	0.9	0.9	0.7	0.9	0.9	0.9
Subtotal	**3.2**	**2**	**1.5**	**1.7**	**1.6**	**1.6**
Costs forming the basis of water and wastewater charges – per audited financial statements	**137.7**	**144.1**	**159.2**	**165.7**	**170.5**	**189.0**
ANNUALISED COST OF THE ADDITIONAL ACTIVITIES THAT COULD IMPROVE THE ENVIRONMENTAL STANDARDS						
5. CO_2 emission reduction	0.7	0.7	0.7	0.7	0.3	0.4
6. Compensation flows below water supply dams	18.5	17.7	17.9	18.2	19.2	19.5
7. Odour emission elimination	3.5	3.2	3.3	3.4	3.9	4.0
8. Wastewater overflow minimisation	57	58.4	58.6	62.4	85.1	88.2
9. Visual enhancement	3.9	3.7	3.9	4.6	5.0	5.2
10. Biosolids reuse	15	15.4	15.4	16.3	16.8	16.9
11. Partial (30Ml/d) wastewater reuse for industry, forestry and agriculture	5.3	5.3	5.4	5.6	6.0	6.2
12. Partial (100Ml/d) wastewater recharge to catchments used for water extraction	62.5	63.4	63.5	65.9	77.2	78.5
13. Partial (170Ml/d) wastewater reuse to potable water	89	90.1	90.2	93	90.4	91.6
Subtotal	**255.4**	**257.9**	**258.9**	**270.1**	**303.9**	**310.5**
Cost base required to deliver sustainable performance	**393.1**	**402.0**	**418.1**	**435.8**	**474.4**	**499.5**

NOTES:

1. Wastewater treatment plant midge control
The treated effluent in the transfer channel and inter-tidal storage basin is now so clean that it is a fertile breeding ground for midges, a considerable social nuisance. In 2009/10 spraying and decanting were used to control the midge habitat, at a cost of $500,000.

2. Odour control
In the past year, the operating and maintenance costs of facilities to minimise odours in the reticulation network and at the wastewater treatment plant were approximately $100,000.

3. Wastewater overflow clean-up
The wastewater reticulation network overflows in heavy storms or as the result of system failure or third party damage. Watercare employees clean and disinfect overflow sites which costs approximately $100,000 per year.

4. Wastewater pump station 'failsafe' maintenance
Watercare spends a considerable amount of its maintenance budget (approximately 67 per cent) on planned maintenance, which is necessary to minimise the occurrence of pump station failures and consequential environmental damage. This safeguard cost approximately $900,000.

5. CO2 emissions
Watercare's total greenhouse gas emissions were 14,960 tonnes for the year. If this is 'charged' at $25 per tonne it equates to $374,025.

6. Compensation flows from water supply dams
The water supply dams cut off most of the flows from the streams below the dams. To promote the stream ecosystems, Watercare could release larger compensation flows. This would reduce the yield of the water supply system and require the construction of a new water source at $137 million and operation and maintenance costs of $10 million per year. The annual costs, including interest but excluding depreciation, would be $19.5 million.

7. Odour emission elimination
Reducing the system's odours to minimal levels at all site boundaries, primarily by constructing new biofilters, would involve $50 million in capital cost and $500,000 per year in operating and maintenance costs. The annual costs, including interest but excluding depreciation, would be $4.0 million.

8. Wastewater overflow minimisation
Watercare has estimated that eliminating all wet weather overflows except in extreme storms could be achieved through installing storage tunnels and tanks in the network. The estimated capital cost of this is $1200 million (which includes a further wastewater treatment plant upgrade) with a $5 million annual operating and maintenance cost. The annual cost, including interest but excluding depreciation, would be $88.2 million.

9. Visual enhancement
Watercare estimates that the cost of camouflaging, removing or replacing 'unattractive' assets would be approximately $60 million and $1 million a year in operating and maintenance costs. The annual cost, including interest but excluding depreciation, would be $5.2 million.

10. Biosolids re-use
Watercare estimates that the cost of developing a long-term use for biosolids would be approximately $200 million and $3 million a year in operating and maintenance costs. The annual cost, including interest but excluding depreciation, would be $16.9 million.

11. Partial wastewater reuse for industry, forestry and agriculture
Part (30Ml/d) of the treated wastewater, after further treatment, could be distributed to industry for reuse. This is estimated to cost $60 million and $2 million a year in operation and maintenance costs. The annual cost, including interest but excluding depreciation, would be $6.2 million

12. Partial wastewater recharge to catchments used for water extraction
Part (100Ml/d) of the treated wastewater could be further treated and piped to recharge catchments which have had the water extracted from them. This is estimated to cost $700 million and $30 million a year in operation and maintenance costs. The annual cost, including interest but excluding depreciation, would be $78.5 million

13. Partial wastewater reuse direct to potable water
Part (170Ml/d) of the treated wastewater could be further treated and injected into the potable water supply. This is estimated to cost $600 million and $50 million a year to operate. The annual cost including interest but excluding depreciation, would be $91.6 million.

Sustainability accounting
Sustainability accounting puts a value on a company's environmental and social initiatives. The above figure shows Watercare's operational expenditure in 2009/10 was $189.0 million. That sum includes the cost of meeting the company's statutory and regulatory obligations for its water and wastewater operations. In addition to this, Watercare spent $1.6 million on activities to reduce its environmental impact. A further $310.5 million would be required to sustainably mitigate the effects of the company's operations on the environment. Sustainability accounting allows organisations to quantify the trade-offs between price and services, and social and environmental impacts. For example, the capital cost for making any significant investment in improving wastewater/stormwater systems would initially be met by increasing Watercare's borrowings, and prices would need to rise to meet those debt servicing costs. However, customers may not be willing to accept significant price rises. Instead, they may prefer to accept the current number of overflows in return for relatively lower prices.

Figure 11 Watercare's Greenhouse Gas Emissions

WATERCARE'S GREENHOUSE GAS EMISSIONS 1990-2010, WITH PROJECTIONS AND TARGETS TO 2050

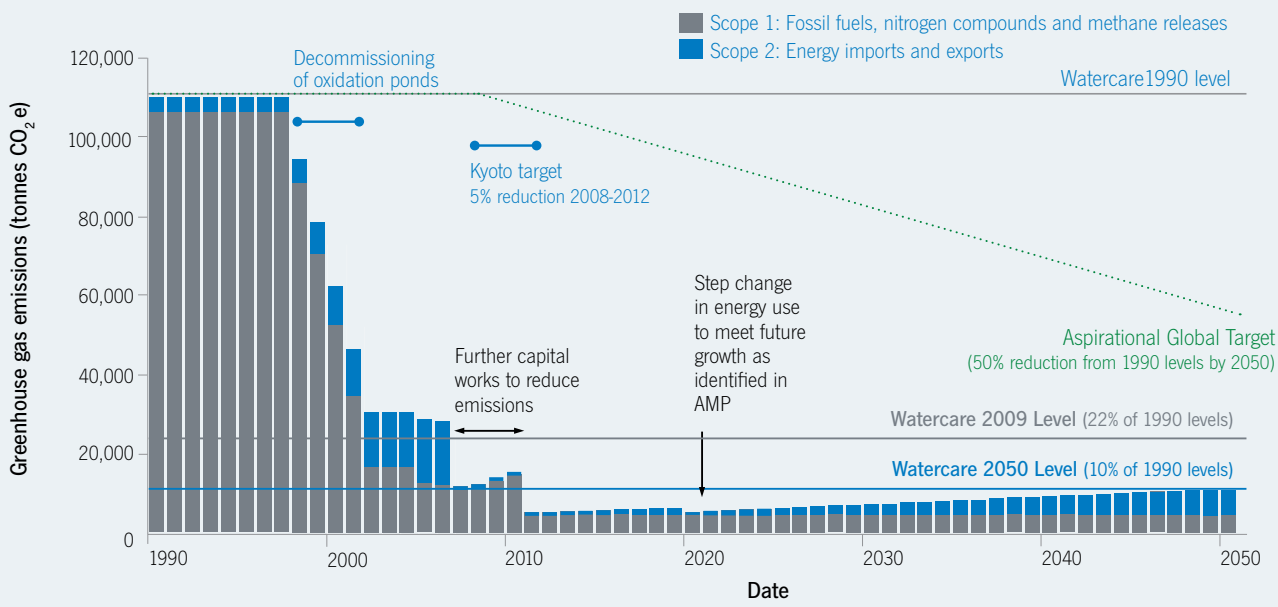


Figure 12 Initiatives to Reduce Greenhouse Gas Emissions

INITIATIVE	TONNES CO_2 EQUIVALENT PER ANNUM	
	Estimated reduction that has been achieved from 1990	Further reduction that could be achieved
Decommissioning of oxidation ponds	32,380	-
Construction of further hydro-generators	600	200
Use of hybrid cars in vehicle fleet	100	100
Reduction of nitrogen discharged at wastewater treatment plant	3,164	500
Minimisation of biosolids to rehabilitation site	17,700	-
Removal of sludge lagoons	42,380	-
Maximising methane collection at wastewater treatment plant	-	720
Minimise fugitive emissions at wastewater treatment plant	-	8,300
Total for Watercare	**96,324**	**9,820**

NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 environment indicator EN18, relating to emissions, effluents and waste. This additional information has been included to meet G3 criteria.

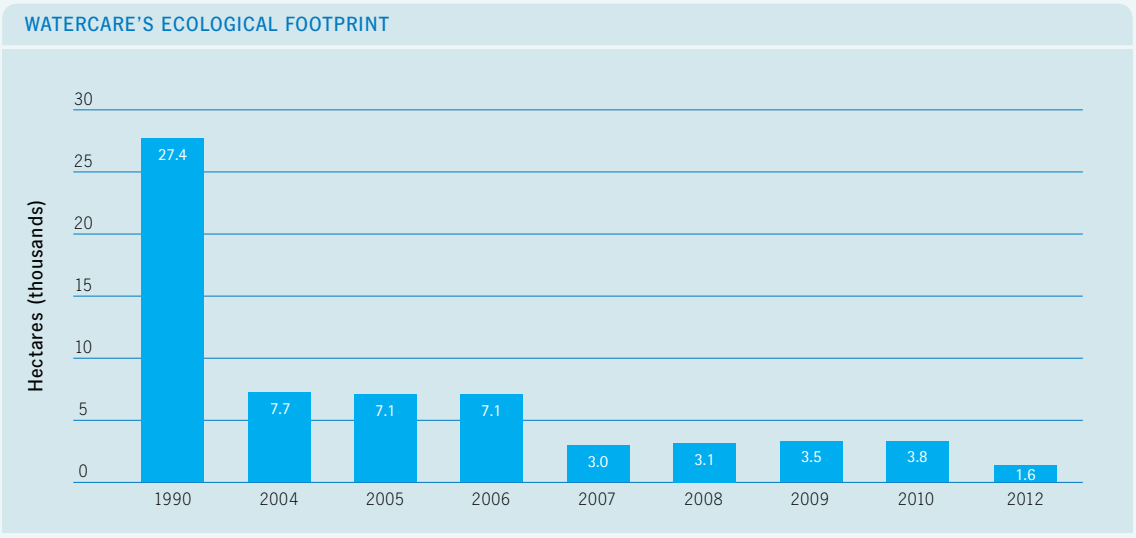
Figure 13 Significant Gaseous Emissions by Weight

Under the G3 reporting framework Watercare is required to provide information on G3 Environment indicator EN20 relating to emissions, effluent and waste. Gaseous emissions from the wastewater treatment plant stacks occur as a result of burning natural gas and biogas. Total emission tonnes from the stacks were; NOx: 54 tonnes, SO2: 4.7 tonnes, and SO3: 0.7 tonnes. Meanwhile an estimated 2.3 emission tonnes of VOC were stripped from effluent during the treatment process. Discharges at sites other than the wastewater treatment plant are considered negligible as there is no continuous use of fossil fuels at these sites. No burning or other activities that would generate discharges were undertaken. Quantities are derived from estimates and previous measurements.

NOTES:

1. Quantities are derived from estimates and previous measurements.
2. Discharges at sites other than Mangere Wastwater Treatment Plant are considered negligible as there is no continuous use of fossil fuels at these sites. No burning or other activities that would generate discharges are undertaken.

Figure 14 Watercare's Ecological Footprint



NOTE:

An ecological footprint helps gauge progress towards sustainability. It calculates the equivalent land area coverage in hectares required to absorb the greenhouse gas emissions for the year from Scope 1 and 2 emissions. The footprint figure for 1990 is larger because Watercare has decommissioned the oxidation ponds at the wastewater treatment plant.

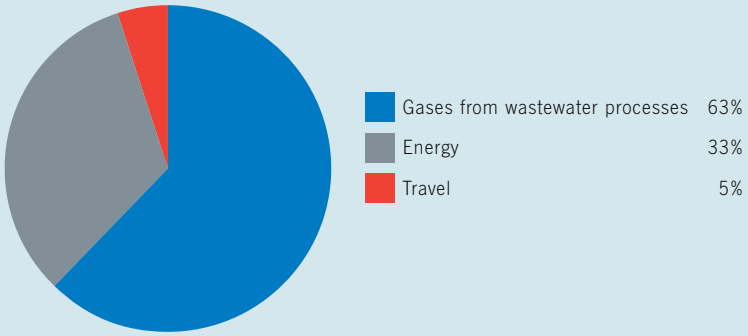
The figure for 2012 represents the estimated ecological footprint at the end of the first Kyoto commitment period.

1990 is the baseline year referenced by the Kyoto agreement.

The footprint has decreased, due primarily to the decommissioning of the oxidation ponds.

Figure 15 Sources of Emissions

SOURCES OF EMISSIONS



NOTE:

This table summarises the source of Watercare's greenhouse gas emissions.

Figure 16 Trade Waste Customers

CUSTOMER STATUS	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Customers at beginning of year	649	635	612	605	605	601
New customers during the year	35	35	38	51	47	43
Variations issued and reapplications processed during the year	112	113	100	90	103	127
Closures during the year	49	58	45	51	51	65
Customers at end of year	635	612	605	605	601	579

NOTE:

Trade waste customer numbers have declined during the 2009/10 year due to a number of company closures and consolidations. Substances are controlled to protect the health and safety of workers, protect the wastewater assets, ensure that treatment processes are not adversely affected and to ensure that Watercare can comply with the limits set in its consents. Customers are charged on the basis of the volume they discharge to the sewer, the waste characteristics including the biological oxygen demand (BOD) and the concentration of suspended solids in the discharge. The charges are designed to recover costs for collection, treatment and disposal of these trade wastes.

Figure 17 Trade Waste Sampling Programme

SAMPLING PROGRAMME	2004/05			2005/06			2006/07		
	Number of tests	Number of tests out of compliance	% Compliance*	Number of tests	Number of tests out of compliance	% Compliance*	Number of tests	Number of tests out of compliance	% Compliance*
Characterisation	3,270	271	92	3,585	316	91	3,036	221	93
Self-monitoring	4,380	166	96	3,925	232	94	2,686	33	99
Snap sampling	1,399	123	91	1,855	143	92	1,555	113	93
pH surveys	49			9			15		
Catchment investigations	216			156			234		
Wastewater treatment plant influent	1,560			1,560			1,560		
Total	**10,874**	**560**		**10,934**	**691**		**9,086**	**367**	

SAMPLING PROGRAMME	2007/08			2008/09			2009/10		
	Number of tests	Number of tests out of compliance	% Compliance*	Number of tests	Number of tests out of compliance	% Compliance*	Number of tests	Number of tests out of compliance	% Compliance*
Characterisation	2,972	175	94	2,233	162	93	9,796	185	98%
Self-monitoring	4,154	147	96	4,303	184	96	3,193	70	98%
Snap sampling	1,761	116	93	1,611	109	93	940	36	96%
pH surveys	78		61	81			62	10	
Catchment investigations	934			861			2		
Wastewater treatment plant influent	1,481			1,528			1,632		
Total	**11,380**	**438**		**10,617**	**455**		**15,625**	**301**	

* Indicates the percentage of tests undertaken which were in compliance. The total number of tests recorded in 2009/10 is significantly higher than previous years. The increase is a result in a change in how tests are now recorded. Organic tests that form part of a suite of tests are now recorded on an individual basis rather than on a suite basis leading to a significant rise in the number of tests recorded in 2009/10. The results show good levels of compliance have been maintaned and that results for 2009/10 have improved over 2008/09.

Figure 18 Key Trade Waste Substances

SUBSTANCE	2004/05		2005/06		2006/07		2007/08		2008/09		2009/10	
	Total approved mass kg/day	Consents issued	Total approved mass kg/day	Consents issued	Total approved mass kg/day	Consents issued	Total approved mass kg/day	Consents issued	Total approved mass kg/day	Consents issued	Total approved mass kg/day	Consents issued
Arsenic	1.1	31	1.0	34	1.6	36	1.6	35	1.3	38	1.0	37
Boron	53.5	78	51.8	74	46.2	74	44.0	72	40.2	72	35.3	63
Cadmium	0.2	35	0.2	36	1.0	40	1.1	38	1.2	42	0.5	40
Chromium 3	34.6	96	32.4	89	29.3	83	31.9	106	21.1	57	22.9	103
Chromium 6	3.9	83	3.5	77	4.4	70	4.1	69	2.9	43	3.9	67
Cobalt	1.4	36	1.2	32	2.5	33	2.5	30	2.4	29	1.9	29
Copper	9.1	112	8.4	108	12.1	105	12.4	107	11.4	106	7.9	98
Lead	2.9	62	2.9	61	6.6	60	5.7	62	4.9	61	2.8	56
Manganese	45.4	41	44.3	37	44.3	39	44.4	41	44.6	45	64.4	43
Molybdenum	2.7	37	2.7	37	3.7	37	3.1	34	3.2	34	2.7	27
Nickel	5.9	80	5.7	80	7.8	81	8.1	83	7.3	85	4.6	75
Silver	1.2	33	1.0	34	2.0	31	1.9	28	1.8	23	1.7	22
Zinc	15.2	117	15.0	115	18.8	115	19.0	110	17.7	111	14.3	97
Total	**177.1**	**841**	**170.1**	**814**	**180.3**	**804**	**179.7**	**815**	**160.0**	**746**	**163.9**	**757**

NOTE:

Watercare controls the entry of substances which could harm the health and safety of workers, the wastewater collection system, treatment plant processes and the environment by issuing trade waste consents that limit the discharge of toxic substances. The table shows the amounts of metals consented for discharge from trade waste sites. The number of consented sites discharging controllable substances has increased and the total mass consented for discharge has also increased slightly. Chromium Total in the table above has historically been reported as Chromium 3. Chromium Total is a more accurate description of the testing that has been undertaken. The table has been changed to reflect this.

An analysis of biosolids metals levels shows most remained within the usual range for the 2009/10 year with the exception of arsenic and chromium which both showed short incursions above the usual range. The source of elevated chromium was traced to a trade waste discharger and resolved, while the source of the elevated arsenic levels was unable to be identified.

Figure 19 Materials and Chemicals (tonnes unless shown otherwise)

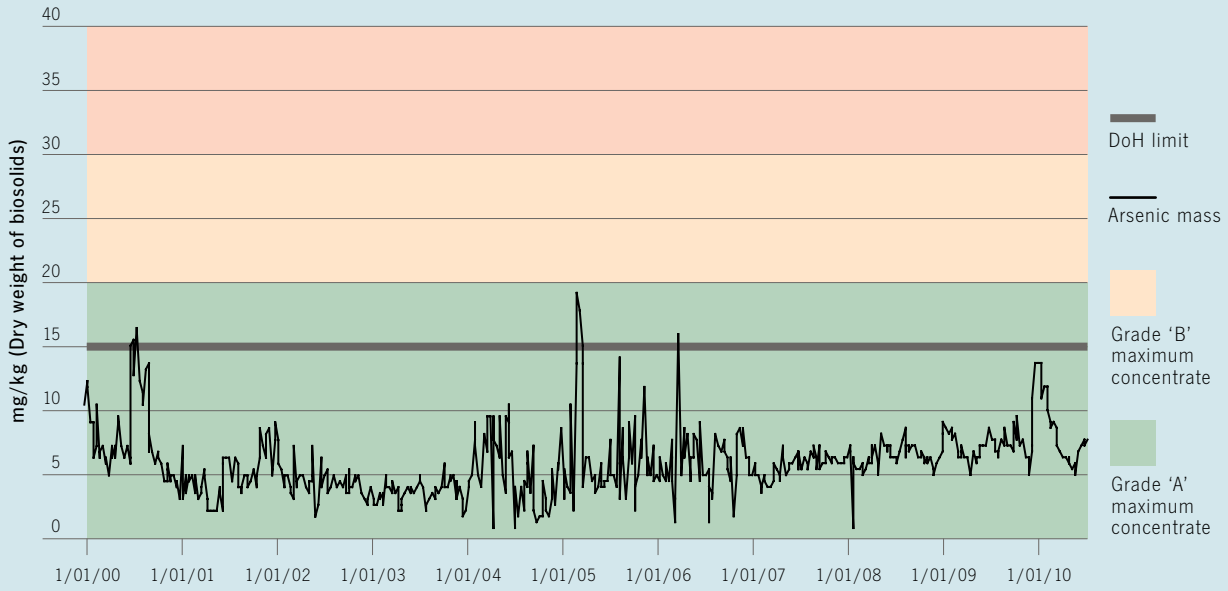
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	PURPOSE	FATE	% RECYCLED
WATER TREATMENT									
Alum (liquid)	4,706	5,023	4,629	3,504	3,608	4,216	To assist coagulation	Taken up in sludge	0%
Lime (powder)	1,236	1,329	1,303	999	1,416	5,750	To control pH	Taken up in sludge	0%
Fluoride (solution)	676	718	674	517	543	749.8	To prevent dental cavities	In treated water	0%
Salt (powder)	670	748	749	267	86	100	For chlorine production for water disinfection	In treated water	0%
Caustic soda (solution)	135	156	115	90	66.5	23.53	pH buffering	In treated water	0%
Chlorine (gas)	60	36	31	79	182	184	To disinfect water	In treated water	0%
Poly-aluminium chloride (solution)	83	76	43	38	42	43.2	To assist in clarification and coagulation	Taken up in sludge	0%
Polyelectrolyte (powder)	17	20	19	12.5	20	353.5	To assist in clarification and coagulation	Taken up in sludge	0%
Carbon dioxide (gas)	387	312	399	294	384	294	To control pH	Dissolved in raw water	0%
Citric acid	46	25.3	21	22	20.1	18.3	Cleaning membranes	Neutralised and in discharged water	0%
Sodium bisulphate	4.8	4.3	6.8	8.2	6.75	9.84	De-chlorination of wasted water	In discharged water	0%
Sodium hypochloride	2.7	0.8	28	75	100.7	545.72	Disinfection	In treated water	0%
Activated carbon	10.8	9.9	13.5	43.4	22.4	25.5	Organics removal in treatment	Taken to landfill as part of sludge	0%
Weed sprays	Spray use was minimised around the depots and water treatment plants. No sprays were used on Watercare-owned land within the water supply catchments.								
WATER DISTRIBUTION									
Sodium hypochlorite	11.4	9.8	16	16	20	13	To re-disinfect water in the distribution system	In treated water	0%
WASTEWATER COLLECTION									
Cleaners/ Disinfectants (estimated)	4,000L	4,000L	4,000L	4,000L	4,000L	4,000L	To clean and disinfect water overflow areas	Biodegrades in the environment	0%
WASTEWATER TREATMENT PLANT									
Methoprene	-	0.44	1.2	2.4	2.38	2	To control midges	Biodegrades in effluent	0%
Agnique spray	800L	-	-	17L	-	0	To control midges	Evaporates to atmosphere	0%
Insecticide	-	-	-	212L	200L	90	To control midges	Biodegrades in soil	0%
Weed spray (estimated)	400L	400L	400L	400L	400L	400L	To control weeds on sites	Biodegrades in soil	0%
Lime	6,011	6,060	6,551	6,308	5,714	5,857	To stabilise and deodorise biosolids	To landfill with the biosolids	0%
Coagulating polymer	428	444	425	414	409	390	To promote solids dewatering	To landfill with the biosolids	0%
Sodium hypochlorite	685m^3	267m^3	267m^3	348m^3	398m^3	398m^3	To chlorinate recycled water for sprays and wash down	In effluent	0%
Liquid nitrogen	4,086m^3	681m^3	1,900m^3	1,955m^3	1,266m^3	1290m^3	To remove explosive gases from pipes before maintenance	To atmosphere	0%
Ferric chloride	1,788	1,700	1,748	1,468	1,075	1,079	To promote solids capture	To landfill with the biosolids	0%
Caustic soda	-	-	-	-	-	0	Assist digestion process	To landfill with the biosolids	0%
Soda ash	-	-	-	-	-	0	Assist digestion process	To landfill with the biosolids	0%
Chlorine gas	-	-	42	31	28.5	25.7	To control bacteria in reactor clarifiers	In effluent	0%
Iron sponge granules	-	-	86	72	108	92	To purify biogas before use in engines	To landfill	0%
Sulphuric acid	-	-	70	58m^3	36m^3	72m^3	To strip ammonia from odour scrubber	In effluent	0%
Lube oil	-	-	-	24	32	23	To lubricate generators	To supplier's reclamation plant	0%
Activated carbon	-	-	-	10	-	0	To purify biogas before use in engines	To landfill	0%

NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 environment indicators EN1, EN2 and EN27 relating to materials and products and services. Under G3 reclaimed packaging is not reported on as it is not applicable to Watercare.

Figure 20 Biosolids Metal Levels

ARSENIC – WEEKLY DEWATERED BIOSOLIDS ANALYSIS



CADMIUM – WEEKLY DEWATERED BIOSOLIDS ANALYSIS

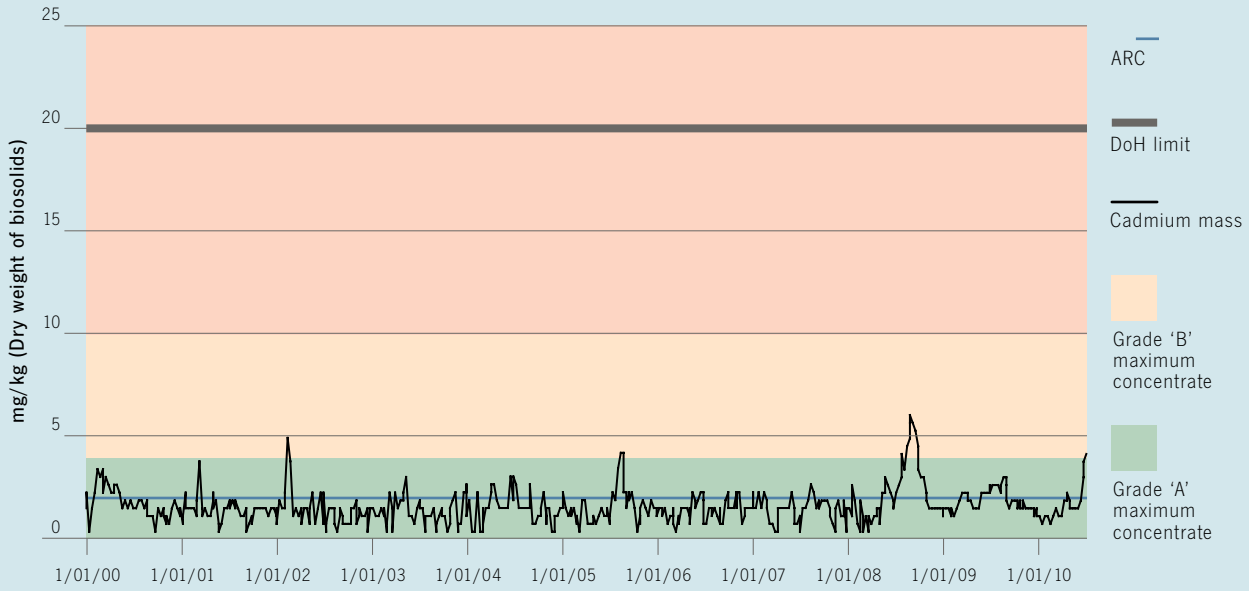
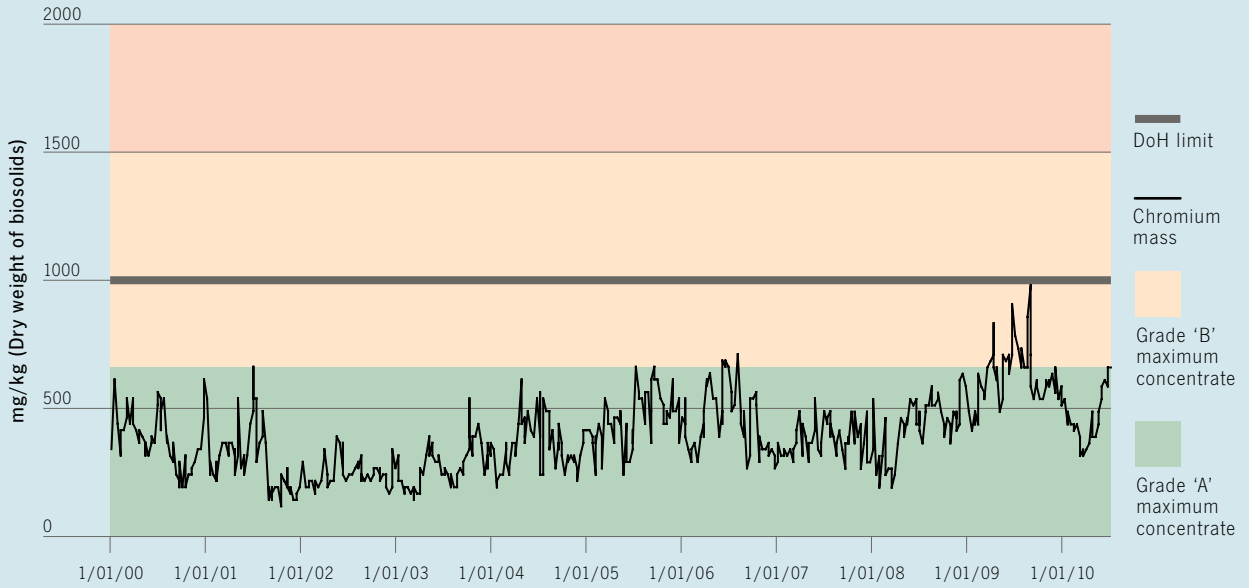


Figure 20 Biosolids Metal Levels

CHROMIUM – WEEKLY DEWATERED BIOSOLIDS ANALYSIS



COPPER – WEEKLY DEWATERED BIOSOLIDS ANALYSIS

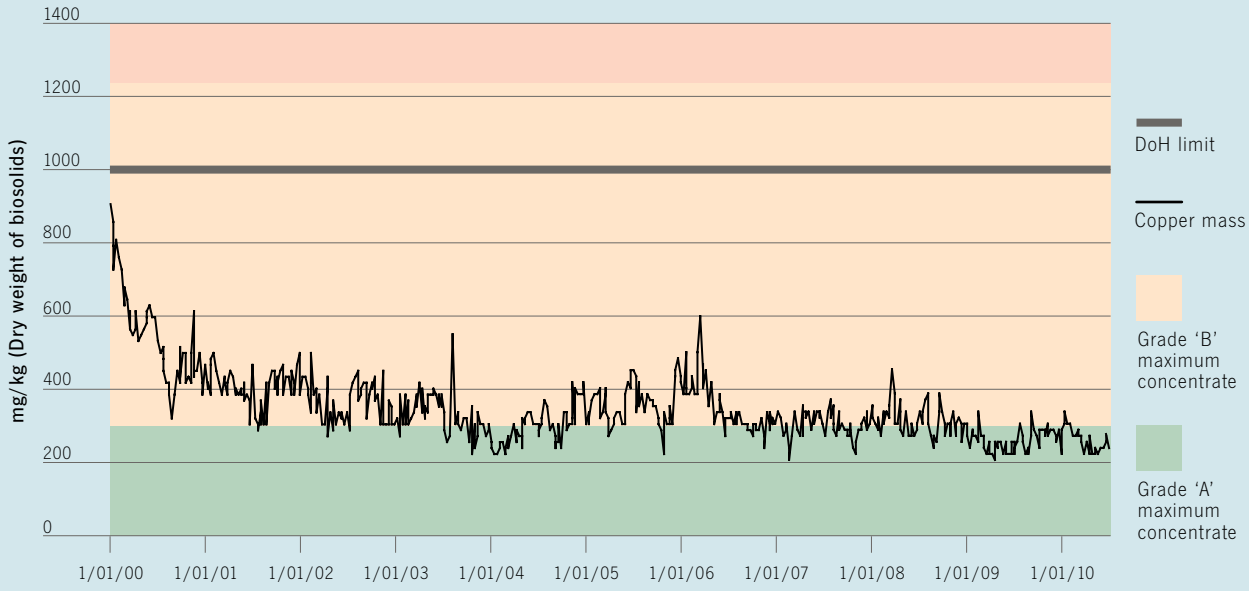
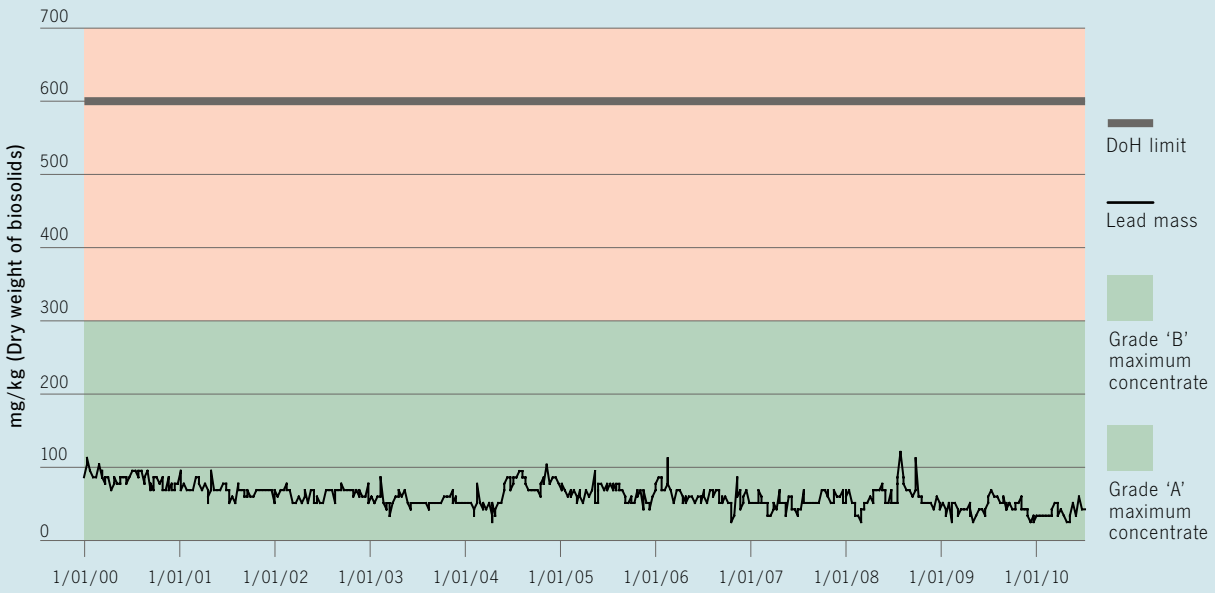


Figure 20 Biosolids Metal Levels

LEAD – WEEKLY DEWATERED BIOSOLIDS ANALYSIS



MERCURY – WEEKLY DEWATERED BIOSOLIDS ANALYSIS

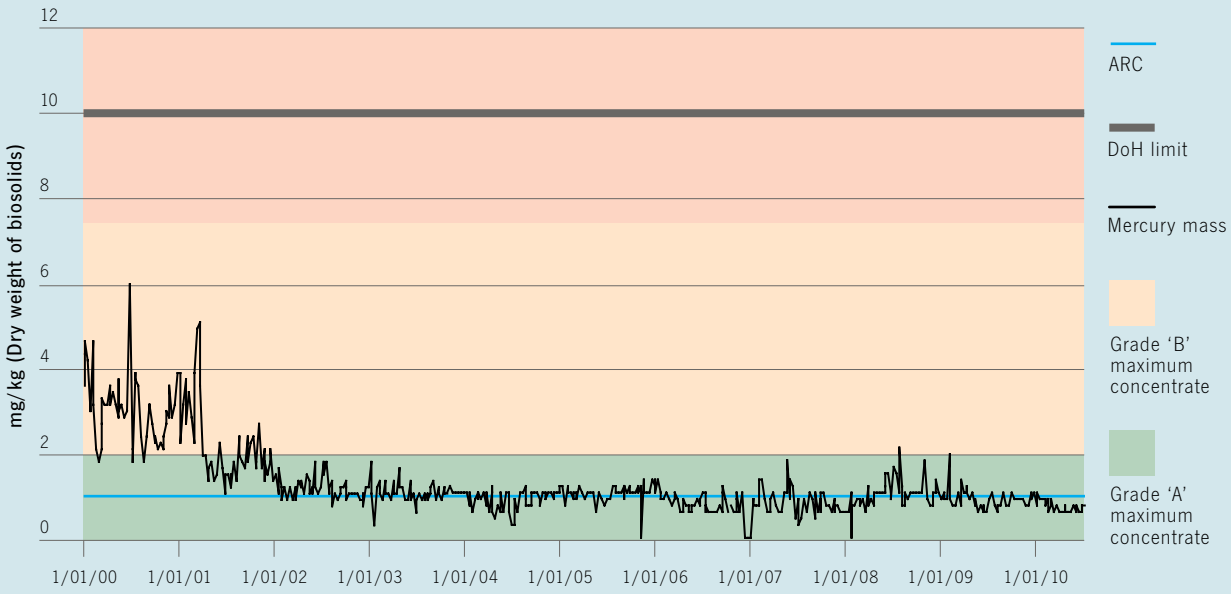
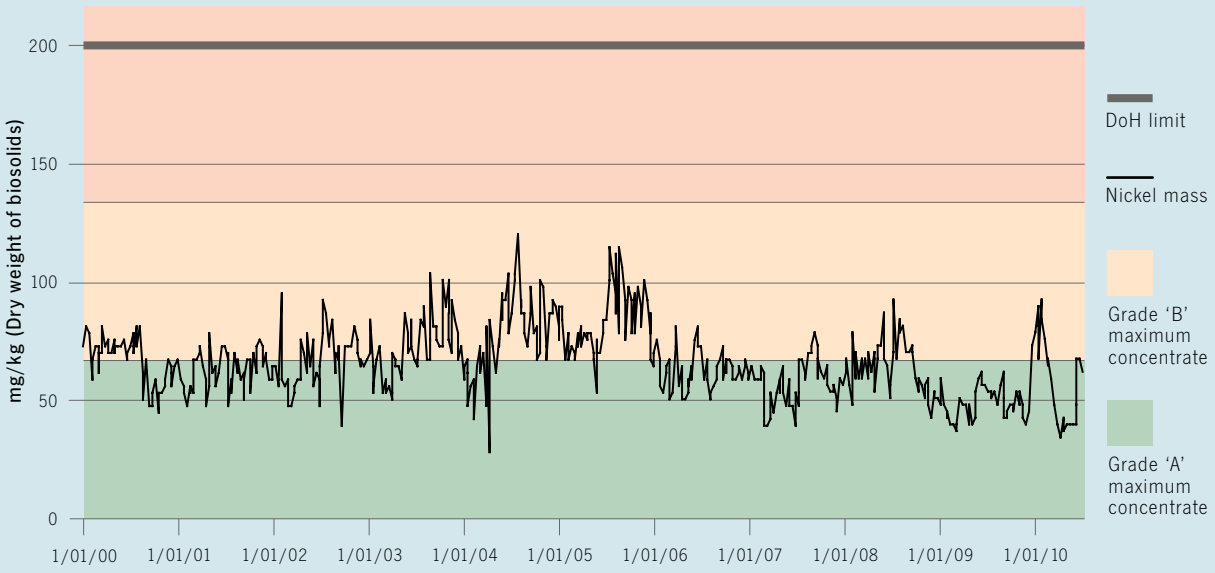
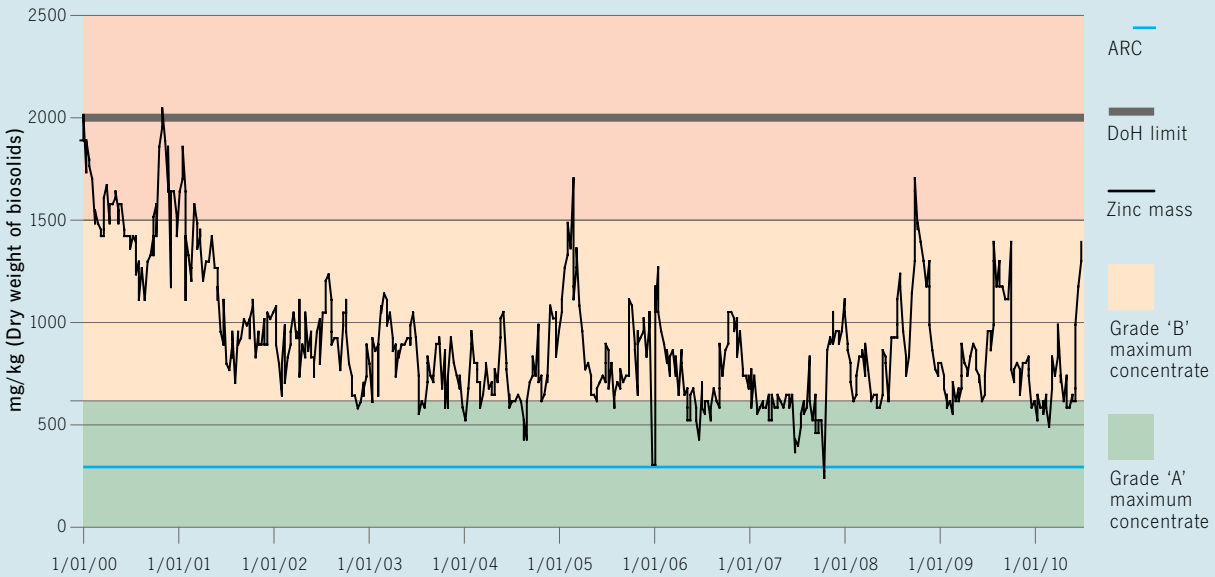


Figure 20 Biosolids Metal Levels

NICKEL – WEEKLY DEWATERED BIOSOLIDS ANALYSIS



ZINC – WEEKLY DEWATERED BIOSOLIDS ANALYSIS



Watercare's largest discharge to land is the biosolids generated as a byproduct of the wastewater treatment process. A significant proportion of metals and pathogens are removed with the solids. The graphs show the metal levels in the biosolids. The levels have trended downward over time but arsenic, cadmium, chromium and zinc have shown an increasing trend recently. Zinc levels are related to contaminants in stormwater run-off to sewer as a result of the combined sewer system, while the source of chromium has been linked to the metal finishing and tanning industries. Work is underway with these industries to reduce chromium discharges. Investigation into the sources of cadmium and arsenic responsible for increasing trends is ongoing.

The Department of Health (DoH) limit is the previous DoH guideline limit for the safe beneficial use of biosolids on land. In August 2003 these were replaced by national guidelines for beneficial reuse of biosolids that grade biosolids for unrestricted use (grade 'a') or restricted use (grade 'b') depending on their contamination loads. The limits are significant as Watercare is looking to find a beneficial use for biosolids, one option being a forest soil conditioner. The limits proposed in the Auckland Regional Council's Air, Land and Water Plan, which come into effect from 2012, are also shown.

Figure 21 Wastewater Treatment Plant Effluent Discharge

PARAMETER	CURRENT STANDARD – MONTHLY MEAN	MONTHLY MEAN, ANNUAL AVERAGE 2009/10	CURRENT STANDARD – MONTHLY MAXIMUM	ANNUAL MAXIMUM 2009/10
Discharge volume (litres/year)		112,224,209,468		
Biochemical oxygen demand (g/m^3)	15	2.5	50	18
Suspended solids (g/m^3)	15	6.7		
Total nitrogen (g/m^3)	summer 9.5 winter 35.0	8.0		
Total ammonia (g/m^3)	summer 3.0 winter 5.0	0.5	"summer 6.0 winter 15.0"	"5.0 8.3"
Dissolved reactive phosphorus (g/m^3)	9.0	2.8		
UV dose (% of minimum dose)	99	99.89		

NOTE:

The quantities of water discharged from the wastewater treatment plant are influenced by rainfall and the consequent stormwater flow into the sewers. The upgrade of the Mangere Wastewater Treatment Plant has improved the quality of this discharge dramatically. Key benefits include: much greater separation of solids from wastewater which are now disposed of on land; a major reduction in nutrients which stimulate excessive growth of algae and seaweed; and a 10,000-fold reduction in viruses, due to the ultraviolet light treatment gallery. All discharge is into the Manukau Harbour, an area of 370 square kilometres. All marine waters are protected under the New Zealand Coastal Policy Statement.

Figure 22 Treated Wastewater Standards

EFFLUENT DISCHARGED INTO THE HARBOUR

	Standard	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Annual average
The average monthly parameters (unless otherwise stated) for the quality of the liquid effluent discharged.														
POLLUTANT LOAD	Monthly average													
Biochemical oxygen demand	<15 g/m^3	2.8	2.3	2.3	3.3	2.7	3.1	2.1	2.0	2.1	2.0	2.5	3.0	2.5
Suspended solids (NFR)	<15 g/m^3	7.1	5.3	5.0	6.5	6.8	9.0	10.0	10.3	6.7	4.2	5.5	3.9	6.7
NUTRIENTS														
Total nitrogen	<35g/m^3 Apr - Nov	7.7	9.3	9.8	8.6	9.1					9.7	10.5	11.2	9.5
	<9.5 g/m^3 Dec - Mar						8.4	8.1	7.4	8.3				8.0
Dissolved reactive phosphorus	<9.0 g/m^3	2.5	2.5	4.0	2.7	3.3	2.2	3.3	1.7	2.1	2.9	3.5	3.1	2.8
Total ammonia	<5.0 g/m^3 Apr - Nov	0.9	0.7	0.6	1.1	0.9					0.4	1.0	1.2	0.8
	<3.0 g/m^3 Dec - Mar						0.9	0.4	0.4	0.4				0.5
PATHOGEN INDICATOR														
% of time UV dose exceed target dose	99%	99.70	99.99	100.00	100.00	100.00	99.04	100.00	99.99	99.97	100.00	100.00	100.00	99.89
POLLUTANT LOAD	Monthly maximum													Annual maximum
Biochemical oxygen demand	<50 g/m^3	9.1	3.3	4.2	8.3	5.0	15.0	3.1	2.6	5.6	2.2	8.7	18.0	18.0
NUTRIENTS	Monthly maximum													Annual maximum
Total ammonia	<15.0 g/m^3 Apr - Nov	3.2	3.3	1.6	6.5	3.1					0.4	4.6	8.3	8.3
	<6.0 g/m^3 Dec - Mar						5.0	1.0	0.5	0.4				5.0

NOTE:

The effluent quality in the discharge to harbour had met the monthly standards

Figure 23 Solids Disposal

ORIGIN	STRATEGY	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
WATER TREATMENT SLUDGE (m^3)							
Ardmore	Onsite	2,820	3,320	3,315	3,095	3,820	2,895
Huia	Parau landfill	3,420	3,480	4,160	3,430	3,495	3,960
Waitakere	Onsite	510	520	220	776	688	515
Waikato	Commercial landfill	1,944	1,460	1,938	1,130	1,537	1,840
WASTEWATER TREATMENT PLANT (tonnes)							
Biosolids* (wet)	Pond 2 rehabilitation	113,340	116,380	109,363	105,993	106,944	108,877
Grit (wet)	Commercial landfill	1,470	1,701	1,899	2,254	2,158	2,246
Screenings (wet)	Commercial landfill	1,340	1,795	2,028	1,920	1,543	1,463

* Assuming 28% solids content

NOTE:

This table summarises the amount and disposal methodology of the sludge and grit recovered by Watercare at its treatment plants. The screenings includes the fat balls gathering during the cleaning of primary tanks.

Figure 24 Weight of Hazardous Substances in Waste

SUBSTANCE	Concentration (mg/kg)	Disposed weight (tonnes)
Arsenic	8.0	0.24
Cadmium	1.9	0.06
Chromium	447	13.63
Lead	42.7	1.30
Mercury	0.7	0.02

Under the G3 reporting framework Watercare is required to provide information on G3 environment indicator EN24 relating to emissions, effluent and waste. The substances outlined in the table are found in biosolids, of which 30,490 tonnes were produced. Trace levels of these substances are also found in discharged effluent however the concentrations are well below maximum values allowed for in drinking water. No other hazardous wastes as defined by the Basel Convention are disposed of by Watercare. No waste is shipped internationally.

Figure 25 Protected Areas of High Ecological Value

NAME	RESTORED	LOCATION	OPERATION	AREA	ATTRIBUTES	PROTECTION	FUTURE PLANS AND STRATEGIES
Bycroft Wetland, Onehunga	N/A	In Onehunga where the aquifer naturally discharges.	Watercare provides a constant discharge to the wetland to maintain it.	Approximately one hectare.	Home of rare and endangered moss species, indigenous vegetation and wildlife.	Protected under the local authority district plan.	Maintain constant flow of water from Watercare facility.
Hunua Ranges	N/A	Located south of Auckland.	Contains the water supply catchments for five of Watercare's dams.	Approximately 10,500 hectares, mostly in native bush.	Native bush and wildlife habitat.	Predominantly protected by lease agreement with the Auckland Regional Council.	Allow for continuous water flow from dams to streams and create fish passes to allow fish movement. Trap and haul of fish where passes are not possible.
Waitakere Ranges	N/A	Located north west of Auckland.	Contains the water supply catchments for five of Watercare's dams.	Approximately 5,000 hectares in native bush.	Native bush and wildlife habitat.	Protected by lease agreement with the Auckland Regional Council.	Allow for continuous water flow from dams to streams and create fish passes to allow fish movement. Trap and haul of fish where passes are not possible.
Mangere Coastal Walkway	Yes	Located along the coast adjacent to the Mangere Wastewater Treatment Plant.	13km of coastal walkway and native plantings provided for and maintained by Watercare.	Approximately 13km of walkway and associated planting between 10 to 100m in width.	Provision of public walkways, bird roosts and native and marine habitat.	Owned by Watercare and required as a condition for the operation of the wastewater treatment plant.	Maintenance of bird roosts and continued restoration of harbour environment.
Oruarangi Creek	Yes	Located along the coast adjacent to the Mangere Wastewater Treatment Plant.	Estuary previously closed to the sea by the oxidation ponds restored to tidal influences. 4 km of esplanarde reserve has been planted by Watercare this last year.	Approximately 30 hectares.	Marine estuarine ecosystems being restored.	Owned by Watercare and required as a condition for the operation of the wastewater treatment plant.	Continued restoration of the marine environment and some further tidying at the creek mouth.
Waikato RiverCare	N/A	Along the banks of the Waikato River.	Watercare financial member of a trust that undertakes the planting.	120km of river bank with target of planting four kilometres per annum.	Riparian planting of along the Waikato River to enhance river water quality and create ecological diversity.	Plantings protected by covenants and agreements with landowners.	Watercare is continuing to take an ongoing interest in the appropriate management of the Waikato River catchment.
Auckland Volcanic Cones	N/A	Watercare has water reservoirs on or in eight volcanic cones distributed around the Auckland urban area.	These reservoirs are an essential part of the water distribution system and were built about 80 to 100 years ago. In many cases their presence has prevented the quarrying of the cones, ensuring the preservation of the cones until protection was given to them by local authorities in more recent times.	Each volcanic cone is set in parkland, with the largest being approximately 120 hectares in area. The cones are typically 100 to 150 meters above the adjacent urban area.	The cones are parks and heritage areas and are a defining feature of Auckland. However many of the cones not used for reservoirs have been quarried away for aggregate.	The cones are protected by local authority district plans and the Historic Places Trust.	Watercare is working with stakeholders interested in the cones with a view to enhance the values of the cones while protecting its water supply assets.
Puketutu Island	To be restored	Manukau Harbour adjacent to the Mangere Wastewater Treatment Plant.	Currently none.	110 hectares	Historically used for pastoral agriculture and as basalt quarry.	Wahi tapu protection, deemed to be of cultural significance.	Subject to appeal concerning resource consents, a former quarry on the island will be rehabilitated with biosolids and the island will be progressively converted to parkland.

NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 environment indicators EN11, EN13 and EN14, relating to biodiversity.

Figure 26 Significant Biodiversity Impacts

LOCATION / IMPACT	NATURE	EFFECT
Water catchments	Protected as part of the regional parks.	The bush catchments are regenerating native bush and provide an environment for native birds and other fauna.
Dams and lakes	The construction of the dams limits fish passage up and downstream and reduces stream flows. Minimum flows are released from some dams to maintain the downstream minimum flow.	Isolated fish communities have developed behind the dams. Provision of fish passages will open these areas to normal migration of fish. The dams reduce storm flows and low flows in the rivers down stream from the dams which has an adverse effect on the stream ecology.
Effluent discharge from Wastewater Treatment Plant	The treatment plant has been upgraded which has significantly improved the quality of the discharge to the Manukau harbour.	With the plant upgraded - which included the removal of 500 hectares of oxidation ponds and sludge lagoons - the harbour is restoring itself and there are now an increasing number and biodiversity of organisms and species.
Bird roosts along the Mangere Coastal Walkway	Bird roosts have been constructed as part of the Mangere Wastewater Treatment Plant upgrade.	The provision of roost habitats has encouraged the roosting of migratory and rare birds such as dotterels, godwit and wrybill.

NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 environment indicator EN12, relating to biodiversity.

Figure 27 Electricity Used Summary (MWh)

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
WATER							
Imported for water distribution	4,979	5,699	5,235	4,966	5,130	5,068	5,222
Imported by water supply	20,126	21,060	21,835	22,320	25,703	17,473	20,925
Generated by water supply (hydro)	4,390	4,018	2,124	2,730	3,260	5,500	6,549
Exported by water supply	-4,127	-3,700	-2,342	-3,039	-2,458	-4,957	-5,537
Water total used	**25,368**	**27,078**	**26,852**	**26,977**	**31,635**	**23,085**	**27,158**
WASTEWATER							
Imported for wastewater collection	12,010	10,693	11,590	10,343	10,927	12,539	11,050
Imported by treatment plant	36,616	29,611	28,134	28,795	29,865	24,693	24,067
Generated by treatment plant (biogas)	24,710	37,252	41,502	40,321	40,211	41,840	40,904
Generated by treatment plant (natural gas)	13,852	5,742	4,627	3,167	3,317	4,964	8,637
Exported by treatment plant	-60	-41	-119	-147	-120	-561	-799
Wastewater total used	**87,128**	**83,257**	**85,733**	**82,479**	**84,200**	**83,474**	**83,860**
BUSINESS PREMISES							
Business premises	859	901	842	1,073	1,852	1,868	1,867
Total used (MWh)	**113,356**	**111,236**	**113,428**	**110,529**	**117,686**	**108,427**	**112,884**
Equivalent total (GJ)	**408,080**	**400,449**	**408,340**	**397,905**	**423,669**	**390,336**	**406,383**

NOTE:

Under the G3 reporting framework Watercare is required to provide additional information on G3 environment indicators EN6 and EN7 relating to energy. This additional information has been included to meet G3 criteria.

Figure 28 Travel and Transport

	2003/04	2004/05*	2005/06*	2006/07	2007/08	2008/09	2009/10
Airline travel (passenger km)	373,000	840,079	733,582	567,626	689,237	534,985	449,584
Motor vehicles for company business (km)	2,930,000	2,298,796	2,470,195	2,595,549	2,517,066	2,816,440	2,750,382
Equivalent totals (GJ)	**10,144**	**8,990**	**9,312**	**9,411**	**9,491**	**10,252**	**9,987**

* Figures calculated using a new methodology based on GRI Indicator Protocols Set: EN published in 2006. Figures for 2004/05 and 2005/06 differs to that reported in previous annual reports due to the change in methodology.

Figure 29 Direct Energy (GJ) Consumption by Primary Source

	2003/04			2004/05			2005/06		
	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total
DIRECT ENERGY SOURCES PURCHASED									
Natural gas		143,405	143,405		59,452	59,452		48,899	48,899
Fuel for travel and transport		10,144	10,144		8,990	8,990		9,312	9,312
Subtotal		153,550	153,550		68,442	68,442		58,211	58,211
DIRECT ENERGY SOURCES PRODUCED									
Produced by water supply (hydro)	15,806		15,806	14,466		14,466	7,647		7,647
Produced by wastewater treatment (biogas)	88,955		88,955	134,105		134,105	149,409		149,409
Subtotal	104,760		104,760	148,571		148,571	157,056		157,056
DIRECT ENERGY SOURCES SOLD									
Exported by water supply	-14,857		-14,857	-13,319		-13,319	-8,432		-8,432
Exported by wastewater treatment	-138	-77	-215	-128	-20	-148	-385	-43	-428
Subtotal	-14,995	-77	-15,072	-13,447	-20	-13,467	-8,817	-43	-8,860
Total direct energy consumed (GJ)	**89,765**	**153,472**	**243,238**	**135,124**	**68,422**	**203,547**	**148,239**	**58,168**	**206,407**

	2006/07			2007/08			2008/09			2008/09		
	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total
DIRECT ENERGY SOURCES PURCHASED												
Natural gas		32,792	32,792		36,669	36,669		53,781	53,781		89,652	89,652
Fuel for travel and transport		9,411	9,411		9,491	9,491		10,252	10,252		9,987	9,987
Subtotal		42,203	42,203		46,160	46,160		64,033	64,033		99,638	99,638
DIRECT ENERGY SOURCES PRODUCED												
Produced by water supply (hydro)	9,828		9,828	11,737		11,737	19,800		19,800	23,575		23,575
Produced by wastewater treatment (biogas)	145,154		145,154	144,761		144,761	150,622		150,622	147,254		147,254
Subtotal	154,982		154,982	156,498		156,498	170,422		170,422	170,829		170,829
DIRECT ENERGY SOURCES SOLD												
Exported by water supply	-10,939		-10,939	-8,850		-8,850	-17,845		-17,845	-19,934		-19,934
Exported by wastewater treatment	-492	-39	-531	-400	-33	-433	-1,807	-214	-2,021	-2,373	-501	-2,875
Subtotal	-11,431	-39	-11,470	-9,250	-33	-9,283	-19,652	-214	-19,867	-22,308	-501	-22,809
Total direct energy consumed (GJ)	**143,551**	**42,164**	**185,716**	**147,248**	**46,127**	**193,375**	**150,770**	**63,819**	**214,589**	**148,522**	**99,137**	**247,659**

NOTE:

Under the G3 reporting framework Watercare is required to provide additional information on G3 environment indicators EN3 relating to energy. This additional information has been included to meet G3 criteria.

Figure 30 Indirect Energy (GJ) Consumption by Primary Source

	2003/04			2004/05			2005/06		
	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total
Electricity purchased from external sources	265,841	2,685	268,526	242,225	2,447	244,672	241,054	2,435	243,489
Primary fuel used by external sources*	273,611	2,764	276,375	249,562	2,521	252,083	248,407	2,509	250,916

	2006/07			2007/08			2008/09			2009/10		
	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total	Renewable	Non-renewable	Total
Electricity purchased from external sources	240,559	2,430	242,989	263,125	1,390	264,514	219,448	2,461	221,909	226,360	909	227,269
Primary fuel used by external sources*	247,744	2,502	250,246	271,011	1,432	272,443	226,282	2,537	228,819	233,433	937	234,371

*figures include losses by energy suppliers, estimated to be 2.84% in 2003/04, 2.94% in 2004/05, 2.96% in 2005/06, 2.90% in 2006/07 and 2.91% in 2007/08.

Under the G3 reporting framework Watercare is required to provide additional information on G3 environment indicator EN4 relating to energy. This additional information has been included to meet G3 criteria.

Figure 31 Energy Efficiency

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Water delivered (m^3)	127,089,000	131,052,000	134,699,000	136,220,334	136,559,180	130,921,976	134,637,738
Wastewater treated (m^3)	105,200,000	100,077,000	115,784,000	104,265,257	114,278,201	124,979,614	111,378,000
Energy used (kWh) per cubic metre of water produced and delivered	0.20	0.21	0.20	0.20	0.23	0.176	0.202
Energy used (kWh) per cubic metre of wastewater collected and treated	0.83	0.83	0.74	0.79	0.74	0.668	0.753

Figure 32 Energy Summary

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Energy produced internally as per cent of total energy demand	20%	33%	35%	36%	34%	39%	36%
Per cent of electricity self supply	34%	39%	40%	39%	38%	43%	44%
Total electricity generation as per cent of demand	38%	42%	43%	42%	40%	48%	50%
Per cent of electricity generated from renewable sources	68%	88%	90%	93%	93%	91%	85%
Per cent of imported electricity that is renewable	99%	99%	99%	99%	99%	99%	100%

Figure 33 Energy Savings

		UNITS SAVED*							GJ SAVED*						
INITIATIVE	Units	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Pump efficiency monitoring and control^	kWh	20,836	18,246	104,067	-	-	-	-	75	66	375	-	-	-	-
Zone based dissolved oxygen control^	kWh	-	1,308,148	592,666	2,621,025	-	-	-	-	4,709	2,134	9,436	-	-	-
Remove hypo-chlorination at water treatment plants	kWh	-	-	-	-	552,618	233,103	-	-	-	-	-	1,989	839	-
Change aeration of membranes at Waikato Treatment Plant	kWh	-	-	916,763	387,413	-	-	-	-	-	3,300	1,395	-	-	-
Relocation of head offices to Newmarket	kWh	-	-	-	-	227,559	-	-	-	-	-	-	819	-	-
Newmarket Winter 2008 Energy Savings	kWh	-	-	-	-	-	60,491	-	-	-	-	-	-	218	-
Reduction of dam aeration times	kWh	-	-	-	-	155,536	-	-	-	-	-	-	560	-	-
Petrol decreases through use of hybrid vehicles^	litres	1,600	4,799	-	800	-	-	-	53	158	-	26	-	-	-
Improve generation for carbon credit hydros	kWh	-	-	-	-	-	-	1,047,520	-	-	-	-	-	-	3,771
Total		-	-	-	-	-	-	-	**128**	**4,934**	**5,809**	**10,857**	**3,369**	**1,057**	**3,771**

* Energy saved is recognised for only 12 months after implementation, after which it is incorporated as normal operating conditions.
^ Savings span over many years due to staged implementation.

NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 environment indicator EN5, relating to energy. This additional information has been included to meet G3 criteria.

Figure 34 Overflows from Wastewater Collection System

	2004/05		2005/06		2006/07	
	Volume (m^3)*	Events	Volume (m^3)*	Events	Volume (m^3)*	Events
Combined system wet-weather overflows	464,000	232	2,013,400	1,007	968,251	484
Separate system wet-weather overflows	4,800	4	32,400	27	27,600	23
OVERFLOWS FROM PUMP STATIONS						
Plant/Control system failure	-	-	2,200	2	1,100	1
Power failure (outside Watercare's control)	3,300	3	35,200	32	11,000	10
Inflow from ground water and storm water	25,300	23	130,900	110	71,400	60
Other causes	-1,100	1	2,200	2	3,300	3
OVERFLOWS FROM SEWERS						
Inflow from ground water and storm water	1,200	9	1,700	13	3,400	26
Other causes	400	3	400	3	800	6
Total	**500,100**	**275**	**2,218,400**	**1,196**	**1,086,851**	**613**

	2007/08		2008/09		2009/10	
	Volume (m^3)*	Events	Volume (m^3)*	Events	Volume (m^3)*	Events
Combined system wet-weather overflows	639,182	320		0		0
Separate system wet-weather overflows	12,000	10	0		0	
OVERFLOWS FROM PUMP STATIONS						
Plant/Control system failure	1,100	1	2,200	2		2
Power failure (outside Watercare's control)	9,900	9	14,300	13	3,300	3
Inflow from ground water and storm water	91,630	77	117,810	99	73,780	62
Other causes	2,200	2	1,100	1	0	0
OVERFLOWS FROM SEWERS						
Inflow from ground water and storm water	5,492	42	6,669	51	8,369	64
Other causes	133	1	133	1	267	2
Total	**761,638**	**462**	**142,213**	**167**	**85,716**	**133**

*Volumes are estimated by a combination of monitoring and modelling.

NOTE:

This table summarises the overflows from the wastewater collection system. The number of combined and separate system wet weather overflows are based on both monitoring and computer modelling. The figure for separate system overflows is based on 4 overflows that are monitored.

Under the G3 reporting framework Watercare is required to provide information on G3 environment indicator EN23, relating to emissions, effluents and waste. This additional information has been included to meet G3 criteria.

Figure 35 Odour, Midge and Noise Complaints

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Odour from the wastewater collection system	73	52	50	59	39	58
Odour from the wastewater treatment plant	12	2	1	11	16	6
Midges	41	0	15	3	0	0
Noise	5	0	0	1	9	0
Total	**131**	**54**	**66**	**74**	**64**	**64**

NOTE:

The upgraded wastewater treatment plant has achieved significant reductions in odours and midge complaints compared to historical levels.

Figure 36 Wastewater Pump Station Overflows

LOCATION	Heavy rain	Plant/control system failure	Power failure	Other	Total
PS 5 Oliver Rd	12				12
PS 12 Wainui Rd	2				2
PS 14 Glendowie	3				3
PS 15 Point England	7				7
PS 16 Orakei	1				1
PS 17 Kohimarama	5				5
PS 18 Panmure Basin	1				1
PS 19 Otahuhu West	3				3
PS 23 Hillsborough	1				1
PS 25 St George	5	1			6
PS 28 Pakuranga	5				5
PS 30 Howick	2				2
PS 31 Otara	2		1		3
PS 34 Otahuhu North East	1				1
PS 37 Black Bridge	1				1
PS 38 Sylvia Park	2				2
PS 40 Westfield	2				2
PS 44 Western	2		1		3
PS 48 Manurewa West	1				1
PS 49 Manurewa	2				2
PS 63 Hingaia	1				1
PS 64 Orakei	1				1
Totals 2009/10	62	2	3	0	67
Totals 2008/09	99	2	13	1	115
Totals 2007/08	77	1	9	2	89
Totals 2006/07	**56**	**1**	**10**	**2**	**69**
Totals 2005/06	**110**	**2**	**32**	**2**	**146**
Totals 2004/05	**23**	**-**	**3**	**1**	**27**
Totals 2003/04	**24**	**-**	**3**	**1**	**27**
Totals 2004/05	**23**	**-**	**3**	**1**	**27**
Totals 2003/04	**24**	**-**	**3**	**1**	**27**

NOTE:

The 57 overflows in 2009/10 is 58 less than in 2008/09, and represents the lowest number of overflows recorded over the last 5 years. The difference between this years figures and last years is due to the significant number of overflows resulting from external power failure, and also infiltration/inflow caused by significant rainfall events during 2008/09.

Under the G3 reporting framework Watercare is required to provide information on G3 environment indicator EN23, relating to emissions, effluents and waste. This additional information has been included to meet G3 criteria.

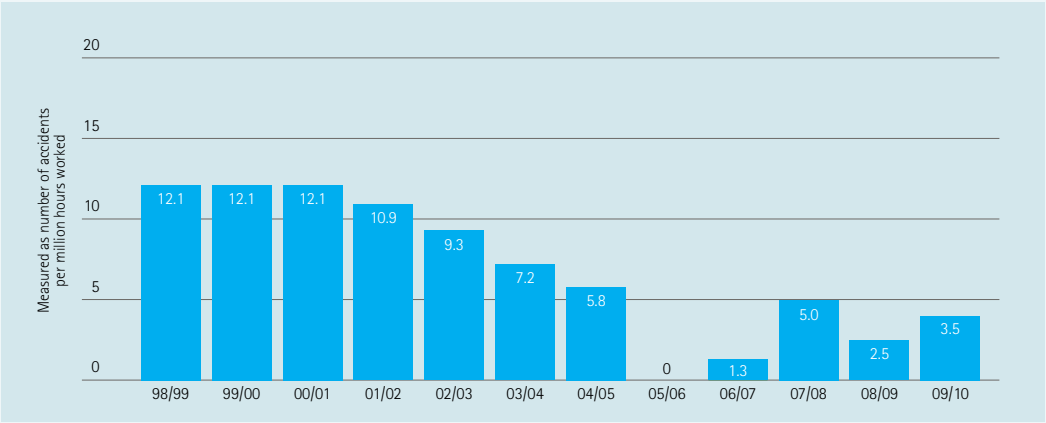
Figure 37 Sewer Overflows

LOCATION	Manhole	Heavy rain	Other	Total
Bucklands Beach Branch	19	4		4
Bucklands Beach Branch	19A	2		2
Bucklands Beach Branch	18	1		1
Eastern Interceptor	25A	2		2
Edendale Branch	1	1		1
Howick Interceptor	55	1		1
Howick Interceptor	56	2		2
Otahuhu North Branch	6		1	1
Otahuhu North Branch	12	1		1
Manurewa Branch	18	1		1
Manurewa Branch	32	1		1
Massey Branch	10	3		3
Massey Branch	14	1		1
Otara Branch	17	1		1
Otara Branch	18	1		1
Otara Relief Branch	20A	1		1
Papakura North Branch	4	1		1
Papakura North Branch	8	2		2
Papakura North Branch	9	1		1
Papakura North Branch	10	2		2
Southern Interceptor	1	2		2
Southern Interceptor	103	1		1
Branch 3 Sewer	14	2		2
Branch 4A Diversion	Rising main		1	1
Branch 9 Sewer	55	1		1
Branch 9 Sewer	64	1		1
Branch 9 Sewer	83	1		1
Branch 9 Sewer	84	1		1
Branch 9 Sewer	85	1		1
Branch 9 Sewer	87	1		1
Branch 9 Sewer	88	1		1
Branch 9 Sewer	91	1		1
Branch 9 Sewer	92	1		1
Branch 9 Sewer	93	1		1
Glen Eden Branch	79	2		2
Glen Eden Branch	88	1		1
Te Atatu North Branch	1	1		1
Te Atatu North Branch	**2**	**3**		**3**
Te Atatu North Branch	**5**	**2**		**2**
Te Atatu North Branch	**6**	**2**		**2**
South Lynn Branch	**1**	**1**		**1**
South Lynn Branch	**2**	**3**		**3**
West Lynn Branch	**9**	**1**		**1**
Western Interceptor	**38**	**1**		**1**
Whenuapai Branch	**9**	**1**		**1**
Whenuapai Branch	**10**	**2**		**2**
Total 2009/10		**64**	**2**	**66**
Total 2008/09		**51**	**1**	**52**
Total 2007/08		**42**	**1**	**43**
Total 2006/07	**-**	**26**	**5**	**31**
Total 2005/06	**-**	**13**	**3**	**16**
Total 2004/05	**-**	**9**	**3**	**12**
Total 2003/04	**-**	**153**	**4**	**157**

NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 environment indicator EN23, relating to emissions, effluents and waste. This additional information has been included to meet G3 criteria.

Figure 38 Lost-time Injury Frequency Rate



NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 labour practices and decent work indicator LA7, relating to occupational health and safety. This additional information has been included to meet G3 criteria.

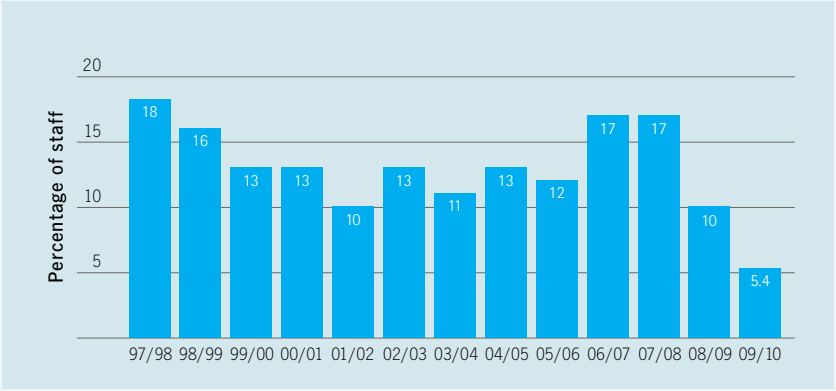
Figure 39 Health and Safety Notes

Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs. (G3-LA6)
Nine health and safety committees operate within Watercare, comprising of 123 committee members. Committees meet on a monthly basis to discuss health and safety requirements, accidents and other issues.
The 123 committee members represent 32% of full time permanent staff members.
A formal Health and Safety Committee structure exists within Watercare.
Formal committee meeting minutes are kept.
Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region. (G3-LA7)
Formal reporting includes – near miss, incident, minor harm, serious harm. A first aid register is held in first aid kits to record minor treatment.
The calculation of lost days is determine by scheduled days and begins when the employee is unable to return to work the next shift.
Watercare complies with the Health and Safety in Employment Act 1992.
Watercare is registered with Telarc SAI Limited - Compliance with AS/NZS 4801:2001
Watercare complies with ACC Workplace Safety Management Practice Requirements (Tertiary Level)
Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases. (G3-LA7)
The company has retained medical professionals – Primary Co-operate Health (PCH).
Employees are offered free immunisation for hepatitis A and B, polio, tetanus, typhoid, TwinRx, and flu.
Employees working in the wastewater are required to be immunisation for hepatitis A and B, polio, tetanus, typhoid, TwinRx
Watercare has a comprehensive rehabilitation and return to work programme for work and non-work related injuries.
Employees undergo annual medical assessments.
Watercare provides 16+ education seminars on health, safety and wellbeing each year.
Health and safety topics covered in formal agreements with trade unions. (G3-LA7)
Unions participate in the Watercare Health and Safety Management System.
Union representatives are involved in selection and trials of personal protective equipment and in the selection of and participation on committees.
The company has sets a target of 455 safety inspections for this year.
Basic training includes: confined space, first aid, working at height, working on the road and chemical handling, small boat operations, radio communication procedures.
Complaints or issues are noted by means of a formal hazard report form.
The right to refuse unsafe work is recognised as part of the Health and Safety Management System and is a legal requirement.
An 'inspections report' analysis is completed each month.
The right to refuse unsafe work is recognised as part of the Health and Safety Management System and is a legal requirement.
An 'inspections report' is completed each month.

NOTE:

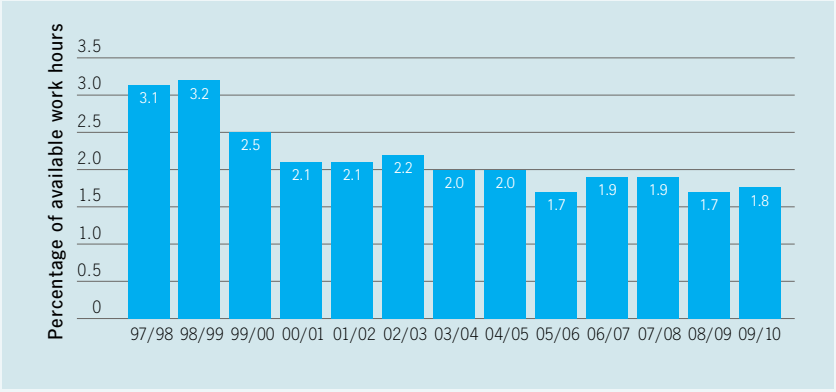
Under the G3 reporting framework Watercare is required to provide information on G3 labour practices and decent work indicators LA6, LA7, LA8 and LA9, relating to occupational health and safety. This additional information has been included to meet G3 criteria.

Figure 40 Voluntary Staff Turnover



Voluntary turnover of staff for the 2009/10 period was at a record low 5.4%. This abnormally low level of turnover is attributed largely to the very flat employment market caused by the economic downturn and, to a lesser extent staff seeking to maintain security during a period of uncertainty caused by the Auckland Water Industry amalgamation process.

Figure 41 Unscheduled Absences



NOTE:

The targets for absence due to sickness and total unscheduled absence are set at 2.0% and 2.5% respectively. Absences due to illness and for total unscheduled absence have both remained below 2.0% for the fifth year in a row. Under the G3 reporting framework Watercare is required to provide information on G3 labour practices and decent work indicator LA7, relating to occupational health and safety. This additional information has been included to meet G3 criteria.

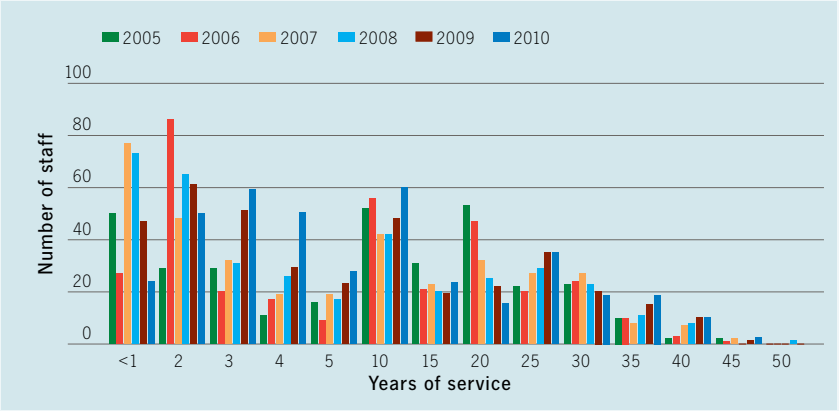
Figure 42 Investment in Staff

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
	$000	$000	$000	$000	$000	$000
Total remuneration	23,324	24,954	27,292	29,185	31,739	29,713
Expenditure on training	426	428	519	598	664	538
Healthcare expenditure	58	94	90	91	143	111
Life and disability insurance	162	173	199	227	227	300
	23,970	**25,649**	**28,100**	**30,101**	**32,773**	**30,662**

NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 economic indicator EC5 and human rights indicator HR3, relating to market presence and investment and procurement practices. Investment and training development has decreased for 2009/2010 due to the upcoming intergration of the water industry within Auckland, and staff focus on intergration projects. No specific training on human rights is given. However, the company has human resources policies in place to ensure the welfare and consistent treatment of all employees, in line with New Zealand government legislation. Watercare applies a total remuneration policy. However, individuals may choose to contribute to a defined benefit plan of their choice. No Watercare permanent employee is paid less than 21% above the legal minimum wage.

Figure 43 Staff Service Profile



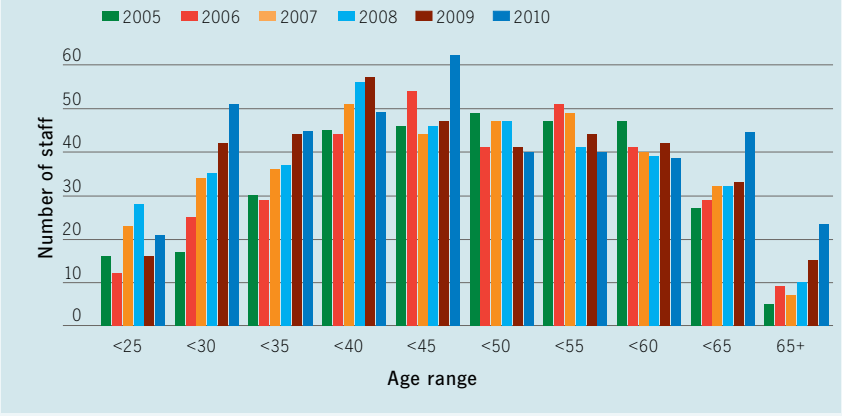
NOTE:

The graph shows the of staff service. Watercare was established in 1992, taking over the water and wastewater operations – and staff – of the Auckland Regional Council. The service profile shows 68% of staff have less than 10 years continuous service. This is a reflection of ongoing renewal through turnover, albeit slowed by the record low levels of turnover during 2009/10

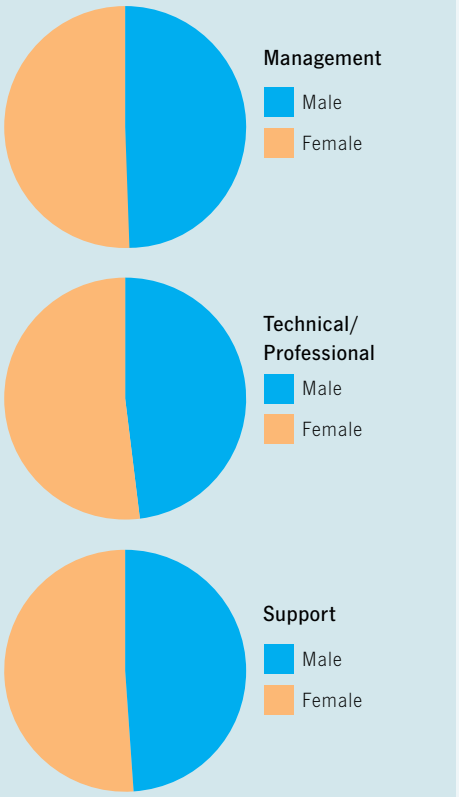
Under the G3 reporting framework Watercare is required to provide information on G3 labour practices and decent work indicators LA2, relating to employment. This additional information has been included to meet G3 criteria.

Figure 44 Staff Demographics

STAFF DEMOGRAPHICS



SALARY LEVEL RATIO MEN : WOMEN



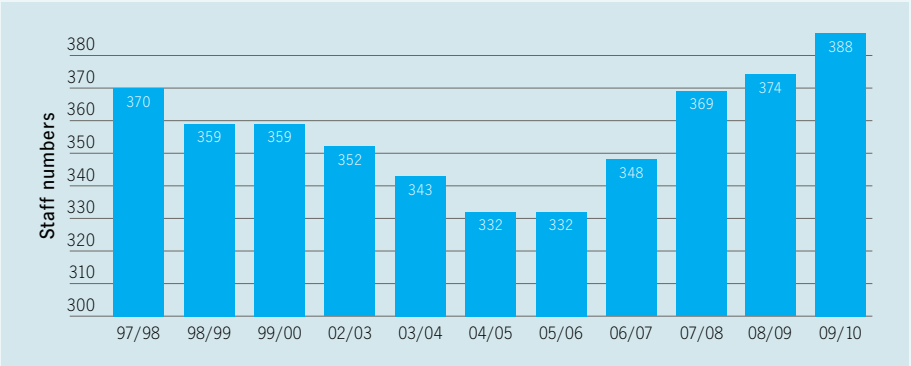
NOTES:

Under the G3 reporting framework Watercare is required to provide information on G3 labour practices and decent work indicators LA2, LA13 and LA14, and human rights indicators HR1, HR4, HR5, HR6, HR7, HR8 and HR9, relating to employment, diversity and equal opportunity, investment and procurement practices, non-discrimination, freedom of association and collective bargaining and child labour.

One criteria reported under the G3 framework is the comparison of salary levels paid to men and women. At Watercare this analysis has been prepared in three wage or salary bands. At management levels the average salary ratio for women compared to men is 100%; at the technical and professional level the ratio is 95%. In the support and operational level the ratio is 99%.

There have been no instances of discrimination or violation of the rights of indigenous people. As Watercare's operations are restricted to New Zealand, G3 human rights indicators HR1, HR5, HR6, and HR7 are not considered applicable to Watercare. Indicator HR8 regarding security practices is also not considered applicable as security is provided by professional external contractors.

Figure 45 Average Staff Numbers



NOTE:

The figures include all permanent Watercare staff members. The data does not include staff on fixed term contracts, contractors, casual staff or students on work experience.

Aside from 1 staff member operating a satelite Laboratory in Queenstown all Watercare staff work in the Auckland Region.

Under the G3 reporting framework Watercare is required to provide information on economic indicator EC7 relating to market presence. This additional information has been included to meet G3 criteria.

Figure 46 Workforce by Employment Type, Contract and Region

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Salary	225	232	252	275	278	295	306
Wage	95	82	81	81	82	82	80
WSL apprentice	4	3	2	3	2	2	1
Part-time FTEs	1	4	2	2	1	1	1
Subtotal	**325**	**321**	**337**	**361**	**363**	**380**	**388**
F/Term Cont.>1yr	7	3	2	2	4	6	7
F/Term Cont.<1yr	3	11	14	9	8	9	7
Temps	4	-	1	-	-	-	
Students	1	1	2	-	2	-	
Casual FTEs	5	3	6	5	4	8	10
Total headcount on payroll	**345**	**339**	**362**	**377**	**382**	**403**	**412**

NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 labour practices and decent work indicators LA1, LA3, LA4 LA5, LA11 and LA12, relating to employment, labour/management relations and training and education. This additional information has been included to meet G3 criteria.

With the exception of a 1 person satelite Laboratory operated in Queenstown Watercare only operates within the Auckland region.

A majority of wages staff are covered by collective agreements. (21% of total workforce)

All salaried staff and those wages staff who have elected to move to an Individual agreement (79%of total workforce) have formal performance reviews on an annual basis.

All individual and collective employment agreements provide for prior consultation where restructuring is likely to impact on individual roles.

All permanent fulltime or part-time staff receive the same benefits. Temporary staff do not qualify for group life and income protection insurance.

Only citizens and permanent residents qualify to join Kiwisaver and gain the employer subsidy.

Where staff are to be made redundant a one minimum period of notice is given and outplacement training and support is provided.

Figure 47 Rain Forest Express Passengers and Trips

YEAR ENDING 30 JUNE	2005	2006	2007	2008	2009	2010
Total passengers	**10,850**	**9,244**	**14,623**	**13,037**	**11,435**	**12,318**
School trips	25	21	49	47	40	38
Charter trips	92	68	84	81	80	79
Scheduled trips	170	129	178	158	161	185
Total trips	**287**	**218**	**311**	**286**	**281**	**302**

NOTE:

The Rain Forest Express runs on a six-kilometre tram line in the Waitakere Ranges. It is still used for the maintenance of the Upper Nihotupu Dam. It is a community asset offering the public an opportunity to see a supply dam, tunnels, glow worms, cave weta and natural flora. The Rain Forest Express is available for school groups and community use.

Figure 48 Communication With Stakeholders

COMMUNICATION CHANNEL	DESCRIPTION
Public liaison	Public contacted Watercare by email or by the 24-hour phone line.
Media liaison	Media received timely and appropriate responses to enquiries.
External magazine	Interflow was distributed twice to 1,740 recipients.
Internal newsletter	The Font, the online staff newsletter, featured 88 new stories. Information about the integration project, was communicated to Watercare and LNO staff through 26 newsletters and six issues of Your source. Your source features integration as well as staff news.
Website	The website was updated on a regular basis, particularly with regards to water storage levels, rainfall and consumption over the first six months of 2010. Over the 12 months to 30 June 2010, the website was visited by an average of 4,780 unique users each month.
Brochures	Brochures were updated and reprinted when required.
Project newsletters	Hobson Headlines was distributed two times to 9,150 homes. Flyers were distributed to the relevant local communities regarding the Waitakere No.2 Watermain Upgrade (one flyer), Connell Street Line Valve (one flyer) and the Hunua No. 4 Watermain (one flyer).
Educational programmes	The Adopt A Stream programme ran in 36 schools, two holiday clubs and one gifted children association with 6,268 pupils participating. The Adopt A Stream newsletter was distributed four times to 402 schools. The drinking water and wastewater treatment display appeared in four schools and the World Water Day packs were distributed to 151 teachers.
Public awareness campaigns - print	Watercare ran a 'use water wisely' campaign from July to December 2009 and again from April to June 2010. This included adverts in the New Zealand Herald and suburban newspapers, updates to the company website and regular media liaison.
Public awareness campaigns - broadcast	Watercare's 'use water wisely' campaign included television and radio media liaison.

Figure 49 Community Impact of Operations

COMMUNITY IMPACT OF OPERATIONS

Under the G3 reporting framework Watercare is required to provide information on G3 society indicator SO1, relating to community.

Watercare actively maintains positive relationships with communities affected by its business. Watercare's Statement of Corporate Intent lays out the activities to be undertaken by Watercare and sets specific economic, social and environmental objectives for the company. This process inherently includes consideration of the impacts Watercare's business will have on the wider community.

At a local level Watercare fosters active relationships with affected communities through forums and individual relationships, as well as carrying out impact assessments as part of the process of applying for resource consent approvals for all major projects. These principles of community consideration apply through all stages of Watercare's business from the start of a new project or operation, through to its conclusion.

NOTE:

Under the G3 reporting framework Watercare is required to provide information on the society indictor SO1 relating to the community. This additional information has been included to meet G3 criteria.

Project teams identify potential effects on communities and assess options to avoid, remedy or mitigate adverse effects. Information is gathered using a number of sources, including stakeholders identified through relevant legislation or by local authorities, general stakeholders, iwi, local knowledge and advisory groups.

The approach has been highly effective in mitigating negative and maximising positive impacts. For example Project Manukau – the $450 million upgrade of the Mangere Wastewater Treatment Plant – involved extensive consultation with local community, culminating in the return of the harbour for community use and the removal of the plant oxidation ponds. Relationships with a wide range of stakeholders from Project Manukau, including an Environmental Advisory Group, a Maori Advisory Group, a Community Liaison Group and an Audit Group, continue to this day.

Figure 50 Public Policy Participation

Under the G3 reporting framework Watercare is required to provide information on G3 society indicators **SO5** and **SO6**, relating to public policy. Watercare is an active participant in the development of relevant legislation and policy initiatives.

SIGNIFICANT ISSUES AND CORE POSITION
Regional Governance changes. Watercare participated in and responded to requests on the various bills relating to the new Auckland governance structure.
New Zealand Coastal Policy Statement 2008. To perform its functions Watercare needs to maintain and operate essential infrastructure within the coastal environment. The Coastal Policy Statement includes policy that impacts on water and wastewater infrastructure and consequently Watercare made an extensive submission. The report from the Board of Enquiry to the Minister of Conservation has yet to be formally released.
Land and Water Forum. Watercare is a plenary member of the Land and Water Forum. The Forum consists of representatives from various organisations with an interest in fresh water. Its task, through a stakeholder led process, is to recommend outcomes, goals and long-term strategies for fresh water in New Zealand. The Forum reported to the Minister for the Environment and the Minister of Agriculture in August 2010.
The Auckland Regional Council (ARC) Air, Land & Water Plan. Watercare's submissions relate to policies and rules for the taking of water for municipal water supply and for regulating discharge from water and wastewater pipelines. Watercare seeks outcomes that will provide a balance between protecting the environment and providing for the economic and social wellbeing of the community. Negotiations and mediation are continuing and because of the large number of parties involved the process will likely continue for some time.
Environment Waikato Water Allocation variation to regional plan. Watercare was supportive of proposed changes which aim to protect domestic and community water supplies and to ensure that sufficient water is retained for in-stream requirements during periods of water shortage. The Council decision is generally supported by Watercare. The appeal process is continuing with negotiations. All outstanding matters will be considered and determined by the Environment Court.
National Policy Statement on Freshwater. Watercare made comprehensive written and oral submissions on this policy statement. A report from the Board of Enquiry to the Minister for the Environment has been released and the Minister has requested the Land and Water Forum (of which Watercare is a member) report on how the policy statement fits into the outcomes recommended by the Forum.
New Zealand Standard Ecological Flows and Water Levels. Watercare lodged a submission to this standard to ensure appropriate standards are established with respect to its storage and takes of surface and aquifer water supply. The submission process has been completed and a report is being prepared by the Ministry for the Environment for consideration by the Minister.

Figure 51 Resource Consent Compliance

No sanctions or fines relating to laws and regulations related to accounting fraud, workplace discrimination or corruption have been brought against Watercare

No administrative or judicial sanctions were levied against Watercare for failure to comply with laws or regulations concerning the provision and use of products and services

No legal actions for anti-competitive behaviour, anti-trust, or monopoly practices have been brought against Watercare.

There have been no complaints regarding breaches of customer privacy or losses of customer data.

Location	Nature of technical non-compliance	Month	Potential or actual impact	Mitigation action and comments
WATER				
Ardmore Water Treatment Plant	Consent required for retention dams.	All year	None.	The Auckland Regional Council (ARC) has the resource consent on hold until upgrade works are completed.
Waitakere, Upper Nihotupu and Upper Huia dams	Minimum release flows not achieved.	July	None. There have been no flows released for over 50 years.	Construction works are being undertaken so that the flows can be safely released and measured. Consent variation has been granted to reflect the construction programme.
Southern dams	Riparian planting, fisheries management and various management plans.	All year	Minor impact.	Discussions are underway with the ARC and consent variations are being sought.
Ardmore Water Treatment Plant	Aluminium levels in lagoon discharge exceeded.	One sample in February	Minor impact on the creek which is below the plant.	The storage ponds are currently being desludged to increase retention capacity.
Huia Water Treatment Plant	Suspended solids and aluminium levels in lagoon discharge exceeded.	Two occurances during the year	Minor impact on the creek which is below the plant.	One occurace following very heavy rain. The other is thought to be a rouge sample as no apparent cause was identified and resampling gave a normal result.
WASTEWATER				
Wastewater treatment plant final effluent	A 2 hour discharge of treated effluent occurred during the non-discharge period on the incoming tide. This occurred as repairs were undertaken to the discharge gate.	16/12/2010	Minor impact.	Operating procedures have been revised to minimise the risk of reoccurance.
Discharge Methoprene	Samples collected and tested the next day following methoprene application showed concentrations higher than the consent limit.	August -September	Minimal residual risk. Methoprene is known to break down within 24 hours.	Consent variation was granted in January for a more realistic methoprene limit in line with international best practice.

NOTES:

Under the G3 reporting framework Watercare is required to provide information on environment indicator EN28, society indicators SO7 and SO8 and product responsibility indicators PR2, PR4, PR7, PR8 and PR9, relating to compliance, anti-competitive behaviour, product and service labeling and customer privacy. Extra information has been added to this table from previous years to meet G3 reporting requirements.

Figure 52 Drinking Water Standards Compliance

			TREATMENT PLANTS						
Determinands	Standard and allowable exceedences	Year	Ardmore	Huia	Waitakere	Onehunga	Huia Village	Waikato	
Turbidity	5% > 0.5 NTU	2006/07	0.25%	0.00%	0.00%	0.00%	Waikato and Huia Village compliance are based on membrane integrity not turbidity		Turbidity is a measure of filtration effectiveness and a surrogate measure for the presence of protozoa such as *cryptosporidium*
	none > 1 NTU		0	0	0	0			
	5% > 0.5 NTU	2007/08	0.00%	0.02%	0.00%	0.01%			
	none > 1 NTU		0	0	0	0			
	5% > 0.5 NTU	2008/09	0.00%	0.04%	0.02%	0.00%			
	none > 1 NTU		0	0	0	0			
	5% > 0.5 NTU	**2009/10**	**0.00%**	**0.00%**	**0.01%**	**0.00%**			
	none > 1 NTU		**0**	**0**	**0**	**0**			
E. coli **(A)** water treatment plants	10 samples > nil/100ml	2006/07	0	0	0	0	n/a	-	*E. coli* is an indicator of potential waterborne disease-carrying organisms
	2 samples > nil/100ml		n/a	n/a	n/a	n/a	0	-	
	10 samples > nil/100ml	2007/08	0	1	0	0	n/a	-	
	2 samples > nil/100ml		n/a	n/a	n/a	n/a	0	n/a	
	10 samples > nil/100ml	2008/09	0	0	1	0	0	0	
	2 samples > nil/100ml		n/a	n/a	n/a	n/a	0	0	
	10 samples > nil/100ml	**2009/10**	**0**	**0**	**0**	**0**	**0**	**0**	
	2 samples > nil/100ml		**n/a**	**n/a**	**n/a**	**n/a**	**0**	**0**	
Fluoride	10 samples > 1.5 mg/l	2006/07	0	0	0	n/a	n/a	-	Fluoride is added to treated water at the request of Watercare's customers
	10 samples > 1.5 mg/l	2007/08	0	0	0			0	
	10 samples > 1.5 mg/l	2008/09	0	0	0			0	
	10 samples > 1.5 mg/l	**2009/10**	**0**	**0**	**0**			**0**	
E. coli **(B)** distribution system	100 samples > nil/100ml	2006/07	2			No bulk reticulation	No bulk reticulation	Testing incorporated within the Ardmore, Huia, Waitakere bulk reticulation zone	*E. coli* is an indicator of potential waterborne disease carrying organisms
	100 samples > nil/100ml	2007/08	0						
	100 samples > nil/100ml	2008/09	1						
	101 samples > nil/100ml	**2009/10**	**0**						

(A) Based on the population band to which the water supply belongs, 10 or 2 samples (of 100ml) containing E. coli are allowable.

(B) Based on the population band to which the water supply belongs, 100 samples (of 100ml) containing E. coli are allowable.

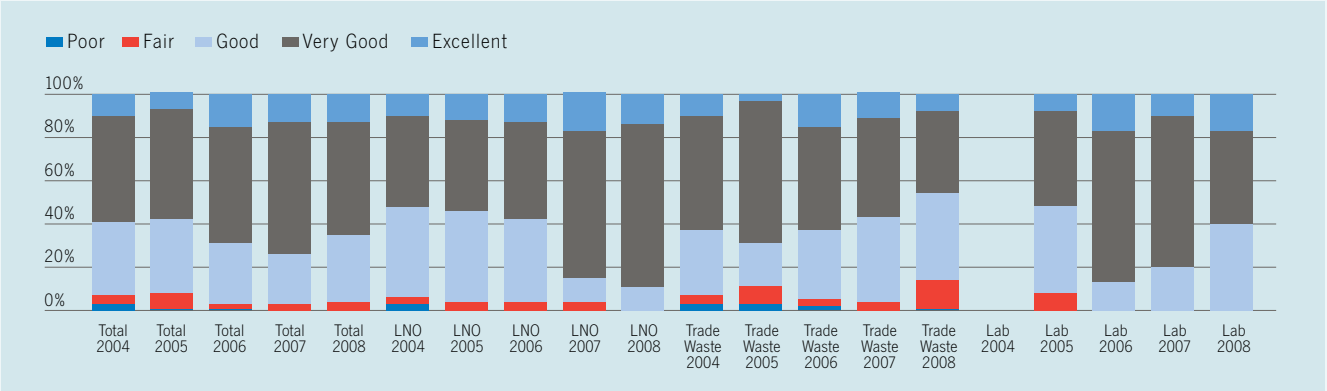
NOTE:

This table shows Watercare's performance against the Drinking-Water Standards for New Zealand 2005 (revised 2008).

Figure 53 Typical Analysis of Auckland's Drinking Water

	ARDMORE		HUIA		WAITAKERE		ONEHUNGA		WAIKATO	
Determinands	**Raw**	**Treated**	**Raw**	**Treated**	**Raw**	**Treated**	**Raw**	**Treated**	**Raw**	**Treated**
Turbidity (NTU) (Online Data)	2.35	0.03	6.23	0.05	3.57	0.04	0.18	0.02	20.41	0.01
E. coli (Number per 100ml)	3	N/D	18	N/D	16	N/D	406	N/D	633	N/D
Aluminium (mg/L)	0.16	0.03	0.88	0.03	0.61	0.03	0.02	0.03	1.17	0.06
Iron (mg/L)	0.29	0.01	0.78	0.02	0.88	0.02	0.01	N/D	1.29	0.03
Manganese (mg/L)	0.03	N/D	0.03	N/D	0.03	0.01	N/D	N/D	0.07	N/D
pH Value (lab)	7.5	8.0	7.7	7.9	7.3	7.9	7.4	8.0	7.6	8.0
Total hardness (mg/L CaCO3)	13.9	24.8	23.2	34.6	17.3	33.3	56.6	56.6	30.3	59.3

Figure 54 Customer Satisfaction Feedback



NOTE:

LNO (Local Network Operators) refers to water and wastewater customers

The Watercare Services Laboratory was not included in the survey in 2004

After discussions with the Board and Shareholders, it was agreed not to undertake the customer survey over the past two years. The decision was based on the pending water and wastewater industry integration and the good historical record for customer satisfaction as demonstrated by the 2008 results. Watercare will undertake new customer satisfaction surveys following integration that reflect the new retail customer base.

Figure 55 Product Life Cycle, Health and Safety Impact Assessment

Under the G3 reporting framework, Watercare is required to provide information on G3 product responsibility indicator PR1 relating to customer health and safety. Watercare supplies water and wastewater services to its six customers in accordance with supply contracts and with government guidelines and regulations. In addition the company carries out extensive planning for future demand, through documents such as the Asset Management Plan and the Three Waters Strategic Plan.

The G3 indicator table below outlines whether the health and safety impacts of products and services are assessed for improvements.

STAGE	YES/NO
Development of product concept	N/A
Research and design	N/A
Certification	N/A
Manufacturing and production	Yes
Marketing and promotion	N/A
Storage distribution and supply	Yes
Use and service	Yes
Disposal reuse or recycling	Yes

Figure 56 Product Information Disclosure

Under the G3 reporting framework, Watercare provides additional information on G3 product responsibility indicator PR3, relating to product and service labelling. Watercare is governed by Ministry of Health Drinking Water Assessors and complies with the Drinking Water Standards New Zealand 2000. Wastewater is governed by the Final Effluent Standards as part of resource consent.

The G3 table below reports whether product and service information is required by Watercare's procedures for product and service information and labelling.

	WATER	WASTEWATER
The sourcing of components of the product or service	Yes	Yes
Content, particularly with regard to substances that might produce an environmental or social impact	Yes	Yes
Safe use of the product or service	Yes	Yes
Disposal of the product and environmental/social impacts	Yes	Yes

Figure 57 Ethics and Business Integrity

Percentage and total number of business units analysed for risks related to corruption	Nil
Percentage of employees trained in organisation's anti-corruption policies and procedures	Nil
Actions taken in response to incidents of corruption	N/A

NOTE:

Under the G3 reporting framework Watercare is required to provide information on G3 society indicator SO2, SO3 and SO4 relating to corruption. This additional information has been included to meet G3 criteria.

Probity guidelines are in place in respect of projects undertaken by the company. The company employs as required an independent probity auditor.

Watercare produces and promulgates a business conduct and ethics policy

A high percentage of Watercare staff are registered professionals and bound by the ethical standards required of those professions.

Figure 58 Capital Expenditure Programmes

	"2009/10 EXPENDITURE ($ million)	FUTURE EXPENDITURE (next five-year period) ($ million)
WATER		
Raw water network rehabilitation/replacement	4.58	10.18
Raw water network improvement	0.19	0.58
Energy and Control systems rehabilitation/replacement	0.64	2.20
Energy and Control systems improvement	0.79	2.55
Dam rehabilitation	1.84	6.92
Water sources improvement	0.15	0.76
Regulatory compliance	5.51	5.86
Water treatment plant rehabilitation/replacement	2.68	23.93
Water treatment plant improvement	5.62	57.56
Water treatment plant expansion	0.00	7.00
Regulatory compliance	0.00	0.64
Treated water network rehabilitation/replacement	16.20	62.52
Treated water network improvement	1.65	12.59
Treated water network expansion	5.20	24.04
Hunua no.4 water supply scheme	14.06	177.83
CBD storage	0.00	0.00
Water total	**59.11**	**395.16**
WASTEWATER		
Energy and Control systems rehabilitation/replacement	0.04	1.77
Energy and Control systems improvement	0.86	1.12
Energy and Control systems expansion	0.23	0.00
Collection system replacement	5.33	35.50
Collection system improvement	0.71	24.93
Collection system expansion	14.03	163.71
Regulatory compliance	0.00	0.25
Project Hobson	12.52	0.03
Project Waitemata	5.49	10.48
Trade Waste	0.00	0.81
Wastewater treatment plant rehabilitation/replacement	1.69	53.19
Wastewater treatment plant improvement	4.86	46.52
Wastewater treatment plant expansion	1.79	13.45
Wastewater Total	**47.55**	**351.76**
SHARED SERVICES		
Plant & Equipment Replacements	1.51	32.27
Process Improvement	5.19	31.45
Laboratory	1.35	
Project 1	5.38	
Shared services total	**13.43**	**63.72**
GRAND TOTAL (2009 $)	**120.09**	**810.64**

Figure 59 Infrastructure Investments Provided for Public Benefit

Under the G3 reporting framework Watercare is required to provide information on G3 economic indicator EC8 relating to indirect economic impacts.

One criteria reported under the G3 framework is the development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro-bono engagement.

As the bulk water and wastewater service provider for Greater Auckland, all of Watercare's water and wastewater services are designed to fulfil community needs. These needs are determined through the interaction of Watercare's customers with the community, and any requirements identified are fed back to Watercare and built into individual water and wastewater projects.

Watercare has a capital programme totalling $2.99 billion over 20 years. The positive impacts of this investment include the support of economic growth in the region and the associated improvement in standards of living for local communities, the maintenance of existing levels of service through replacement of old infrastructure, the provision of security of supply to businesses and local communities, and the improvements in levels of service to local communities such as improved pressures and water quality.

Any impacts on communities and the environment related to the construction of individual projects are largely temporary or mitigated through community engagement and project planning.

Figure 60 Major Suppliers and Contractors

Data from 1 July 2009 to 30 June 2010.

		$000
Creditor Name	Category	Total
Fletcher Macdow joint venture	Construction	$17,052,836
Orica New Zealand Ltd	Chemical	$7,605,751
Steelpipe Limited	Construction	$6,252,130
CH2M Beca Ltd	Professional Services	$5,616,518
Pipeline & Civil	Construction	$5,616,308
Meridian Energy Ltd	Energy	$5,386,445
Brian Perry Civil	Construction	$5,051,887
AECOM New Zealand Ltd	Professional Services	$4,226,991
Sinclair Knight Merz	Professional Services	$3,809,452
Pipeworks Rehabilitation Solution	Construction	$3,695,660
Canadian Pacific Construction	Construction	$3,136,749
Harker Underground Construction	Construction	$2,704,374
Infor Global Solutions	Computer	$1,877,957
Mechanical Technology Ltd	Mechanical/Engineering	$1,788,138
Tyco Flow Control Ltd	Mechanical/Engineering	$1,685,654
J A Nicholson Engineering Ltd	Mechanical/Engineering	$1,631,442
Marsh Ltd	Insurance	$1,560,674
GE Water & Process	Filtration	$1,553,264
Vector LTD	Energy	$1,465,780
SAP New Zealand Limited	Computer	$1,444,447
Soltius New Zealand Limited	Professional Services	$1,424,442
Russell McVeagh McKenzie	Professional Services	$1,419,291
Westfield NZ LTD	Property & Facilities Management	$1,346,594
McDonalds Lime Ltd	Chemical	$1,344,104
Electrix Ltd	Electrical	$1,292,603
Cassidy Construction Ltd	Construction	$1,241,239
Fletcher Construction Co Ltd	Construction	$1,217,837
MWH New Zealand Ltd	Professional Services	$1,163,472
ITT Water & Wastewater NZ Ltd	Mechanical/Engineering	$1,129,314
Auckland Sandblasters Ltd	Property & Facilities Management	$1,128,094
Nova Gas Ltd	Energy	$1,059,829
McKenzie & Parma Ltd	Construction	$1,055,536
Heb Contractors Ltd	Construction	$1,021,256
Westfalia Separator NZ Ltd	Mechanical/Engineering	$1,011,810
Tonkin & Taylor Ltd	Professional Services	$1,011,355
		$101,029,233

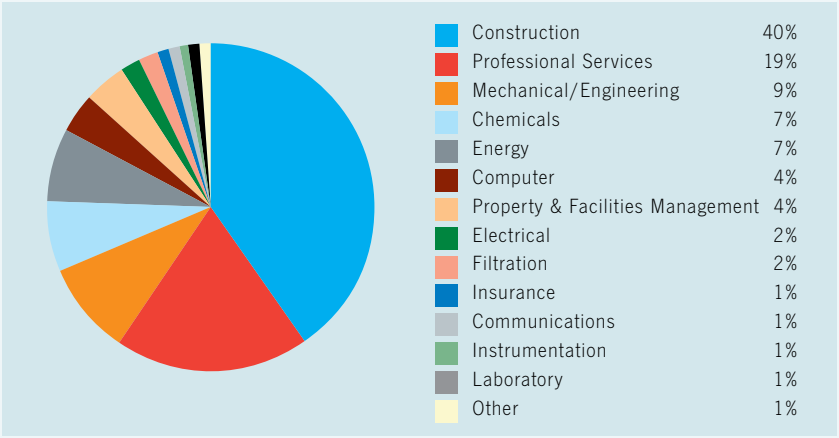
NOTE:

This table lists suppliers and contractors who provided goods and services worth more than $1million in 2009-10. Under the G3 reporting framenwork, Watercare provides additional information on G3 economic indicator EC6 and human rights indicator HR2, relating to market presence and investment and procurement practices.

One criteria reported under the G3 framework is the percentage of goods and services purchased locally. At Watercare, 97 per cent of payments for goods and services were made to businesses based in New Zealand, or with branches based in New Zealand

Figure 61 Suppliers Spend by Industry and Sector

Data from 1 July 2007 to 30 June 2008.



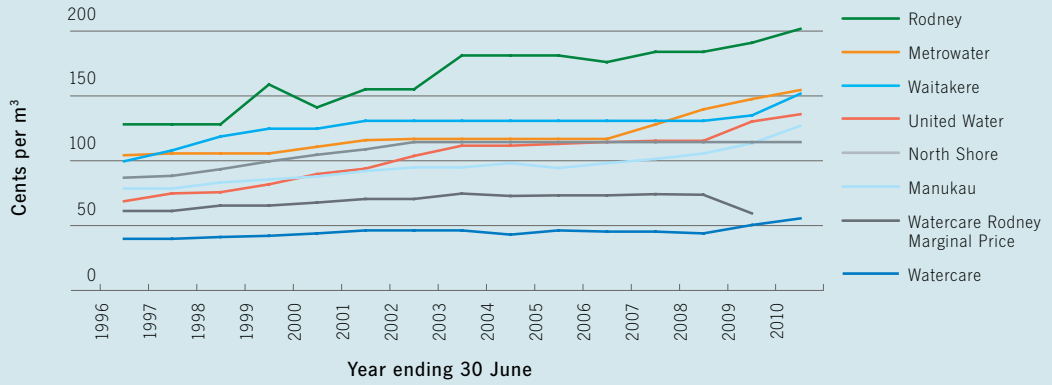
NOTE:

Analysis of Watercare's top 100 suppliers and contractors, by services or goods provided, shows the predominance of construction contracts, reflecting continued investment in significant new assets.

Figure 62 Revenue by Customer (excluding adjustments)

	2005/06	2006/07	2007/08	2008/09	2009/10
	$000	$000	$000	$000	$000
Metrowater	70,256	70,663	69,922	80,037	88,234
Manukau City Council	41,143				
Manukau Water		41,193	40,742	43,760	45,481
Waitakere City Council	22,143	22,384	22,170	24,452	25,988
North Shore City Council	9,251	9,311	9,171	10,035	11,287
United Water	5,538	5,570	5,621	6,328	6,382
Rodney District Council	1,851	1,980	1,943	1,597	1,512
Trade waste customers	10,556	11,305	12,026	11,664	11,763
Other	7,161	6,577	5,750	6,756	7,469
Total	**167,899**	**168,983**	**167,345**	**184,629**	**198,116**

Figure 63 Watercare Wholesale Price and Water Retailers' Average Domestic Price



NOTE:

The Watercare average price has been calculated allowing for the water price adjustments of $4.4 million (3.5c per m3) in 2004 and $6.0 million (4.6c per m³) in 2005. The graph compares Watercare's 'wholesale' price with the water retailers' prices to consumers. All prices exclude GST. The marginal price charged to Rodney (Watercare Rodney Marginal Price) is nil from the 2010 financial year onwards.

Figure 64 Financial Implications of Climate Change

Under the G3 reporting framework Watercare is required to provide information on G3 economic indicator EC2 relating to economic performance and climate change.

Watercare undertakes extensive planning for the future at a regional level, through strategic documents such as the Three Waters Strategic Plan. The document has a 100 year planning horizon and considers the future operating environment for Watercare over the Auckland region, covering many factors including population growth, availability of resources and climate.

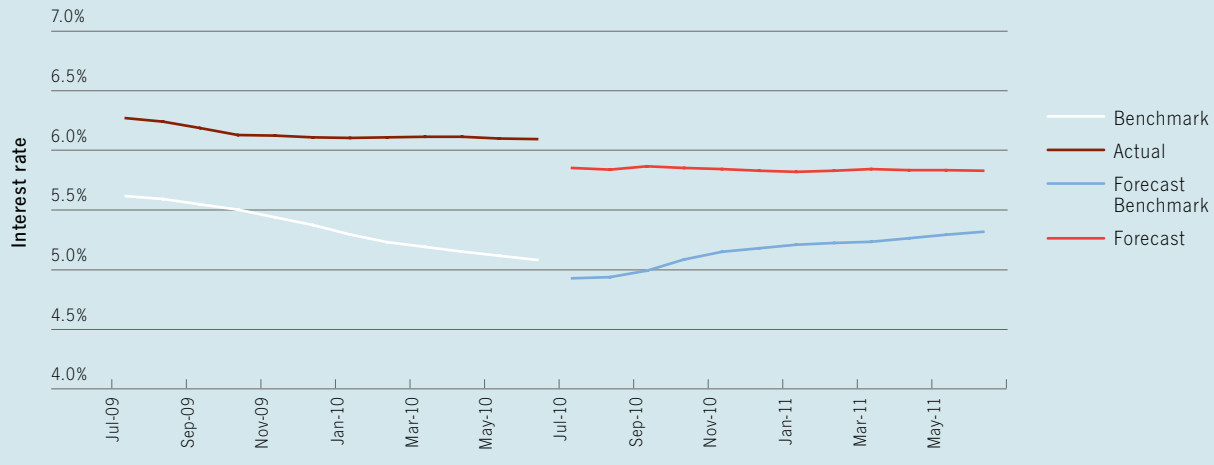
Climate change is considered in the plan as affects could influence sources of water for supply, drainage networks and the behaviours of consumers. It is acknowledged that natural variations will continue to affect the New Zealand climate in future, along with long-term climate change trends.

The plan says specific Auckland-based scenarios will be considered for the effect of extreme events, recognising that short-term climate is likely to be a greater driver than long term events.

In addition to the plan, Watercare will continue to assess future business, regulatory and operating requirements in Auckland's changing environment, and has already begun making assessments using available data on any impacts of climate change on its operations.

As more conclusive information on the impacts of climate change in the Auckland region is available, further research and planning, including economic implications will be undertaken for incorporation into the Asset Management Plan and other relevant plans.

Figure 65 Interest Rate Performance



NOTE:

The benchmark is a mix of long- and short-term interest rates.

Figure 66 Capital Expenditure: Projection vs Actual 2009/10

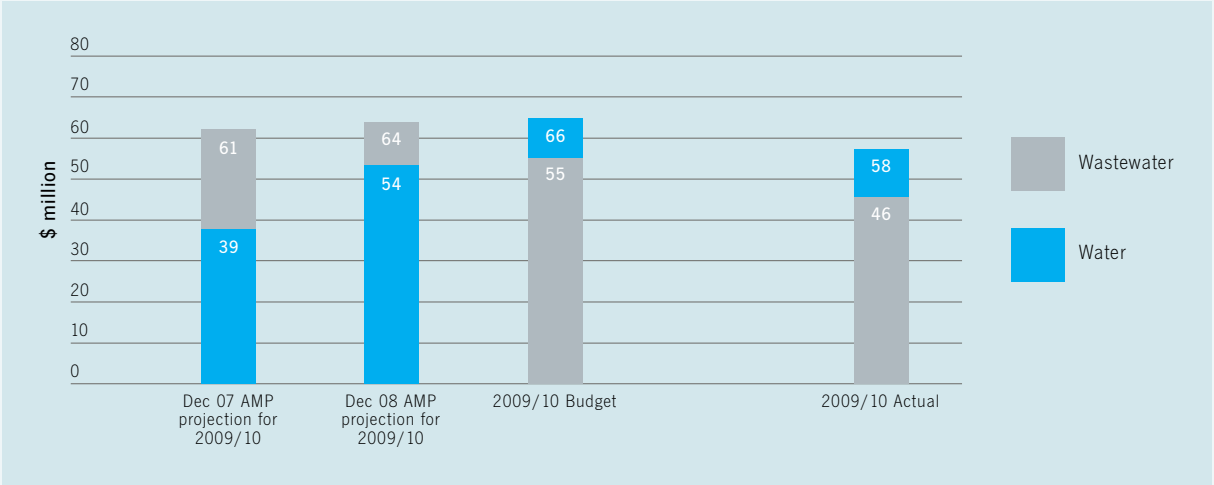
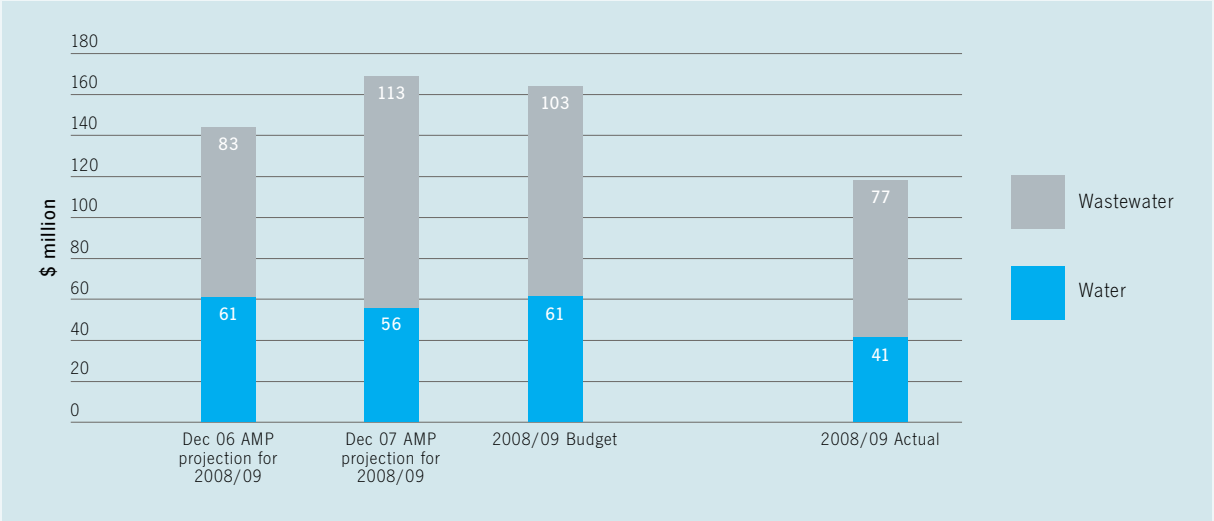
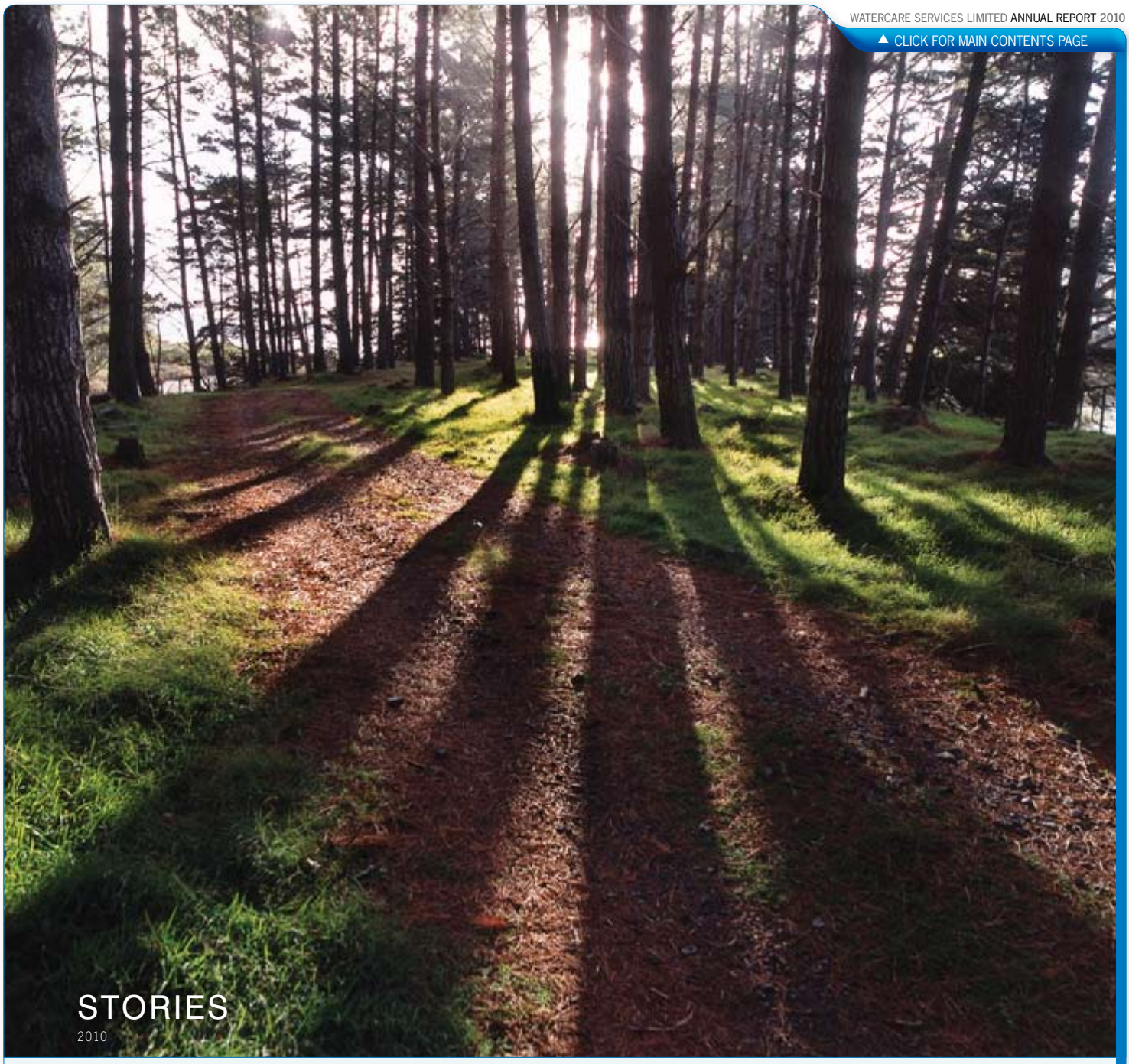


Figure 67 Capital Expenditure: Projection vs Actual 2008/09





STORIES
2010

Light filters through pine trees on Puketutu Island. Under plans being discussed with iwi and councils, Watercare proposes to rehabilitate an old quarry on the island with treated biosolids. As part of the proposal, sections of the island would also be opened to the public as a park.

Contents

Hydraulic jaws take first bite out of ageing sewer

YOUR SOURCE: 18 June 2010

Demolition gets underway.

Powerful hydraulic jaws began to demolish the sewer pipe that has carved a concrete path across Hobson Bay for nearly a century when Watercare's Project Hobson entered its final stage last Thursday.

Works to replace the sewer pipe, and the 40-year-old pump station it connects to, have been underway for three years. Last month, the new tunnel and pump station entered service full time.

Watercare Project Manager Mike Sheffield says these assets are proving their worth already. He explains: "During the recent torrential downpours, the high-capacity tunnel and pump station did exactly what they were designed to do – kept the combined wastewater and stormwater within the sewer system.

"This meant that for the first time in around 100 years, there were no wastewater overflows from the Orakei overflow point into the eastern bays."

The demolition work is expected to take four months to complete. Two crews are breaking up the concrete with hydraulic jaws and collecting it off the seabed using hydraulic diggers. This method was chosen as it creates less dust and noise than alternative methods, minimising disruption to the community. Concrete from the demolition is being used by Watercare to form access roads around Pond Two – a former oxidation pond undergoing rehabilitation next to the Mangere Wastewater Treatment Plant.

By Christmas, Aucklanders will be able to enjoy a greater range of recreational activities in the bay as the sewer pipe will be gone, with all signs of construction. Watercare staff were joined by ARC Chairman, Mike Lee, Auckland City Councillor and Chairman of Watercare's Shareholder Representative Group, Doug Armstrong, Auckland Transition Agency Executive Chairman, Mark Ford and Watercare Chairman, Graeme Hawkins as well as contractor representatives as they watched the first section of the sewer pipe undergo demolition last Thursday.

The sewer pipe was constructed between 1908 and 1914 to serve up to 300,000 people. At the time it transported the wastewater to Okahu Point, where it was released without treatment into the harbour via an outfall pipe. More recently, the sewer transported the flow to a pump station in Orakei to be pumped to Mangere for advanced treatment.

Staff in awe of the scale of Project Hobson

INTERFLOW: Winter 2009

Nearly 100 Watercare staff and family members saw first-hand the remarkable scale of Project Hobson at an Orakei site open day in July.

Work on the project began in May 2007 and has been progressing steadily ever since. Watercare's contractors have been constructing a three-kilometre-long tunnel to replace the ageing sewer pipe that crosses Hobson Bay and they have been building a high-capacity pump station.

At the open day, staff and their families were able to look over the edge of the 25-metre-deep temporary shaft which was used during the tunnelling operation. Project Manager Mike Sheffield says most people were surprised and impressed when they saw for themselves how deep it is.

"After looking over the edge, they were keen to find out about what we used it for," he says. "I filled them in; telling them it was a hub of activity during tunnelling, with over 100,000 tonnes of earth lifted out of it and over 14,000 pre-cast concrete segments lowered down into it."

During the tunnelling operation the temporary shaft was covered by a noise enclosure that enabled work to take place 24 hours a day. This enclosure was removed in June and the shaft will be backfilled in August. By the end of the project, the area used for the tunnelling exercise will be returned to the rugby club for use as a playing field.

Staff and their families also had the opportunity to walk around the top of the pump station shaft. Mike says the pump station houses six heavy-duty pumps that "can empty an Olympic-sized swimming pool in just over eight minutes."

"Our focus for the next two months is completing the electrical and mechanical systems," says Mike. "The commissioning stage will begin in September and we expect to hand the tunnel and pump station over to Watercare's Operations team in December."

Management Accountant Avinesh Lata with Project Manager Mike Sheffield at the edge of the temporary shaft.

Acting Chief Executive Gary Swift was among those who attended the open day. He says: "The weather was against us but it was great to see so many staff and families taking the opportunity to inspect the project, to enjoy the delicious food and for the children to participate in the face painting and colouring activities."

The project is scheduled to be finished by August 2010, following the removal of the old sewer pipe and the reinstatement of the construction sites.

Hobson's Heroes

INTERFLOW: Spring 2009

"We've been doing this job since early September," says Charlie Devlin. "Around seven weeks now, and we've removed about 390 tonnes of grit already."

They all believe the grit, gravel and debris they're removing has been building up since the sewer was commissioned over 90 years ago. "Mike's been here for over 30 years and it hasn't been cleaned out in his time," says Charlie.

By removing the grit from the sewer ahead of its demolition next year, they reduce the risk of the bay being contaminated with the heavy metals and hydrocarbons that have washed down the sewer from the city's streets and have become attached to the grit. The servicemen are joined on the job by Networks Management Engineer Warwick Brown and by contractors from HydroTech.

Charlie, an affable Irishman, says the crew arrives at the Mangere Wastewater Treatment Plant's depot at 1.00am each morning, ready to "get changed, load the trucks up with everything we need and set sail for Hobson".

Lewis Popata, whose son Eddie is also in the crew of nine men, says they usually have a large meal the night before. "We need to because we may not eat again until 11 the following day – we can't eat when we're covered in wastewater."

After arriving at Hobson Bay, they open one of the hatches and flush fresh air down the dark concrete sewer with a fan. All agree the smell is not as bad as one would expect.

"The contractors also pop a water blaster down the hatch which stirs up the wastewater and clears the air nicely for us," reassures Charlie. His face grows more serious for a moment as he adds "but you have to be aware of it all the time. Poisonous gases – especially hydrogen sulphide – are our biggest danger. When you suck up or disturb some grit it could release gas below. So we hang gas meters down where the guys are working and keep an eye on them."

"At that time of the morning it can be cold, bloody cold" Mike Langdon chips in. "And misty too," says Charlie. "It adds to the difficulty of the job – with the wind as well and carrying the gear along the top of the sewer."

The three laugh as they say that, as the 'oldies' in the crew, they get to decide who goes down the hatch and who stays on top. They explain that the crew is split in two, with a group of five operating a sucker hose and the other four monitoring a plough further along the sewer. They say the biggest challenge for the men operating the sucker hose is blockages. "Sometimes there are big pieces of rock in there, and wood, tree trunks, bricks – whole bricks that have been there for ever," explains Charlie.

The men started off using a six-inch sucker hose and are now using a five-inch one. "But at the end of the day, it's still heavy you know – around 60 kilograms. And these guys are humping it down the line on their shoulders," says Lewis.

The hose is connected to a specialised truck operated by Watercare's contractor HydroTech. It separates the grit and debris from the wastewater and returns the wastewater to the sewer so it can be treated at the wastewater treatment plant. Mike says at the other end of the sewer the men supervise the plough which acts like a bulldozer, pushing the grit along.

Darren Tumai-Totorewa and Lewis Popata operate the sucker hose in the sewer.

"They're a bit cautious about putting the plough in the Hobson sewer by itself because it's quite fragile – the sewer's held together with two to three thousand wire strops."

"The guys who go down wear dry-suits and harnesses and all that gear," says Lewis. "And we hang lights down the hole because if you use cap lamps you end up blinding people."

When they enter the sewer in the early hours, the wastewater stream is knee high. Mike says that by around half past seven, when everyone is getting out of bed and having showers, the flow has increased. Charlie nods his head in agreement, saying it has sometimes been up to their shoulders. "It's alright when you're walking on top of the grit but once you get to a clean spot, it can get up to shoulder height," he says. "We usually stop work around then, head back to Mangere and clean the gear."

The three veterans share an admiration for the men who built the sewer at the start of the 20th century, remarking on their good workmanship and its durability. That is not to say they are not looking forward to the commissioning of the new tunnel which will replace the sewer.

"It'll be amazing. It looks spectacular. And that shaft!" exclaims Charlie, referring to the new pump station shaft being built in the Orakei Domain. Lewis adds that it is going to be "a good thing when it's all finished and running properly." For now, though, it is back to work for these three. And despite the early starts and the tough conditions, they say they still manage to have plenty of laughs on the job.

Construction underway on Hunua 4

FONT: 12 February 2010

Construction has begun on the Hunua 4 Watermain Project with sections of watermain being installed under the girders of the new Manukau Harbour Bridge.

The $240 million project involves laying a 30-kilometre-long watermain from Manukau to Epsom via Mangere and Onehunga. Watercare Principal Engineer Andy Spittal says that while work on most of the route is not scheduled to begin until 2012, work on the section that crosses the harbour is being carried out now as part of the New Zealand Transport Agency's (NZTA) Manukau Harbour Crossing Project.

"NZTA has formed an alliance with Fletcher Construction Company, Beca and Higgins Group Ltd to construct the new harbour crossing and the construction of the Hunua 4 is embedded in their project," explains Andy.

"This is a good example of Watercare working with other authorities to benefit the people of Auckland. It minimises the period of disruption caused by construction and is good for our bottom line – helping us to maintain our position as a least-cost provider of water and wastewater services."

Fifteen pipe modules have been installed since pipe erection work began in November 2009. "We're about 25 per cent of the way there, in terms of crossing the bridge," says Andy. "And it's been going really well so far. We put a lot of effort into the planning stages – going through every possible detail – and its paying off now."

Andy says the watermain – which will carry 3,000 litres a second – will not only cater for population growth but also increase the security of the water supply.

"There are water supply risks that exist because of the degree of reliance on existing reticulation infrastructure," he says. "At the moment, it's impossible to shut the older lines down for more than a few hours.

Contractors install an 8.5-metre-long section of watermain on the new Manukau Harbour Bridge.

"By duplicating sections of the existing Hunua 1, 2 and 3 watermains, the Hunua 4 will enable those mains to be taken out of service to carry out essential maintenance."

For the majority of the route, the watermain will be laid in a trench. In sensitive areas – such as busy intersections and coastal areas – trenchless technology, such as pipe thrusting, will be used.

Watercare is planning to lodge consents for the project soon and to start construction in 2012. The pipeline is scheduled for full commissioning in 2016.

Campaign heats up despite break in dry spell

YOUR SOURCE: 3 May 2010

For the past month, Watercare has been encouraging Aucklanders to use water wisely through media interviews, briefings and advertising campaigns.

Why are we doing this? Because the region is facing a situation whereby if the dry spell continues through winter, we could be facing water restrictions next summer.

Currently, our dams are around 58% full. This is similar to where we were in April 2008 however it's around 10% less than the historic average for this time of year.

As with 2008, we're experiencing an extended dry period. In fact, total rainfall in the last three months was the lowest in nearly 100 years of records in the western supply catchments and the third lowest in nearly 50 years in the southern catchments. While we had rain this week, it was not enough to stop the decline in dam levels.

This brings us to a key point: you never know how severe a drought is until you're out of it. That's why Watercare's ongoing focus is the careful management of all water sources and prudent planning.

The company is maximising output from the Waikato Water Treatment Plant. It's meeting approximately 20% of the region's water needs – about 75,000,000 litres per day – which is preventing the lakes from emptying as quickly as they would otherwise do and is providing valuable additional water until the rain arrives.

Maximising the Waikato plant is in line with the regional drought management plan. Within the last 10 days, the first 'trigger point' was reached – which signalled the need to meet with LNO representatives and to seek water reductions through voluntary means. If we achieve voluntary water reductions in the community, it will reduce the likelihood of or delay mandatory restrictions.

What can you do to help our cause? As a person working in the water industry, you can lead by example taking simple measures such as having shorter showers and only running the dishwasher when it's full. You should also make sure any leaks around your home are fixed. For a full list of water conservation tips, take a look on Watercare's website.

Zero waste expands

YOUR SOURCE: 5 July 2010

Worm farms and recycling are all part of life on Watercare's Zero Waste Committee, and five years after the group was established they are still going strong with integration plans to follow.

The group, who have a number of members based at the Lab, Mangere Wastewater Treatment Plant and Newmarket, have the responsibility of reducing staff waste and encouraging different recycling initiatives, while helping improve the company's environmentally friendly record.

As part of the routine biannual waste audit carried out last month at all Watercare locations, the offices at Manukau Water and the Rosedale wastewater treatment plant were also included for the first time.

"By including these locations in the audit we can get a fairly strong feel for what the current state of play are and attitudes to waste and recycling," says Alan Foubister Watercare Security Manager, head of the Zero Waste Committee and occasional worm farm expert.

"The results from these places so far are similar to where Watercare was a few years ago.

"In the very near future Zero Waste will be championed at these locations. It's good to know we have a solid foundation and understanding to start with. Feedback from staff is that they are keen to participate in the programme."

"As with anywhere there is room for improvement, but we're off to a headstart," explained Alan.

Held every six months, waste samples are sorted, weighed and analysed, identifying where improvements can be made.

"Occasionally things get a little out of kilter, so the waste audits allow us to see just where we are going wrong, then provide constructive feedback and reminders to staff," said Alan.

"Over the years these results have allowed us to significantly reduce the amount of recyclables going to landfill, making Zero Waste a continuing success."

Day in the life of Bernice Chiam – Biosolids Engineer

FONT: 16 February 2010

There are many advantages to being a project engineer, including the variety of roles that I get to play – from getting my hands dirty measuring the sheer strength of biosolids to briefing senior management – and it's often all in a day's work!

My role as the Biosolids Project Engineer is based at the Mangere Wastewater Treatment Plant where I'm responsible for the operation and construction of Pond 2. It's a former oxidation pond next to the plant that is being rehabilitated using biosolids.

Biosolids are a soil-like by-product of the wastewater treatment process. Every day, I have to make sure around 30 truck-loads of the material are disposed of safely while meeting the design criteria for Pond 2 and all of the resource consent conditions (there are more than 50!). This involves managing a number of contractors and suppliers.

The day-to-day tasks of placing the biosolids and managing the site's odour, dust and drainage are carried out by Fletcher Construction. They also construct the road and pipework, in consultation with URS. Once the rehabilitated landform's height is achieved, the surveyors, landscape consultants, plant suppliers and planting contractors get involved. I enjoy working with them to achieve the desired outlook for the future.

Within Watercare, I work closely with planners such as Greg Paterson and Deborah Morley who have strategic roles in the project. As for the Operations team at Mangere, I maintain ongoing communication with the process controllers to understand the impact of any treatment changes to the biosolids quality. I also liaise with Sam Tan, a process data controller, for consent monitoring requirements and with the mechanical and electrical planners to ensure the pumps are always running.

Bernice discusses road construction details for Pond 2 with Paul Southen of Fletchers Construction.

My family moved to New Zealand from Malaysia 15 years ago, allowing me to pursue higher studies. After graduating from the University of Auckland, I joined MWH New Zealand as a consultant where I spent three years working on various projects including the upgrade of the Huia Water Treatment Plant – which was my first introduction to Watercare.

I then went to the Maldives with the Red Cross as part of their relief team for water and sanitation after the tsunami in 2004. I was under the impression I would be working with water filters, given my experience working on the Huia plant upgrade. Little did I know I was to be in charge of sourcing 20 desalination plants from overseas, importing them, constructing the plant houses and building the inlet works and distribution system to the public pipe stands! I guess you could say I was thrown in at the deep end. But the work was so rewarding that six months later, I went on to Liberia for a year.

Liberia, being a post-war country, was a whole different kettle of fish. Again I had to hit the ground running with no time to adjust to the climate, the living situation or the lack of food. Quickly rolling up my sleeves, I managed a range of engineering projects including building water and wastewater facilities, bridges, clinics and schools. Reliable materials and labourers were hard to come by, which meant that I had to try my hand at all areas of engineering. I had very little freedom in the country because security was tight. By the end of it I was tired, missing home and was ready for a break.

I've been very fortunate to have worked with different people, in different environments, dealing with different issues. The site supervision, tendering and contract management and budgeting experience all helped to prepare me for my current role. While I've been with Watercare for only two years, my role has evolved considerably. As the operation and the construction of Pond 2 progresses steadily, I'm gradually getting exposure to strategy and becoming involved in research studies and applications on the reduction and reuse of biosolids, which pleasingly falls under my field as an environmental engineer. I have benefited from the experience and opportunities that were presented to me by the company and am looking forward to some exciting times ahead.

I still get a kick out of seeing people's reactions when I tell them my stories of getting knee-deep in 'poo'. When I'm not busy amusing myself and other people, I'm on various missions like the Oxfam Trailwalker, yoga and a bit of swimming. I also keep up with the local chapter of Engineers Without Borders and Red R. Speaking of keeping up, my New Year's resolution is to keep up with the Mangere veterans on the walking and swimming lanes at the pool!

Annual overhaul under way for solids treatment process

FONT: 8 February 2010

Process Controller Jonathan Piggot monitors Hydra-Care (NZ) Ltd's struvite removal operation using the mobile dewatering unit.

"It's like the sand at Piha," says Jonathan Piggot, describing the material that collects at the bottom of the enormous digesting tanks at the Mangere Wastewater Treatment Plant. Technically, he says, it's a mix of fine grit and struvite – struvite being a mineral crystal made up of magnesium, ammonium and phosphorous.

Jonathan, a process controller at the plant, is sitting in the lunch room talking about his project to overhaul the oldest of the seven anaerobic sludge digesters.

"Each year, we take one of the digesters out of service for three months," he explains. "This allows us to check the condition of the roof and wall joints as well as overhaul the various pumps and valves."

As Jonathan talks through the stages of the project, it becomes apparent this involves a long list of activities, involving multiple Watercare teams and contractors, which have to be carefully co-ordinated and timed.

"It's important we get it right," stresses Jonathan. "The digesters play a critical role in the solids treatment process with bacteria breaking down raw sludge to create a more stable, organic material."

After the digested sludge leaves the digesters, it is processed through centrifuges to remove as much water as possible. Then, lime is added to stabilise it. Jonathan says the plant produces approximately 300 tonnes of this soil-like material – known as treated biosolids – per day.

Currently, treated biosolids are being used to rehabilitate a former oxidation pond next to the plant. In the future, this area will become part of the Watercare Coastal Walkway which follows the coastline from Ambury Farm Regional Park to the Otuataua Stonefields.

The first stage of the digester overhaul involves taking it out of service and pumping out some of the sludge until the roof – which floats on the sludge – comes close to resting on the massive columns that adjoin the tank's walls.

Jonathan says it is important to maintain the liquid seal between the roof and the columns because it keeps oxygen out of the tank. "The bacteria that work in the tank produce methane gas – so if we allowed oxygen to get in then, we would have a highly explosive environment where one spark would be disastrous."

The team wait about five days for the methane levels to fall to very low levels before pumping nitrogen gas into the tank to further reduce the methane concentration. Afterwards, they are able to continue to pump out the sludge, causing the liquid seal between the roof and the walls to break.

Given the tank can hold approximately 7,300 cubic metres of sludge – nearly three Olympic swimming pools' worth – emptying it is not an easy or quick task. The final stage requires help from Hydra-Care, a company with specialised pumps and a vacuum belt, to suck out and process the remaining sandy-looking mixture.

"The tank is then cleaned and the roof, walls and joints are carefully inspected," says Jonathan, "Meanwhile, the external pumps and valves are sent away to be serviced.

"We haven't seen the inside of this digester since March 2003 – so we're interested to find out what the level of corrosion is like. All going well, the digester will return to service in March.

"It's an interesting project to plan and work on. Given it's an operation we do on an annual basis, we have the fundamentals mapped out. So it's a matter of getting all our ducks in a row – with shift engineers, planners, suppliers and contractors – and working out a safe, efficient schedule," says Jonathan.

Green conscious upgrade scoops award

YOUR SOURCE: 5 July 2010

Watercare's complex and challenging Upper Nihotupu Dam Resource Consent Upgrade project has scooped the environmental category at the recent New Zealand Contractors' Federation awards held in Auckland last month.

The contractor, Brian Perry Civil, was responsible for carrying out this unique project which saw them juggling the needs of a variety of stakeholders, including Rain Forest Express passengers while rebuilding the inner workings of the dam and constructing new valve chambers and control rooms at the base and the crest of the dam.

Watercare Project Manager Neil Jacka says he was not surprised that Brian Perry Civil won the category, having every confidence in the team: "They really were exemplary in their delivery of the project, contending with a number of challenging logistics and environmental constraints.

"The isolated dam has very limited access – therefore the Rain Forest Express tramline was used to transport supplies to and from the dam."

"The old equipment came out the same way as it moved in over ninety years ago when it was originally constructed," added Sven Harlos, Water Supply Projects Manager.

"Being in a regional park also limited activity; with the contractor having to secure the site at the end of every week to ensure trampers and public using the tracks around the dam and across the crest were safe.

"Their work methods and procedures also had to be thought through and planned meticulously as they were working right next to the flowing spillway. The use of such things as vegetable oil instead of grease based products was needed to avoid possible contamination of the downstream dam water in the event of a spill."

Green initiatives were also built into the design of the project, including micro-hydro generators which are now used to power all of the new valves and control systems on the site.

Well done to the team at Brian Perry Civil and all who were involved in the project.

A million trees and counting!

YOUR SOURCE: 18 June 2010

"One million and one!" was the call the rang out in an isolated Clevedon Valley last week has students from Clevedon School planted tree number 'one million and one' as part of the Trees for Survival programme.

Only the day before the programme had marked the planting of its millionth tree, a huge milestone which has taken the schools programme 19 years to achieve.

Watercare staff members Andrew Kantor, Environmental Planner, and Sarah Lenart, Communications Advisor, were on hand to help with the planting, getting through around 300 native plants and trees, including akeake, cabbage tree, flax, karamu, karo and manuka. The pair were joined by 25 year six and seven students from the Clevedon Primary, as well as parents, teachers and Auckland Regional Council staff.

"This year was my third year helping out with the programme," says Andrew, "and it's something I always look forward to helping out with. The kids are great, it's a really worthwhile programme which helps with learning and development, but can also have a significant positive impact on the local environment."

The Trees for Survival programme, which began in 1991, works with school-age children and provides a hands-on environmental education experience promoting the growing and planting of native trees and shrubs of which Watercare is a major sponsor. The children are responsible for the seedlings until they are of plantable size, then planting days like the one Sarah and Andrew took part in occur on local farms and properties.

Watercare's Environmental Planner Andrew Kantor helps a Clevedon Primary student with planting.

First eels released into Huia Stream

INTERFLOW: Winter 2009

Pupils from Woodlands Park School in Titirangi and members of the Waitakere Community Liaison Group were among those who gathered to watch Watercare staff transfer eels from the top of the Lower Huia Dam into the Huia Stream below the dam for the first time.

The transfer enables the eels to complete their life cycle by migrating to waters as far away as Tonga to breed. Watercare's Consent Implementation Engineer Suzanne Naylor says the company is trialling the relocation programme at the Lower Nihotupu and Lower Huia dams in the Waitakere Ranges. Eventually, the project will be rolled out across seven of the company's dams.

"This trial – running from March to May – involves collecting the eels in nets in the dams, identifying by their physical markers which ones are migrating and relocating them to the stream below," says Suzanne. "The trial will enable us to determine the best sites for the nets and the optimum interval between each release."

Before the first eels were let go, Dr Peter Maddison – President of New Zealand Forest and Bird and a member of the Waitakere Community Liaison Group – spoke to the Woodlands Park School pupils about the types of eels found in New Zealand waters and their life cycle, saying they hatch in tropical waters and move to New Zealand's coasts from there.

In addition to the eel transfer trial, Watercare tested traps to transfer fish from the streams below the dams to the top of these dams over the summer months. The fish traps were installed in the streams at the bottom of Waitakere, Lower Huia and Lower Nihotupu dams in the Waitakere Ranges and Hays Creek and Cosseys dams in the Hunua Ranges.

Suzanne says the traps mainly assisted elvers (young eels) which typically migrate between November and February. She says the trial will continue in August when the climbing galaxiid species (whitebait) are migrating and will run until March 2010.

"Outside of the fish migration period, the traps will be removed and stored to avoid damage during the higher winter stream flows," says Suzanne.

Fish traps consist of a shaded holding tank and a ramp with water flowing from the tank to the stream. The fish, which are driven to swim upstream, travel up the ramp into the tank. Suzanne says the traps are most effective when they are located at an in-stream barrier, with the ramp positioned where fish have been accumulating.

"Fish traps are site specific and therefore we are trialling the best location for the traps," she says.

The provision of fish transfer methods, where appropriate, is being undertaken to meet resource consent requirements.

Dr Peter Maddison (left) and Consent Implementation Engineer Suzanne Naylor prepare to show the eels to pupils from Woodlands Park School.

Guardians of the west

INTERFLOW: Spring 2009

Standing in the backyard of the caretaker's cottage at Lower Huia Dam, it is hard to imagine a more idyllic place of work. The spot is breathtaking, nestled amongst native bush.

Dave Hodgson, who is the caretaker for both Upper Huia and Lower Huia dams, is what many would call the strong silent type. He says when he took the role he understood it would be for a two-week stint to help clear a big slip at the Upper Nihotupu Dam. Thirty years on, he's still with Watercare.

"It's taken me a long time to do two weeks' work. Put like that, I don't sound very efficient! I actually started out doing a couple of years with the headworks gang which was really good. Then the caretaker who was here left to go overseas and I've been here ever since," says Dave. "It's been a great place to live, a great place to bring up the kids up. Now the grandkids are all coming out here and visiting – they love it."

Ray Thomas, Charlie Brown and John Pattenwise are also caretakers of the western headworks – a group of dams, water treatment facilities and surrounding lands owned by Watercare.

Like Dave, Ray also lives in a caretaker's cottage – with his overlooking Lower Nihotupu Dam. When asked if it is a good place to live, Ray quips: "Well it does rain a lot. But I guess there's a reason there are five dams in the Waitakeres!"

The caretakers' primary tasks involve caring for the dams and essentially acting as the 'eyes on the ground'. Daily activities can include carrying out pest and weed control, dam safety monitoring and surveillance, property maintenance, raw water quality and pipe inspections and even helping to find missing persons.

"Our boat patrols are important for keeping an eye on things – such as for identifying things decomposing in the dam which would affect the water quality. We also keep an eye out for weeds and for anything that shouldn't be growing in or along the waterline," says Dave. "It's a nice feeling being the only one out on the lakes, I must admit."

The hard-working group is looked upon by the Operations team as 'jacks of all trades'. The team appreciates the hands-on knowledge and experience of the caretakers who can quickly determine if there is something wrong with a water sample.

"Variances in colour, taste and smell are key indicators that something is wrong," explains Ray. "Actually, both Dave and I are working towards gaining our National Certification in Drinking Water."

These 'guardians of the west' are joined by four in the south who work hard to protect and maintain the five dams in the Hunua Ranges.

Dave Hodgson checks Lower Huia Dam's water level using a piezometer.

Environmental awards roll in

FONT: 10 July 2009

What do a new 550-metre-long boardwalk and an upgraded dam have in common? Both are Watercare projects that have received environmental awards in recent months.

The company received the prestigious Arthur Mead Award from IPENZ for its Roy Clements Treeway Boardwalk Project which was carried out in partnership with Metrowater and the Auckland City Council.

The boardwalk connects the suburbs of Mt Albert, St Lukes and Sandringham, replacing a boggy path that ran alongside Meola Creek. Principal Planner Phil Jaggard says it was constructed in response to community concern over using the path during and following periods of rain.

"In wet weather there are overflows into the creek which can make it and its banks pretty unpleasant," says Phil. "The boardwalk addresses public health concerns as it is elevated and the planting that was carried out has created a riparian and wetland environment that can be enjoyed by the local community."

Watercare's Waitakere Dam upgrade project has also received external recognition. Our contractors – Brian Perry Civil – received an Environmental Award from the New Zealand Contractors Federation in June.

The upgrade project involved installing compensation and free-flow valves as well as a refurbishment of the existing mechanical infrastructure.

At the award ceremony the judges recognised the high level of innovation that was used by Brian Perry Civil to control concrete slurry and contaminated water from entering the waterways or reservoir.

Principal Engineer Alastair Stewart, who managed the project for Watercare, says the location and season added to the project's complexity.

"The contractors were working in a sensitive and public environment," says Alastair. "They had to carry out the work in winter in order to avoid peak water demand and this meant that the dam was spilling for the duration of the contract.

"The project team managed to minimise the construction footprint and protect the environment with a number of innovations, including raising half of the dam spillway to divert the spillway flows, and management of contraction silt and concrete slurries."

Great to see Watercare projects recognised for their environmental focus and care.

Round the Bays 2010

YOUR SOURCE: 19 March 2010

The 38th annual Round the Bays was a resounding success with over 200 staff from Manukau Water, Watercare and Metrowater joining the crowd of 72,000 on Sunday, 14 March.

Some staff saw the 8.4km fun run along Tamaki Drive as a good opportunity to increase their fitness levels. Others saw it as an enjoyable way to spend a Sunday with colleagues, friends and family. Whatever the motivation, there were big smiles all round at

the post-event barbecues (especially at the Manukau Water tent where they were treated to massages).

A big 'thank you' to Watercare and Metrowater staff, friends and family who volunteered their time and filled thousands upon thousands of cups of water which were handed out along the route.

Watercare's Maintenance Services Manager Mike Cruikshank with son Hamish.

On the trail to success

FONT: 7 July 2009

The thirty employees who took part in the 100km Oxfam Trailwalker had their fundraising efforts formally recognised at an awards ceremony last night.

Watercare was named the event's largest corporate sponsor, with the eight teams collectively raising nearly $30,000. This phenomenal achievement can be attributed to a dedicated fundraising effort by all participants – with staff throughout the company participating in raffles, cookie and confectionary sales, entertainment nights and direct sponsorship.

Water Treatment Manager Shayne Cunis accepted the award on behalf of the teams. He says that Oxfam thanked Watercare employees for their ongoing support for the event and for their substantial contribution.

The accolades did not end there though. Watercare's all female team called Waterjugs received an award for being the first all-female team to complete the race, finishing in 19 hours and 12 minutes.

When asked if loosing five toe nails was worth it, former Communications Advisor and Waterjugs team member Morwenna Rice says: "Absolutely, Oxfam is the highlight of my time in New Zealand. When I started training I never thought we would do so well. I put our success down to my inspirational team mates and support crew."

Last but not least, the Waterjugs support crew of Data Technician Sarah Muir, Planner Andrew Kantor and Maintenance Services Manager Mike Cruikshank were recognised as the best-dressed support crew – looking pretty in pink.

Well done to everyone who participated in and supported the event.

The Waterjugs with their support crew at the finish line. From left: Loretta Cruikshank, Antoinette Van Burick, Andrew Kantor, Sarah Muir, Suzie Clark, Morwenna Rice and Mike Cruikshank.

Idea of the year

YOUR SOURCE: 3 May 2010

Water Treatment Plant Operator Graham Head proved that simple ideas are often the most effective when he won Watercare's 2009 Overall Continuous Improvement Award, scooping $500 of prize money.

Graham developed an easy and effective contractor tracking system that has improved safety measures at the Ardmore Water Treatment Plant. It consists of a board with corresponding numbers and tags to quickly and clearly show which contactors are onsite – allowing for an easy head count.

"Safety is a huge part of our work out here, it's a big place with a lot of contractors coming and going. I actually got the idea after the Beaconsfield mining incident. When those freed miners walked out after being rescued the first thing they did was hang up their tags on the tracking board. Those tags were the only reason people knew they were missing and it made me think – why couldn't this work for us?" explained Graham. "We've been using the system for around a year and a half now and it is working well. Someone will occasionally take their tag home but that's cleared up with a head check and a phone call."

The system has also been successfully replicated at Waikato Water Treatment Plant.

Graham Head is congratulated by Watercare Transition Chief Executive Ian Parton.

Scrap-heap innovation makes task easy at Mangere

YOUR SOURCE: 1 June 2010

In the spirit of Kiwi ingenuity and number-eight wire, Watercare's latest Continuous Improvement Award, presented at the Mangere Wastewater Treatment Plant last week, shows that scrap-heap machinery can have a life after death.

By recycling parts of a broken "pull-lift" and pipe, Plant Operator Nigel Prentice and Shift Engineers John Sutherland and Allan Julian developed a 'valve-exercising ratchet' (pictured) which is used to aid the routine opening and closing of manual isolation valves around the plant.

On receiving his award, Nigel explained: "This job used to be a real chore, taking time and muscle power, but was necessary to prevent struvite building up on valves which left untouched would cause them to cease.

"Since its development, the tool is now used in everyday operations around the plant, cutting the time taken to complete the job in half."

In the spirit of Kiwi ingenuity and number-eight wire, Watercare's latest Continuous Improvement Award, presented at the Mangere Wastewater Treatment Plant last week, shows that scrap-heap machinery can have a life after death.

By recycling parts of a broken "pull-lift" and pipe, Plant Operator Nigel Prentice and Shift Engineers John Sutherland and Allan Julian developed a 'valve-exercising ratchet' (pictured) which is used to aid the routine opening and closing of manual isolation valves around the plant.

On receiving his award, Nigel explained: "This job used to be a real chore, taking time and muscle power, but was necessary to prevent struvite building up on valves which left untouched would cause them to cease.

"Since its development, the tool is now used in everyday operations around the plant, cutting the time taken to complete the job in half."

Plant Operator Nigel Prentice opens an isolation valve at the Mangere Wastewater Treatment Plant using a valve-exercising ratchet designed by him and Shift Engineers John Sutherland and Allan Julian. Their tool makes the opening and closing of these valves easy, whereas it used to take time and muscle power. The innovation was recognised with a Continuous Improvement Award.

Hardwork pays off

YOUR SOURCE: 3 May 2010

Hardwork and study has paid off for three Mangere Wastewater Treatment Plant staff who this week were presented with NZQA qualifications in Wastewater Treatment at a celebratory barbecue breakfast.

Both Plant Operator Karen Watson and Process Operator Ian Sutherland were presented with National Certificates in Wastewater Treatment, and Shift Engineer Lincoln Ward was presented with a National Diploma in Wastewater Treatment.

The group received mentoring from OPUS Training Manager Bert Grey and gained a high level of knowledge in a broad range of areas – from first aid to process control and monitoring, to sludge digestion and even legislation relating to water and waste water treatment.

Left to right: Ian Sutherland Process Operator, Bert Grey OPUS Training Manager, Allan Twinch Plant Manager, Karen Watson Plant Operator, Ian Cripps Operations Controller and Lincoln Ward Shift Engineer proudly display their newly earned qualifications.

Chartering along the path to success

FONT: 29 January 2010

Twenty ten is off to a fantastic start for several Watercarers, who have recently gained accreditation as Chartered Engineers.

Congratulations go out to Sanjay Kumarasingham, Alastair Stewart and Suzanne Naylor who, after years of hard work have gained accreditation and the right to call themselves 'Chartered Professional Engineers.'

"Once you have completed a degree, it takes a minimum of five years of practical work and experience to apply for chartership," said Sven Harlos, Principal Engineer and IPENZ assessor.

"Watercare has a great graduate development programme, which challenges graduates to gain experience in different elements and fields, while providing support and stimulation.

"To gain chartership, graduates must demonstrate competence in twelve different elements, including ethics, design capabilities, decision making and environmental and social values. An interactive interview is also required, as well as a short written assignment.

"As you can probably tell it's a very involved process which takes effort and motivation."

Congratulations are also in order for Shift Engineer Estera Sparchez, who has recently completed her second Master of Engineering, with first class honours.

A big thank you to Mike Szabó, Senior Engineer, who continues to run Watercare's successful in-house mentoring programme, responsible for providing the necessary support and motivation required to successfully gain chartership.

Good news arrives by post

FONT: 3 September 2009

An envelope addressed to 'Avinesh Lata C.A.' caused quite a stir in the Lata household last Saturday morning. "C.A...Chartered Accountant," thought Avinesh. Was this the letter she'd been waiting for? A bundle of nerves, she passed the envelope to her husband to open it and find out.

"Dear Avinesh

...we're please to inform you that your application to become a Chartered Accountant has been accepted...."

Years of study and hard work had paid off.

When Avinesh joined Watercare as a management accountant in May last year, she was quick to inform Acting Financial Controller Michael Graham of her aspirations to attain chartered status. At the time she had completed her accounting degree at AUT, had passed two challenging professional competence examinations and had most of the necessary experience under her belt. "But I needed more specialised experience," says Avinesh. That's where Michael stepped in to help.

For Avinesh to progress, Michael applied to the New Zealand Institute of Chartered Accountants for Watercare to become an Approved Training Organisation (ATO). Michael says, for his application to be accepted, he had to prove the company was capable of delivering a suitable programme of practical experience in an environment with high ethical standards.

"Watercare's culture of reporting excellence is well-known at the Institute and I think this helped us in gaining ATO status," says Michael. "We're a large company and therefore we're able to offer accountants challenging experience in a range of areas, including management, financial, treasury and internal audit accounting."

With Michael as her official mentor, Avinesh worked on a range of projects that covered the specific competencies she needed.

"I worked with Jock, Lupe and Harriet on the Cognos budgeting tool and with a number of project managers to improve their capitalisation process," says Avinesh.

"Everyone at Watercare has been so supportive and Michael's been great – very patient!" laughs Avinesh.

Michael says Avinesh's chartered status is even more impressive given she's completed her accreditation while raising two young children. "It wouldn't have been easy – we can all take our hats off to her," he says.

The company's ATO status will serve it well in the coming years, believes Michael. "It will improve our ability to attract high-quality graduates who are motivated to fully develop their knowledge."

On Tuesday the finance team celebrated Avinesh's success over morning tea. This weekend she's looking forward to dropping her sons off at their grandparent's house and heading out for a nice meal.

Well done Avinesh!

Avinesh visiting the Project Hobson construction site, seen here with Project Manager Mike Sheffield.

TV3 takes the plunge

FONT: 9 September 2009

"I hate my job" cried journalist Tony Reid from TV3's Campbell Live as he hit icy water, braving the chill to experience the type of training our staff go through in order to deliver A-grade quality water to Auckland.

An icy dip in 14 degree water isn't an ideal start to the working day, so spare a thought for the 10 Watercare maintenance and operations staff who had to take the plunge with Tony yesterday morning.

The training was specicially designed to meet Watercare's unique requirements – teaching staff who work in and around reservoirs about how their bodies react when suddenly submerged in cold water. This training is important as our reservoirs can get as low as 8 degrees, which would pose a serious heath hazard if someone fell in.

"Although we've never had an instance of this happening, we still train for the worst so there are no surprises if someone does fall in, just like pilots and flights attendants train for crash landings," says Ian Winson, Network Operation Engineer.

The training also taught survival techniques that conserve energy and body heat until the person can be rescued or climb back into the inflatable boat, and also familiarises staff with how it feels to be restricted when wearing wetsuits and lifejackets while trying to rescue others.

The training gave Tony and his crew a new appreciation for the work and training carried out by Watercare, as he struggled to complete the task of remaining in the icy water for five minutes. To find out how he got on, and to see some familiar faces, tune in to Campbell Live tonight, 7pm, TV3.

This television broadcast is only part of some of the great media coverage for Watercare this week. Monday's Herald ran a story covering the cleaning of the old Hobson Bay sewer in the lead up to its dismantlement: Staff work waist-high in muck cleaning doomed pipe. And today the Herald is running a story on Watercare's new consumer advisory group which will advise the company on how best to manage the needs of anyone facing hardship in paying their water bill: Panel to advise on water bills.

Mihaka Williams, Reticulation Serviceperson, undergoes cold water training.

Record year for Adopt A Stream

INTERFLOW: Spring 2009

Watercare's Adopt A Stream education programme is set to smash all previous years' participation records by hundreds of pupils.

Last year, 6,742 pupils from across the Auckland region benefited from the free science lessons. By November this year, with six weeks of term remaining, over 7,000 had passed through the course.

It's proving to be a jam-packed year," says Sally Smith, the Programme Co-ordinator. "It's great that so many schools have signed up and are getting involved."

The Adopt A Stream lessons are taught in two parts. Firstly, pupils learn the theory in the classroom: how to test the turbidity and pH levels of water and how to identify common bugs. This helps them to work out if a waterway is polluted. The second part of the programme puts the pupils' new skills and knowledge into practice by requiring them to assess the health of a local stream.

"The main emphasis is to get the children involved and really thinking about how precious the limited water resources are," says Sally. "They quickly grasp this notion and often get really passionate about the small things they can do to help."

Sally says there's more to Watercare's education offering than Adopt A Stream, as Hunua School pupils discovered in November.

"These country school pupils learned about either stormwater or drinking water – and the older ones also did Adopt a Stream lessons," she says.

This year schools have continued to benefit from a library display that looks at drinking and waste water. It is accompanied by question and answer sheets for teachers and supporting posters which they can keep.

A pupil from Hunua School carries out turbidity testing on a water sample, under the supervision of Adopt a Stream Programme Co-ordinator Sally Smith.

Digging into the past

FONT: 21 September 2009

At dawn on Friday morning a small group gathered, heads bowed, on the banks of the Panmure Basin to mark the start of a Watercare project predicted to be challenging on cultural, heritage, archaeological and technical grounds.

The group, made up of kaumatua from local iwi – Ngati Paoa and Nga Tai, Watercare staff including engineers and environmental planners, along with contractors, geotechnical engineers and an archaeologist were present for the karakia – or blessing, for investigative work for the proposed replacement of the 50-year old Pakuranga Rising Main.

The initial investigation into the project will see close to 40 bore holes sunk at various points around the basin and surrounding streets.

Investigations for projects similar to this are business as usual for Watercare, however what makes this project special is that at least 10 of these bores are to be drilled close to known cultural and historical sites, under the watchful eye of archaeologist Russell Foster.

The area has a rich historical tapestry, including a former pā site known as Mokoia Pā, which was occupied until the 1820's, and continues to hold special significance to both Ngati Paoa and Nga Tai iwi. The area also has a strong colonial history.

George Kahi, of Ngati Paoa, told the gathering: "Corporate bodies often struggle to maintain a good open relationship with iwi. We see Watercare as being a little different. You are upfront and we respect and acknowledge this."

He then spoke of the appreciation his iwi felt toward the ongoing efforts Watercare was making to involve them in such projects: "The key to working together is in respect and relating to each other on a personal level. Sites such as this hold special cultural importance to our people. As an area where 10,000 of our people once lived, retaining strong ties to this area plays an important part in helping us link who we are to our ancestors – edifying and strengthening ourselves."

Environmental Planner Nick Woodley, who has been involved with the project from an early stage, with a particular focus on maintaining relationships with Nga Tai and Ngati Paoa, acknowledged the trust and goodwill shown by iwi on this project:

"Projects like this offer a unique set of challenges and parameters to work within, not only from the obvious technical perspective, but from the point of consultation and liaison also. Time taken to go about this part of the project can pay dividends, and the presence of Ngati Paoa and Nga Tai today is evidence of this."

Consultation through projects such as this is another way Watercare is demonstrating a dynamic community consultation process. Our Maori Advisory Group continues to be a strong sounding board, providing advice on a number of projects and policies through quarterly meetings which help to give direction for issues concerning iwi.

Watercare to help people in difficulty paying their water bill

FONT: 7 September 2009

Sir Paul Reeves is to chair a Consumer Advisory Group being set up by Watercare to advise on how best to manage the needs of anyone facing hardship in paying their water bill.

The announcement follows the Parliamentary Select Committee confirmation of the proposal that Watercare take full responsibility for supplying water to and treating of waste water from all homes in the proposed Auckland Super City.

Watercare will move from being a supplier of water to the various existing council bodies, that currently on-sell water to their ratepayers, to becoming a retailer in its own right.

"We will be making the switch from being a wholesaler to an operation with a hundred per cent customer focus," said Watercare's Acting Chief Executive, Gary Swift.

"We recognise that in these strained times there will be customers facing financial hardship and we want to work closely with them to resolve any difficulties they may have. I believe that Sir Paul, as both a former Archbishop and Governor-General of New Zealand, together with the team he has assembled, will give us the very best advice."

Sir Paul said the Advisory Group faced a challenging task: "Water is both an essential service and one of the basics of life, so helping people who have difficulty in paying involves not only social but ethical issues. It is pleasing that Watercare recognises this and is determined to act accordingly."

Sir Paul will be joined on the Board by Tunumafono Ava Faamoe, an Otara Community Worker; Ian Leader, Community Relations Manager, AUT University; John Murray, Superintendent/Executive Director of Lifewise; Peta Si'ulepa, a Waitakere Community Advocate; and Nicole Walker, a Barrister specialising in Family Court work.

Ageing tunnel undergoing repair work

FONT: 10 February 2010

A 96-year-old tunnel that passes through the Waitakere Ranges from an area off Scenic Drive to Exhibition Drive is undergoing significant repair work.

Used to carry a raw water main from Upper Nihotupu Dam to the Huia Water Treatment Plant, the 500-metre-long Jacobsons Tunnel is a key asset for the company.

Project Manager Noel Williams says that in recent years the tunnel's condition has deteriorated: "Currently, there are temporary props supporting the old tunnel linings that have slipped out of position," he says. "This project involves removing these old linings and replacing them with new, more robust ones. This is to ensure the safety of the staff members that have to check the watermain for maintenance purposes."

The repair work means that Watercare has to close the section of Exhibition Drive between Shaw and Huia Roads to the public on weekdays and Saturday mornings. Noel says this is to ensure the public's safety as the work requires trucks and machinery to travel back and forth along a narrow section of the drive.

"We realise that Exhibition Drive is a popular walking path for locals and therefore we've tried to minimise the impact of this essential repair work by ensuring the drive is available at the most popular times," says Noel.

"We've also made sure that only the most essential section is closed to the public, rather than the entire route."

The upgrade began in January and is expected to be finished by July 2010.

Senior Engineer Noel Williams at the entrance to Jacobsons Tunnel.

Ardmore upgrade complete

FONT: 9 February 2010

A $3.45 million upgrade of the country's largest water treatment plant at Ardmore has been successfully completed after 15 months of work.

Senior Engineer Richard McIntosh says the upgrade focused on the first stage of the water treatment process when suspended particles, such as dirt, are removed from the incoming raw water flow.

"First, we add aluminium sulphate to the inlet chamber to charge the particles," explains Richard. "Then, when it reaches the flash mixers, we add polyelectrolyte causing the particles to clump together and form floc. The floc sink to the bottom of the clarifier tank while the clear water is taken off the top for further treatment."

The upgrade involved replacing the 20-year-old sparge pumps and rails that disperse the aluminium sulphate and polyelectrolyte in the water. Richard says the idea was to augment – rather than reinvent – these systems.

"Basically we've tried to replicate the old sparge systems as much as possible because they've been reliable over the last 20 years," he says. "However, the new systems offer far greater levels of redundancy and are easier to maintain.

"Before, clearing blockages from the old sparge rails was a problem because they were fixed underwater. So what we've done is make the sparge rails removable. This means the operators can take them out, water-blast them and then put them back in with relative ease – whereas previously they had to use commercial divers."

The upgrade also involved the construction of a building to house the switchboard that feeds power to the new pumps and the control cabinets. The control cabinet replacement required the migration of critical process equipment, which was done successfully thanks to extensive co-operation between the project team and Operations.

Richard says the building provides optimum conditions for the equipment: "Both the room and the individual control cabinets are temperature controlled – with heaters kicking in if the temperature drops," says Richard.

"The other significant improvement is the split of critical equipment across the control cabinets, further increasing the security of the systems because if one controller goes down for any reason, the other should still be running."

Richard believes the biggest challenge in terms of delivering the project was ensuring the water treatment process was not interrupted.

"About 60 per cent of Auckland's water comes from Ardmore so it could not be taken out of service for the upgrade," explains Richard. "This means the project team had to liaise closely with the plant's operational staff and fit their work around the day-to-day running of the plant."

Senior Engineer Richard McIntosh oversees construction

Keeping the eastern suburbs flowing

INTERFLOW: Spring 2009

A key stage in the Mt Wellington Water Supply Upgrade project was successfully completed in October when the new watermain that runs under St Johns and St Heliers' roads was connected to the existing network.

Project Engineer Sharon Danks, who is managing the upgrade, says the work to make the connection ran smoothly: "The whole process ran like clockwork and the new watermain was up and running well ahead of the morning peak in water demand when people shower, have breakfast and load their washing machines. This meant Metrowater's service was uninterrupted and its customers were unaffected."

The Mt Wellington Water Supply Upgrade is a multimillion- dollar project that is being undertaken in five stages and is expected to be completed in 2010. Sharon says it includes the construction of 5.5 kilometres of new watermains to replace the ones laid in the 1950s.

"This upgrade is necessary as there is significant growth in the suburbs of Mt Wellington, Ellerslie, Glen Innes, St Heliers, Mission Bay and Orakei.

"The watermain we have just connected duplicates the existing main and effectively doubles the capacity of the network in this area – providing enough capacity for the next 50 years.

"It will also improve the security of water supply throughout the area by ensuring the water supply can be maintained if there is a break or burst in any part of the bulk network," she says.

Watermain upgrade eases past the finish line

INTERFLOW: Spring 2009

A project to improve the structural integrity of a three-kilometre-long section of the Hunua No. 1 Watermain was successfully completed in October.

The watermain runs from the Ardmore Water Treatment Plant in Manukau to Market Road in Epsom. Ranging from 470 to 760 millimetres in diameter, it was constructed in the 1950s using concrete-lined steel piping.

Project Engineer Richard Weaver says the section that runs from Otahuhu Creek to Church Street East in Penrose was upgraded using an innovative relining technique that minimised the disruption to the community and proved more cost effective than alternative solutions.

"What we did was slip-line the existing watermain with polyethylene pipe," explains Richard. "These pipes are more flexible than other materials, such as steel, and are able to navigate slight bends in the watermain."

Small trenches were excavated, up to 400 metres apart, and sections of polyethylene pipe were pulled through the existing watermain using a specially-designed winch.

"By using this technique, we didn't have to dig a trench along the entire route," says Richard. "Traditional installation via trenching methods would have impacted on the busy Portage and Great South roads – whereas the trenches we excavated were positioned in grass verges."

The new pipeline is expected to have a 100-year lifespan.

Project Engineer Richard Weaver (right) and a contractor prepare to pull a polyethylene pipe through Hunua No. 1 Watermain using a custom-made winch.

Model balancing act

INTERFLOW: Spring 2009

Managing the company's 12 water sources requires a delicate balancing act in order to satisfy both cost-minimisation and drought standard objectives. This tightrope task falls into the capable hands of members of the Water Resources and Operations teams who are aided in their weekly decision-making by a computer-based modelling programme.

Water Resources Manager Dr Deborah Corneby says the programme provides the teams with an approach that balances risk against operational cost.

"From a purely operational cost perspective, our cheapest water comes from the lakes," says Deborah. "However, given we have to meet a strict drought standard that requires the total lake storage to be at least 15 percent full, we have to balance the abstraction from all sources."

Deborah says water stored in dams that are nearly empty is considered more valuable than that in full dams.

"If a dam is full or nearly full, you can be sure we'll be drawing heavily from it because the programme will identify it as a cheaper source," she says. "As the lake level drops, the water stored in it becomes more valuable due to the increased risk of a supply shortfall."

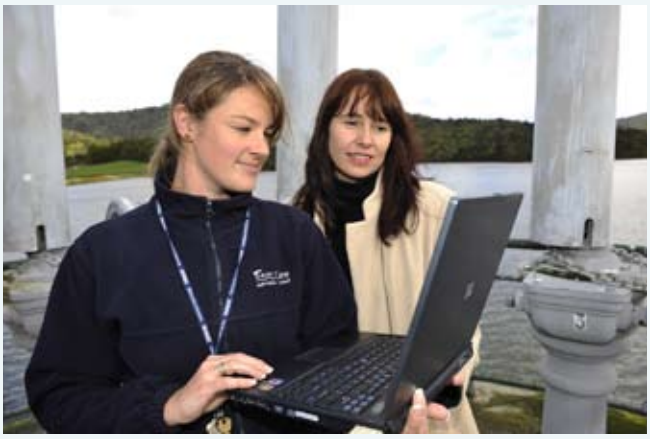
A recent upgrade of the computer-based modelling programme allows it to run scenarios that are also useful for maintenance and future planning purposes.

"Let's say we wanted to upgrade one of the dams in 2011 and it is going to require us to take the dam out of service for five months," says Deborah. "What we can do is run a scenario that tells us the best way to run our other sources with the dam out of service and what the cost impacts will be.

"Ultimately though, the programme gives us a strategic and proven starting point. It tells us the best and worst case scenarios on which to base our management decisions."

The innovation of the model was recognised recently at the Water New Zealand national conference in Rotorua. Deborah's paper on the ISMM model, which was jointly presented with Tom Bassett from Tonkin & Taylor, won the Hynds Paper of the Year – Bronze Award.

"We were delighted to win the award, it was a real surprise".



Data Technician Sarah Muir and Water Resources Manager Dr Deborah Corneby look at rain level data for the Lower Nihotupu Dam.