

**Melbourne Water
Annual Report
2003/04**



Melbourne Water Annual Report 2003/04

Overview	1
Who we are	1
What we do	2
Who we work with	3
Chairman and Managing Director's report	4
Sound financial management	6
Operating revenue	8
Operating expenditure	8
Net profit	8
Assets and liabilities	9
Water resources	10
Maintaining drinking water quality	12
Reducing water demand	14
Water recycling	18
Melbourne's rivers, creeks, bays and wetlands	20
Protecting and improving rivers and creeks	22
Maintaining river health	25
River diverters	26
Scientific research aids our rivers, creeks and wetlands	27
Contributing to the long-term health of Port Phillip Bay	27
Improving Western Port	28
Protecting the environment and public health	30
Managing Melbourne's sewerage system	32
Our no-sewage spills objective	32
The Western Treatment Plant	34
The Eastern Treatment Plant	35
Our no-odour objective	37
Reducing greenhouse gas emissions	37
Ensuring the security and integrity of our natural and built assets	38
Water, sewerage and drainage infrastructure	40
Major projects in 2003/04	40
Maintaining safe and secure assets	42
Our role in urban development	44
Urban development and drainage	46
Our people	48
Achieving performance excellence	50
A diverse and creative workforce	50
A safe and healthy work environment	51
Learning and development	52
Knowledge and understanding of our business	52
Meeting our key challenges from 2002/03	54
Corporate governance	56
Financial statements	59
Disclosure index	90
Statement of Corporate Intent	91
Statutory information	95
Glossary	99

Front cover painting:
Birrarung in Flood
(Yarra River)
by Mandy Nicholson,
Wurundjeri Artist

Right: Yan Yean Reservoir

Overview

Who we are

Melbourne Water is owned by the Victorian Government. We manage Melbourne's water supply catchments, remove and treat most of Melbourne's sewage, and manage rivers and creeks and major drainage systems in and around Melbourne.

Our operating area extends from Melbourne's water supply catchments high up in the Yarra Ranges, to the Mornington Peninsula and Western Port, north to Yan Yean and west to Werribee.

We are a significant business, managing \$7.9 billion of natural and built assets. Our annual operating revenue of more than \$520 million is earned from water supply, sewage treatment and drainage rates. This is used to fund our operations and infrastructure projects including water, sewerage and drainage upgrades, as well as projects to improve and protect Melbourne's rivers and creeks. We are committed to decision-making based on economic, social and environmental considerations.

An independent Board of Directors is responsible for the governance of Melbourne Water. The responsible Minister is the Minister for Water.

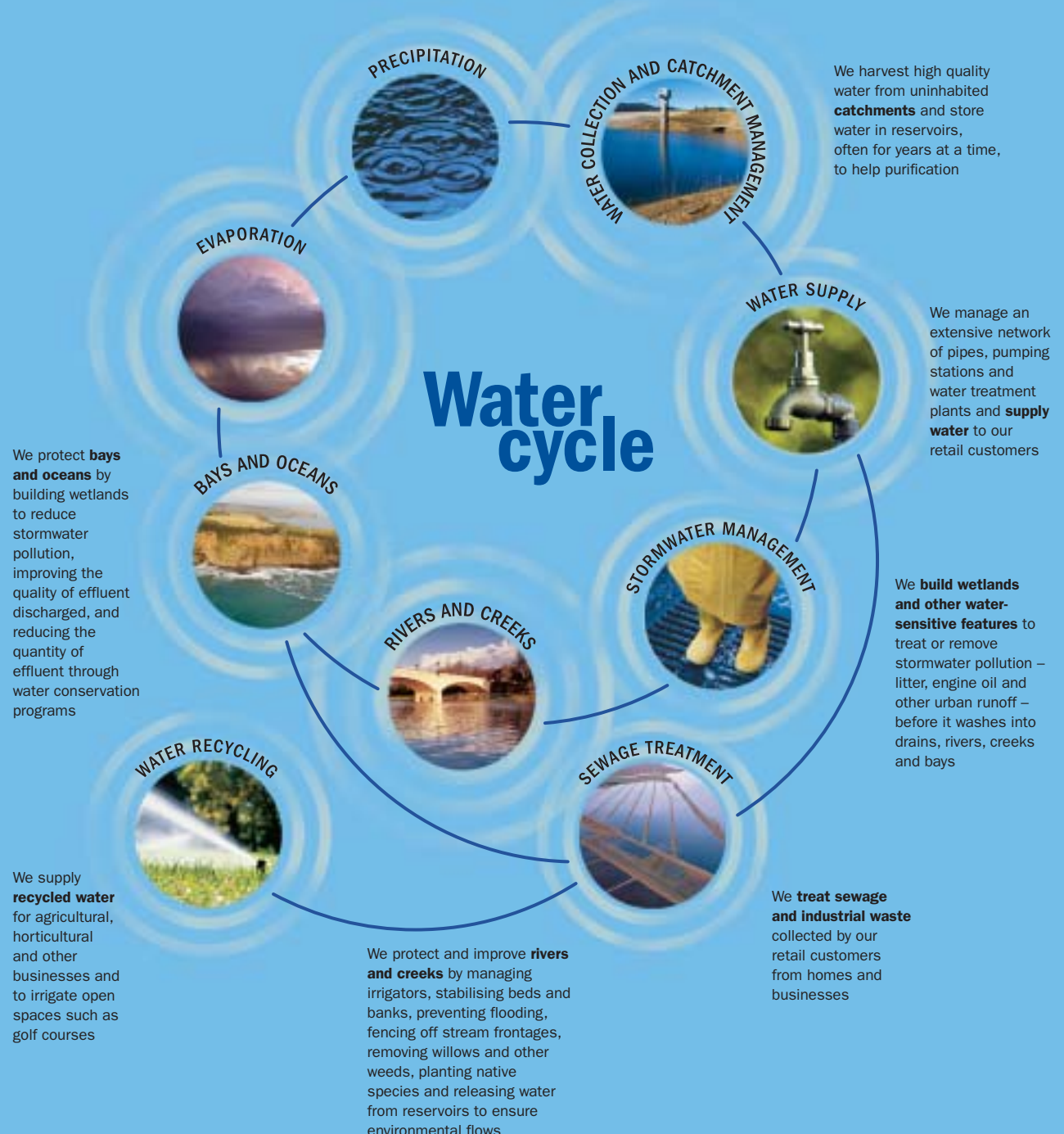


Our vision

Our vision is to work with the Victorian Government and other key stakeholders to make *Melbourne the world's most water-sensitive city*.

What we do

We manage Melbourne's water resources in a way that aims to ensure that future generations enjoy one of the best urban environments in the world. This involves a major role in the total water cycle.



Who we work with

EPA Victoria and the Department of Human Services regulate the environmental and public health aspects of our business. The Essential Services Commission regulates prices and monitors service performance. We work across several arms of the Victorian Government, including the Department of Sustainability and Environment, and the Department of Treasury and Finance.

Our customers include the metropolitan retail water businesses – City West Water, South East Water, Yarra Valley Water – other water authorities, local councils, land developers and businesses that divert river water.

We work with a wide range of partners including the Port Phillip and Westernport Catchment Management Authority, the Municipal Association of Victoria, the Sustainable Energy Authority of Victoria and The University of Melbourne.

Research organisations, such as the CSIRO and Co-operative Research Centres, engineering consultants, and contractors who carry out tasks ranging from inspecting and maintaining assets to catchment surveillance and litter removal, also assist us to achieve our objectives.

We are involved with a wide range of community stakeholders including “Friends of”, Landcare, resident and environment groups, advisory bodies, rural landowners and the education sector.

Our values

At Melbourne Water, we understand that engaging our stakeholders is the key to achieving our vision of *making Melbourne the world's most water-sensitive city*.

We also appreciate that achievements occur through the contribution of our people and through our values. We are people who:

- Recognise that we achieve more by working with others
- Feel privileged to be the custodians of our water resources
- Behave with integrity
- Attain excellence through creativity and innovation
- Celebrate our achievements and learn from our experiences.

Why we produced this report

Melbourne Water's Annual Report outlines how we have performed in meeting our key responsibilities in 2003/04.

It explains how we provide a safe and reliable supply of water, protect the environment, manage essential services, make decisions involving the community and help the Victorian Government to achieve its policy objectives.

We have a goal of ensuring that the community is well educated and informed on water issues and we produce a range of online and printed publications, including our Annual Report, to support this goal.

The Annual Report is available to view at melbournewater.com.au or copies can be obtained by e-mailing inquiry@melbournewater.com.au or ringing 131 722 within Victoria or (03) 9235 7100 from elsewhere in Australia.

Our business goals

Our long-term plan outlines our business goals:

- Remain Australia's most efficient water authority and provide ongoing financial returns to our owner, the Victorian Government
- Ensure the community is well educated and informed on water issues
- Conserve Melbourne's high quality drinking water for present and future generations without the need for further dams
- Operate in a manner that improves the environment
- Improve the health and amenity of Port Phillip Bay and Western Port for the prosperity and enjoyment of present and future populations
- Ensure that Melbourne's natural rivers and creeks are healthy with increased numbers of native fish, platypus and plant life
- Ensure that the integrity of our water, sewerage and drainage infrastructure is well maintained and protected now and into the future
- Provide excellent service
- A motivated and skilled workforce that generates new ideas and is aligned with the latest technologies and innovations.

Chairman and Managing Director's report

We are pleased to report that Melbourne Water had a successful year in meeting the challenges associated with managing Melbourne's water resources.

These challenges included managing the effects of the continuing drought on our water storages and rivers and creeks, and working towards ambitious targets for increased water recycling and water conservation.

The Melbourne community responded well to the Victorian Government's *Our Water Our Future* behavioural change campaign, saving 60,000 million litres during the year as a result of water restrictions and other water-saving activities. Melbourne Water worked with the Government and retail water businesses to deliver the campaign, aimed at encouraging smarter water use.

We continued to provide up-to-date information on water storage and rainfall levels as additional support to the campaign, and worked in partnership with local councils, industry and the community on water conservation initiatives. Over 90% of the community surveyed in 2003/04 had some knowledge or understanding of water resource issues, including storage levels and climate change.

Water recycling is a key part of Melbourne's water future and will help us conserve our valuable drinking water. In 2003/04, we recycled 32,968 million litres of treated effluent from our Eastern and Western treatment plants.

We invest about \$23 million each year on river health, and continue to work with volunteers to improve local rivers and creeks. During the year, we completed and distributed *Melbourne's Rivers and Creeks 2004* – the first community-friendly guide to the health of Melbourne's 5200 kilometres of rivers and creeks.

The water, sewerage and drainage infrastructure that we manage has a major impact on the environment and public health. During 2003/04, we invested \$150.6 million in major upgrades to ensure our infrastructure is reliable and provides optimal services to the community and retail water businesses.

We completed the \$9.5 million Palmer Street drainage upgrade, which will improve drainage in the Richmond area, and the construction of a major \$7.3 million water main to replace part of the M41 water main that ran under Punt Road, one of the city's busiest thoroughfares.

We moved closer to completing the \$124 million upgrade of the Western Treatment Plant to reduce nitrogen entering Port Phillip Bay by 500 tonnes a year. More than 90% of the nitrogen carried in Melbourne's urban run-off settles from the air onto roads, urban surfaces, gardens and farms and is then washed into the Bay.

A key goal is to increase the community's understanding of water as a precious resource through exhibits at the Melbourne Museum, Scienceworks and the Aquarium, and open days at our Western and Eastern treatment plants. Our new Water Discovery Centre at the Western Treatment Plant has received more than 8700 visitors since opening its doors in June 2003.

Our people

We would like to acknowledge the commitment and expertise of our people without whom our achievements would not have been possible. We particularly acknowledge Brian Clarke who has achieved 40 years service. Our business attracts people with diverse skills and expertise, ranging from environmental scientists to engineers and research and technology specialists.

Our number of lost-time injuries improved slightly in 2003/04, with eight workplace injuries compared to nine the previous year. Providing a safe and healthy workplace is a key priority and we are committed to achieving a target of zero injuries for our employees and contractors.

On 31 December 2003, we farewelled departing Chairman Graeme Bowker and Director John So and we would like to take this opportunity to record our appreciation of their considerable contribution.

From 1 January 2004, we welcomed new Chairman Cheryl Batagol, the current Chairperson of EcoRecycle Victoria and a former director of City West Water, and directors Terry Larkins and Peter Darvall. Mr Larkins is the Chairman of Western Water and a former Chief Executive Officer of the Shire of Gisborne. Professor Darvall was previously the Vice-Chancellor and President of Monash University and is a member of several significant boards.

Financial results

Once again, we generated strong returns this financial year. Our net cash flow from ordinary activities of \$322.5 million enabled us to invest \$150.6 million in assets for the future, and pay taxes and dividends to the Victorian Government of \$137.4 million.

Looking ahead

Our priority is to continue to manage Melbourne's water resources effectively, and to base our decision-making on social, economic and environmental factors.

We will continue to plan for recovery from the long-running drought and anticipated climate change and we will work hard to better integrate issues relating to biodiversity and cultural heritage into the planning and implementation of our projects.

We also aim to work harder to ensure that our information is translated and made available to culturally and linguistically diverse communities.

In June 2004, the Victorian Government released its White Paper on water reform, *Securing Our Water Future Together*, an action plan to secure water for homes, farmers, business and the environment for the next 50 years.

We will play an important role in the implementation of several of the White Paper's key initiatives, including Melbourne Water:

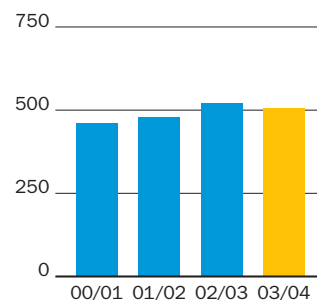
- Becoming the responsible authority for providing rivers and creeks, regional drainage and floodplain management throughout the whole of the Port Phillip and Westernport catchment
- Completing bulk water entitlements for the Yarra and Tarago systems by December this year
- Investigating strategic water recovery and recycling programs such as pipelines to Gippsland and to the west of Melbourne.



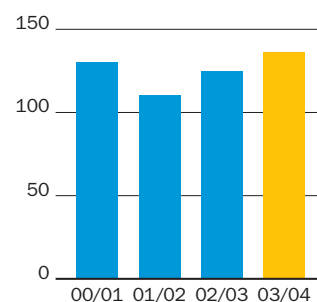
Cheryl Batagol
Chairman



Brian Bayley
Managing Director



(\$M) **Operating revenue**



(\$M) **Cash returns to Government**

Goal

Remain Australia's most efficient water authority and provide ongoing financial returns to our owner, the Victorian Government

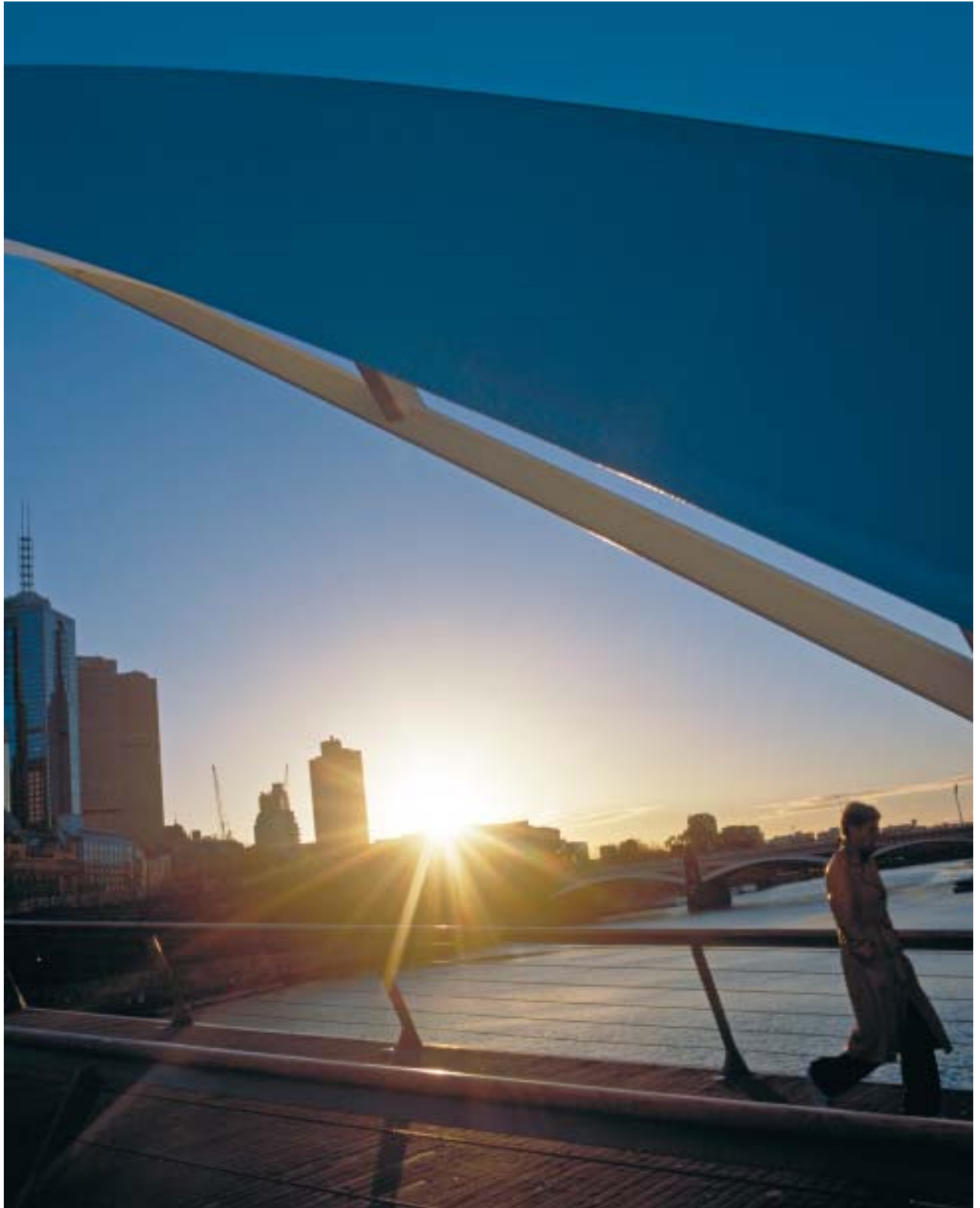
Achievements

- ✓ Our net cash flow from ordinary activities of \$322.5 million enabled:
 - Investment of \$150.6 million on capital works to improve and upgrade infrastructure
 - Payments to the Victorian Government of \$137.4 million, comprising a dividend of \$95.7 million, equivalent income tax payments of \$38.6 million and financial accommodation levy of \$3.1 million
- ✓ Savings in energy costs of more than \$1.6 million through new energy supply contracts

Challenges

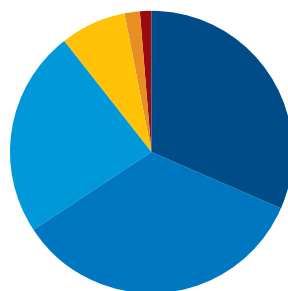
- > Developing a strategy that will confirm financial targets for the next five years for key commercial benchmarks, and provide a framework for the delivery of improved financial performance and maximum returns to Government
- > Undertaking an independent efficiency and effectiveness review of key Melbourne Water activities to identify necessary business outcomes and efficiencies
- > Further developing planning processes and information systems to support the needs of independent economic regulation

Sound financial management



Operating revenue

Operating revenue was \$503.8 million, a reduction of \$6.9 million from last year and \$8.0 million lower than our plan. A number of factors influenced the decrease, including decreased water revenue and zoning issues that delayed the planned sale of Melbourne Water land.

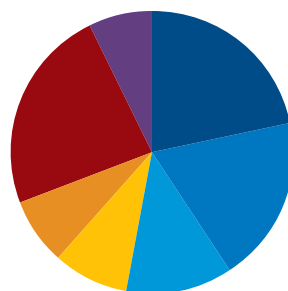


Operating revenue (\$M)

- Water sales \$158.8
- Sewage disposal charges \$172.3
- Drainage rates \$119.3
- Developer charges and contributions \$38.0
- Werribee Agriculture sales revenue \$8.8
- Other revenue \$6.6

Operating expenditure

Operating expenditure was \$248.1 million, which was \$3.4 million below the Corporate Plan.

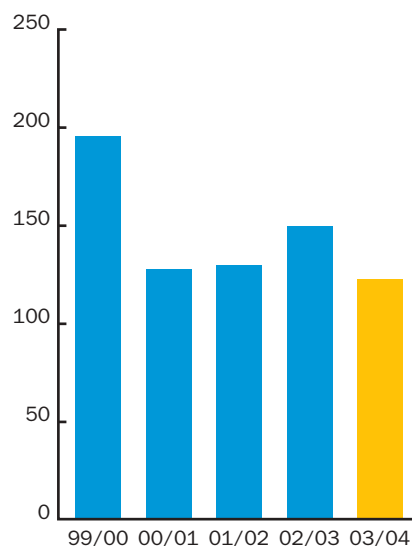


Operating expenditure (\$M)

- Depreciation \$70.3
- Operational \$61.8
- Employee benefits \$39.6
- Repairs and maintenance \$28.0
- Administrative \$24.8
- Borrowing costs \$76.3
- Other \$23.6

Net profit

Net profit after tax was \$123.4 million compared with \$150.0 million the previous year, and \$8.3 million below plan. This result equates to an after-tax rate of return on total shareholder equity of 8.8%, compared with 9.5% in our plan. Key factors influencing the result included reduced operating revenue due to lower water demand, delayed asset sales, and higher than expected legal and insurance costs.



Net profit

Profit after income tax expenses (\$M)

Assets and liabilities

Total assets increased by \$80.4 million from \$3051.4 million in 2002/03 to \$3131.8 million in 2003/04. The main contributing factor was investment in capital expenditure of \$150.6 million, which is an increase of \$32.7 million on the previous year.

We borrowed an additional \$42.7 million during the year. This was predominately used to finance our increased investment in capital works to improve and maintain our water, sewerage and drainage infrastructure. Melbourne Water's primary aim is to ensure our infrastructure is well maintained, reliable and effectively services the community and retail water businesses.

At 30 June 2004, the total book value of our interest-bearing liabilities was \$1.2 billion. Our gearing ratio (debt to total assets) was 38%, compared with 37.7% for the previous year, which is within our target range.

Five-year summary

Statement of financial performance for the year ended 30 June 2004

\$ million	2000	2001	2002	2003	2004
Revenue from ordinary activities	477.8	460.8	480.2	510.7	503.8
Profit from ordinary activities before income tax expense	204.2	176.3	185.8	218.4	179.5
Income tax expense relating to ordinary activities	7.3	47.2	55.6	68.5	56.1
Net profit	196.9	129.0	130.3	150.0	123.4
Dividends paid	126.2	58.3	98.9	99.4	95.7

Statement of financial position as at 30 June 2004

\$ million	2000	2001	2002	2003	2004
Current assets	35.7	39.2	50.3	52.9	44.3
Non-current assets	2816.4	2914.4	2944.5	2998.5	3087.5
Total assets	2852.1	2953.6	2994.8	3051.4	3131.8
Current liabilities	348.2	235.0	264.3	318.0	367.6
Non-current liabilities	1336.9	1421.8	1402.4	1352.0	1355.0
Total liabilities	1685.1	1656.8	1666.7	1670.0	1722.6
Net assets	1167.0	1296.8	1328.1	1381.4	1409.2
Total equity	1167.0	1296.8	1328.1	1381.4	1409.2

Key performance indicators

	Target 2003/04	Performance 2003/04
Free cash flow (\$M)	186.4	169
Debt to assets ratio (%)	37.3	38
Debt to equity	45:55	46:54
Operating return (EBIT) on Average Total Assets (%)	8.4	8.3
Return on Equity (%)	9.5	8.8
Economic return on Capital Employed (%)	7.4	6.9
Interest coverage ratio (EBIT/Interest expense)	3.5	3.4
% of all capital projects completed:		
On time	80	83
Within budget	95	100

Goals

- **Conserve Melbourne's high quality, drinking water for present and future generations without the need for further dams**
- **Assist in meeting the Victorian Government's goal of a 15% reduction in per capita water consumption by 2010**
- **Ensure the community is well educated and informed on water issues**
- **Achieve the Victorian Government's target of 20% recycling by 2010**

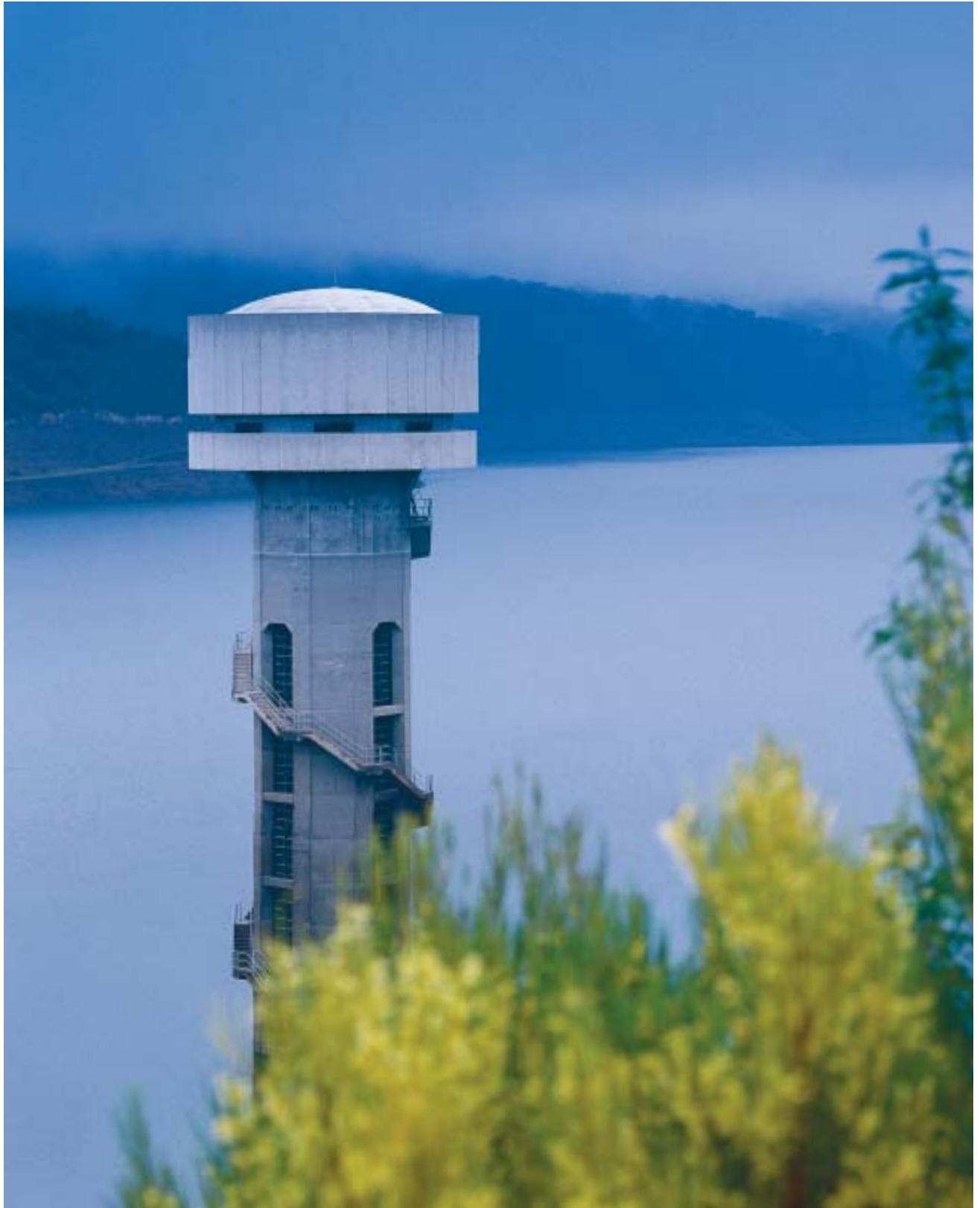
Achievements

- ✓ Met or exceeded all drinking water quality targets measured through our routine water quality monitoring program
- ✓ Continued collaboration between Melbourne Water, the retail water businesses, councils and industry in raising awareness about water conservation and implementing initiatives
- ✓ Signed up 14 of Melbourne's 32 local councils to the Sustainable Water Use Plan project, which expects to save 800 million litres of water a year by 2010

Challenges

- > Maintaining the community's commitment to water conservation
- > Ensuring the long-term water security of Melbourne while we experience ongoing drought and the threat of climate change
- > Continuing to develop and implement initiatives to increase the amount of treated effluent being recycled from the Eastern Treatment Plant
- > Reducing the salinity of recycled water from the Western Treatment Plant to a sustainable level by 2009

Water resources



Maintaining drinking water quality

Melbourne Water is responsible for the distribution and supply of safe, high quality drinking water that consistently meets stringent requirements. We manage our system to ensure it works well today and into the future.

Our water is safe and pleasant to drink and highly regarded by the Melbourne community. Our aim is that the community continues to rate our drinking water as good or very good.

While we are one of the few cities in the world that draws its water from protected forest catchments, we use a series of risk management systems to provide barriers to contamination and to ensure that our distribution and supply is reliable and efficient.

Melbourne Water manages the drinking water system using the Hazard Analysis and Critical Control Point (HACCP) system, originally designed for the food industry, which focuses on quality management from catchment to consumer.

Most of our water comes from some 140,000 hectares of protected catchments in the Yarra Ranges and Kinglake area that are closed to the public. This means that our water requires minimal treatment by chlorine or ultraviolet irradiation to assure its quality.

About 10% of Melbourne's Water is drawn from Sugarloaf Reservoir, which is mainly filled by pumping from the Yarra River, and about 5% is supplied from Yan Yean, Melbourne's oldest and shallowest water storage. Water from these reservoirs requires full filtration and disinfection.

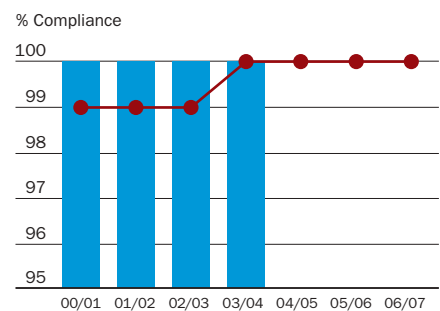
Melbourne Water manages nine major reservoirs, with a total capacity of 1,773,000 million litres; 59 service reservoirs; 1000 kilometres of distribution water mains; more than 200 kilometres of aqueducts and tunnels; 18 pumping stations; five filtration plants and 44 water treatment (disinfection) plants.

Working together to improve drinking water quality

This year, we supplied 438,796 million litres of water to City West Water, Yarra Valley Water, South East Water and Western Water. These companies delivered water to homes, businesses, hospitals and other consumers through their reticulation networks.

During the year, we worked with the retail water businesses to examine the aesthetics of drinking water (i.e. taste, colour and odour).

In October 2003, we formed a working group with Yarra Valley Water to examine if we could improve the colour and turbidity of water from Silvan Reservoir.



Water quality compliance (E. coli only)

● Actual ● Target

While the water complies with the standards in the supply agreements between Melbourne Water and the retail water businesses, the number of dirty water complaints was of sufficient concern to warrant further investigation.

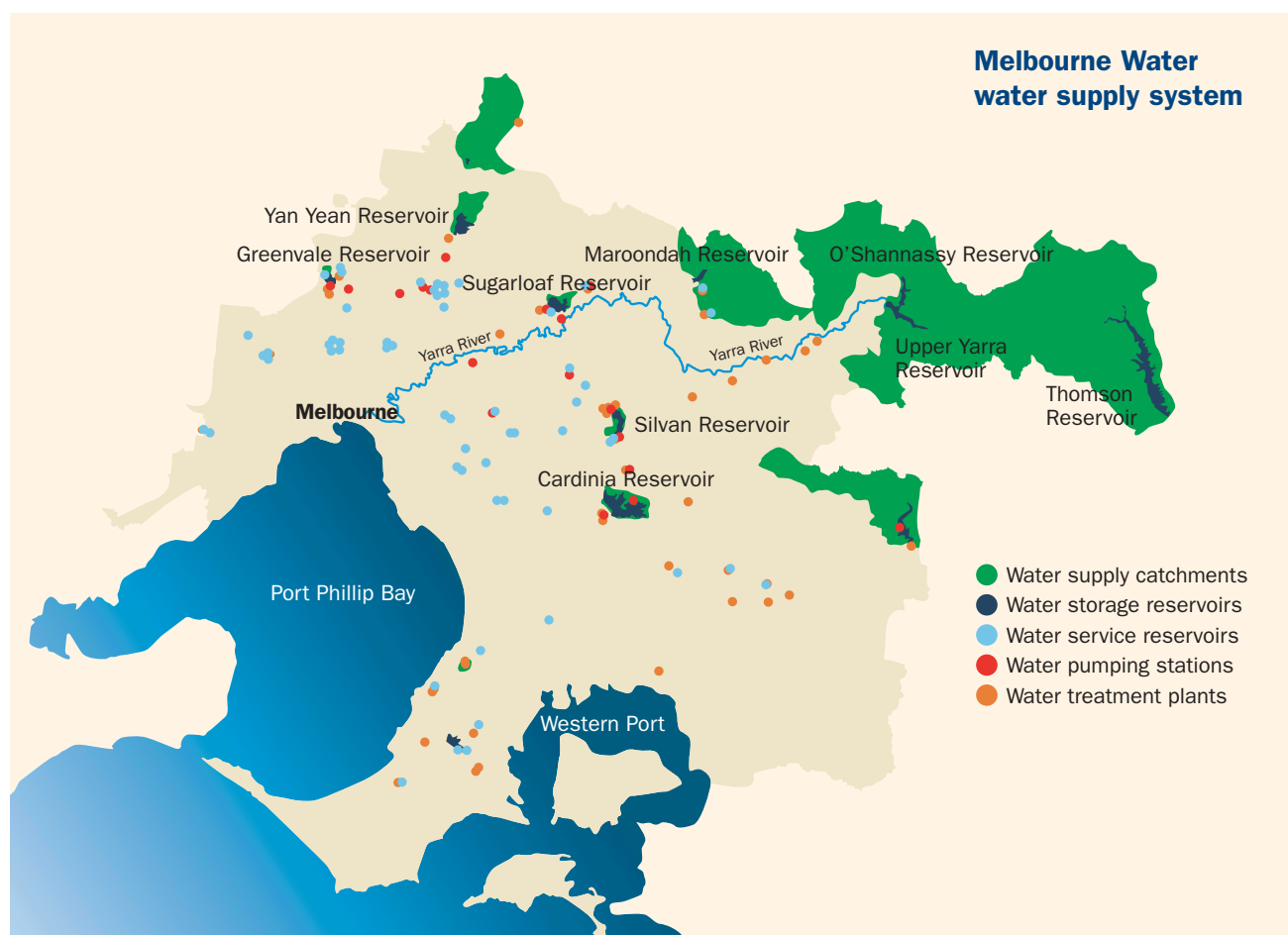
The working group has developed a number of ways to bring about water quality improvements over the next two to three years.

We also collaborated with the retail water businesses to improve the taste and odour of water. A joint working party agreed to decrease the amount of chlorine used in certain parts of the system while maintaining safe water and Melbourne Water is closely monitoring the results to gauge success.

Yan Yean Reservoir turns 150

During the year, we celebrated the 150th anniversary of Melbourne's first water supply system. To mark the occasion, Governor John Landy officially launched *Yan Yean: A history of Melbourne's early water supply*. Melbourne Water published the book, written by Tony Dingle and Helen Doyle, with the Public Record Office of Victoria. At the time, the construction of the reservoir was one of the most ambitious engineering projects in the British Empire.





Water quality summary 2003/04

Measure	Target	Target met
Disinfection plant reliability	Primary and secondary plants meet combined reliability of 96%	Yes
Testing of water supplied to the retail water businesses	<i>E. coli</i> : 100% of samples contain less than 1 organism per 100 millilitres	Yes
Testing of water supplied to the retail water businesses ⁽¹⁾	Total coliforms: 95% of samples contain less than 1 organism per 100 millilitres	Yes
Testing of water supplied to the retail water businesses ⁽²⁾	Total coliforms: 90% of samples contain no more than 10 organisms per 100 millilitres	Yes
Trihalomethanes	95% of samples contain no more than 150 micrograms per litre	Yes
Fluoride	Short-term average dosage between 0.7-1.2 micrograms per litre; Average dosage over 1 year does not exceed 1 microgram per litre	Yes

Note: Water supplied to the retail water businesses is tested at entry points (1) immediately downstream of Melbourne Water's primary disinfection plants and at monitoring points (2) at storages or water mains within the wholesale transfer system. The monitoring points are identified in our supply agreements with the retail water businesses.

Our water met the requirements of the:

- Health (Quality of Drinking Water) Regulations 2003 (effective until 30 June 2004)
- National Health and Medical Research Council drinking water guidelines
- *Health (Fluoridation) Act 1973*.

Melbourne Water aims to achieve water quality that is consistently higher than the minimum acceptable under regulation or in our agreements with retail water businesses.

This year we increased our target for *E.coli*. We now aim for all samples to contain less than one organism per 100 millilitres.

Complete and detailed reports from Melbourne Water's drinking water quality monitoring are published on our website, melbournewater.com.au

Melbourne Water conducted research last year, which found that the Melbourne community has a high regard for the quality of Melbourne's water compared to other states, and believe that this quality has been maintained in recent years.

Researching and monitoring

Melbourne Water aims to play a leading role in water quality research and in developing national and international guidelines for drinking water.

We work closely with universities and the Co-operative Research Centre for Water Quality and Treatment to undertake research into drinking water. This year, we invested \$475,000 on 13 projects.

Reducing water demand

Melbourne Water is responsible for the management of Melbourne's water storages for the long-term and the supply of high quality drinking water to the retail water businesses. The retail water businesses provide water to individual customers through their reticulation pipelines.

We are continuing to develop and implement water conservation programs that reduce wastage in our system, educate and raise awareness and reduce demand through more efficient use.

We estimate that our water conservation measures saved an additional 1641 million litres during the year, to the 600 million litres saved the previous year – a total of 2241 million litres by the end of June 2004. We are on target to save more than 7800 million litres of water a year by 2010, which represents 4.1% of the Government's target of a 15% reduction in water consumption by 2010.

Helping to raise community awareness of the need for water conservation and to achieve a reduction in the demand for water are key areas in which the Victorian Government, Melbourne Water, the retail water businesses, local councils and industry are working together.

Melbourne Water and the retail water businesses have developed a joint water conservation plan to achieve the Government's target. The plan is a key outcome of the Water Resources Strategy – the Victorian Government's blueprint for managing Melbourne's water resources for the long-term. Released in 2002, Melbourne Water funded and project managed the development of this important strategy.

Melbourne Water also worked with the retail water businesses to ensure a smooth transition when the Victorian Government moved from stage one to stage two water restrictions, from 1 August 2003. This decision was based on Melbourne's water storages reaching 40.1% – the lowest in 18 years.

It is estimated that some 60,000 million litres of water were saved due to the introduction of stage two restrictions between August 2003 and June 2004. These savings are continuing.

Hume City Council sets the pace in sustainable water use planning

Sustainable water use has its own financial rewards, and that's a message not lost on Melbourne's city councils. Hume City Council is one of 14 councils that have received \$10,000 grants from Melbourne Water to create Sustainable Water Use Plans.

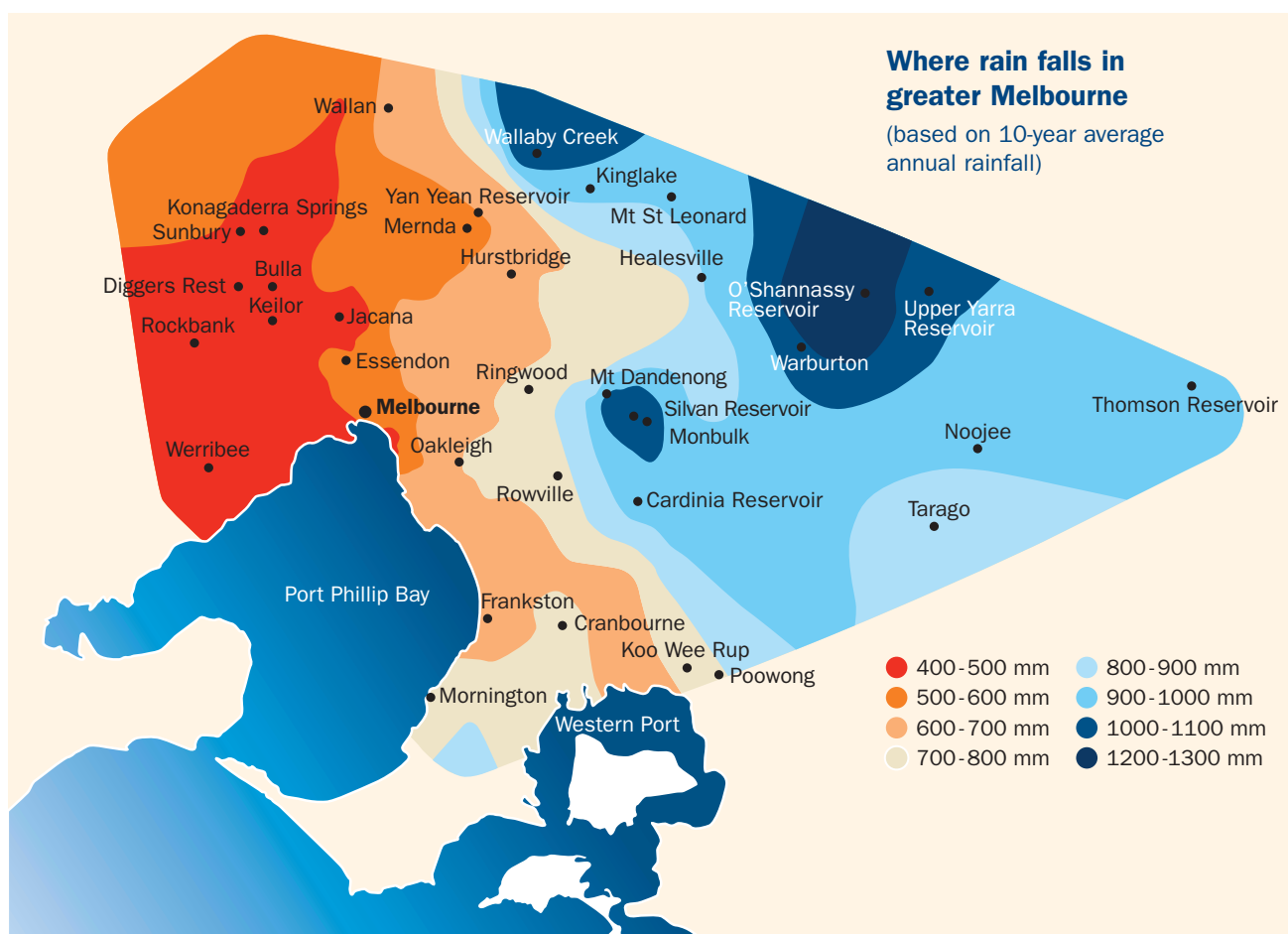
Hume has recently developed and endorsed a water plan, in which it outlines Council's key internal water users and future objectives to reduce its water consumption by 8% by 2010 and 30% by 2030.

As Hume Council uses 78% of its water on parks and gardens, addressing this area may lead to large water savings. Hume's water conservation plan for council sports grounds and reserves includes initiatives such as improved irrigation control, investigation into further recycled water use on sporting reserves, ongoing implementation and review of sports oval water

conservation plan, drought tolerant grass species and a review of horticultural practices. Other key elements addressed in the plan include:

- Recreation Centres and Buildings (water saving devices for all new and refurbished council buildings and greywater reuse and in-house education of water smart practices)
- Commercial (in-house education of water smart practices).

This is one example of a council that is determined to use water in a more sustainable way. Other councils are well under way with their plans.



Wettest 10 sites – 2003/04

O'Shannassy Reservoir	1496 mm
Warburton	1433 mm
Mt St Leonard	1334 mm
Upper Yarra Reservoir	1240 mm
Poowong East	1214 mm
Wallaby Creek	1172 mm
Monbulk	1137 mm
Thomson Reservoir	1097 mm
Silvan Reservoir	1073 mm
Mt Dandenong	1069 mm

Driest 10 sites – 2003/04

Bulla	325 mm
Sunbury	374 mm
Jacana	377 mm
Keilor	392 mm
Rockbank	405 mm
Konagaderra Springs	416 mm
Werribee	420 mm
Diggers Rest	421 mm
Essendon	423 mm
Mernda	426 mm

Managing for drought and climate change

At 30 June 2004, Melbourne was in its eighth year of drought. In the year to 30 June, Melbourne received 519 millimetres of rain, 113 millimetres below the long-term average recorded since 1885.

While run-off from catchments into reservoirs continued its below average trend, storages recovered from their low of 40.1% in July 2003 to a high of 57.6% in early December 2003. At 30 June 2004, total storage volumes were 48.8% of capacity.

Researching effects of climate variability and change

In future years, climate change and global warming are expected to reduce rainfall over southern Australia, resulting in more dry spells. If Melbourne Water is to effectively plan our city's water future, we need to understand the implications of climate change.

Melbourne Water instigated a climate variability study, led by The University of Melbourne and drawing on the expertise of the University of California Berkeley and the University of Natal in South Africa. The study, which commenced in late 2003, is looking at how atmospheric circulation patterns over the Pacific Ocean affect rainfall and stream flow in Melbourne's catchments. Melbourne Water is investing \$175,000 in the study, due for completion at the end of 2004.

The CSIRO continued its Melbourne Water commissioned study of the effects on rainfall, catchment yield, river and creek flows, flooding and water consumption patterns. The study, which will be completed in August 2004, has prepared long-term climate risk scenarios and allows us to plan for the future with more confidence.

Melbourne Water shared the technical preliminary findings of the study at a seminar in November 2003 with 100 people from water authorities, local councils, government, consultants, non-government organisations and universities.

Increasing water conservation awareness

Melbourne's water future depends on its people understanding and appreciating the need to protect this valuable resource. Melbourne Water continues to promote awareness of water resources.

In a survey undertaken in April 2004, some 62% of respondents knew that Melbourne's water storages were below 50% capacity. Only 4% of respondents said that they had not recently heard or seen anything about Melbourne's water storage levels. Ninety-one per cent of respondents had some knowledge or understanding of water resource issues, including storage levels, drought and climate change. Nearly 45% of culturally and linguistically diverse groups had a strong awareness of current storage levels.

This is consistent with previous results and demonstrates Melbourne Water's success in educating the public on the water supply situation and the value of our drinking water.

Our ongoing information program complemented and supported the Victorian Government's *Our Water Our Future* behavioural change campaign. We supported this integrated Government and water industry campaign to help Victorians become water savers.

We again used billboards at strategic locations throughout Melbourne to provide information about water storages, and websites such as The Age Online and NineMSN to feature daily storage levels on the Melbourne weather pages.

Improvements to our website, melbournewater.com.au, to include hourly rainfall data and updated information on our rivers and creeks resulted in a significant increase in visits to nearly 1.5 million, compared to 362,684 visits last year. Melbourne Water's dedicated water conservation website received 253,375 visits.

Over Summer, we worked in partnership with the Skybus transport company to ensure visitors were made aware of the need to save water in Melbourne. Skybus employees handed out Melbourne Water postcards and Network Ten weather presenter Mike Larkan appeared on the company's online television station to promote the high quality of Melbourne's water. This partnership supported Melbourne Water's billboard on the Tullamarine Freeway.

Partnerships continued with Yellow Cabs and Bunnings to create awareness of water storage levels.



Innovative project makes the most of rainwater

Tenants at the Richmond high-rise public housing estate are able to wash their cars using rainwater captured from the roof of the estate buildings and stored in an underground tank.

“But it’s even better than that,” says resident Lyn Dixon, who is also chairperson of the North Richmond Tenant’s Association.

“The water that is used for the car wash is then trapped again in another tank and used for the gardens and about 1700 square metres of lawn. There’s nearly three kilometres of dripper lines spread throughout the estate which is fed from recycled water.

“It is a great example of how to get the very most out of using recycled water.

“There was no other way of washing your car in the estate, and with the drought, people are very conscious about using tap water.

The project, which Melbourne Water developed in partnership with EPA Victoria and the City of Yarra, is expected to save the estate about 500,000 litres of water annually.

Saving water through education and collaboration

Melbourne Water invests \$1.4 million each year to educate the community about the water cycle and its management. Part of the education program is focused on activities that promote and achieve water conservation. These were undertaken in partnership with retail water businesses, local councils, and industry:

- At 30 June 2004, 20 of Melbourne’s 32 councils had expressed interest in our Sustainable Water Use Plan project – a joint initiative with the Municipal Association of Victoria and retail water businesses – and 14 had signed partnership agreements. The plans are expected to result in a saving of 800 million litres of water a year by 2010. Melbourne Water has allocated \$300,000 over two years

- In partnership with the Office of Housing, Melbourne Water invested \$250,000 in 2002/03 to reduce drinking water use in public housing estates by recycling stormwater to irrigate gardens. During 2003/04, work continued on a pilot program at Prahran’s King Street estate. This program is designed to save more than 150,000 litres of drinking water a year. A stormwater and greywater recycling project planned for the Atherton Gardens estate in Fitzroy, continued development during the year and is designed to save 2.5 million litres a year
- *Water – Learn it! Live it!* – an education kit for primary and secondary schools, was developed in conjunction with the retail water businesses, and shows how schools can actively implement water conservation and water education across the curriculum with the aim of reducing water consumption and improving water management across the school community

- The *Home Water Investigator* is an interactive tool that allows people to build a 3D plan of their house and then calculate water, sewage and stormwater volumes. Designed in consultation with EPA Victoria, City West Water and the Bureau of Meteorology, it was named the “Best multimedia education resource with an environmental subject” in the Pirelli INTERNETional Awards 2003
- We continued to support the *GreenPlumbers* program, which has now trained over 650 plumbers in sustainable plumbing practices.

Melbourne Water's recycling projects

Project	Actual 2002/03		Actual 2003/04		Target 2010	
	ML	%	ML	%	ML	%
Western Treatment Plant						
On-site recycling	17,386	5.8	17,945	8.0	37,000	11.3
Werribee Tourist Precinct	84	0.03	130	0.06	500	0.2
Werribee Irrigation District	0	0	0	0	8500	2.6
Sub-total west	17,470	5.8	18,075	8.1	46,000	14.1
Eastern Treatment Plant						
On-site recycling	13,800	4.6	13,128	5.9	13,800	4.2
Eastern Irrigation Scheme	220	0.07	143	0.06	5000	1.5
South Eastern outfall customers	1675	0.56	1622	0.7	1700	0.5
Sub-total east	15,695	5.2	14,893	6.7	20,500	6.2
Total	33,165	11.06	32,968	12.8	66,500	20.3

NB: Percentage figures given in this table represent the proportion of all of Melbourne Water's recycled water, not just those at each plant.

Water recycling

Water recycling is a key part of Melbourne's water future. It will reduce the amount of treated effluent discharged into the marine environment and help us conserve our valuable drinking water.

During 2003/04, we recycled 12.8%, or 32,968 million litres of effluent from the Eastern and Western treatment plants, supplying 1895 million litres to customers and using another 31,073 million litres within our plants. We invested \$6.5 million in these recycling projects.

Melbourne Water's objective is to recycle 20% of treated effluent by 2010. The Victorian Government also aims to achieve 20% water recycling across the State in this timeframe.

During the year, Melbourne Water collaborated with the retail water businesses to create a water recycling plan that prioritises and recommends projects of greatest potential benefit to Melbourne.

The water recycling plan was submitted to the Minister for Water in June and eight of the identified projects have gained commitment to proceed. When complete, they will achieve most of the Government's 20% recycling target.

Western Treatment Plant recycling

The major upgrade of the Western Treatment Plant will increase the volume and quality of treated effluent that is available for recycling projects to the west of Melbourne.

During the year, 17,945 million litres of recycled water were used within the Western Treatment Plant. The Plant also supplied 124 million litres of recycled water for irrigation to the nearby Werribee Tourist Precinct, which includes the National Equestrian Centre and the Werribee Park Golf Course.

Melbourne Water is continuing to work with the Department of Human Services and EPA Victoria to gain Class A certification for recycled water from the Western Treatment Plant after it is treated by ultraviolet light and chlorine disinfection. Class A water is suitable for irrigation of food crops, including those eaten raw.

The quality of recycled water from the Western Treatment Plant will be assured by a Hazard Analysis and Critical Control Point (HACCP) plan that is designed to manage health risks. The HACCP methodology is commonly used to assure the quality of food and drinking water. We are working to gain independent certification of our quality plan by December 2004.

Recycled water for Werribee Irrigation District growers

During the year, we began work on a project to supply Southern Rural Water with up to 8500 million litres of water a year for their Werribee Irrigation District customers. The Victorian Government commissioned Melbourne Water to manage this important initiative, which will be completed by early 2005.

Melbourne Water is building pumping facilities, a disinfection plant that uses ultraviolet light and chlorination, and a five-kilometre pipeline to deliver recycled water to the irrigation district where Southern Rural Water will distribute it to more than 130 customers.

The project will set a new benchmark in Australia for recycled water quality and overall treatment cost efficiency. The 3000-hectare irrigation district supports market gardeners who have previously used water from the Werribee River and groundwater. The ongoing drought has severely reduced their river water allocations and the groundwater has been depleted.

The new recycled water pipeline will deliver a safe and reliable water supply for the farmers and allow them to draw a maximum of 55 million litres a day when demand peaks in Summer.

Long-term salinity control

Salt is a common ingredient of sewage from both trade waste and domestic sewage, and Class A treatment processes alone do not reduce it in recycled water. Salinity levels in water from the Western Treatment Plant are currently high enough to limit its use for some types of crops.

We are working with City West Water to develop a plan to reduce the salt levels in treated effluent by 40% by 2009.

Eastern Treatment Plant recycling

During the year, some 13,128 million litres of the Plant's treated effluent was recycled onsite in day-to-day operations. The Eastern Treatment Plant has been selling recycled water to customers since 1975. In 2003/04, some 30 customers along the South Eastern outfall pipeline bought 1622 million litres of the Plant's treated effluent for use in agriculture, horticulture and irrigation. We assisted each customer to develop or update an environmental improvement plan to ensure sustainable water recycling practices.

There are a number of major initiatives in place or being developed which will ensure the continued increase in the amount of treated effluent being recycled for other uses.

Eastern Irrigation Scheme

As part of the Eastern Irrigation Scheme, a pipeline from the Eastern Treatment Plant will deliver up to 5000 million litres of recycled water each year to irrigate open spaces in the Cranbourne – Five Ways area.

The Sandhurst residential development of up to 2000 homes and golf club in Carrum Downs became the first customers to be connected under this scheme. It will ultimately use 600 million litres of recycled water a year for golf courses, recreational areas and residential gardens. During the year, it used 143 million litres of recycled water.



Irrigation spraying at Werribee Irrigation District.

Key performance indicators

	Target 2003/04	Performance 2003/04
% of compliance with retail water business water pressure requirements	99.5%	99.7%
Breaches in water colour and turbidity requirements *	0	3
% of water samples at wholesale/retail interface with no <i>E.coli</i> present	100%	100%
Water conservation – % reduction in water consumption	0.4%	0.8%
% of community that continue to rate Melbourne's drinking water as good or very good	85%	85%
Level of community knowledge and understanding of water resource issues	70%	91%
% of customers rating our services as good or better	70%	**
Proportion of water recycled – cumulative % of water recycled from the total volume discharged from wastewater treatment plants	5%	12.8%
% of environmental management and quality risk management plans in place for recycled water customers	100%	100%

* Breaches in water colour and turbidity are based on meeting Bulk Water Supply agreements and customer complaints to the retail water businesses due to our operations.

** The Board and management of Melbourne Water made the decision to replace this KPI with a stakeholder relationship survey to more accurately reflect stakeholder perception. The survey will be conducted in 2004/05.

Goals

- **Ensure that Melbourne's natural rivers and creeks are healthy with increased numbers of native fish, platypus and plant life**
- **Improve the health and amenity of Port Phillip Bay and Western Port for the prosperity and enjoyment of present and future generations**

Achievements

- ✓ Completed and distributed *Melbourne's Rivers and Creeks 2004*, a user-friendly, community-based snapshot of the state of Melbourne's 5200 kilometres of rivers and creeks
- ✓ Completed the Diamond Creek and Hoddles Creek Stream Flow Management Plans, which became the first in Victoria to be formally approved by the Government. Other water authorities have adopted Melbourne Water's model
- ✓ Protected and improved river and creek banks by planting 384,000 trees, shrubs and native grasses
- ✓ Introduced a new interactive information system as part of a revised drought response plan for licensed diverters
- ✓ Constructed and planted three wetlands that will combine to stop some 11 tonnes of nitrogen from entering Port Phillip Bay each year

Challenges

- > Finalising, in partnership with the Port Phillip and Westernport Catchment Management Authority, the Regional River Health Strategy, which will set the framework for the management of the region's rivers and creeks over the long-term
- > Continuing to improve Melbourne's rivers and creeks, 47% of which are still in poor condition

Melbourne's rivers, creeks, bays and wetlands



Protecting and improving rivers and creeks

Melbourne Water is responsible for managing almost 5200 kilometres of rivers and creeks, including 1200 kilometres in forested areas and closed water supply catchments.

In protecting and improving these rivers and creeks, our main objectives are to:

- Achieve significant improvements in health and condition by managing environmental flows and undertaking improvement works
- Reduce nitrogen inputs to Port Phillip Bay from the stormwater system by 100 tonnes a year by 2010 through the construction of wetlands
- Work with the community and key stakeholders.

We invest about \$23 million annually in our Healthy Rivers program – a long-term program to improve and protect our rivers and creeks.

In March 2004, we released *Melbourne's Rivers and Creeks 2004*, a detailed snapshot of the condition and health of all rivers and creeks under our management.

The report showed that while some 28% of rivers and creeks are in good or excellent condition, 47% are in poor or very poor condition – mainly due

to the effects of catchment pressures, including stormwater and agricultural pollution, changes to natural flows and clearing of vegetation and instream habitat.

Generally the closer rivers and creeks are to urban areas, the poorer their condition due to run-off from buildings and roads, loss of vegetation, weeds and litter.

The publication was designed to provide information to local communities in an accessible and easy to understand format.

As the study will be updated every three years, members of the community will also have the opportunity to monitor progress in river and creek improvements.

In partnership with the Port Phillip and Westernport Catchment Management Authority, we are finalising a draft Regional River Health Strategy, which aims to improve the health of the region's rivers and creeks over the long-term.

The strategy will identify the environmental, social and economic values of all rivers and creeks in the region as well as the threats and risks to their health. A prioritised program will be included to improve the health of more than 3000 reaches along about 50 rivers and creeks.

We work closely with the community and other authorities in our improvement works, we monitor and research water quality, aquatic ecosystems and habitats and remove pollutants by building and maintaining wetlands and litter traps.

Major initiatives

During the year, we invested \$4.2 million in capital works to protect and improve our rivers and creeks, including:

- Developing a framework for maintaining and improving native fish habitat, especially in high priority streams and where river works are proposed
- Constructing three rock weirs in Cardinia Creek to control erosion and enable fish to move more easily up and downstream. The \$250,000 project has already benefited migratory native fish such as the nationally significant Australian Grayling
- Relaying and stabilising banks of Troups Creek in Narre Warren
- Reshaping the banks of Steels Creek, Yarra Glen
- Removing willows at Green Acres golf course in north Kew, along Merri Creek in Brunswick East, and along Ferny Creek in Ferntree Gully.

Dandenong Creek flourishes under community care

Valerie Lynch and
Adrienne Card



There are two energetic women doing a tireless job reclaiming and revegetating a section of Dandenong Creek known as Campbell's Croft and Abbey Walk in outer eastern Vermont.

Black willows are their enemy, and once this menace is cleared from a patch, their day often ends sharing pizza with those who have given a hand.

Valerie and Adrienne are among the hundreds of people who receive small grants from Melbourne Water to help improve our rivers and creeks.

This year they have reclaimed a patch of degraded land called Bridget (named because it is near the bridge at the start of Abbey Way).

Last year it was a patch called "Effie" in recognition of the ephemeral nature of the wetlands. There is also a

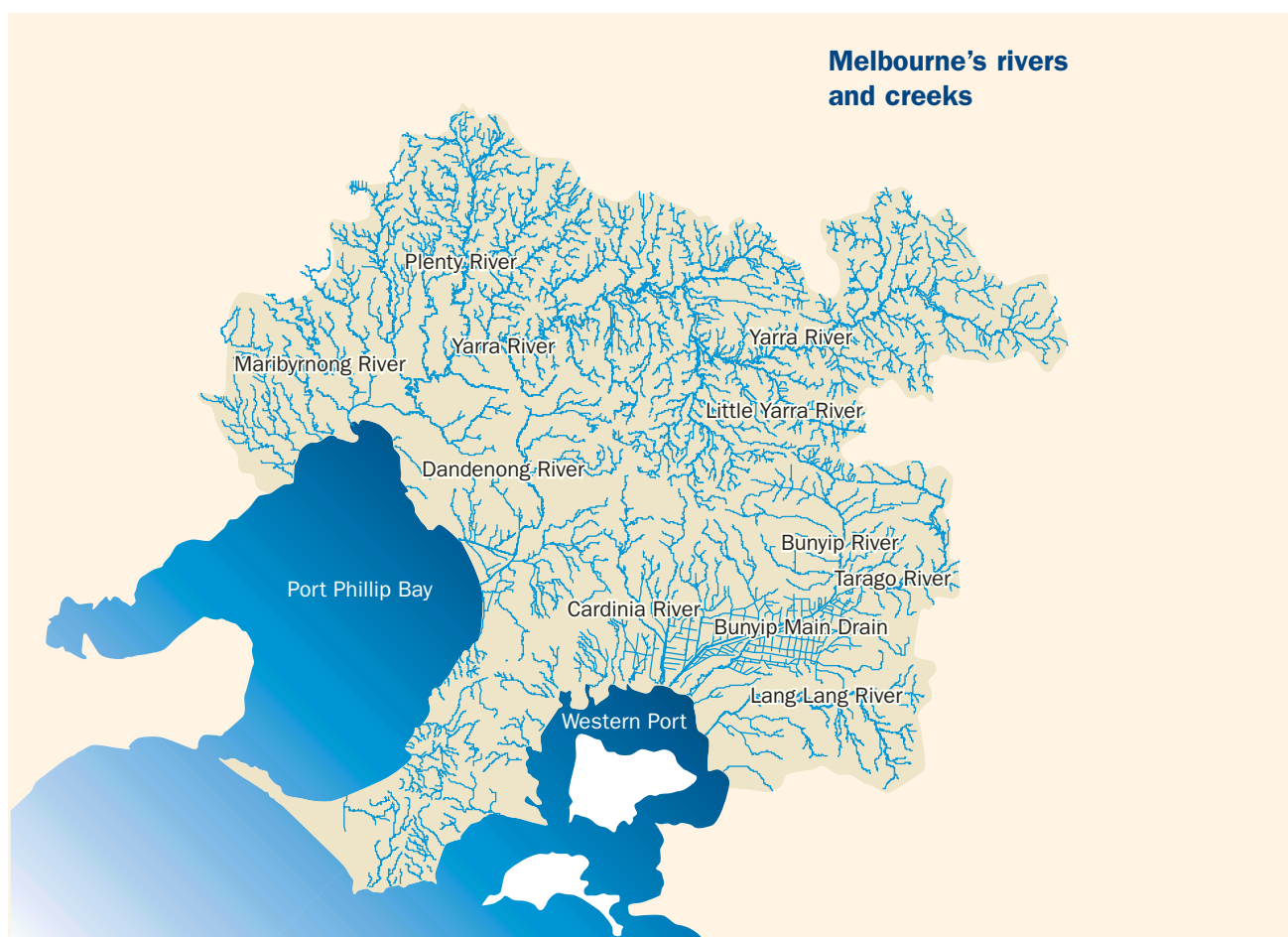
memorial garden where locals have planted flowers or trees to remember their loved ones.

Their master plan is to eventually join the newly planted areas with remnant native vegetation further along the creek.

The pair have been responsible for overseeing the planting of more than 10,000 plants in the park, with another 2000 seedlings ready to go.

"It's fun, we know we are doing our bit for the environment, and we turn even the hardest weed-pulling day into a party at the end," says Valerie.

"The outcome we are looking for is simply more beauty in the park," says Adrienne.



Working together to protect our rivers and creeks

Melburnians have a strong sense of connection to local rivers and creeks and many actively participate in their maintenance through local “Friends of” and Landcare groups. Melbourne Water offers grants and works closely with community and school groups and landholders to support their contribution to river and creek improvement.

During the year, we provided \$830,000 in grants to local councils, community groups and rural landholders for revegetation, fencing and associated projects.

Under the Corridors of Green program, Melbourne Water funds local councils and other agencies to buy materials such as plants, tree guards and weed mats.

During the year, we funded 21 projects by investing \$200,000 in the revegetation of Back Creek through South Surrey Park, Surrey Hills; continuing work at Blind Creek, Wantirna South; and the ongoing restoration of the Plenty River, Greensborough.

Melbourne Water acknowledges that the management of our rivers and creeks could not be done without the assistance of volunteers who spend their valuable time clearing litter and planting trees and shrubs.

Under the Community Grants Program, Melbourne Water allocates \$90,000 annually for community groups to undertake such works. During the year, we provided 47 different grants to “Friends of” and Landcare groups.

Through the Stream Frontage Management Program, we worked with rural landowners and land managers to improve stream health by providing grants to fence out stock, and weed and revegetate riparian land. This year we provided grants for some 76 kilometres of fencing and 134,000 plants along priority rivers and creeks.

This year, in conjunction with the Port Phillip and Westernport Catchment Management Authority, Grow West and local councils, the program was expanded to include the Upper Maribyrnong and Werribee catchments. We invested \$103,000 in these areas for fencing, weed control and planting.

Melbourne Water's GreenGardeners program has trained over 500 gardeners in sustainable gardening practices, which rely less on fertilisers that can ultimately run-off into rivers, creeks and bays. We also held a building industry summit to plan a training program for builders about best practice building site management to protect the health of rivers and creeks.

We continued to support major exhibits at the Melbourne Museum, Scienceworks and the Melbourne Aquarium. For the first time, we held activity days at Scienceworks and the Aquarium. Over 2500 people attended the one-day event at the Aquarium. We also introduced a new interactive exhibit at the Aquarium on our rivers and creeks.

Platypus populations on the rise

Many of Melbourne Water's river and creek improvements are designed to provide habitat for platypus. The return of this iconic species provides an important indicator of the health and condition of our rivers and creeks.

The Australian Platypus Conservancy, funded by Melbourne Water for the past 10 years, successfully reintroduced three juvenile platypus into Cardinia Creek during April 2004. Platypus had not been recorded in this creek since the early 1980s.

Platypus were found less than 10 kilometres from the city centre in the Yarra River at Kew, while there was a strong recolonisation of Mullum Mullum Creek and Diamond Creek and a growing population in the Plenty River.



In March 2004, Minister for Water, John Thwaites, joined kids from Spensley Street Primary School at the launch of Melbourne Water's Rivers and Creeks 2004 at Dights Falls on the Yarra River.

Frog census

The presence of frogs is another strong indicator of the health of Melbourne's rivers and creeks. The Melbourne Water Frog Census, a partnership with the Amphibian Research Centre and community volunteers, began in 2001.

The Autumn and Spring Frog Census for 2003 visited 300 sites. Frog numbers were down slightly on the previous year and it is believed that the drought may have had some impact on the number of locations where frogs could be heard calling. Some key findings to emerge from the census included a new recording of the Eastern Dwarf Tree Frog (*Litoria fallax*), which is common to New South Wales and Queensland, in Newport. The endangered Growling Grass Frog (*Litoria raniformis*) was found at two new sites in Cairnlea in Melbourne's west.

Growling Grass frogs are listed for protection by both State and Federal governments and are a key species in the Kororoit Creek catchment. Melbourne Water is undertaking a survey over several years of their populations and habitats. This year's survey cost \$7500 and its results will contribute to a review of actions for the creek's improvement.

Young people caring about the environment

Melbourne Water, in partnership with Landcare Australia, provided \$50,000 to 30 schools and youth organisations under the Melbourne Water Young Watercare Grants program. Landcare also received a grant of \$25,000 to administer the program. Projects included transforming wasteland into wetlands, frog ponds and wildlife corridors, testing and researching creek and river water quality, and recycling stormwater in gardens.

About 60 schools across Melbourne were involved in the *i sea, i care* school ambassadors program started by a partnership between Melbourne Water and the Dolphin Research Institute during the year. The program raises awareness about how students can protect our rivers, creeks and bays.

Melbourne Water's video *Drains to our Waterways*, which encourages school students to prevent litter reaching the bay through stormwater, was a finalist in the New York Festival's 2004 *Film and Video Awards*. The video, which is teamed with an activity booklet, was produced in 2002.



Students from Ashwood Primary School near Gardiners Creek in Burwood inspect some of the creatures found in the creek during the school's Waterwatch activities.

Waterwatch

Melbourne Waterwatch is an education and river health monitoring program, which aims to increase community understanding, participation and ownership of local river health issues. It achieves this goal by providing a broad range of structured activities, which encourage the community to become actively involved in monitoring the health of Melbourne's rivers, creeks and wetlands.

Melbourne Waterwatch groups include primary and secondary schools, tertiary institutions, community, conservation and Landcare groups, corporate groups, individuals and local council representatives. In 2003/04, about 15,000 people in 274 groups monitored 356 sites. This is a 50% increase in participation on last year.

Melbourne Waterwatch is part of the Waterwatch Australia network, and is supported by the Natural Heritage Trust, councils and several other organisations. Melbourne Water contributes \$100,000 a year to the program, and co-ordinates the program across greater Melbourne.

Measuring performance

We routinely monitor the water quality of rivers and creeks at 72 sites across Melbourne as part of our compliance with the State Environment Protection Policy for water quality. Results from this monitoring program are available on our website, melbournewater.com.au

Melbourne Water's management of rivers and creeks, drainage and flood protection is set out in our Operating Charter. Each year, our performance against the Charter's goals and service commitments is independently evaluated.

The detailed performance records for 2003/04 were audited and Melbourne Water has published the results on our website.

Maintaining river health

The environmental flow of a river or creek refers to the amount of water needed to ensure its ecological health. It can be adjusted by controlling the quantity of water pumped by diversers licensed to use water for farms and industry, and by releasing water from reservoirs.

Stream flow management plans are a key focus for ensuring that environmental flows are not adversely affected by the variety of different users in each catchment. They are designed to share the total water of a catchment between its users and the environment.

Melbourne Water is responsible for developing plans for priority streams across the Yarra Basin, and the Diamond Creek and Hoddles Creek plans became the first to be formally approved. Other water authorities are now using the approved plans as templates.

At 30 June 2004, the draft plan for the Plenty River catchment was undergoing its consultative process, and consultative committees had been appointed to develop plans for Olinda Creek, Stringybark Creek and Steels, Dixons and Pauls creeks. These plans will be completed in 2004/05.

Yarra River

Environmental flows in the Yarra River are set under the State Environment Protection Policy that requires Melbourne Water to ensure, to the extent that is practical, that the Yarra River flows at a rate of at least 245 million litres per day at Yering Gorge. When flows fall below this level, Melbourne Water applies progressively tighter restrictions on diversers and ceases extracting river water for urban supplies at Yering Gorge.

Limited rainfall resulted in low stream flows in the Yarra River during the year, with a minimum flow at Yering Gorge of 159 million litres per day recorded on 17 April 2004. While these low flows are natural during droughts, we recognise the need to maintain river levels and, during the year, we reaffirmed our agreement with EPA Victoria to release water from some reservoirs if flows at Yering Gorge fall below 150 million litres per day.

Maribyrnong River

The harvesting of bulk water from the Maribyrnong River is managed through bulk entitlements to Melbourne Water, Southern Rural Water and Western Water. Melbourne Water's entitlement gives us the right to 9.5% of the total capacity of Rosslynne Reservoir and manages diverter extractions from the Maribyrnong river.

Water users experienced extended bans during the year while the river itself ceased flowing during the driest months. The bans were introduced on 15 December 2003 when stream flows at Keilor fell below the minimum level of five million litres per day as specified in the bulk entitlement. Bans were lifted on 26 April 2004.

Environmental flows in the Maribyrnong River are generally maintained by releasing water from Rosslynne Reservoir. However, during the year, reservoir levels were so low that only limited releases could be made.

As expected during drought, water quality did deteriorate and blue-green algae blooms were present in the lower reaches. However, there were no signs of significant environmental damage.

This proactive approach to managing environmental flows has since been adopted in other Victorian rivers as a successful model of co-operative and practical river management.

River diverters

Melbourne Water is responsible for managing the amount of water taken from rivers and creeks in the Yarra, Stony, Kororoit, Laverton, Skeleton and lower Maribyrnong catchments. We issue licences to customers, known as diverters, which enable them to take water for their homes, farms, market gardens, vineyards and other businesses.

This year saw the introduction of a new diverter drought response plan for the Yarra catchment. The new plan introduced restriction and ban flow levels for each of the major sub-catchments, enabling a more localised response to flow conditions.

Across the Yarra catchment, level one restrictions were introduced on 9 January 2004 and upgraded to level two on 28 January 2004. Under the new drought response plan, bans were introduced on most sub-catchments as rivers and creeks reached minimum flows or stopped altogether.

Catchments affected included Little Yarra River, Plenty River, Woori Yallock Creek, Olinda Creek, Stringybark Creek, Hoddles Creek, Wandin Yallock Creek, Diamond Creek, Steels Creek and Pauls Creek.

The duration of bans varied but typically lasted between two and five weeks. In the drier northern catchments such as Plenty River, Diamond Creek and Steels Creek, bans remained in place at 30 June 2004.

In the Maribyrnong catchment, river diverters were advised early of the lack of water held in storage at Rosslynne Reservoir and the inability for releases to be made to supply entitlements once natural river flows fell below minimum levels.

Consequently, bans were introduced in mid December 2003 and remained in place until 26 April 2004. During this period, most major irrigators in the Keilor area turned to mains water to meet their needs.

Environmental flows in the Thomson and Macalister Rivers

The Thomson Reservoir, which provides Melbourne with up to 60% of its water storage capacity, also supplies irrigators in Gippsland via the Thomson River. The river and its tributary, the Macalister, have been identified as stressed, particularly in their lower reaches. This is due to the combined effects of human settlement and land use.

During the year, Melbourne Water participated in the Ministerial Thomson Macalister Environmental Flows task force, which made 11 recommendations when it reported in March 2004. These included increasing environmental flows in rivers downstream of the Thomson Reservoir and Lake Glenmaggie, with flows to be met by water savings made by irrigators and Melbourne's urban users.

The Victorian Government responded to the task force report in its White Paper of June 2004 with an action to allocate a further 10,000 million litres a year for environmental flows in the Thomson River, to come into effect within three months of the lifting of Melbourne water restrictions. A further 8000 million litres a year will be provided from system savings over the longer term.

Information on how we managed our bulk entitlements from the Thomson and Maribyrnong rivers in 2003/04 can be found in the Statutory Information section on page 96.

Scientific research aids our rivers, creeks and wetlands

The capacity of rivers and creeks around Port Phillip Bay and Western Port to support a healthy ecosystem is determined by a variety of factors including adequate stream flows, habitat, food resources and clean water. Toxicants, nutrients and other pollutants, pest plants and animals, changes to natural hydrology and habitat loss threaten the health of rivers and creeks.

Melbourne Water invested \$600,000 during the year on research that will contribute to the biological health and water quality of our rivers, creeks and wetlands.

Research included reviews of suitable herbicides, risk assessments of new and emerging weeds in Melbourne's rivers and creeks, studies of exotic fish populations, and sediment studies.

Contributing to the long-term health of Port Phillip Bay

Port Phillip Bay is greatly valued by the community for its environmental, recreational and economic features. Industry, farming and a continually growing urban population all place pressures on the health of the Bay as it receives the flow of most of Melbourne's rivers, creeks and stormwater drains as well as treated effluent from the Western Treatment Plant.

The major pollutants carried by stormwater into Melbourne's rivers, creeks and Port Phillip Bay are nitrogen and litter.

A 1996 CSIRO study sponsored by Melbourne Water recommended that the amount of nitrogen entering the Bay from stormwater and treated effluent be reduced by 1000 tonnes a year.

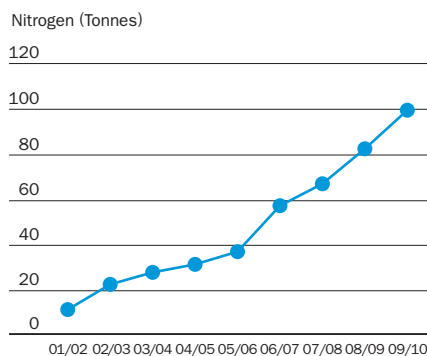
Melbourne Water's contribution to this target will be achieved through upgrading the Western Treatment Plant and constructing wetlands, which act as filters for Melbourne's stormwater.



Emma Welford of St.Kilda East helps to plant indigenous species at the Seaford Wetlands Open Day in May 2004.

Nitrogen is a widely distributed natural element in the atmosphere and water. Sources of nitrogen pollutants include fossil fuels, animal droppings, fertilisers, industrial cleaning and plant debris. More than 90% of the nitrogen carried in Melbourne's urban run-off settles from the air onto roads, urban surfaces, gardens and farms and is then washed into Port Phillip Bay.

Our objective is to reduce nitrogen entering Port Phillip Bay from the Western Treatment Plant by 500 tonnes a year by 2006, and from the stormwater system by 100 tonnes a year by 2010. For more information on the Western Treatment Plant upgrade, see page 34.



Nitrogen removal by wetlands

Wetlands – nature's filters

Wetlands provide a natural method of cleaning nitrogen from stormwater. During the year, we:

- Completed planting the Jacana North wetland, which combined with the completed Jacana South wetland will remove an annual total of around nine tonnes of nitrogen
- Completed construction and planting of the \$870,000 Taylors Lakes wetland in June. It will remove 1.8 tonnes of nitrogen each year
- Completed construction of a wetland in Argus Street, Cheltenham, that will remove 640 kilograms of nitrogen each year
- Began construction of the Campbellfield Creek wetland, which will be completed in July 2004 at a cost of \$640,000
- Completed planting the Police Road wetland at Rowville with more than 380,000 plants
- Began the \$1.5 million construction of a wetland in the Mt Waverley retarding basin that will remove 1.3 tonnes of nitrogen.



Golf course gets a clean-up with litter trap

Marc Noyce, (formerly) Waterways and Wetlands Works

"Heavy rain would often cause the Preston Main Drain to overflow and deposit litter over the Northcote golf course.

The new \$230,000 litter trap built by Melbourne Water for the drain is a big hit. Not only does it stop the litter from reaching the golf course and continuing onto Merri Creek, its clever design and landscaping means it blends into the golf course setting.

The trap also doesn't cause up-stream flooding because it is a filter, and access for maintenance is easy.

A truck literally backs up alongside the trap and the rubbish is emptied.

Northcote Golf Club couldn't be happier – a widespread problem has now been contained and it has helped promote awareness of the litter issue among golfers as they can see the effect of the litter trap.

Melbourne Water worked closely with local community groups and the Darebin Council to design and build the trap, which captures up to 200 cubic metres of rubbish each year."

Litter

We reduce the amount of litter that flows into our rivers, creeks and bays by installing and regularly maintaining litter traps. We invested \$600,000 during the year to protect rivers, creeks and bays from the effects of litter. The major projects completed were:

- Modification of the litter trap in Karkarook Park, Moorabbin, to include a litter net. The project cost \$110,000
- Modification of the trap in Merton Street, Altona to include a litter net. This project cost \$105,000 and will protect the health of Skeleton Creek
- Commencement of Lower Bungalook litter trap in Bayswater North.

Other initiatives

In late 2003, a three-year \$600,000 study was completed by Monash University and the Cooperative Research Centre for Freshwater Ecology into the effect of built surfaces (such as roads) on 16 Melbourne rivers and creeks. The results emphasised the key role of environmentally sensitive drainage or water sensitive urban design in protecting river and creek ecosystems.

We also successfully piloted a program to tackle the problem of sediment in stormwater run-off from building sites and urban subdivisions. We sought a uniform approach to regulating stormwater quality flowing from building sites across six local councils and this pilot is now being adopted by the Clearwater campaign run by the Municipal Association of Victoria and the Stormwater Industry Association of Victoria.

Improving Western Port

Western Port is a significant environmental, economic and recreational asset for the Port Phillip and Westernport region. The Bay's wetlands are listed under the Ramsar Convention, and the Bay itself is home to three marine national parks.

Under its shallow waters lie a number of environmentally important seagrass beds that provide habitat for fish and are an integral part of the marine environment. Since the 1970s, the Bay has experienced a steady loss of seagrass habitat, thought to be linked to the flushing of sediment into the Bay.

Melbourne Water is responsible for managing the biological health and water quality of rivers and creeks entering Western Port, including stream-side vegetation and floodplains.

Our objective is to gain a better understanding of the impact of sediment and other inputs on the ecology of Western Port.

A three-year study undertaken by the CSIRO for Melbourne Water was completed in mid-2003 and its results launched in October. The Western Port Sediment Study found most of the sediment came from erosion of bed and banks in the Bunyip and Lang Lang river systems, and from the coastal clay banks near the Lang Lang River mouth.

Flushed from rivers and creeks, the sediment is carried by the tide to settle in the southern regions of the Bay.

As erosion in the upper parts of the Lang Lang river catchment was also highlighted as a significant source of sediment, a detailed field study was carried out to assess ongoing erosion issues and investigate different management approaches.

The results have shown that tunnel, gully and hillslope erosion are still active in the steeper parts of the Strezlecki ranges. While most of the sediment from these upper areas is being stored on floodplains, fine material is still being transported to Western Port. The most effective approach to the rehabilitation of these eroded areas will include revegetation and stock exclusion, which requires an integrated approach involving agencies and owners.

We are also working to reduce erosion in the rivers flowing into Western Port and improve their biological health and water quality. Work to date has included stabilising river and creek banks and beds, revegetation and building sediment traps.



Melbourne Water's research into the erosion of seagrass beds aims to protect and improve this precious aspect of the marine environment at Western Port.

Key performance indicators

	Target 2003/04	Performance 2003/04
% of waterway plans in place for river diverter customers	16%	16.7%
% of water harvesting points meeting environmental flow requirements to rivers	100%	100%
Cumulative reduction in nitrogen load to Port Phillip Bay from wetlands	28 tonnes	28 tonnes

Goal

Operate in a manner that improves the environment

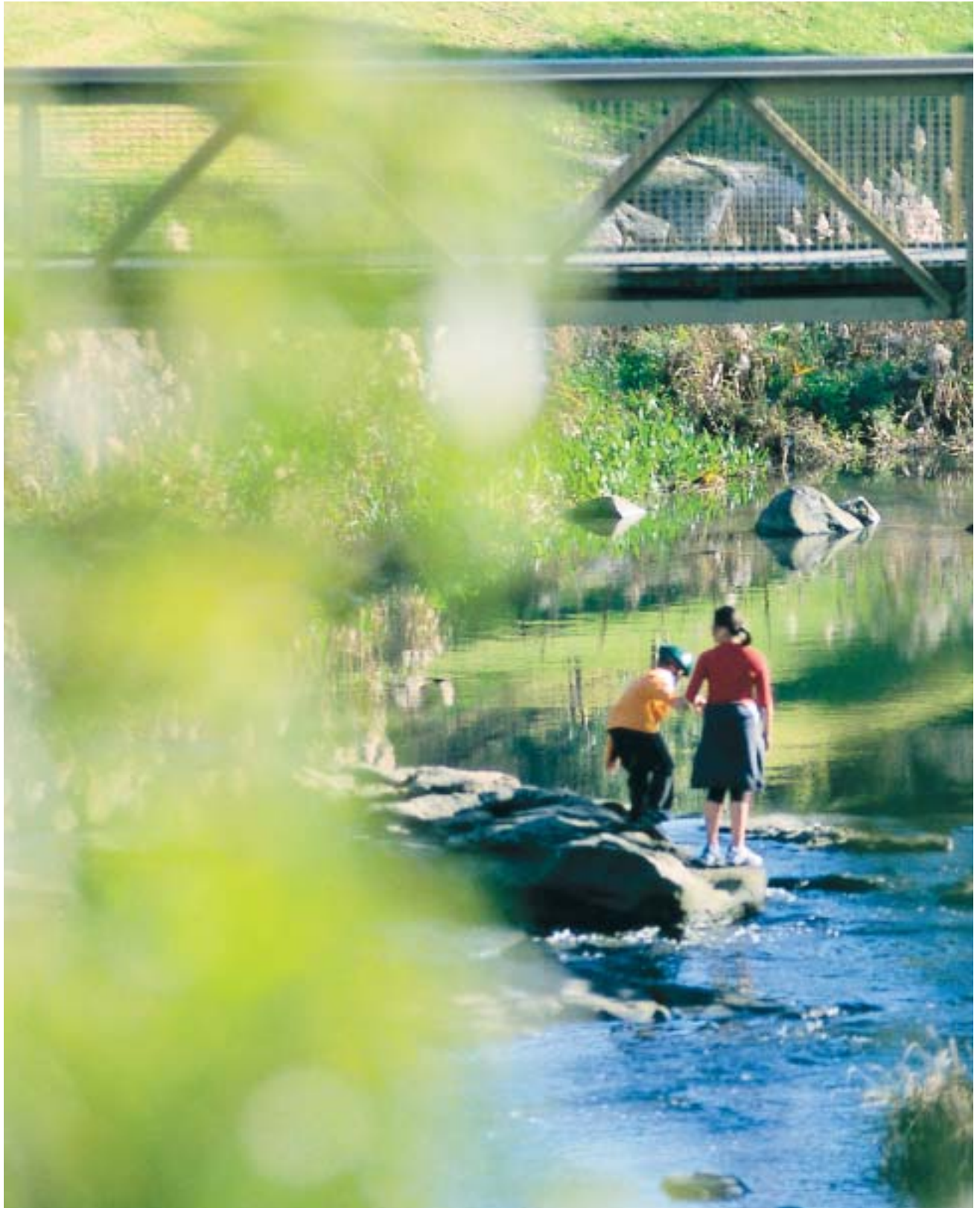
Achievements

- ✓ Upgraded our purpose-built Supervisory Control and Data Acquisition (SCADA) software system, which is used to manage water and sewage flows so that we meet our regulatory, service and contractual obligations
- ✓ Received more than 8700 visitors to the Western Treatment Plant since the opening of our new Water Discovery Centre in June 2003
- ✓ Complied fully with EPA Victoria licence requirements in operating the Western and Eastern treatment plants
- ✓ Contracted to supply 22,000 tonnes of biosolids from Eastern Treatment Plant for use in soil conditioners

Challenges

- > Increasing community awareness of the way in which Melbourne's sewage is treated and disposed of, including the impact of trade waste
- > Managing the beneficial reuse of biosolids from the Western and Eastern treatment plants
- > Continuing work to achieve our no-odour objective from our sewage treatment plants and pipelines
- > Continuing to plan and implement our ammonia reduction program at the Eastern Treatment Plant, which will have a significant impact on the health of the marine environment
- > Addressing the issue of the colour of effluent discharged from the Eastern Treatment Plant

Protecting the environment and public health



Managing Melbourne's sewerage system

Melbourne Water's sewerage system includes Melbourne's two major sewage treatment plants and some 400 kilometres of sewers.

We also operate three major sewage pumping stations at Kew, Hoppers Crossing and Brooklyn, and several minor sewage pumping stations. The Kew Pumping Station's prime function is to take sewage to the Eastern Treatment Plant. Its average daily flow is 60 megalitres and, at peak times, can reach 115 megalitres.

The Brooklyn and Hoppers Crossing Pumping Stations pump sewage to the Western Treatment Plant. The average daily flow from Brooklyn is 330 megalitres, and 470 megalitres per day at peak times. Hoppers Crossing pumps 640 megalitres per day at peak times.

All these pumping stations have the capacity to pump at increased levels during wet weather.

The retail water businesses collect sewage and trade waste from households and businesses, which is sent for treatment at Melbourne Water's sewage treatment plants. They also manage pollutants in industrial sewage through Trade Waste agreements with industry.

This year, we treated 310,000 million litres of sewage at the Western and Eastern treatment plants, compared to 302,897 million litres the previous year.

Regular monitoring and maintenance of our sewerage transfer system is carried out to ensure its effective performance and the safety of operations. This program includes identifying and rehabilitating structural weaknesses and locating and removing obstacles to flow such as tree roots.

We work to continually improve the treatment plants to ensure that they harness changing technology to treat effluent, increase opportunities for water recycling and lessen the impacts on the marine environment. This year, we invested \$74.4 million on upgrade works.

Our no-sewage spills objective

Melbourne Water aims to have no sewage spills as a result of operational failures. In recent years, we have invested in our sewerage infrastructure to ensure we have a robust system that meets world standards. We have targeted spill points with the most potential for environmental impact and we are working with the retail water businesses to upgrade our systems to meet future needs.

During extreme rain, stormwater can infiltrate sewers leading to overflows when sewer capacity is exceeded. Such overflows are directed through emergency relief structures to minimise their environmental impact on local rivers and creeks and public health.

During the extreme, localised storms that hit Melbourne in December 2003 (more on these storms on page 41), the sewerage system was put under considerable pressure, with a 40% increase in peak flows on 3 December 2003.



The big picture of our essential services

Grant Stewart, Brooklyn Control Centre

Melbourne Water's integrated control centre at Brooklyn is the engine room of the business. Our Supervisory Control and Data Acquisition (SCADA) software system enables operators in the centre to manage water and sewage flows so that we meet our regulatory, service and contractual obligations.

Almost \$5 million has been invested in developing and implementing the system. Grant Stewart, one of eight operators at the integrated control centre, says the system provides access to everything from schematics of the water and sewerage network to details of the size and volume of pipes at key points.

"The system really helps me manage any issue that comes up, and having remote access means I can be offsite and still run the system," he says.

"I can monitor, control and supervise the water, sewerage and drainage network to anticipate possible problems, and also get security information from a range of key sites where patrols, electronic monitoring, detection and video surveillance are carried out."

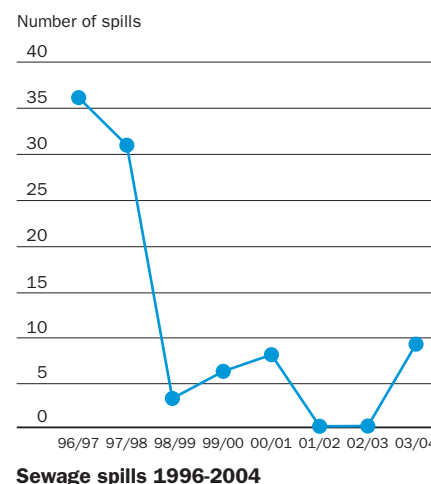


(Under everyday conditions, about 850 million litres of sewage flow through Melbourne Water's sewers.)

This increased volume overloaded the system and sewage was spilled at eight places. There were four spills into the Yarra River (one at East Ivanhoe, two at Kew East and one at Kew); two spills to the Merri Creek (both in Coburg), one spill to the Moonee Ponds Creek at Pascoe Vale, and one spill to the Plenty River at Lower Plenty. The total volume of sewage spilt was 46.7 million litres or about 0.015% of sewage received during the year.

Melbourne Water responded by inspecting each of the overflow points and, where necessary, mopping up and removing litter. We notified EPA Victoria in line with agreed procedures.

In February 2004, a faulty fitting on the Mordialloc Rising Sewer Main in Braeside caused about 15,000 litres of sewage to spill into an adjacent drain leading to Mordialloc Creek. While the results showed elevated *E.coli* levels, the spill was considered minor and EPA Victoria required no other action. We repaired the fitting and inspected all similar fittings on the sewer.



The Western Treatment Plant

Operations and compliance

The Western Treatment Plant is one of the world's largest sewage treatment plants, covering some 11,000 hectares. It processes about 500 million litres of sewage each day, which is about 55% of Melbourne's sewage.

The Plant was commissioned more than 100 years ago and originally used a land filtration process. Grass filtration was introduced in the 1930s and later, lagoons were built to treat the sewage. Treated effluent is recycled or discharged into Port Phillip Bay according to an accredited licence from EPA Victoria.

We complied fully with our obligations for effluent discharge parameters under EPA Victoria's licence. Tables detailing our compliance can be accessed via our website, melbournewater.com.au

Protecting Port Phillip Bay through Plant upgrade

Melbourne Water is currently undertaking a \$124 million upgrade of the Plant to reduce the amount of nitrogen in the treated effluent that is discharged into Port Phillip Bay.

The upgrade will also reduce odour and increase the amount of biogas captured for energy reuse.

The upgrade, expected to be completed by late 2004, will result in a 500 tonne a year reduction in nitrogen entering Port Phillip Bay from 2005. This will be achieved by upgrading the lagoon treatment system and phasing out grass and land filtration.

During the year, we reduced our nitrogen load into the Bay by 830 tonnes. The drought had a significant impact on this result, with lower than average flows of sewage to the Plant, resulting in less nitrogen being released into the Bay.

During the year, we continued work to upgrade the 25 West Lagoon and started work on the onsite effluent reuse scheme and stage one of the wet weather capacity upgrade.



Melbourne Water's Managing Director Brian Bayley and Chairman Cheryl Batagol inspect the 25 West Lagoon project at Western Treatment Plant.

The upgrade is a key feature of the Plant's Environment Improvement Plan that was finalised during the year. The Plant's Community Liaison Committee guided the development of the plan, which will play a leading role in the Plant's operations and management.

Educating the community

The Melbourne Water Discovery Centre was opened at the Plant in June 2003 and has proved a highly successful education facility for visitors and school groups. More than 8700 people visited the Plant during the year to see the way it operates and to visit the centre.

During April 2004, a huge satellite photograph of Melbourne was installed in the centre's foyer. Visitors can walk across it and locate their Melbourne homes within the context of the larger catchment.

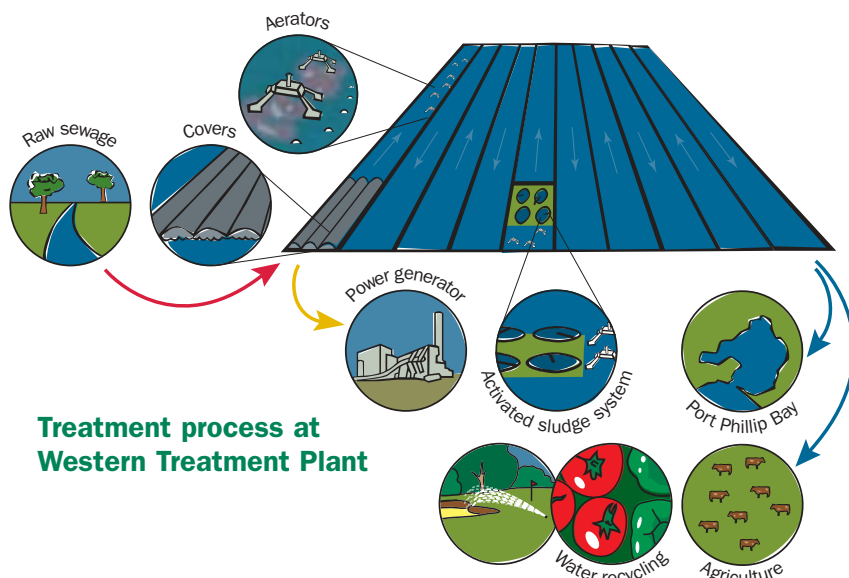
The Plant's open weekend was held in May 2004. Over 800 people took free bus tours of the Plant and were able to explore the Discovery Centre and displays from City West Water, EPA Victoria, City of Wyndham and Werribee Zoo. The Melbourne Aquarium and the Amphibian Research Centre were also involved.

The Amphibian Research Centre finalised its plans during the year to make its new home at the Plant. As well as educational tours, Melbourne Water and the Amphibian Research Centre jointly run the Melbourne Water Frog Census, an education program that helps volunteers track the distribution and diversity of frogs in the greater Melbourne area.

The successful *Western Treatment Plant Explorer*, an interactive educational CD ROM, went online from our website in August 2003.

A haven for birds, plants and animals

The Western Treatment Plant includes a network of lagoons, wetlands, inter-tidal and shoreline areas, which provide habitat for thousands of birds and many species of environmentally-significant animals and plants. As a result, the Plant has been listed as a wetland of international importance under the Ramsar convention.



Treatment process at Western Treatment Plant

More than 270 species of birds have been recorded at the Plant's wetlands, some of which travel 12,000 kilometres south from Siberia every year to escape the harsh northern Winter.

We work closely with a Wildlife Consultative Committee made up of community and environmental representatives to ensure the management and protection of the wetlands and the Plant's flora and fauna.

With the Committee's input, we completed an Environment Protection and Biodiversity Conservation Compliance Plan during the year, which specifies actions such as bird population studies and monitoring to ensure the upgrade of the Western Treatment Plant will not affect the site's environmental values.

We continued our program of bird, wildlife and flora studies and monitoring. An intensive study of shorebirds over Summer used observation and radio tracking of 15 individuals to examine their behaviour. We also studied the way in which the birds use the Plant as a feeding ground.

Managing biosolids

Biosolids are the treated and stabilised solids that are produced as a by-product of the sewage treatment process. In the past, Melbourne Water has stored biosolids onsite at the Eastern and Western treatment plants. However, our approach now is to examine ways to put these to beneficial use.

We aim to beneficially use the equivalent of 100% of the Western Treatment Plant's annual production by 2010 and reduce the amount stored to sustainable levels over the long-term.

Melbourne Water is assisting Re-Brick, a South Australian company, in their plans to recycle Western Treatment Plant biosolids into high quality bricks and pavers for the mainstream building industry. This project, which is focusing on creating a portable brick-making machine, won funding from the Smart Water Fund in 2002/03. The Smart Water Fund, which was launched by the Victorian Government in 2002, supports initiatives that promote water recycling, water conservation and biosolids use.

Trade waste agreements between the retail water businesses and their commercial customers have improved the quality of incoming sewage and more biosolids are now of a quality that can be beneficially reused.

The Eastern Treatment Plant

Operations and compliance

Opened in 1975, the Eastern Treatment Plant at Bangholme processes about 375 million litres of sewage each day from Melbourne's eastern and south-eastern suburbs.

The 1000 hectare Plant currently uses an activated sludge process to treat effluent, most of which is discharged under EPA Victoria licence via a 56 kilometre pipeline into Bass Strait at Boags Rocks. A small but growing percentage of effluent is recycled.

We complied with all of our requirements under the EPA Victoria discharge licence for the Eastern Treatment Plant during the year. Tables detailing our compliance can be accessed via our website.

Protecting the marine environment

A Melbourne Water commissioned study by the CSIRO, completed in 1999, found that the freshwater and ammonia contained in the effluent being discharged at Boags Rocks was affecting the marine environment. Melbourne Water is addressing these concerns by improving the quality of effluent discharged from the Plant and by increasing the amount of water recycled.

Our objectives are to produce high quality effluent and to reduce the impact of freshwater discharge on the marine environment by 2007.

One of our key initiatives in meeting these objectives is to reduce ammonia in treated effluent. The Plant's six aeration tanks will be upgraded by June 2006 to reduce nitrogen in effluent by more than 75%.

After a successful pilot in one of the six aeration tanks during 2001/02, Melbourne Water undertook a review through the year to ensure the same high performance could be achieved in all six tanks under all conditions.

During the year, we completed aeration tank foam removal and processing trials and further progress was made on the functional design for the remaining works.

The CSIRO carries out ongoing research and monitoring of our operations on the marine environment and is presently looking at the biology and hydrodynamics of the marine environment and studying the visibility of an effluent plume in the water.

In conjunction with the retail water businesses, Melbourne Water is undertaking an 18-month detailed investigation into the sources of colour in effluent discharged. The study is paying particular attention to waste from industry and is seeking opportunities to reduce its colour.

The future

In July 2002, we received approval from EPA Victoria to undertake a major upgrade of the Plant. This upgrade, including a planned move to tertiary treatment, enhanced disinfection and ammonia reduction, was designed to significantly improve the quality of effluent leaving the Plant and increase opportunities for recycling.

The EPA Victoria approval also required Melbourne Water to extend the outfall at Boags Rocks by at least two kilometres offshore. The works approval was the subject of an appeal to the Victorian Civil and Administrative Tribunal by the Clean Ocean Foundation, a Mornington Peninsula interest group. The appeal was withdrawn in late 2003 and EPA Victoria issued a new works approval on 28 November 2003.

The Victorian Government's White Paper announced that a feasibility study would be undertaken to transfer recycled water from the Eastern Treatment Plant to the Latrobe Valley. The study could lead to a massive infrastructure project that has the potential to use up to 80% of the Eastern Treatment Plant's treated effluent.

Community involvement

Melbourne Water, in consultation with the Community Liaison Committee, completed an Environment Improvement Plan for the Plant in February 2004.

The plan identifies the Plant's impacts on the environment and specifies objectives and an action plan to manage them. The plan's key elements look at flows into the Plant, its sewage treatment methods, and outputs and emissions. It also includes the management of wildlife at the Plant.

Free community tours of the Eastern Treatment Plant were held on Sunday 12 October 2003 and Sunday 16 May 2004. More than 130 people toured the Plant and feedback from the visitors was very positive. Melbourne Water's education display in the Eastern Treatment Plant foyer was upgraded for the October open day to include virtual tours of Melbourne's catchment and sewerage system.

Following the production of our *Western Treatment Plant Explorer* last year, we added the *Eastern Treatment Plant Explorer* to our suite of interactive, online education resources (melbournewater.com.au/education). This new resource includes a narrated virtual tour of the Plant and teacher notes and resources. Users can easily follow the sewage treatment process and learn about recycled water.

Revegetation to preserve significant habitats

Regular surveys by Birds Australia and a survey of fauna at the Eastern Treatment Plant in late 2003 confirmed the presence of three nationally significant birds – the Australian Painted Snipe, the Australasian Bittern and the Swift Parrot – as well as 21 species of state significance.

In September 2003, the first frog census to be undertaken at the Plant found the Striped Marsh Frog, the Spotted Marsh Frog, the Common Froglet and the Southern Brown Tree Frog. While researchers did not find any of the nationally significant Growling Grass Frogs, they are hopeful the species remains in the area. The Plant's frog populations will continue to be tracked annually.

A survey of the Plant's flora in September identified a number of habitats with high conservation values. The survey recommended the revegetation of non-operational areas around the Plant including a three-hectare wetland. The Carrum Residents Action Group is undertaking revegetation at the wetland with funding from the Community Grants program.

Managing biosolids

Melbourne Water plans to beneficially use the equivalent of 100% of the Eastern Treatment Plant's annual production of biosolids by June 2005, and reduce the quantity of biosolids stored at the Plant to sustainable levels by 2010.

During the year, we entered contracts to supply about 23,800 tonnes of biosolids from the Eastern Treatment Plant to the blended organic soils market for use in soil conditioners. This is equal to about 99% of annual production.

A disused claypit at the Woodlands industrial estate in Braeside has been filled with biosolids and had a wetland built over it. Loading the pit with 136,800 tonnes of biosolids from the Eastern Treatment Plant was completed in October 2003 in accordance with an EPA Victoria works approval and licence.

Our no-odour objective

Melbourne Water is working to ensure that no offensive odour, as determined by EPA Victoria, is emitted from our assets by 2007. This objective reflects the rise in the community's expectations of what is acceptable for sewage transfer and treatment processes. We respond to all odour complaints by investigating their sources and taking action to reduce their future occurrence. During the year, we received a total of 12 odour complaints attributed to our assets.

Odour emissions from the Western Treatment Plant will be significantly reduced when grass and land filtration is phased out in late 2004, as part of the upgrade. The new 25 West Lagoon's partial cover captures biogas and its mechanical aeration treatment system will also contribute to odour reduction.

We plan to undertake the following works to help meet our odour target:

- Build a \$3.7 million odour treatment facility at the raw sewage inflow to the Western Treatment Plant
- Invest \$5.6 million in a new odour control plant at the Eastern Treatment Plant
- Odour reduction works on the North Yarra Sewer Main.

We are working with the retail water businesses to improve the management of odour complaints across the sewerage network. A common format for reporting processes and more complete sharing of information will improve reporting and investigation.

Key performance indicators

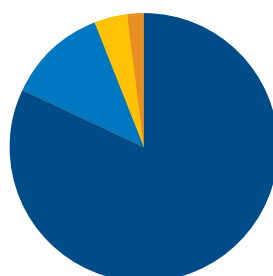
	Target 2003/04	Performance 2003/04
Number of sewage spills		
– Wet weather	4	8
– Dry weather	0	1
Breaches in EPA licence requirements:	0	0
Eastern Treatment Plant		
Western Treatment Plant		
Reduction in nitrogen load to Port Phillip Bay from Western Treatment Plant	300 tonnes	830 tonnes
Odour complaints:		
– Eastern Treatment Plant	0	2
– Sewage Transfer System	22	10
– Western Treatment Plant	6	n/a*
% of biosolids recycled:		
– Eastern Treatment Plant	67%	99.2%
– Western Treatment Plant	n/a	n/a
% reduction in greenhouse gas emissions	10%	9.1%
Cumulative reduction in nitrogen load to Port Phillip Bay from wetlands	28 tonnes	28 tonnes

* Melbourne Water's discharge licence does not require odour containment to within the Western Treatment Plant's boundary. This requirement will be in place from 1 January 2005.

Reducing greenhouse gas emissions

Melbourne Water plans to reduce our greenhouse gas emissions by 35% by 2005/06 and cut our use of electricity from the grid by 10% compared with 2000/01 levels.

By 2008, we plan to fully compensate for the electricity we import from the grid by generating the equivalent amount from renewable energy. Meeting these targets will save us \$3.5 million a year.



Average Energy Use 1995/96 to 2003/04

82% ● Sewage
12% ● Water
4% ● Vehicles
2% ● Offices and Other

Melbourne Water consumes most energy in sewage treatment processes at the Eastern and Western treatment plants and in pumping water and sewage.

At the Western Treatment Plant, we have developed a gas extraction system at the treatment lagoons, and partner AGL uses the captured biogas to generate energy for use at the Plant. During the year the Plant generated 19,250 megawatt hours of electricity (69,300 gigajoules of energy) and saved 27,800 tonnes of carbon dioxide equivalent by avoiding that amount of imported grid electricity.

The phasing out of land and grass filtration methods of sewage treatment as part of the Plant upgrade, and its associated release of methane into the atmosphere, will save an estimated 150,000 tonnes of carbon dioxide equivalent each year.

Detailed energy consumption and greenhouse gas emission data is available via our website, melbournewater.com.au

Goal

Ensure that the integrity of our water, sewerage and drainage infrastructure is well maintained and protected now and into the future

Achievements

- ✓ Invested \$150.6 million on upgrading our assets
- ✓ Completed 83% of all capital works projects on time and 100% within budget
- ✓ Completed construction of a \$7.3 million replacement of part of the M41-Punt Road water main while minimising impact on stakeholders
- ✓ Upgraded the Palmer Street diversion drain in Richmond with excellent safety standards

Challenges

- > Implementing our \$214 million capital program in 2004/05
- > Ensuring we engage the community effectively in the planning of capital works and other programs

Ensuring the security and integrity of our natural and built assets



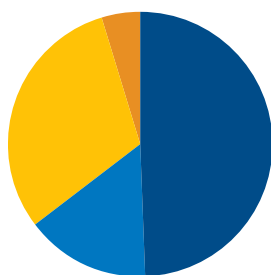
Water, sewerage and drainage infrastructure

Melbourne Water manages about \$8.1 billion in water supply, sewerage and drainage assets that service an area of more than 7800 square kilometres. We are responsible for 1029 kilometres of water distribution mains, 397 kilometres of sewers, 1258 kilometres of underground drains, and 47 drainage, sewage and water pumping stations.

During 2003/04, we invested \$150.6 million on improving Melbourne's water, sewerage and drainage infrastructure. We consider economic, social and environmental factors in our decision-making and this often requires extensive research and stakeholder consultation.

Our ultimate aim is to ensure our infrastructure is well maintained, reliable and provides optimum services to the community and the retail water businesses.

We also work to ensure that the community is well informed about our capital works prior to them starting and, where possible, we incorporate community feedback into our planning.



**Capital expenditure
2003/04**

\$74.4M ● Sewerage
\$22.9M ● Water
\$46.2M ● Waterways and drainage
\$7.1M ● Corporate

Major projects in 2003/04

M41-Punt Road water main completed

In February 2004, work was completed on the construction of a new \$7.3 million water main to replace the existing main that had run under Punt Road, one of the city's busiest thoroughfares.

The new, larger main runs under Yarra Park, close to the MCG, under the train lines between Flinders Street and Richmond stations and under Gosch's Paddock to the Yarra River.

The long planning period for this significant project enabled local residents, environment and sporting groups to be briefed early about the proposal and taken on tours of the proposed route.

Timing of the construction was also planned in conjunction with Tennis Australia, the Australian Cricket Board, the Australian Football League, Melbourne Storm and the MCG to minimise disruption to parking during their key sporting events.

An independent evaluation of the community and stakeholder liaison found that Melbourne Water had correctly anticipated the key issues for the stakeholders involved and that stakeholders appreciated being contacted early in the process. Being able to take part in site tours gave them a much better understanding of the project and, particularly, its constraints.

Upgrading our water supply system

During the year, we invested \$22.9 million to upgrade our water supply infrastructure.

We worked closely with South East Water on a \$60 million plan to improve the quality of drinking water for consumers on the Mornington Peninsula.

The project includes:

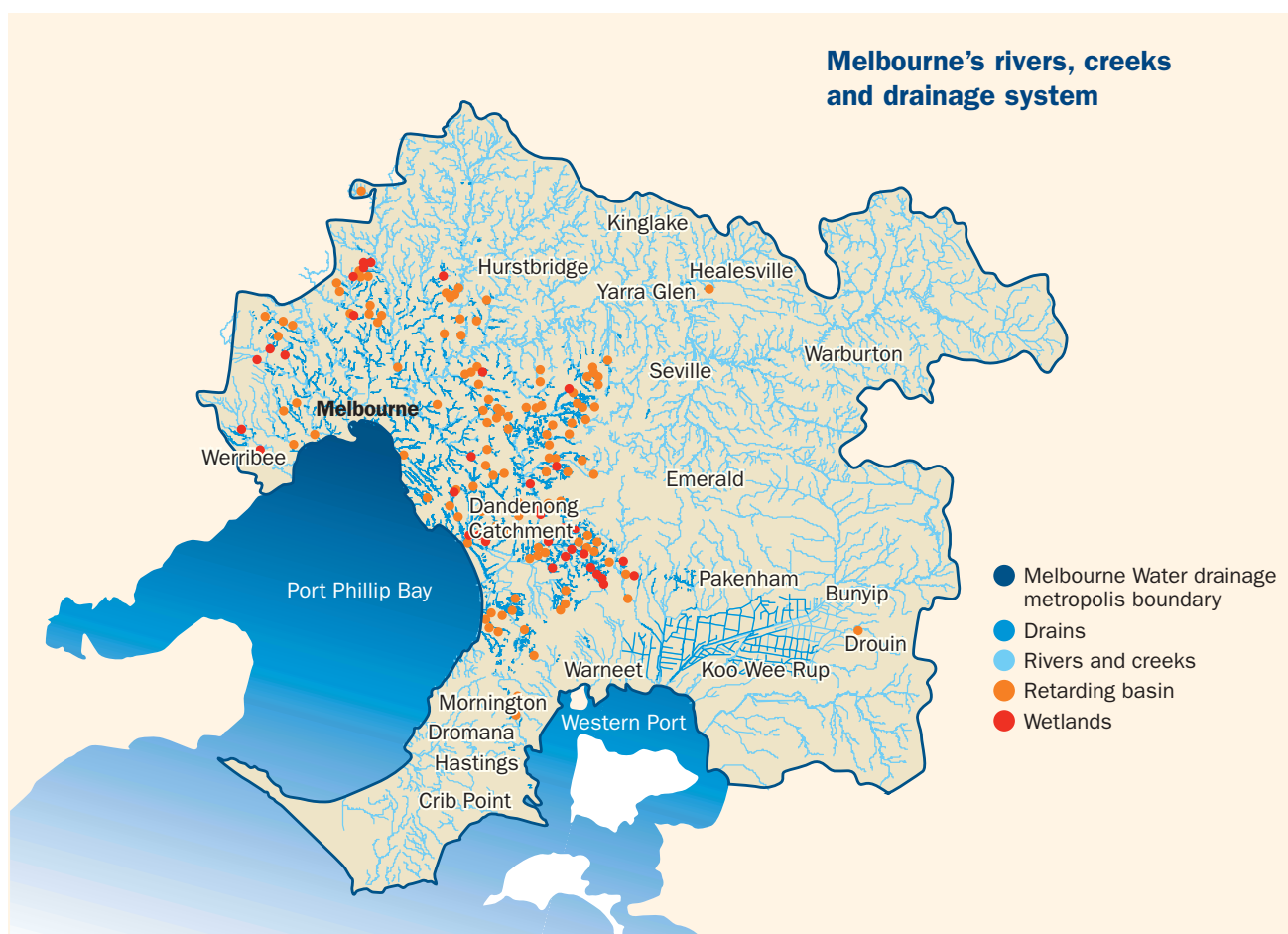
- Replacing the Mornington Reservoir with a steel tank to improve water quality and eliminate outbreaks of Synedra, a non-toxic algae. We completed preliminary work for the \$6.4 million project, which is expected to be completed by late 2005
- Roofing and lining the Dromana Reservoir will also overcome problems with Synedra algae. Construction began in March 2004 and will be completed in December 2004 at a cost of \$10.1 million
- Replacing the Frankston Reservoir with a steel tank will improve the microbiological standards of water. The \$10.6 million construction project is due to begin in August 2004 and be completed by late 2005.

We also invested \$400,000 to upgrade the chlorination plant that treats water taken from Cardinia Reservoir.

Drainage infrastructure upgrades

Melbourne Water is responsible for managing regional-scale drainage, which includes large drains and rivers and creeks. We work closely with local councils, which manage local drainage systems, such as street kerbs and gutters and smaller drainage pipelines.

Melbourne Water undertakes extensive analysis to determine the priority of major drainage infrastructure upgrade projects. We have made significant progress in upgrading our drainage system over recent years and in 2003/04 we invested \$9.7 million in upgrades. Ongoing drainage inspections and maintenance cost \$4.9 million during 2003/04.



Major projects for 2003/04 included:

- The completion in April 2004 of the construction of the large Palmer Street diversion drain that will protect properties in Richmond. The \$9.5 million technically challenging project was completed on time and on budget. The project was delivered with minimum disruption to the surrounding community and local council, and achieved excellent safety standards
- The augmentation of the Five Ways drain and the construction of a nearby retarding basin in Kilsyth. The \$2.4 million project will improve drainage in the area resulting in better flood protection and reduced stormwater pollution.

Severe localised storms sweep Melbourne

Localised storms of a severity that would only be experienced in a particular location on average once in 100 years swept over Melbourne on 3 December 2003 and again on 29 January 2004.

Worst hit by the December storms were the suburbs of Doncaster, Heidelberg, Coburg, Ivanhoe and Fairfield which received more than 100 millimetres of rain over 12 hours. The most severe flash flooding occurred in Station Street, Fairfield where floodwater was more than a metre deep.

In January 2004, violent thunderstorms most severely struck the suburbs of Kew, Elsternwick, Deer Park and Hawthorn. Some areas received more than 60 millimetres in an hour and localised flooding occurred in many suburbs.

Clean up cost Melbourne Water \$200,000 after the December 2003 floods and \$100,000 after the January 2004 thunderstorms.

Maintaining safe and secure assets

A major external audit undertaken in November 2003 found Melbourne Water's asset management to be excellent and close to best practice. The audit benchmarked our practice against other water, gas and electricity suppliers, and was undertaken as part of our supply agreements with the retail water businesses. The retail businesses provided input into the auditor's brief and received reports on the audit findings.

The management of risk is a key concern for Melbourne Water as we deliver essential water, sewerage and drainage services to the city through an extensive network of natural and built assets.

Melbourne Water has comprehensive procedures for monitoring and assessing the risks in our assets that enables us to calculate the likelihood and consequence of an asset failing. Each asset has been assessed for its:

- Required level of service
- Likelihood or probability of failure
- Consequences of failure
- Existing level of business risk.

Strategic risk management in Melbourne Water draws together all the specialist areas of risk management such as asset management and environmental management.

In August 2003, we began a major review of our risk management policies and procedures. The review has confirmed that we manage risk well and has helped us to improve the integration of risk management with our capital works program.

Major hazard facilities

Under the *Occupational Health and Safety (Major Hazard Facilities) Regulations 2000*, facilities that are deemed to hold major hazards are required to be licensed by WorkSafe Victoria. Melbourne Water operates three such facilities – the Eastern Treatment Plant, Winneke Water Treatment Plant and Silvan Water Treatment Plant – because of the quantities of chlorine they store and use. The Silvan plant received its licence in March 2004 – the other two facilities were licensed in 2002/03.

The facilities were each licensed for five years after Melbourne Water presented safety procedures, emergency response plans, risk identification and management arrangements to WorkSafe.

Protecting our assets for the long-term

We must do all we can to effectively protect our water supply catchments from the threat of bushfires.

The current drought and the impact of climate change continue to highlight risks to our ongoing water security. The violent storms we experienced in December 2003 and January 2004 means that meeting the community's expectations to be safe from the effects of flooding within existing budget priorities will be a continuing priority.

Fire protection in our water supply catchments

Fire in forested catchments can contaminate the water supply with ash, silt and debris, and also reduce the quantity of water flowing to reservoirs. Forests of mountain ash, which cover about half of Melbourne's catchments, need large quantities of water for many years after a bushfire, because the older forest is killed and replaced by seedlings that grow very vigorously for many years.

Managing our response to incidents affecting the community

Rowan Compagnoni,
Infrastructure



"About 2am on 10 May 2004, residents in Cheddar Road, Reservoir, woke up to water cascading from a burst water main, which runs from the South Morang Reservoir through suburbs such as Mill Park, Bundoora and Reservoir.

While a Melbourne Water pipe repair crew was on site soon after the burst occurred and started repairs immediately, about 23 million litres of water was lost, or 2% of an average warm day's consumption.

The water main is one of Melbourne's largest, stretching 12 kilometres and carrying an average of 50 million litres a day to about 7500 houses, hospitals, schools and businesses in the northern and north east suburbs.

Given that one house received the worst water damage, Melbourne Water acted quickly in organising alternative accommodation for the family involved, and starting the restoration process.

As part of the civil asset management team, I made it my responsibility to ensure that Melbourne Water provided all the support we could for the family.

Melbourne Water is reviewing its response to the Reservoir incident to see where improvements can be made."

We conducted a review of our catchment fire protection and suppression arrangements during the year. While the review found we have a very professional approach in these areas, it led to us seeking a closer working arrangement with statutory fire authorities – the Country Fire Authority and the Department of Sustainability and Environment.

A new agreement with these organisations spells out how Melbourne Water can better assist in providing added fire protection and it ensures maximum co-operation in fire detection and suppression.

To strengthen arrangements, we established a work centre in the Thomson catchment that acts as a base for fire protection personnel and fire equipment including a bulldozer and a tanker.

We are also actively assisting the Department of Sustainability and Environment in fuel reduction burning programs, which includes burning outside the catchments if it helps protect them.

We reviewed the fire protection plans for all catchments, in consultation with the Country Fire Authority, the Department of Sustainability and Environment, local councils and adjoining landholders.

Four small fires occurred in Melbourne Water's forested catchments during 2003/04, although none were serious.

We invested about \$650,000 in three replacement fire tankers, now stationed at Healesville, Warburton and Kinglake West.

Security officers employed to minimise public access to our catchments apprehended 37 people in areas closed to the public.



Contractor Zoe Bozinis inspects progress on the upgrade of the Palmer Street diversion drain in Richmond.

Key performance indicator

	Target 2003/04	Performance 2003/04
% satisfaction level with community consultation programs	80%	*

* The Board and management of Melbourne Water made the decision to change this KPI from a 'satisfaction' to 'effectiveness' rating to more accurately reflect our work in this area, and this will be reported in 2004/05.

Goal

Provide excellent service

Achievement

- ✓ Completed a major review of services to the development industry

Challenge

- > Applying the results of our review of development services to our service delivery to other stakeholders

Our role in urban development



Urban development and drainage

As we have outlined in other sections of this report, Melbourne Water delivers services to retail water businesses, river diverters and water recycling customers. We also work with, and deliver services to, the development industry and local councils.

We work closely with councils and the development industry to jointly achieve the best outcomes when works are planned that will impact on our management of the drainage and sewerage systems.

We provide information to promote awareness and we progress town planning and subdivision referrals from councils as efficiently as possible.

During 2003/04, we prepared almost 3800 agreements with developers for the provision of drainage services and a further three councils approved

planning scheme amendments, which incorporate information on the impact of flooding.

We carried out an independent review of our services to the land development industry during the year. The review included interviewing peak bodies, councils, developers, consultants and Melbourne Water employees, and examining our business systems and processes.

Overall, we received a positive response from the industry – they placed us ahead of comparable agencies and authorities. Some areas were identified for improvement, including updating our business systems and processes and enhancing our consultation and communication.

Melbourne Water intends to apply the review process established for developer services to examine our service delivery to other stakeholders.

The future

As Melbourne continues to grow in density and development, we need to make sure we understand, and can plan for, how this will impact on our drainage systems.

As part of a three-year project completed in June 2004, eight urban redevelopment projects across Melbourne were studied to identify the necessary upgrades to drainage infrastructure and their costs.

In consultation with the development industry and local councils, Melbourne Water created a set of principles to guide the development of drainage infrastructure in new urban developments.

These *Principles for Creating Drainage Schemes*, published in November 2003, were produced in collaboration with the development industry, which is seeking to effectively use water in the landscape of new developments.



Excellence in customer service delivery

Rachel Lopes and Kate Kinsella, Developer Services

“Melbourne Water is working closer than ever with councils and developers to ensure all new development meets accepted drainage and flood prevention standards.

An independent review conducted this year confirmed that we are providing the industry with leadership, innovation and expert advice.

We provide councils with advice on drainage planning and flood prone areas, and assist with stormwater management and sustainable water use plans.

We also work with developers to ensure community and natural assets are preserved and water-sensitive urban design applications are in place, such as third-pipe options in new estates for recycled water and natural wetlands for drainage and stormwater management.

The review placed us ahead of comparable agencies and authorities, and found that our delivery of core services is solid and satisfaction levels are high. Customer expectations, however, continue to rise and they now want and expect a more sophisticated level of service. These are challenges we intend to meet.”

Memorandum of Understanding signed with Australand

Property developer Australand, seeking a leadership role in urban water management, signed a Memorandum of Understanding with Melbourne Water in December 2003.

Australand has committed to achieving a 35% reduction in drinking water consumption in their new developments, maximising the use of recycled water, and meeting best practice stormwater management, which is:

- 80% reduction of suspended solids
- A 45% reduction in phosphorous and nitrogen
- A 70% reduction in litter.

Planning scheme amendments

Since 1998, Melbourne Water has been undertaking a program of creating computer models and maps to apply the new development standard for upgrading drainage infrastructure within Melbourne Water's area of responsibility, which will affect each of Melbourne's 32 municipalities.

Melbourne Water works with local councils to amend their planning schemes using the flood data. During 2003/04, three more councils approved planning scheme amendments, and the remaining six are planned for completion during 2004/05.



Melbourne Water and the Office of Housing are working in partnership to deliver an innovative stormwater recycling project at the King Street housing estate in Prahran.

Key performance indicator

	Target 2003/04	Performance 2003/04
% of stakeholders rating our relationship as good or better	80%	*

*The Board and management of Melbourne Water have made the decision to replace this KPI with a stakeholder relationship survey to more accurately reflect stakeholder perception. The survey will be conducted in 2004/05.

Goal

A motivated and skilled workforce that generates new ideas and is aligned with the latest technologies and innovations

Achievements

- ✓ Developed a framework of core competencies, which will become the basis for hiring, developing, managing and rewarding our employees
- ✓ Provided employees with online access to their details and workplace information via the Intranet
- ✓ Implemented an employee tours program that increased internal knowledge and understanding of our business

Challenges

- > Continually improving our health and safety performance, particularly with contractors
- > Increasing diversity within our workforce
- > Improving internal communications to ensure employees are well informed about matters that affect them
- > Identifying and developing people with potential to lead the organisation in the future

Our people



Achieving performance excellence

Melbourne Water aims to provide a safe and enjoyable work environment where people can learn and perform to their full potential, and are committed to achieving our goals.

We acknowledge that our success depends on the skills and efforts of our employees, and we support them through performance management systems, leadership and development programs, and work/life balance initiatives together with appropriate reward and recognition.

As part of improving employee access to information, during the year we implemented an online system that allows employees to see their pay details, leave balances, banking details and deductions, as well as applying and processing leave applications. The system streamlines processes and gives people access and control over their own information. Further development of the system has commenced to incorporate performance and development planning online as well as training information.

In 2003/04, an external human resources audit was undertaken, which identified areas for further improvement in our policies and procedures.

During the year, a new Enterprise Agreement was negotiated with employee and management representatives, along with union representatives. The Agreement has established the foundation for employment conditions for approximately 360 of our employees until July 2007. Strong consultation frameworks, flexible working arrangements and maintaining the link between performance and salary increases are key elements of the new Agreement.

Safety remains a central concern for us and this year we successfully implemented a Safety Improvement Plan that resulted in a significant decrease in lost-time injuries amongst employees and raised awareness of safety issues.

Reward and recognition

Melbourne Water recognises employees who have achieved service milestones. Our people achieved the following service milestones during the year:

- Five people achieved 25 years service
- Seven people achieved 30 years service
- Six people achieved 35 years service
- One person achieved 40 years service.

In addition to remuneration based on performance, we have an employee recognition program that enables us to immediately recognise and reward contributions to the organisation. Some 74 of our people were acknowledged during the year.

Work/life balance

We support and encourage people to balance work and personal commitments. Some of the ways in which we support our people include:

- Flexible working arrangements including 48/52, part-time and job-share
- Paid maternity leave
- Health assessments and flu vaccinations
- Part-time study leave
- Employee Support Program.

Staff profile by position

	Male		Female		Total	
	2004	2003	2004	2003	2004	2003
Executives	36	32	4	3	40	35
Technical and professional	200	204	75	73	275	277
Operational	131	139	0	0	131	139
Administrative	21	21	34	37	55	58
	388	396	113	113	501	509

As reported to The Office of Public Employment

A diverse and creative workforce

Melbourne Water is an equal opportunity employer. Our objective is to have a workforce representative of the community in which we work and live.

Melbourne Water's total workforce in 2003/04 was 501 and consisted of 77% males and 23% females. This has remained consistent in recent years. Of 44 new people employed during 2003/04, 19 of these were women.

We aim to create a workplace that values, and is enriched by, a diversity of views. To support this, diversity awareness programs were developed in conjunction with the Council for Equal Opportunity in Employment and delivered to employees during May and June 2004.

The program focused on the value of diversity, legal rights and responsibilities (including harassment, discrimination and bullying in the workplace) and unlawful and inappropriate behaviour.

Consistent with our commitment to diversity, we continue to ensure that we have an effective Equal Opportunity Committee comprising trained contact officers throughout the organisation.

Employees took an average of 2.41 days of sick leave throughout 2003/04, against our target of 2.7. Our employee turnover was 10%, against our target of 5-10%.

Individual and organisational health is supported by a policy of encouraging employees to take regular annual leave. Our target is for people to have an annual leave balance of 30 days or less at 30 June each year. At 30 June 2004, 94% met this target.



A 40 year perspective

Brian Clarke, Developer Services

"The backlog for sewerage and drainage in suburbs was incredible when I joined Melbourne Metropolitan Board of Works (MMBW) in February 1964.

Land sub-divisions in those days meant new housing estates had some services like water, but other modern day necessities such as sewerage, footpaths and sealed roads weren't guaranteed.

As a technical officer in the sewerage division, I was one of the team that designed and planned sewer reticulation to backlog areas and sewer extensions to new developments.

Later, I was involved in major alterations to existing sewers such as the re-routing needed to facilitate new developments like the Melbourne Central complex and the Underground Rail Loop.

With the 1970s heralding changes to planning laws to incorporate the services and design needs expected today, Melbourne Water became much more involved in all aspects of planning.

Nowadays, we are all about forward planning, not catching up with the shortfalls of the past, and in looking at developments and assessing their impact on drainage and waterways infrastructure."

A safe and healthy work environment

It is our responsibility to provide a safe and healthy workplace for anyone who enters Melbourne Water's work areas. This involves achieving our target of zero injuries for our people and contractors, and ensuring the health and safety of the people, property and environment that are potentially impacted by our operations.

We have a WorkCover self-insurance licence, SafetyMAP™ Initial Level certification, and are continuously improving our occupational health and safety systems.

Safety Improvement Plan achieves results

During 2003/04, Melbourne Water implemented a Safety Improvement Plan designed to take an integrated approach to health and safety.

The plan identifies actions to improve our performance in the following areas:

- Effective communication of health and safety matters

- Ensuring clear lines of accountability for the management of safety
- Providing appropriate reward and recognition mechanisms to encourage a safe working culture
- Encouraging our employees to participate in personal health and fitness initiatives
- Ensuring we have appropriate systems in place to manage our activities in a healthy and safe way.

Each month we produce a fact sheet emphasising key health and safety issues. These fact sheets are communicated to all employees through team meetings and have been effective in increasing awareness about health and safety matters.

As part of a pilot program to improve the health and fitness of field-based employees and reduce their sprain and strain injuries, a fitness instructor worked with operational employees who run the water, drainage and sewerage networks to increase their flexibility and strength. As a result of the success of the pilot, this program is being rolled out to other operational and field based teams.

During the year, we restructured our workplace health and safety committees to enable more effective sharing of knowledge, improved communication and effectiveness in addressing health and safety matters.

We have had a number of improvements to our safety performance since the Plan was implemented. Melbourne Water employees' lost-time injuries decreased from six in 2002/03 to two in 2003/04. The number of incidents and hazards reported has risen, and we believe this to be a direct result of improved awareness and communication.

There are a number of areas where safety performance can improve, particularly for contractors. Lost-time injuries to contractors increased from three in 2002/03 to six in 2003/04.

The Health and Safety Plan was reviewed in early 2004 to build on its success and strengthen areas identified for improvement. In particular, the Plan includes a series of actions aimed at improving contractor safety. Safety continues to be a key criterion in the selection and management of contractors.

Learning and development

At Melbourne Water, we recognise that learning and development for our people will help to achieve our vision, as well as enhance their skills in line with career aspirations. Our employees have development plans that are reviewed annually. These plans are a framework from which they can develop or enhance skills that support the organisation's key objectives and their individual career objectives. During the year, 35 employees participated in leadership development and coaching programs and one person attended a Senior Executive Program at the University of Michigan in the United States.

Development programs

Our succession planning process identifies employees for progression through to leadership and key technical positions. The development programs provide opportunities such as coaching, community activities and projects, secondments and individual leadership programs.

Core competencies

During the year we developed a framework of the core competencies (technical, cognitive and emotional) required to meet our business objectives. These describe the skills, experience, knowledge and attitudes that are fundamental to our success as a business, now and into the future. These competencies will become the basis for hiring, developing, managing and rewarding our people.

Key performance indicators

	Target 2003/04	Performance 2003/04
Level of knowledge and understanding of the organisation's business by our people	70%	71%
Number of lost-time injuries:		
– Melbourne Water people	0	2
– Major contractors	0	6

Graduate Development Program

Melbourne Water has 34 graduates (employees in the first three years of professional employment since completing their degree). To support these employees, a Graduate Development Program is available and includes the following initiatives:

- A 'rotation' plan to develop their knowledge and skills across the organisation
- A structured mentoring program to assist in the achievement of career goals
- Involvement in the Melbourne Water Speakers Program which provides graduates with an opportunity to improve their presentation skills
- Monthly graduate forums to learn more about our business and contribute ideas to improve the program
- Support for graduates who become members of the Institution of Engineers Australia to gain the Chartered Professional Engineer status.

Trainee program

Melbourne Water continues to support the Apprenticeships Victoria Scheme. During the year, four trainees were appointed to roles within Sewerage Operations and Water Supply Operations. During this traineeship, each trainee will complete a Certificate II in Water Industry Operations through Goulburn-Murray Water, a registered training authority for the water industry.

Knowledge and understanding of our business

If we are to achieve our long-term business goals and priorities, our employees need to understand the water cycle and how their role contributes to our performance in achieving our vision.

Internal communication

To assist in developing an internal communications strategy, an employee survey was conducted in December 2003. Some 270 employees responded to the survey, a 54% response rate. The survey showed our employees to be highly committed to our vision of making Melbourne the world's most water-sensitive city.

Their responses indicated that employees are highly satisfied with their jobs and with Melbourne Water as an employer and that they enjoy strong team spirit, underpinned by a shared sense of purpose. Areas identified for improvement include the need for the organisation to more often seek employees' opinions and keep them better informed.



A broader view of our business

John De Boer, Maroondah Reservoir

“Seven employee tours ran during May 2004. Sites visited included Winneke Water Treatment Plant, Western Treatment Plant, Eastern Treatment Plant, Thomson Reservoir and Maroondah Catchment. Tours also visited several Melbourne Water projects including Lynbrook Estate, Cardinia Creek Fishway (pictured left) and Troups Creek.

A total of 270 people attended the series of tours. A member of the Leadership Team introduced each tour and Melbourne Water people hosted the tours at each location.

Ian Wilcox and I hosted the tour taken by our Melbourne Water workmates to the Maroondah Reservoir.

Some of us at Maroondah also went on tours of the Western Treatment Plant and the upgrade of the sewerage link to the Docklands.

The tours were good value on two fronts. It was great for office employees, who don't get out into the field, to see the business they work for, and it was great for our team at Maroondah to go and see other aspects of the business to put everything into perspective.

Working in water supply, I had seen little of how the sewerage side of the business operates.

Similarly it was great to show our colleagues the workings of the Maroondah Reservoir – its history, construction, and where it fits into the water supply system. The feedback we received was very encouraging.”

Organisational chart

Managing Director Brian Bayley

Business Services and Corporate Secretariat Malcolm Haynes	Responsible for finance, supply, information technology, pricing and economic regulation, risk management systems and insurance, corporate secretariat and legal services, and Werribee Agriculture.
Customer and Stakeholder Relations Greg McGann	Responsible for stakeholder relations, developer services, drainage schemes and working with our people to influence excellent customer service.
Human Resources A/Leigh Keath (until 30 June 2004 – Elise Callander appointed in July 2004)	Responsible for developing, implementing and maintaining human resources strategies, policies and procedures that help us achieve our business objectives.
Infrastructure Grant Wilson	Responsible for managing our capital delivery program, and asset management of our sewerage, drainage and waterways, and water supply systems.
Operations Tony Antoniou	Responsible for operating our sewerage, drainage and water supply systems in accordance with public health, environmental, safety and regulatory obligations.
Research and Technology Peter Scott	Responsible for improving our productivity through scientific excellence and new and improved technology, and managing the national and state interface with regulators particularly in relation to water quality, public health and the environment.
Communications and Strategy Christine Gibbs	Responsible for Melbourne Water's strategic and corporate plans, and internal and external communications programs, including community consultation, media relations, education, grants, website and publications.
Water Resources Eamonn Kelly	Responsible for sewerage planning and resource management, energy and greenhouse management, river and creek health and streamflow management, urban water planning and strategic projects.

Meeting our key challenges from 2002/03

Key challenge identified in 2002/03	Our progress in meeting the challenge
Maintaining the community's enthusiasm for water conservation even during periods of high rainfall	A community survey undertaken in April 2004 showed some 60% of survey respondents knew that Melbourne's water storages were under half full. Only 4% said that they had not recently heard or seen anything about Melbourne's water storage levels. Melbourne Water will continue to participate in the Victorian Government's <i>Our Water, Our Future</i> behavioural change campaign and Smart Water Fund initiatives, which aim to increase behavioural change towards water conservation and promote innovative water-saving projects.
Implementing recommendations of the Water Resources Strategy as agreed by the Victorian Government	Melbourne Water's role in implementing the White Paper initiatives extends the path set by the recommendations in the Water Resources Strategy released by the Victorian Government in August 2003. These initiatives include water conservation, water sensitive urban design, recycling, education and awareness campaigns, climate change evaluation and creating a regional Sustainable Water Strategy. Melbourne Water continues to work towards meeting the Victorian Government's targets of a 15% reduction in per capita water consumption and 20% recycling of Melbourne's treated effluent, by 2010.
Developing contingency plans to counter the impact of climate change on our water resources	In a major first step towards developing contingency plans, Melbourne Water instigated a climate variability study looking at how atmospheric circulation patterns over the Pacific Ocean affect rainfall and stream flow in Melbourne's catchments. Melbourne Water invested \$175,000 in the study, which commenced in late 2003 and is due for completion at the end of 2004.
Developing a more integrated approach to managing available water resources, including the use of groundwater, stormwater and treated effluent	We are participating in the creation of a regional Sustainable Water Strategy, led by the Department of Sustainability and Environment, which plans an integrated approach to managing our available water resources.
Achieving our greenhouse reduction and renewable energy targets by 2005/06	We have established targets to reduce our emissions and their impact on the climate. By 2005/06, we aim to reduce our greenhouse gas emissions by 35% compared with 2000/01 levels, and we will cut our use of electricity from the grid by 10% over the same period. We will achieve this by using renewable energy created in our own treatment processes, conserving energy and reducing direct emissions. This will also minimise our impact on the environment and reduce costs.
Finding cost effective ways to remediate biosolids at the Western Treatment Plant to enable them to be recycled	Melbourne Water is assisting Re-Brick, a South Australian company, in their plans to recycle Western Treatment Plant biosolids into high quality bricks and pavers for the mainstream building industry. We will continue to pursue other potential remediation initiatives.

Key challenge identified in 2002/03	Our progress in meeting the challenge
Achieving our goal of eliminating offensive odours from Melbourne Water assets by 2007	The upgrade of the Western Treatment Plant will significantly reduce odour when grass and land filtration is phased out in late 2004. We are working with the retail water businesses to improve the management of odour complaints across the sewerage network. Planned significant odour works will make a major contribution to meeting this goal.
Meeting our target that all rivers and creeks in greater Melbourne will be in good condition by 2025	This target is being reviewed as part of the development of the Regional River Health Strategy, due for completion in 2005. Melbourne Water invests about \$23 million each year to improve and protect our rivers and creeks.
Reducing nitrogen entering Port Phillip Bay from the stormwater system by 100 tonnes by 2010	We continued with our program of constructing and planting wetlands designed to remove nitrogen from stormwater before it flows into our rivers and creeks and Port Phillip Bay.
Ensuring the security of our built assets	A major review of our risk management policies and procedures confirmed that we manage risk well and has helped us to improve the integration of risk management with our capital works program. We also invested \$150.6 million this year on improving Melbourne's water, sewerage and drainage infrastructure.
Managing algal blooms in Yan Yean and Greenvale reservoirs especially in times of low storage levels	We updated contingency plans for response to algal blooms and increased our reservoir monitoring to better understand and manage algae.
Achieving zero lost-time injuries for our people and contractors	This goal remains a significant challenge for Melbourne Water. During 2003/04, Melbourne Water employees suffered two lost-time injuries and our contractors suffered six. This was a decrease on 2002/03, due to the implementation of a Safety Improvement Plan. The Plan improved communication on safety issues and continues to be strengthened, particularly in regard to the safety of contractors.
Establish water recycling projects on a sustainable financial basis	The Victorian Government approved two major recycling projects during the year: Werribee Irrigation District and the Eastern Irrigation Scheme. Our work to deliver these schemes by the end of 2004 includes close assessment of their financial viability.

Corporate governance



Melbourne Water's Board of Directors
(left to right):

Brian Bayley (Managing Director),
Mary Anne Hartley, Merran Kelsall,
Terry Larkins, Carolyn Schultz,
Peter Darvall, Cheryl Batagol (Chairman)
and Robert Squire.

Our values

We have developed values that guide our decision-making and enable the organisation to operate in a professional manner, and in the best interests of our customers, employees, shareholder, suppliers and stakeholders.

Board of Directors

Melbourne Water has been declared a reorganising body under the *State Owned Enterprises Act* since 1992. The Governor-in-Council appoints directors and the Victorian Government sets their remuneration. Directors are eligible for reappointment for subsequent terms up to a maximum of nine consecutive years.

Formal annual reviews are conducted for the performance of the Board and of individual members. Professional development opportunities are made available for Board members. In making new appointments to the Board, the Government ensures the Board has the necessary blend of skills and experience.

Performance of the Board is also reviewed using external expertise. Through governance arrangements, the Portfolio and Shareholding Ministers are kept informed of the direction, plans and performance of Melbourne Water.

The Board of Directors currently comprises a non-executive Chairman, six non-executive directors and the Managing Director.

Cheryl Batagol Chairman

Cheryl Batagol was appointed Chairman on 1 January 2004. Ms Batagol has 30 years experience in the waste management industry, including commercial, industrial and trade waste management and treatment. She is currently Chairperson of EcoRecycle Victoria and a former director of City West Water. Ms Batagol has also been involved with EPA Victoria and the Co-operative Research Centre for Pollution Control and Waste Management.

Peter Darvall, BE (Hons) Melb, MS Ohio State
MSE MA PhD Prin. DipEd FIEAust. FTSE
Director

Peter Darvall was appointed to the Board on 1 January 2004. Professor Darvall was previously the Vice-Chancellor and President of Monash University as well as Vice-President for Research and Development and Dean of Engineering at Monash. He has served on the boards of many research organisations, including the Co-operative Research Centres for Catchment Hydrology, Water Quality and Treatment, and Freshwater Ecology.

Mary Anne Hartley, BA (Hons), LLB (Hons)
Director

Mary Anne Hartley was appointed to the Board on 1 July 2002. Ms Hartley, a practising barrister, is a Director of the Port of Melbourne Corporation and a Director of Gasco Ltd. She was a partner in a national law firm where she advised public hospitals and practised insurance law before joining the Victorian Bar.

Merran Kelsall, B.Com (Hons), MBA, FCA
Director

Merran Kelsall was appointed to the Board on 1 January 2001. Ms Kelsall, an independent company director and consultant, has considerable experience in financial services, health and utilities. She is a former partner in a chartered accounting firm.

Terry Larkins, PSM, JP
Director

Terry Larkins was appointed to the Board on 1 January 2004. Mr Larkins was appointed Chairman of Western Water in 2001. He has extensive experience in the water industry and local government and has been Chief Executive Officer of the Shire of Gisborne and Secretary of the former Gisborne Water Board.

Carolyn Schultz, BSc (Hons), PhD
Director

Carolyn Schultz was appointed to the Board on 1 January 2000. Dr Schultz is a lecturer at the University of Adelaide, School of Agriculture and Wine, and is a graduate of the Australian Institute of Company Directors.

Robert Squire, BE (Hons), FIE Aust
Director

Robert Squire was appointed to the Board on 1 July 2002. He was appointed Chief Executive of Connell Wagner in July 2000 and has extensive engineering experience in Sydney, Melbourne, Singapore and Malaysia.

Brian Bayley
Managing Director

Brian Bayley was appointed Managing Director on 28 July 1998. Mr Bayley, formerly head of Melbourne Water's Water Group, has extensive water industry experience in a broad range of senior management positions. He is a former Chair of the Victorian Water Industry Association and the Water Services Association of Australia.

Board appointments

Graeme Bowker and John So resigned from the Board, effective 31 December 2003. Cheryl Batagol, Terry Larkins and Peter Darvall were appointed on 1 January 2004.

Powers

Melbourne Water's Board of Directors has an operational charter that defines its role and management responsibilities.

The Board operates under the provisions of the *Melbourne Water Corporation Act 1992 (Vic.)*. Additionally, its operational powers derive primarily from the *Melbourne and Metropolitan Board of Works Act 1958 (Vic.)*. This Act enables Melbourne Water to make by-laws in relation to its functions. The two current by-laws are Water Supply Protection (1997 No 1) and Waterways and Drainage Protection (1998 No 2).

Under an agreement with the relevant Minister, effective as of 1 January 1995, the Minister's functions and powers as a Floodplain Management Authority under the *Water Act 1989 (Vic.)* have been delegated to Melbourne Water. Pursuant to this delegation, Melbourne Water, as an agent of the Minister, provides floodplain management services over the area for which Melbourne Water has drainage responsibilities.

The Minister has also delegated powers of management under the *Water Act* relating to licensed private water diversions from waterways to Melbourne Water, effective 1 July 1999. These acts and by-laws can be purchased from the Information Victoria bookshop, 356 Collins Street, Melbourne (telephone 1300 366 356).

The Minister responsible for Melbourne Water is the Honourable John Thwaites, Minister for Water. We work with officials in the Department of Sustainability and Environment, together with those in the Department of Treasury and Finance. They receive statutory and other reports covering performance against objectives and performance indicators in the Corporate Plan.

Primary responsibilities

The Board plans to achieve specific objectives, which include:

- The establishment of long-term outcomes based on a triple bottom line approach
- The approval of budgets together with key performance indicators linked to objectives
- The approval of annual financial statements and the monitoring of performance against objectives and risks
- Monitoring of safety, health and environmental standards and management systems.

Key features of the Board's activities are that:

- It meets at least 11 times a year, undertakes site visits and participates in business strategy workshops with Melbourne Water's Leadership Team
- Board papers are available to all directors seven days before meetings
- Conflicts of interest are declared and a Director does not participate in discussion or decisions where such a conflict exists
- Directors have the right to seek independent professional advice, at Melbourne Water's expense, in connection with their duties and responsibilities
- Declarations of pecuniary interest by directors are made annually, with procedures for updating that information between declarations.

The Board has three committees, each comprising three non-executive directors, who meet at least twice a year to focus on audit and corporate risk, remuneration and human resources, and environment and health and safety respectively. The Board established the Environment and Health and Safety Committee in May 2004. The Managing Director attends meetings of committees by invitation.

Committees

Audit and Corporate Risk Committee

The role of the Audit and Corporate Risk Committee is to assist the Board of Directors in fulfilling its responsibilities relating to risk management, financial management and operational control practices, and compliance with relevant laws and regulations.

Key responsibilities include reviewing Melbourne Water's approach to the management of economic and business risks, reviewing and evaluating the adequacy and effectiveness of internal, operating, accounting and compliance controls and risk management practices, and ensuring the organisation is operating within an effective governance framework.

In carrying out its functions for the year, the Audit and Corporate Risk Committee has had unrestricted access to appropriate internal and external expert advice.

At 30 June 2004, the Committee comprised Merran Kelsall (Chairman), Peter Darvall and Terry Larkins. The Committee members meet all of the requirements set out under the Financial Management Compliance framework.

Remuneration and Human Resources Committee

This Committee recommends to the Board the terms of employment and remuneration, taking into account the financial performance and condition of Melbourne Water. For details of directors' and executives' remuneration, refer to notes 25 and 26 of the Financial Statements.

At 30 June 2004, the Committee comprised Robert Squire (Chairman), Cheryl Batagol and Terry Larkins.

Environment and Health and Safety Committee

This Committee assists the Board in fulfilling its responsibilities relating to environmental sustainability, public health and to fulfil corporate governance responsibilities in respect of workplace health and safety.

The Committee encourages continuous improvement of, and monitors adherence to, Melbourne Water's environmental, public health, sustainability and workplace policies and procedures at all levels.

The Committee held its inaugural meeting in May 2004 and, at 30 June 2004, comprised Mary Anne Hartley (Chairman), Cheryl Batagol and Carolyn Schultz.

Board access to management

Members of the Leadership Team regularly present papers on their areas of responsibility to the Board. Individual Board members have regular contact with management through committees.

Ethics and values

Melbourne Water's directors and management are committed to operating ethically and in the best interests of the Victorian Government, customers, employees, suppliers and stakeholders.

All directors, managers and employees are expected to perform their duties with integrity and honesty. This expectation extends to dealing with each other, customers, suppliers and the community.

In maintaining a safe and fair working environment, the Board has approved various behavioural and workplace policies for specific purposes, such as occupational health and safety, discrimination and harassment, and equal opportunity. These policies, which include a Code of Conduct, are distributed and widely publicised to our employees for their information and assistance.

Five-year financial summary

Statement of financial performance for the year ended 30 June 2004

	2000 \$M	2001 \$M	2002 \$M	2003 \$M	2004 \$M
Revenue from ordinary activities	477.8	460.8	480.2	510.7	503.8
Profit from ordinary activities before income tax expense	204.2	176.3	185.8	218.4	179.5
Income tax expense relating to ordinary activities	7.3	47.2	55.6	68.5	56.1
Net profit	196.9	129.0	130.3	150.0	123.4
Dividends paid	126.2	58.3	98.9	99.4	95.7

Statement of financial position as at 30 June 2004

	2000 \$M	2001 \$M	2002 \$M	2003 \$M	2004 \$M
Current assets	35.7	39.2	50.3	52.9	44.3
Non-current assets	2,816.4	2,914.4	2,944.5	2,998.5	3,087.5
Total assets	2,852.1	2,953.6	2,994.8	3,051.4	3,131.8
Current liabilities	348.2	235.0	264.3	318.0	367.6
Non-current liabilities	1,336.9	1,421.8	1,402.4	1,352.0	1,355.0
Total liabilities	1,685.1	1,656.8	1,666.7	1,670.0	1,722.6
Net assets	1,167.0	1,296.8	1,328.1	1,381.4	1,409.2
Total equity	1,167.0	1,296.8	1,328.1	1,381.4	1,409.2

The following should be considered when reviewing the five-year financial summary:

* Accounting and Finance Bulletin Issue 36 detailing changes to the recognition of proposed dividends was released in respect of the 2001 year. Accordingly, no provision for dividend is taken to account until formally declared.

Financial summary

Table of contents

Directors' report	61
Statement of financial performance for the year ended 30 June 2004	64
Statement of financial position as at 30 June 2004	65
Statement of cash flows for the year ended 30 June 2004	66
Notes to the accounts	
1 Summary of significant accounting policies	67
Financial performance	
2 Revenue	72
3 Profit from ordinary activities before income tax expense	72
4 Income tax	73
Financial position	
5 Segment reporting	73
6 Current assets – cash	75
7 Current assets – receivables	75
8 Current assets – other	75
9 Non-current assets – property, plant and equipment	75
10 Non-current assets – prepayments	77
11 Non-current assets – deferred tax assets	77
12 Current liabilities – payables	77
13 Current liabilities – interest-bearing liabilities	77
14 Current liabilities – current tax liabilities	77
15 Current liabilities – provisions	77
16 Non-current liabilities – payables	77
17 Non-current liabilities – interest-bearing liabilities	77
18 Non-current liabilities – deferred tax liabilities	78
19 Non-current liabilities – provisions	78
20 Contributed equity	78
21 Reserves	78
22 Retained profits	78
23 Equity	78
Other	
24 Remuneration of auditors	78
25 Remuneration of directors	79
26 Remuneration of executives	79
27 Commitments	80
28 Contingent liabilities	81
29 Dividend	81
30 Employee benefits	82
31 Movements in provisions	83
32 Reconciliation of net cash provided by operating activities to net profit	83
33 Related parties disclosure	84
34 Economic dependency	84
35 Events occurring after balance date	84
36 Financial instruments	85
Statement by Directors and Chief Finance Officer	87
Assurance statement	88
Auditor-General's report	89

Directors' report

Directors

The directors of Melbourne Water Corporation in office at the date of this report are:

Cheryl Batagol (Chairman, appointed 1 January 2004)
 Peter Darvall (appointed 1 January 2004)
 Mary Anne Hartley
 Merran H Kelsall

Terry Larkins (appointed 1 January 2004)
 Carolyn J Schultz
 Robert Squire
 Brian R Bayley (Managing Director)

Particulars of the directors' qualifications, experience and special responsibilities are set out on pages 56 to 58 of this report.

Directors' meetings

During the financial period Melbourne Water held 12 meetings of directors.

Attendance at meetings of the Board and its committees were:

	Principal Board		Audit and Corporate Risk Committee		Remuneration and Human Resources Committee		Environment and Health and Safety Committee	
	Attended	Maximum possible	Attended	Maximum possible	Attended	Maximum possible	Attended	Maximum possible
Cheryl Batagol	5	5	2*	2	1	1	1	1
Graeme Bowker [^]	7	7	–	–	2	2	–	–
Peter Darvall	5	5	1	1	–	–	1*	1
Mary Anne Hartley	12	12	–	–	2	2	1	1
Merran Kelsall	11	12	4	4	–	–	–	–
Terry Larkins	5	5	1	1	1	1	1*	1
Carolyn Schultz	12	12	3	3	–	–	1	1
John So [^]	5	7	–	–	2	2	–	–
Robert Squire	10	12	3	3	1	1	1*	1
Brian Bayley	11	12	4*	4	3*	3	1*	1

* Attended by invitation

[^] Graeme Bowker and John So resigned with effect 31 December 2003

Principal activities

Melbourne Water manages all aspects of the water cycle, from Melbourne's water supply catchments, to protecting and improving rivers and creeks, sewage treatment and water recycling. Melbourne Water also provides water and sewerage services to Melbourne's three retail water companies: Yarra Valley Water, South East Water and City West Water.

Operating results and dividend

Melbourne Water's net profit, after providing for income tax, was \$123.4 million.

The proposed dividend for 2003/04 is \$85.3 million. This comprises \$44.0 million paid as an interim dividend during 2003/04 and a proposed final dividend of \$41.3 million. The proposed final dividend, which is subject to final determination by the Treasurer of Victoria, after consultation with Melbourne Water's Board of Directors and the Minister for Water, has not been booked as a provision as at 30 June 2004.

Review of operations

The directors' review of corporation operations during the financial period ended 30 June 2004, and the results of those operations, are set out in the Managing Director's overview on pages 4 and 5 of this report.

State of affairs

There were no significant changes in the state of affairs of the Corporation during the financial period ended 30 June 2004 not otherwise disclosed in this report.

Environmental regulation

Melbourne Water is subject to significant environmental regulation in respect of managing sewage treatment plants, maintaining environmental flow requirements and managing Ramsar wetlands. Information on these topics is included in Melbourne Water's annual report.

Sewage treatment plants

Melbourne Water's compliance with EPA Victoria discharge parameters was 100% at the Eastern Treatment Plant and 100% at the Western Treatment Plant. Other discharge licence requirements were met during the year to EPA Victoria's satisfaction.

Works at the Western Treatment Plant continued during the year to meet the upgraded discharge licence requirements by 2005. Works focussed on nitrogen load reduction and containing odour within the Plant boundary.

EPA Victoria reissued its works approval to upgrade the Eastern Treatment Plant following the withdrawal of an appeal lodged by the Clean Ocean Foundation against the approval. The reissued approval varied only by extending the deadlines to submit reports required by the works approval. Melbourne Water has begun the upgrade process by implementing ammonia reduction works.

Ramsar sites at Western Treatment Plant and Edithvale Seaford Wetlands

The Western Treatment Plant is broadly managed within parameters of the Ramsar International Convention's "wise use" test, which aims to protect wetlands with internationally significant environmental values. The Commonwealth Department of Environment and Heritage approved a management plan to manage environmental values at the Plant while works to meet the upgraded EPA Victoria discharge licence were implemented. The Department required a more detailed Compliance Plan and this was submitted by December 2003 and subsequently approved. These actions are consistent with the Parks Victoria management plan for the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site that includes the Western Treatment Plant.

The Edithvale-Seaford Wetlands management plan has been developed to ensure that site activities are managed within parameters of the Ramsar International Convention's "wise use" test. Site management of vegetation and hydrology was reviewed during the year to ensure effective implementation in protecting Ramsar values. These reviews will be completed during 2004/05 and relevant actions incorporated into the management plan. Activities such as monitoring bird numbers are implemented to ensure site activities do not adversely affect significant bird populations.

Dandenong Treatment Plant

Melbourne Water has collaborated with VicUrban on the development of an integrated rehabilitation and development plan for the site of the disused Dandenong Treatment Plant. The project will involve staged environmental rehabilitation works and the development of the majority of the site into an industrial subdivision with a smaller portion for residential uses.

The rehabilitation works will take place over the next four years in accordance with an EPA Works Approval under the overview of an accredited EPA Victoria Environmental Auditor.

Environmental flow requirement – Yarra River

Flow in the Yarra has to be managed so that "to the extent practicable" it does not drop below 245 million litres per day at a point below Melbourne Water's pumps at Yering Gorge. EPA Victoria approved moving the point where this is measured from Warrandyte to a new gauging station at Yering Gorge. This makes managing pumping from the river into Sugarloaf Reservoir to meet the flow requirement more accurate as the time taken for flows to travel from Yering Gorge to Warrandyte (up to 12 hours) does not have to be taken into account. During the year, drought conditions caused flows to fall below this level with the lowest flow recorded at 168 million litres per day. During these times, Melbourne Water met its obligations by ceasing pumping from the Yarra River at Yering Gorge, restricting diversions from the river and not harvesting from minor tributaries of the Yarra.

Environmental flow requirement – bulk entitlements

Melbourne Water has bulk entitlements to water for the Thomson and Maribyrnong Rivers. During the year, the environmental flow requirements established by these bulk entitlements were met except for two days when flows in the Maribyrnong River fell below the minimum required. In this case the trigger to cease diverting occurred on a weekend and diverters were notified too late to cease pumping to avoid flows falling below the minimum. Management has been improved to avoid this happening again.

A Panel was established to investigate the need for improved environmental flows in the Thomson River. The Panel's recommendations to increase flows have been incorporated into the Victorian Government's White Paper – *Securing Our Water Future Together*.

Events subsequent to balance date

Since the end of the financial year, the Directors are not aware of any matter or circumstance not otherwise dealt with in this report that, in the opinion of the Directors has significantly affected or may significantly affect the operations of the Corporation, the results of those operations, or the state of affairs of the Corporation in future years.

Director benefits

No director has received or become entitled to receive a benefit (other than a benefit included in notes 25 and 33 to the financial statements) because of a contract that the director, a firm of which the director is a member, or an entity in which the director has a substantial financial interest, has made (during the period ended 30 June 2004 or at any other time) with:

- (a) the Corporation; or
- (b) an entity that the Corporation controlled, or a body corporate that was related to the Corporation, when the contract was made or when the director received, or became entitled to receive, the benefit.

Director and officer liability insurance

During the financial year, the Corporation paid insurance premiums in respect of director and officer liability insurance. The policies do not specify the premium for individual directors and officers.

The director and officer liability insurance provides cover against all costs and expenses involved in defending legal actions and any resulting payments arising from a liability to persons (other than the Corporation) incurred in their position as director or officer unless the conduct involves a wilful breach of duty or an improper use of information or position to gain advantage.

The terms of the policy of insurance prohibit the disclosure of the nature of the liabilities insured and the amount of the premium.

Interest in contracts

No contracts involving directors' interests were entered into since the end of the previous financial year, or existed at the end of the financial year, other than the transactions detailed in note 33 to the financial statements.

Implementation of the Victorian Industry Participation Policy (VIPP)

In October 2003, the Victorian Parliament passed the *Victorian Industry Participation Policy Act 2003*. This Act requires public bodies and departments to report on the implementation of the Victorian Industry Participation Policy.

Contracts commenced to which the VIPP applied:

During the financial year 2003/04, Melbourne Water commenced six contracts totalling \$106.8 million in value to which the VIPP applied.

The number and value of these relate to six Metropolitan contracts.

The commitments by contractors under VIPP included:

- An overall level of local content of 98% of the total value of the contracts
- 322 full time equivalent jobs
- The benefits to the Victorian economy in terms of skills and technology transfers will be derived from an increase in occupational health and safety management.

Contracts completed to which the VIPP applied:

During the financial year 2003/04, Melbourne Water completed two contracts totalling \$14.0 million in value to which the VIPP applied.

The number and value of these relate to two Metropolitan contracts.

The outcomes reported by contractors under VIPP included:

- An overall level of local content of 84% of the total value of the contracts
- 33 full time equivalent jobs
- The benefits to the Victorian economy in terms of skills and technology transfers will be derived from an increase in training for long distance pipetracking equipment and pipetracking under sensitive infrastructure.



Cheryl Batagol
Chairman



Brian Bayley
Managing Director

Statement of financial performance

for the year ended 30 June 2004

	Note	2004 \$000	2003 \$000
Revenue from ordinary activities	2	503,830	510,730
Depreciation and amortisation expense	3a	(70,303)	(69,325)
Operational expense		(61,825)	(36,005)
Employee benefits expense		(39,577)	(37,366)
Repairs and maintenance expense		(28,024)	(25,746)
Administrative expense		(24,808)	(23,468)
Borrowing costs expense	3a	(76,253)	(74,225)
Other expenses from ordinary activities		(23,578)	(26,170)
Profit from ordinary activities before income tax expense		179,462	218,425
Income tax expense	4	(56,089)	(68,472)
Net result for the reporting period	23	123,373	149,953

The above statement of financial performance should be read in conjunction with the accompanying notes.

Statement of financial position

as at 30 June 2004

	Note	2004 \$000	2003 \$000
Current assets			
Cash assets	6, 36	128	212
Receivables	7, 36	22,015	34,984
Other assets	8	22,155	17,697
Total current assets		44,298	52,893
Non-current assets			
Property, plant and equipment	9	3,079,628	2,992,641
Prepayments	10	1,465	–
Deferred tax assets	11	6,416	5,901
Total non-current assets		3,087,509	2,998,542
Total assets		3,131,807	3,051,435
Current liabilities			
Payables	12, 36	94,525	102,938
Interest-bearing liabilities	13, 27, 36	257,757	185,051
Current tax liabilities	14	6,608	21,975
Provisions	15	8,741	8,026
Total current liabilities		367,631	317,990
Non-current liabilities			
Payables	16, 36	1,035	2,039
Interest-bearing liabilities	17, 27, 36	932,634	964,592
Deferred tax liabilities	18	404,620	371,243
Provisions	19	16,707	14,129
Total non-current liabilities		1,354,996	1,352,003
Total liabilities		1,722,627	1,669,993
Net assets		1,409,180	1,381,442
Equity			
Contributed equity	20	665,304	665,239
Reserves	21	32,579	32,579
Retained profits	22	711,297	683,624
Total equity	23	1,409,180	1,381,442

The above statement of financial performance should be read in conjunction with the accompanying notes.

Statement of cash flows

for the year ended 30 June 2004

	Note	2004 \$000	2003 \$000
Cash flows from operating activities			
Receipts from customers (inclusive of goods and services tax)		480,571	461,366
Payments to suppliers and employees (inclusive of goods and services tax)		(202,772)	(186,403)
Income tax paid		(38,594)	(23,689)
Interest received		38	293
Borrowing costs		(75,588)	(72,048)
Other revenue		44,669	49,479
Net cash inflow from operating activities	32	208,324	228,998
Cash flows from investing activities			
Payment for property, plant, equipment and works in progress		(158,245)	(115,456)
Proceeds from sale of property, plant and equipment		4,789	8,873
Net cash (outflow) from investing activities		(153,456)	(106,583)
Cash flows from financing activities			
Proceeds from borrowings		362,697	241,500
Repayment of borrowings		(321,949)	(264,574)
Dividend paid		(95,700)	(99,400)
Net cash (outflow) from financing activities		(54,952)	(122,474)
Net increase/(decrease) in cash held		(84)	(59)
Cash at the beginning of the financial year		212	271
Cash at end of the financial year	6	128	212

Details of financing arrangements are detailed in notes 27 and 36.

The above statement of financial performance should be read in conjunction with the accompanying notes.

Notes to the accounts

1 Summary of significant accounting policies

1.1 General

These general purpose financial statements are prepared in accordance with the *Financial Management Act 1994*, Australian Accounting Standards, Statements of Accounting Concepts, Urgent Issues Group Consensus Views and relevant statutory and other requirements.

The financial statements have been prepared on the basis of historical cost and do not take into account changing money values or current valuations of non-current assets, except where stated.

Amounts in the financial statements have been rounded to the nearest thousand dollars. The accounting policies adopted, and the classification and presentation of items, are consistent with those of the previous year, except where a change is required to comply with an Australian Accounting Standard or Urgent Issues Group Consensus View, or an alternative accounting policy permitted by an Australian Accounting Standard is adopted to improve the relevance and reliability of the financial report. Where practicable, comparative amounts are presented and classified on a basis consistent with the current year.

1.2 Changes in accounting treatment

Australian Equivalents to International Financial Reporting Standards

For reporting periods beginning on or after 1 January 2005, all Australian reporting entities are required to adopt the financial reporting requirements of all Australian equivalents to International Financial Reporting Standards (IFRS). Melbourne Water has taken the following steps in managing the transition to Australian equivalents to IFRS:

- allocated internal resources and engaged expert consultants to perform diagnostics and conduct impact assessments to isolate key areas that will be impacted by the transition to IFRS;
- as a result of the impact assessments, Melbourne Water, with the assistance of expert consultants, is implementing a detailed project plan to address each of the areas in order of priority;
- as Melbourne Water has a 30 June year end, priority has been given to the consideration of preparing an opening balance sheet in accordance with AASB equivalents to IFRS as at 1 July 2004.

Melbourne Water has identified a number of changes to the existing accounting policies that would have a material impact on its financial position and future financial performance on the adoption of the requirements of the Australian equivalents to IFRS. These are set out below.

Classification of Financial Instruments

Under AASB 139 *Financial Instruments: Recognition and Measurement*, financial instruments will be required to be classified into one of five categories which will, in turn, determine the accounting treatment of the item.

The classifications are:

- loans and receivables – measured at amortised cost;
- held to maturity – measured at amortised cost;
- held for trading – measured at fair value with fair value changes charged to net profit or loss;
- available for sale – measured at fair value with fair value changes taken to equity; and
- non-trading liabilities – measured at amortised cost.

This will result in a change in the current accounting policy that does not classify financial instruments. Current measurement is at amortised cost. Reliable estimation of the future financial effects of this change in accounting policy is impracticable as the classification and measurement process has not yet been fully completed.

Employee Benefits

Under AASB 119 *Employee Benefits*, employer sponsors are required to recognise the net surplus or deficit in their employer sponsored defined benefit funds as an asset or liability, respectively. This will result in a change in the Corporation's current accounting policy, which does not currently recognise the net assets/liabilities of the defined benefit fund. Under the new policy, Melbourne Water will be required to recognise an asset or liability of the defined benefit fund for the net surplus or deficit respectively, based on an actuarial calculation of the position of the fund. The initial adjustment on transition will be through retained earnings and subsequent adjustments will be to net profit or loss for the period. Reliable estimation of the future financial effects of this change in accounting policy is impracticable because the actuarial calculations have not yet been completed as at 30 June 2004.

Impairment of Assets

Under AASB 136 *Impairment of Assets*, the recoverable amount of an asset is determined as the higher of net selling price and value in use. This will result in a change in the Corporation's current accounting policy, which determines the recoverable amount of an asset on the basis of discounted cash flows. Under the new policy, it is likely that impairment of assets will be recognised sooner and that the amount of write-downs will be greater. Reliable estimation of the future financial effects of this change in accounting policy is impracticable because the conditions under which impairment will be assessed are not yet known.

The IFRS allows for a continuation of the current policy of valuing assets on the basis of historical cost. However, the Corporation is subject to government policy on asset valuation and changes in such policy may result in a material impact on asset values.

Income Taxes

Under AASB 112 *Income Taxes*, the Corporation will be required to use a balance sheet liability method which focuses on the tax effects of transactions and other events that affect amounts recognised in either the Statement of Financial Position or a tax-based balance sheet. The most significant impact will be the recognition of a deferred tax liability in relation to the asset revaluation reserve. Previously, the capital gains tax effects of asset revaluations were not recognised. It is not expected that there will be any further material impact as a result of adoption of this standard.

Agriculture

Under AASB 141 *Agriculture*, a biological asset must be measured on initial recognition at its fair value less estimated point-of-sale costs, except where there is an inability to measure fair value reliably. Any gains or losses arising on initial recognition of a biological asset at fair value must be included in net profit or loss for the period in which it relates. The fair value of livestock is determined based on market prices of livestock of similar age, breed and genetic merit. This will result in a change in the current accounting policy, which does not measure livestock at fair value. Fluctuations in the value of livestock will have a direct impact on Melbourne Water's financial performance. Reliable estimation of the future financial effects of this change in accounting policy is impracticable as the measurement process has not yet been fully completed.

1.3 Income tax

Under Section 88(3D) of the *State Owned Enterprises Act 1992*, Melbourne Water became subject to the National Tax Equivalent Regime from 1 July 2001. The tax equivalent rules are based on the *Income Tax Assessment Act 1936* and the *Income Tax Assessment Act 1997*. The essential difference between the National Tax Equivalent Rules and the Commonwealth legislation is that the tax liability is to be paid to the State Government and not the Commonwealth Government.

Melbourne Water has adopted the liability method of tax effect accounting in accordance with the requirements of AAS 3 *Income Taxes*.

1.4 Goods and Services Tax

Revenues, expenses and assets are recognised net of the amount of goods and services tax (GST), except where the amount of GST incurred is not recoverable from the Australian Tax Office (ATO). In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense.

Receivables and payables are stated with the amount of GST included. The net amount of GST recoverable from, or payable to, the ATO is included as a current asset or liability in the Statement of Financial Position.

Cash flows are included in the Statement of Cash Flows on a gross basis in accordance with AAS 28 *Statement of Cash Flows*. The GST components of cash flows arising from investing and financing activities which are recoverable from, or payable to, the ATO are classified as operating cash flows.

1.5 Valuation of non-current assets

Property, plant and equipment, excluding crown land, are recorded at historical cost. Those assets acquired from external sources are valued at an arms-length value. Assets acquired at no cost by the Corporation are recognised at fair value at the date of acquisition.

Crown land was revalued by the Office of the Valuer General at 30 June 2000 using the 'deprival value concept' basis (refer to note 9). Transfers to and from other Victorian Government entities are recognised as revenue or adjusted against contributed equity in accordance with formal approval by the Minister of Finance. Crown land revaluations are adjusted against the asset revaluation reserve.

1.6 Asset revaluation reserve

Revaluation increments are credited directly to the asset revaluation reserve, except that, to the extent that an increment reverses a revaluation decrement previously recognised as an expense in the Statement of Financial Performance, in respect of that same asset class, the increment is recognised immediately as revenue in the Statement of Financial Performance.

Revaluation decrements must be recognised as an expense in the Statement of Financial Performance, except that, to the extent that a credit balance exists in the asset revaluation reserve, in respect of that same asset class, the decrement grossed up for any related recognised current tax and deferred tax must be debited directly to the asset revaluation reserve.

1.7 Recoverable amount of non-current assets

To ensure compliance with the provisions of AAS 10 *Recoverable Amount of Non Current Assets*, Melbourne Water undertook an internal analysis of asset values in June 2004. Expected net cash flows at major asset grouping level were discounted to their present value to calculate the recoverable amount as prescribed in AAS 10.

Analysis confirmed that the recoverable amount for each major asset group was in excess of the written down carrying value.

1.8 Depreciation

Non-current assets are depreciated on a straight line basis over the estimated useful lives of the assets to the Corporation. Depreciation commences in the month subsequent to the date where service can be obtained.

The estimated useful lives are:

Buildings and leasehold improvements	5 to 80 years
Minor plant and equipment	3 to 50 years
Infrastructure assets	20 to 150 years (20 to 100 years in 2002/03)

The useful lives of the assets are reviewed annually. The results of the review undertaken during 2003/04 are detailed in note 3.

1.9 Leased non-current assets

A distinction is made between finance leases, which effectively transfer from the lessor to the lessee substantially all risks and benefits incidental to ownership of leased non-current assets, and operating leases under which the lessor effectively retains substantially all such risks and benefits.

Finance leases are capitalised. A lease asset and liability are established at the present value of minimum lease payments. Lease payments are allocated between the principal component of the lease liability and the interest expense.

The leased asset is amortised on a straight-line basis over the term of the lease, or where it is likely that the Corporation will obtain ownership of the asset, over the useful life of the asset to the Corporation.

The Corporation has one finance lease at 30 June 2004 (a water treatment plant at Yan Yean) which is being amortised over a 21 year period.

1.10 Receivables and revenue recognition

Trade debtors

Water usage and sewage disposal charges consist of a variable metered component and a fixed fee. The metered usage revenue is recognised when the service has been used with settlement from date of invoice. The fixed fee is recognised on a monthly basis with settlement at 14 days. Collateral is not obtained for this class of debtor.

Drainage rates – revenue is recognised monthly, derived from the total expected rates to be collected for the year.

Rates are levied quarterly, based on property valuations as at 30 June 1990. To secure the debt, a lien is held over the property.

Other receivables and revenue

Developer charges and contributions – when assets are acquired at no cost to the Corporation an equivalent amount is recognised as revenue on completion of works and their acceptance by the Corporation. Cash contributions are recognised when received.

Proceeds from sale of non-current assets – property sales are recognised on signing of an unconditional contract of sale. Debtors are provided with commercial terms.

Interest received/receivable – income receivable is accrued in accordance with terms and conditions of the underlying financial instrument or other contract.

In accordance with Urgent Issues Group Abstract 31 Accounting for the Goods and Services Tax (GST), a receivable has been created to record the anticipated GST on finance lease liabilities, payables and provisions.

Other receivables are recognised at their carrying amount. Collateral is not normally obtained for other receivables.

Bad and doubtful debts

A provision for doubtful debts is based on a review of all amounts outstanding at balance date. Bad debts are written off in the period in which they are identified.

1.11 Accounts payable

Creditors and accruals – represent liabilities for goods/services which are unpaid at 30 June 2004. Trade creditors are usually paid within 30 days from receipt of invoice.

Interest payable – interest is accrued in accordance with the terms and conditions of the underlying financial instrument or other contract.

1.12 Borrowings

All borrowings are required to be transacted through the Treasury Corporation of Victoria whose liabilities are guaranteed by the Victorian Government.

All borrowings are carried at their principal amount. Interest is accrued based on the applicable interest rate for each loan.

1.13 Derivative Financial Instruments

As at 30 June 2004, Melbourne Water had no derivative positions and there are no additional positions in place to hedge future transactions.

1.14 Cash

For the purposes of the Statement of Cash Flows, cash includes deposits at call with financial institutions and other highly liquid investments with short periods to maturity that are readily convertible to cash on hand and are subject to an insignificant risk of change in value, net of outstanding bank overdrafts.

1.15 Employee benefits

Salaries and annual leave

Liabilities for salaries, including non-monetary benefits expected to be settled within 12 months of the reporting date, are measured at their nominal amounts in respect of employee's services up to the reporting date. The nominal basis of measurement uses employee remuneration rates that the entity expects to pay as at each reporting date and does not discount cash flows to their present value. Annual leave benefits are accrued on a pro rata basis in respect of services provided by employees up to balance date, having regard to future rates of remuneration and on-costs.

Sick leave

Sick-leave payments are made in accordance with relevant awards, determinations and Corporation policy. No provision is made in the financial statements for unused sick-leave entitlements as these are not vested benefits.

Long service leave

Long service leave expected to be paid within 12 months of the reporting date is recognised in the provision for employee benefits and is recorded as a current liability in the Statement of Financial Position at its nominal value. Long service leave expected to be paid later than one year is recognised in the provision for employee benefits and is measured at the present value of the estimated future cash outflows to be made for these entitlements and recorded as a non-current liability. Consideration is given to expected future employee remuneration rates, employment related on-costs and other factors, including experience of employee departures and periods of service. Commonwealth Bond Rates are used for discounting future cash flows.

Superannuation

In respect of the Corporation's defined benefits superannuation funds, any contributions made to the superannuation plans by the Corporation are recognised in the Statement of Financial Performance, when due.

WorkCover

Melbourne Water is registered as a self-insurer for workers compensation and is liable to the workers or workers' dependants to pay compensation under the *Accident Compensation Act 1985*. Based upon actuarial assessment, a provision of \$5.3 million (\$4.6 million in 2002/03) is made for outstanding claims incurred and not settled, and for claims incurred but not reported. Other claims incurred and settled during the period are charged to the Statement of Financial Performance.

Workers Compensation

Melbourne Water continues to be liable for workers compensation claims incurred prior to the introduction of WorkCare (now WorkCover). Based on actuarial assessment, a provision of \$117,000 is made for all outstanding workers compensation claims at 30 June 2004 (\$147,000 in 2002/03).

1.16 Inventories

Stores (consumables)

Stores consist mainly of materials and supplies for asset construction, systems operation and general administration, and are valued at lower of cost and net realisable value.

Livestock

Livestock include cattle and sheep held in connection with operating the Corporation's Werribee Agriculture operations. Cost is based on the absorption costing methodology and includes expenditure incurred in acquiring the livestock and bringing them to their existing condition. Cost comprises direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure.

1.17 Prepayments

The Smart Water Fund was established by Melbourne Water and the three retail water businesses for the purpose of providing grant funding to support the development of sustainable water use projects. Each entity has a 25% interest in the fund. Melbourne Water will contribute \$6 million over a six year period to 30 June 2008.

Contributions made to the Smart Water Fund are initially recognised as prepayments in the water businesses' Statement of Financial Position. Expenses are subsequently recognised by the water businesses when incurred by the fund.

1.18 Provisions, Contingent Liabilities and Contingent Assets

The purpose of AASB 1044 Provisions, Contingent Liabilities and Contingent Assets is to prescribe requirements for the recognition, measurement, presentation and disclosure of provisions and recoveries receivable to assist users to assess their nature and amount. It also prescribes requirements for the disclosure of contingent liabilities and contingent assets to assist users to assess their nature and amount and the uncertainties expected to affect their ultimate outcome. Contingent liabilities and assets are not recognised in the financial statements but are only disclosed by way of a note, and if quantifiable are measured at nominal value.

1.19 Dividends

The Corporation is required to pay a dividend in accordance with a determination of the Treasurer of Victoria under the *Public Authorities (Dividend) Act 1983*, based on a prescribed percentage of the previous years' adjusted net profit. An obligation to pay a dividend only arises after consultation with the portfolio Minister and the Treasurer and a formal determination is made by the Treasurer.

1.20 Segment Reporting

As Melbourne Water operates solely within Australia, segments have been selected on the basis of business activity (i.e. Water, Sewerage, Waterways and Drainage), rather than geography.

1.21 Comparative Figures

Where applicable, comparative figures have been adjusted to conform with changes in the presentation in the current year.

1.22 Agreements equally proportionately unperformed (BOO/BOOT Schemes)

The Corporation has entered into contractual arrangements with AGL Ltd to build, own and operate a power generation plant over a 10 year period and TopAq Pty Ltd to build, own, operate and transfer water quality treatment services over a 25 year period both in exchange for a stream of payments. At the end of the contract period with TopAq the assets are transferred to the Corporation at no cost.

As this agreement is equally proportionately unperformed at balance date, the Corporation does not recognise assets and liabilities arising from the agreement in its Statement of Financial Position.

	Note	2004 \$000	2003 \$000
2 Revenue			
Revenue from operating activities			
Water usage charges		158,822	164,464
Sewage disposal charges		172,332	166,030
Drainage rates		119,266	111,606
		450,420	442,100
Revenue from outside the operating activities			
Developer charges and contributions		38,025	44,714
Proceeds from sale of non-current assets*		(2,127)	9,534
Rent received		2,026	2,167
Interest received/receivable		38	293
Miscellaneous		15,448	11,922
		53,410	68,630
Revenue from ordinary activities		503,830	510,730

* During the year a previously accrued asset sale of \$3.1 million was reversed due to the sale failing to proceed.
The reversal of this sale has resulted in a debit balance in the proceeds from sale of non-current assets in the current period.

3 Profit from ordinary activities before income tax expense

3a Net gains and expenses

Profit from ordinary activities before income tax expense includes the following specific gains and expenses:

Net gains/(losses)			
Net gain/(loss) on disposal of non current assets		(3,505)	4,376
Expenses			
Depreciation			
– Buildings and leasehold improvements		1,654	1,498
– Minor plant and equipment		6,506	6,684
– Infrastructure assets		61,036	60,035
Total depreciation		69,196	68,217
Amortisation			
– Infrastructure assets under finance leases		1,107	1,108
Total depreciation and amortisation expense		70,303	69,325
Assets written off/written down		912	512
Other charges against assets			
– Bad and doubtful debts – other debtors		6	5
Reversal of Property Decommissioning (included in operational expense)		–	(19,223)
Borrowing costs			
– Interest and finance charges paid/payable		76,253	74,225

3b Revision of accounting estimates

During the financial year, an asset-life review was conducted which involved an extension of Melbourne Water's broadband asset lives categories to up to 150 years (previously 100 years).

	Note	2004 \$000	2003 \$000
4 Income tax			
The aggregate amount of income tax expense attributable to the financial year is reconciled to the prima facie tax payable on the profit from ordinary activities.			
Profit from ordinary activities before income tax		179,462	218,425
Prima facie income tax calculated at 30% (2002/03 – 30%)		53,839	65,528
Adjustment for the tax effect of permanent differences:			
– Non-deductible expenses		2,444	457
– Other assessable income		11	48
– Research and development concession		(205)	(1,016)
Income tax adjusted for permanent differences		56,089	65,017
Adjustment to deferred tax balance*		–	3,455
Income tax expense		56,089	68,472
Income tax expense comprises:			
Current taxation provision		23,529	30,036
Deferred income tax provision		33,074	33,065
Future income tax benefit		(514)	5,371
		56,089	68,472

* Adjustment to deferred income tax balances

A review of Melbourne Water's deferred tax balances was undertaken during 2003. As a result of this review, adjustments were made to the future income tax benefit and deferred income tax provision. This resulted in an increase in income tax expense of \$3.5 million during 2002/2003.

5 Segment reporting

	Water \$000	Sewerage \$000	Waterways and Drainage \$000	Consolidated \$000
5a Segment reports as at 30 June 2004				
Business segments				
Revenue				
External segment revenue	163,039	180,170	160,583	503,792
Total segment revenue	163,039	180,170	160,583	503,792
Other unallocated revenue				38
Total revenue				503,830
Result				
Segment result	76,587	80,032	99,058	255,677
Unallocated corporate revenue less unallocated corporate expenses				(76,215)
Profit from ordinary activities before income tax expense				179,462
Income tax expense				(56,089)
Profit from ordinary activities after income tax expense				123,373
Extraordinary items after tax				–
Net profit				123,373
Depreciation and amortisation	24,446	33,107	12,750	70,303

	Water \$000	Sewerage \$000	Waterways & Drainage \$000	Consolidated \$000
5a Segment reports as at 30 June 2004				
Business segments				
Assets				
Segment assets	1,129,801	1,359,385	636,077	3,125,263
Unallocated corporate assets				6,544
Consolidated total assets				3,131,807
Liabilities				
Segment liabilities	26,580	31,199	40,828	98,607
Unallocated corporate liabilities				1,624,020
Consolidated total liabilities				1,722,627
Acquisition of non-current assets (purchased during the year and form part of the total segment assets)	19,036	21,038	57,223	97,297
5b Segment reports as at 30 June 2003				
Revenue				
External segment revenue	173,303	175,993	161,141	510,437
Total segment revenue	173,303	175,993	161,141	510,437
Other unallocated revenue				293
Total revenue				510,730
Result				
Segment result	88,836	98,457	103,324	290,617
Unallocated corporate revenue less unallocated corporate expenses				(72,192)
Profit from ordinary activities before income tax expense				218,425
Income tax expense				(68,472)
Profit from ordinary activities after income tax expense				149,953
Extraordinary items after tax				–
Net profit				149,953
Depreciation and amortisation	24,692	32,267	12,366	69,325
Assets				
Segment assets	1,133,524	1,306,761	599,270	3,039,555
Unallocated corporate assets				11,880
Consolidated total assets				3,051,435
Liabilities				
Segment liabilities*	188,667	170,627	161,057	520,351
Unallocated corporate liabilities				1,149,642
Consolidated total liabilities				1,669,993
Acquisition of non-current assets (purchased during the year and form part of the total segment assets)	19,111	29,178	59,888	108,177

* Provision for income tax and the provision for deferred tax have been included in segment liabilities totals.

	2004 \$000	2003 \$000
6 Current assets – cash		
Cash at bank and on hand	128	212
Total current assets – cash	128	212
7 Current assets – receivables		
Trade debtors	11,239	11,840
	11,239	11,840
Other receivables	10,782	23,149
Less: provision for doubtful debts	6	5
	10,776	23,144
Total current assets – receivables	22,015	34,984
8 Current assets – other		
Prepayments	1,758	2,123
Stores (consumables)	3,219	2,726
Livestock	15,762	12,327
Property, plant and equipment – held for resale	1,416	521
Total current assets – other	22,155	17,697
9 Non-current assets – property, plant and equipment		
Buildings and leasehold improvements		
Crown land at valuation – 2000*	110,526	110,461
Freehold land and buildings at cost	101,468	95,942
Less: accumulated depreciation – buildings	9,153	6,746
Total land and buildings	202,841	199,657
Minor plant and equipment		
Plant and equipment at cost	46,049	41,265
Less: accumulated depreciation	35,199	29,486
Total minor plant and equipment	10,850	11,779
Infrastructure assets		
Infrastructure assets at cost	3,636,609	3,553,894
Less: accumulated depreciation	974,024	913,822
Sub total infrastructure assets	2,662,585	2,640,072
Infrastructure assets under finance lease	23,280	23,280
Less: accumulated amortisation	6,650	5,543
Sub total infrastructure assets under finance lease	16,630	17,737
Total infrastructure assets	2,679,215	2,657,809
Capital works in progress	186,722	123,396
Total non-current assets – property, plant and equipment	3,079,628	2,992,641
* Crown Land The Corporation controls 9,371 hectares of crown land. A revaluation was undertaken by the Office of the Valuer General at 30 June 2000. Melbourne Water will progressively revalue the Crown Land holdings from deprival value to fair value for reporting periods ending no later than 30 June 2005.		

9a Reconciliation of movement in property, plant and equipment

Reconciliation of the carrying amounts of each class of property, plant and equipment at the beginning and end of the current financial year is set out below.

	Crown land \$000	Freehold land, buildings and leasehold improvements \$000	Minor plant and equipment \$000	Infrastructure assets \$000	Infrastructure assets under finance lease \$000	Works in progress \$000	Total \$000
2003/04							
Carrying amount at 1 July 2003	110,461	89,196	11,779	2,640,072	17,737	123,396	2,992,641
Additions	113	5,761	5,608	85,815	–	–	97,297
Disposals	(48)	(93)	(31)	(2,266)	–	(430)	(2,868)
Depreciation/amortisation expense	–	(1,654)	(6,506)	(61,036)	(1,107)	–	(70,303)
Transfers between classes	–	–	–	–	–	–	–
Increase in assets identified for sale	–	(895)	–	–	–	–	(895)
Assets spares/consumables	–	–	–	–	–	–	–
Capital expenditure	–	–	–	–	–	150,566	150,566
Capitalisation of works in progress	–	–	–	–	–	(86,810)	(86,810)
Carrying amount at 30 June 2004	110,526	92,315	10,850	2,662,585	16,630	186,722	3,079,628

	Crown land \$000	Freehold land, buildings and leasehold improvements \$000	Minor plant and equipment \$000	Infrastructure assets \$000	Infrastructure assets under finance lease \$000	Works in progress \$000	Total \$000
9b							
2002/03							
Carrying amount at 1 July 2002	107,701	88,136	6,558	2,613,047	18,845	98,990	2,933,277
Additions	3,016	3,922	12,082	89,157	–	–	108,177
Disposals	(256)	(1,521)	(199)	(2,359)	–	–	(4,335)
Depreciation/amortisation expense	–	(1,498)	(6,684)	(60,035)	(1,108)	–	(69,325)
Transfers between classes	–	(284)	22	262	–	–	–
Increase in assets identified for sale	–	441	–	–	–	–	441
Assets spares/consumables	–	–	–	–	–	–	–
Capital expenditure	–	–	–	–	–	117,909	117,909
Capitalisation of works in progress	–	–	–	–	–	(93,503)	(93,503)
Carrying amount at 30 June 2003	110,461	89,196	11,779	2,640,072	17,737	123,396	2,992,641

	2004 \$000	2003 \$000
10 Non-current assets – prepayments		
Prepayments	1,465	0
Total non-current assets – prepayments	1,465	0
11 Non-current assets – deferred tax assets		
Future income tax benefit	6,416	5,901
Total non-current assets – deferred tax assets	6,416	5,901
12 Current liabilities – payables		
Trade creditors	26,786	27,612
Interest payable	22,401	22,150
Accruals	44,780	52,566
Advances	558	610
Total current liabilities – payables	94,525	102,938
13 Current liabilities – interest-bearing liabilities		
Lease liabilities (refer to note 27)	1,957	1,951
Borrowings	255,800	183,100
Total current liabilities – interest bearing liabilities	257,757	185,051
14 Current liabilities – current tax liabilities		
Income tax	6,608	21,975
Total current liabilities – current tax liabilities	6,608	21,975
15 Current liabilities – provisions		
Employee benefits (refer to note 30)	4,394	4,241
Insurance claims	1,415	694
Property decommissioning	–	194
Other provisions	2,932	2,897
Total current liabilities – provisions	8,741	8,026
16 Non-current liabilities – payables		
Trade creditors	988	1,879
Advances	47	160
Total non-current liabilities – payables	1,035	2,039
17 Non-current liabilities – interest-bearing liabilities		
Lease liabilities (refer to note 27)	12,634	14,592
Borrowings	920,000	950,000
Total non-current liabilities – interest bearing liabilities	932,634	964,592

	2004 \$000	2003 \$000
18 Non-current liabilities – deferred tax liabilities		
Deferred income tax	404,620	371,243
Total non-current liabilities – deferred tax liabilities	404,620	371,243
19 Non-current liabilities – provisions		
Employee benefits (refer to note 30)	14,089	13,034
Insurance claims	868	346
Other provisions	1,750	749
Total non-current liabilities – provisions	16,707	14,129
20 Contributed equity		
Opening balance	665,239	662,692
Adjustment relating to recognition of government contribution of Crown land (refer to note 23)	65	2,547
Closing balance	665,304	665,239
21 Reserves		
Asset revaluation reserve		
Opening balance	32,579	32,366
Adjustment relating to recognition of government contribution of Crown land (refer to note 23)	0	213
Closing balance	32,579	32,579
22 Retained profits		
Retained profits at the beginning of the year	683,624	633,071
Net profit	123,373	149,953
Dividends paid (refer to note 29)	(95,700)	(99,400)
Retained profits at the end of the year	711,297	683,624
23 Equity		
Total equity at the beginning of the year	1,381,442	1,328,129
Net profit	123,373	149,953
Net increment in contributed equity due to Crown land (refer to note 20)	65	2,547
Net increment in asset revaluation reserve due to Crown land (refer to note 21)	0	213
Dividends paid	(95,700)	(99,400)
Total equity at the end of the year	1,409,180	1,381,442
24 Remuneration of auditors		
Audit fees paid or payable to the Victorian Auditor-General's Office for auditing the Corporation's annual financial statements.		
Paid as at 30 June	40	25
Payable as at 30 June	60	75
	100	100

25 Remuneration of directors

The number of Corporation Directors and income they received is shown below in their relevant income bands.

Income Band	Total Remuneration		Base Remuneration	
	2004 Number	2003 Number	2004 Number	2003 Number
\$10,000 – \$19,999	3	–	3	–
\$30,000 – \$39,999	6	5	6	5
\$60,000 – \$69,999	–	1	–	1
\$250,000 – \$259,999	–	–	–	1
\$270,000 – \$279,999	–	–	1	–
\$310,000 – \$319,999	–	1	–	–
\$320,000 – \$329,999	1	–	–	–
Total numbers	10	7	10	7
	\$000	\$000*	\$000	\$000
Total amount	587	653	484	471

* 2003 Total remuneration includes directors and officers indemnity insurance

26 Remuneration of executives

The numbers of executive officers whose remuneration during the period was in excess of \$100,000 are shown below in their relevant income bands.

Income Band	Total Remuneration		Base Remuneration	
	2004 Number	2003 Number	2004 Number	2003 Number
\$100,000 – \$109,999	–	–	6	3
\$110,000 – \$119,999	4	2	5	8
\$120,000 – \$129,999	6	4	4	3
\$130,000 – \$139,999	1	4	1	–
\$140,000 – \$149,999	6	5	2	3
\$150,000 – \$159,999	–	–	2	2
\$160,000 – \$169,999	1	1	4	2
\$170,000 – \$179,999	3	1	2	1
\$180,000 – \$189,999	1	4	2	2
\$190,000 – \$199,999	3	–	–	1
\$200,000 – \$209,999	2	3	–	–
\$210,000 – \$219,999	1	1	–	–
Total numbers	28	25	28	25
	\$000	\$000	\$000	\$000
Total amount	4,311	3,902	3,845	3,443

	2004 \$000	2003 \$000
27 Commitments		
Capital commitments		
Total capital expenditure contracted for the construction of water, sewerage and drainage infrastructure at balance date but not provided for in the accounts:		
Not later than one year	73,716	104,823
Later than one year but not later than five years	295	13,826
Total capital commitments	74,011	118,649
Operating lease commitments		
Total lease expenditure contracted for at balance date but not provided for in the accounts:		
Not later than one year	4,142	3,326
Later than one year but not later than five years	9,690	8,801
Later than five years	4,272	6,555
Total lease commitments	18,104	18,682
Finance lease commitments		
Commitments in relation to finance lease are payable as follows:		
Not later than one year	3,343	3,522
Later than one year but not later than five years	15,002	14,858
Later than five years	942	4,430
Minimum lease payments	19,287	22,810
Less: Future finance charges	4,696	6,267
Total finance lease liability	14,591	16,543
Representing lease liabilities:		
Current (refer to note 13)	1,957	1,951
Non-current (refer to note 17)	12,634	14,592
Total finance lease liability	14,591	16,543
Other operating commitments		
Total operating expenditure (excluding leases) contracted for at balance date but not provided for in the accounts:		
Not later than one year	3,722	5,919
Later than one year but not later than five years	6,033	5,195
Later than five years	4,423	4,424
Total other commitments	14,178	15,538

B00 and B00T Commitments**Contractual arrangement for the supply of electricity by the private sector**

On 25 February 2000, Melbourne Water signed a build, own and operate (BOO) contract with AGL Ltd to purchase a minimum of 21.2 GWh of electricity per year for a period of 10 years.

Under this contract AGL will build, own and operate a power generation plant, which has been constructed on land owned by Melbourne Water at the Western Treatment Plant. This arrangement became commercially operational on 1 July 2003.

The minimum obligation (excluding the effect of inflation) for the term of the arrangement is \$9.3 million. This calculation has been based on best estimates of volume throughput, peak and off-peak consumption and other relevant variables as detailed in the contract.

	2004 \$000	2003 \$000
Future minimum obligations		
Commitments, payable within:		
Not later than one year	922	896
Later than one year but not later than five years	3,957	3,848
Later than five years	4,424	5,455
Total value of future minimum obligations	9,303	10,199

Contractual arrangement for the supply of recycled water by the private sector

On 10 June 2004, Melbourne Water signed a build, own, operate and transfer (BOOT) contract with TopAq Pty Ltd to purchase approximately \$2.0 million per annum of water quality treatment services and to sell Class C water to TopAq Pty Ltd for \$75 per megalitre. Under this contract TopAq will build, own, operate and transfer (BOOT) a treatment plant and pipeline to supply 5,000 megalitres per annum of Class A recycled water for irrigation use in the Cranbourne area.

Once the arrangement commences, the minimum obligation (excluding the effect of inflation) for the term of arrangement is \$44.3 million. This calculation has been based on annual contract payments for water quality treatment services over 25 years made to TopAq Pty Ltd.

Future minimum obligations

Commitments, payable within:		
Not later than one year	10,175	–
Later than one year but not later than five years	7,680	–
Later than five years	26,400	–
Total value of future minimum obligations	44,255	–

28 Contingent liabilities

Details and estimates of maximum amounts of contingent liabilities for which no provision is included in the accounts, are as follows:

Outstanding claims

Claims or possible claims against the Corporation arising out of various matters connected with the Corporation's business dealings.	1,369	470
Contingent consideration of \$44.8 million in respect of anticipated outflows for environmental compliance and decommissioning costs in respect of surplus sites. Melbourne Water regards the contingent amount to be the best estimate of the known obligation at balance date.	44,800	44,400

* Following rehabilitation of the surplus sites, it is expected that a significant proportion of the decommissioning costs disclosed will be offset by eventual revenue from land sales.

In accordance with Section 146(5)(a) of the *Accident Compensation Act 1985* the Corporation must provide a bank guarantee to the Victorian WorkCover Authority. The value of this bank guarantee at 30 June 2004 was \$7.0 million.

29 Dividend

Final dividend paid (relating to previous financial year)	51,700	47,800
Interim dividend paid (relating to reported financial year)	44,000	51,600
Total dividend paid	95,700	99,400

The proposed final dividend payable in relation to the 2003/04 financial year is \$41.3 million. This amount is subject to final determination by the Treasurer after consultation with the Melbourne Water Board of Directors and the Minister for Water and consequently has not been booked as a provision as at 30 June 2004.

	2004 \$000	2003 \$000
30 Employee benefits		
Aggregate employee benefits liability		
Accrued salaries (part of note 12)	529	302
Provision for employee benefits current (note 15)	4,394	4,241
Provision for employee benefits non-current (note 19)	14,089	13,034
Total employee benefits liability	19,012	17,577
The aggregate employee benefit liability includes amounts for annual leave, shift leave, long-service leave, salaries, WorkCover and superannuation.		
All employees of the corporation are entitled to superannuation benefits upon retirement, disability or death through membership of the following funds:		
Defined benefits fund		
The equipsuper superannuation fund provides lump sum benefits based on length of service and final superannuable salary for employees engaged up until 31 December 1993. Employees contribute at rates between 0 per cent to 7.5 per cent of their superannuation salary. The corporation contributes to the fund based on Melbourne Water's commitments under the Employee Participation Agreement and Contribution Policy with the Trustee of the fund. Actuarial assessment of the fund is undertaken on a triennial basis. The last such assessment was made as at 30 June 2004 by Mercer Human Resource Consulting Pty Ltd.		
Actuarial Estimate		
Net market value of assets held by the fund	74,616	65,200
Present value of employees' accrued benefits	61,054	60,800
Excess of net market value of assets over employees' accrued benefits to meet future benefit payments	13,562	4,400
Vested benefits	66,508	66,200
Net market value of assets held by the fund	74,616	65,200
Vested benefits	66,508	66,200
Excess/(deficit) of net market value of assets over employees vested benefits	8,108	(1,000)
The superannuation fund's position (\$8.108 million surplus for 2003/04) is measured as the difference between the equipsuper fund assets and the employees' vested benefits. In accordance with the trust deed, the surplus advised by the actuarial estimate will give rise to a revision of the contribution rate for the 2004/05 year.		
Accumulation funds		
Employees engaged from 1 January 1994 are entitled to benefits under accumulation funds. The majority of these employees are covered by Vision Super Pty Ltd. Employees have the opportunity to make personal contributions to this fund at a self-nominated rate or amount. The minimum employer contribution to the fund, pursuant to the Superannuation Guarantee Charge, was 9.0% in 2003/04 (9.0% in 2002/03).		
Employer contributions		
Employer contributions to the funds	3,173	2,285
Loans		
There were no loans by the superannuation funds to the corporation during 2003/04.		

31 Movements in provisions

Movements in each class of provision during the financial year, other than employee benefits, are set out below.

30 June 2004	Insurance Claims	Property Decommissioning	Other Provisions	Total
Carrying amount at start of year	1,040	194	3,646	4,880
Additional provisions recognised	2,309	–	1,750	4,059
Amounts utilised during the year	(1,066)	(194)	(714)	(1,974)
Carrying amount at end of year	2,283	–	4,682	6,965

30 June 2003	Insurance Claims	Property Decommissioning	Other Provisions	Total
Carrying amount at start of year	846	20,183	2,300	23,329
Additional provisions recognised	495	471	1,700	2,666
Reversal of unused provision	–	(19,724)	–	(19,724)
Amounts utilised during the year	(301)	(736)	(354)	(1,391)
Carrying amount at end of year	1,040	194	3,646	4,880

32 Reconciliation of net cash provided by operating activities to net profit

	2004 \$000	2003 \$000
Net profit	123,373	149,953
Depreciation	70,303	69,325
Provision for doubtful debts	1	(18)
Profit on sale of assets	2,127	(6,730)
Loss on sale of assets	1,378	2,354
Assets written off/written down	912	512
Value of works taken over from developers	(9,175)	(11,577)
Changes in assets and liabilities:		
Decrease (increase) in receivables	636	(28)
(Increase) in other assets	(5,028)	(3,133)
(Increase) in deferred tax assets	(515)	(395)
Decrease (increase) in payables	3,008	1,256
Decrease (increase) in provisions	3,294	(17,699)
Decrease (increase) in current tax liabilities	(15,367)	6,346
Decrease in deferred tax liabilities	33,377	38,832
Net cash provided by operating activities	208,324	228,998

2004	2003
\$000	\$000

33 Related parties disclosure

Responsible persons

Persons who held office as a director of Melbourne Water Corporation at any time during the year ended 30 June 2004 are: Cheryl Batagol, Brian R Bayley, Graeme W Bowker, Carolyn J Schultz, John So, Mary Anne Hartley, Merran H Kelsall, Peter Darvall, Robert Squire and Terry Larkins.

The responsible Minister for the year ended 30 June 2004 was the Hon. John Thwaites, Minister for Water.

Remuneration of responsible persons

Information on the remuneration of directors is disclosed in note 25.

Loans to responsible persons

There were no loans to responsible persons at 30 June 2004.

Other transactions of responsible persons and their related parties

A director, Robert Squire, is the Chief Executive of Connell Wagner Pty Ltd, which has provided engineering services to Melbourne Water during the reporting period on normal commercial terms and conditions. Mr Squire was not present during the consideration and decision making of any matter affecting the selection of Connell Wagner Pty Ltd as contractor, the management or oversight of any contract involving Connell Wagner Pty Ltd or of any other matter pertaining to Connell Wagner Pty Ltd. Further, Mr Squire did not have access to any information relating to these matters.

The aggregate amount paid/payable on these services is:

Engineering fees	6,556	5,041
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34 Economic dependency

The normal trading activities of the Corporation depend to a significant extent on the sale of bulk water and sewage services to Yarra Valley Water Ltd, South East Water Ltd and City West Water Ltd. In addition, the Corporation depends on Yarra Valley Water Ltd, South East Water Ltd and City West Water Ltd for the provision of billing and collection services with respect to drainage rates.

35 Events occurring after balance date

No material events occurred after balance date.

36 Financial instruments

36.1 Interest rate exposure

The corporation's interest rate and the effective weighted average annual interest rate for each class of financial asset and liability is set out below:

Melbourne Water entered into a contract with Treasury Corporation of Victoria to refinance two loans of \$50 million on 15 September 2003 and 16 February 2004 for a 10 year period at rates of 5.90% and 6.18% respectively.

	Weighted avg. annual effective interest rate %	Floating interest rate \$'000	Fixed interest rate maturing			Non- interest bearing \$'000	Total \$'000
			1 year or less \$'000	1 to 5 years \$'000	over 5 years \$'000		
30 June 2004							
<i>Financial assets</i>							
Cash	5.20	128	–	–	–	–	128
Trade debtors		–	–	–	–	11,239	11,239
Other receivables		–	–	–	–	10,776	10,776
Total financial assets		128	–	–	–	22,015	22,143
<i>Financial liabilities</i>							
Creditors and accruals		–	–	–	–	94,955	94,955
Lease liabilities		–	–	–	–	14,591	14,591
Advances		–	–	–	–	605	605
Borrowings*	6.16	125,800	130,000	420,000	500,000	–	1,175,800
Total financial liabilities		125,800	130,000	420,000	500,000	110,151	1,285,951
Net financial assets (liabilities)		(125,672)	(130,000)	(420,000)	(500,000)	(88,136)	(1,263,808)

* Of the total amount of borrowings at floating interest rate, \$75.8 million will mature within 12 months and the remaining \$50 million will mature in less than five years.

	Weighted avg. annual effective interest rate %	Floating interest rate \$'000	Fixed interest rate maturing			Non- interest bearing \$'000	Total \$'000
			1 year or less \$'000	1 to 5 years \$'000	over 5 years \$'000		
30 June 2003							
<i>Financial assets</i>							
Cash	3.55	212	–	–	–	–	212
Trade debtors		–	–	–	–	11,840	11,840
Other receivables		–	–	–	–	23,144	23,144
Total financial assets		212	–	–	–	34,984	35,196
<i>Financial liabilities</i>							
Creditors and accruals		–	–	–	–	104,207	104,207
Lease liabilities		–	–	–	–	16,543	16,543
Advances		–	–	–	–	770	770
Borrowings*	6.13	83,100	100,000	450,000	500,000	–	1,133,100
Total financial liabilities		83,100	100,000	450,000	500,000	121,520	1,254,620
Net financial assets (liabilities)		(82,888)	(100,000)	(450,000)	(500,000)	(86,536)	(1,219,424)

* Of the total amount of borrowings at floating interest rate, \$83.1 million will mature within 12 months.

36.2 Fair value

The book values and net fair values of financial assets and liabilities at balance date are:

	2004		2003	
	Book value \$'000	Net fair value* \$'000	Book value \$'000	Net fair value* \$'000
On balance sheet				
<i>Financial assets</i>				
Cash	128	128	212	212
Trade debtors	11,239	11,239	11,840	11,840
Other receivables	10,776	10,776	23,144	23,144
Deposits			–	–
Total financial assets	22,143	22,143	35,196	35,196
<i>Financial liabilities</i>				
Trade creditors and accruals	94,955	94,955	104,207	104,207
Lease liabilities	14,591	14,591	16,543	16,543
Advances	605	605	770	770
Borrowings	1,175,800	1,209,354	1,133,100	1,209,194
Total financial liabilities	1,285,951	1,319,505	1,254,620	1,330,714

* Net book values are capital amounts. The differences between book values and net fair values relate principally to interest rate movements.

Net fair values of financial instruments are determined as follows:

Cash, deposit investments, short-term borrowings, cash equivalents and non-interest-bearing financial assets and liabilities (trade debtors and trade creditors) are valued at cost.

Other borrowings are estimated based on the present value of expected future cash flows discounted at current market interest rates quoted for securities issued by Treasury Corporation of Victoria.

Investments in securities, other financial assets and liabilities are estimates based on present value of expected future cash flows discounted at current market interest rates for assets and liabilities of similar risk and maturity structure.

36.3 Credit risk

The carrying amounts of financial assets included in the statement of financial position represent the corporation's exposure to credit risk in relation to those assets, net of any provisions for doubtful debts.

Melbourne Water controls risk through credit ratings, limits and monitoring procedures consistent with board-approved policy. Collateral or other security is not required to support financial instruments.

All financial risk management instruments are transacted with the Treasury Corporation of Victoria (TCV), whose liabilities are guaranteed by the Victorian Government. Melbourne Water potentially has a concentration of credit risk with Treasury Corporation of Victoria as the central borrowing authority of Victoria. The risk is considered minimal.

Melbourne Water does not have any significant trade credit exposure to an individual counterparty as at 30 June 2004.

36.4 Financing arrangements

The capacity to borrow funds and manage the associated risks is subject to the provisions of the *Borrowing and Investment Powers Act (1987)*. In accordance with this act, the Victorian Treasurer issues annual approvals permitting new borrowings and the refinancing of all loan maturities for that year.

All funding is sourced from the Treasury Corporation of Victoria.

36.5 Bank Overdraft

Overdrafts are recognised at the principal amount. Interest is recognised as an expense as it accrues.

Melbourne Water Corporation Statement by Directors and Chief Finance Officer

In the opinion of the directors of Melbourne Water Corporation:

- (a) the accompanying financial statements are drawn up so as to present fairly, in all material respects, the financial performance of the corporation for the year ended 30 June 2004 and the financial position of the corporation as at that date;
- (b) at the date of this statement there are reasonable grounds to believe that the corporation will be able to pay its debts as and when they fall due;
- (c) the accompanying financial statements are founded on a sound system of risk management and internal compliance and control which implements the policies adopted by the board of directors; and
- (d) the corporation's risk management and internal compliance and control system is operating efficiently and effectively in all material respects.

We certify that the financial statements have been prepared in accordance with the requirements of the *Financial Management Act 1994*, including the Directions and applicable accounting standards.

We are not aware, at the date of this statement, of any circumstance which would render any particulars in the financial statements to be misleading or inaccurate.

Dated at Melbourne on this 20th day of August 2004.

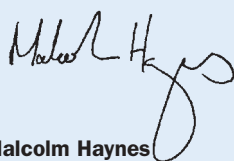
On behalf of the board:



Cheryl Batagol
Chairman



Brian Bayley
Managing Director



Malcolm Haynes
Chief Finance Officer

Assurance statement



Corporate Sustainable Solutions

To the Board and Stakeholders of Melbourne Water Corporation:

Melbourne Water Corporation (Melbourne Water) commissioned URS Australia Pty Ltd (URS) to undertake independent assurance of this *Melbourne Water Annual Report 2003/04* (the 'report'). The audit team was multi-disciplinary comprising of economic, environmental and social specialists. All team members were deemed competent in accordance with the URS Assurance Principles, and their expertise and qualifications communicated to Melbourne Water. The report presents Melbourne Water's sustainability performance over the period 1st July 2003 to 30th June 2004. Melbourne Water was responsible for the preparation of the report and this statement represents the auditor's independent opinion. URS was not responsible for preparation of any part of this report. The audit team has not undertaken any other commissions for Melbourne Water.

Assurance Objective

The objective of the assurance process is to provide the Board and stakeholders of Melbourne Water with an independent opinion on the credibility of the report, and underlying systems, process and competencies that deliver the relevant information.

Assurance Process

Our approach to assurance provision has been aligned with the AA1000 Assurance Standard and assurance provisions of the Global Reporting Initiative's 2002 Sustainability Reporting Guidelines.

The assurance engagement was undertaken in August and September 2004. The process involved:

- interviewing key internal stakeholders regarding their views on Melbourne Water's responsiveness to stakeholders and material sustainability issues faced by Melbourne Water;
- a review of Melbourne Water's key sustainability strategies, policies, objectives, management systems, measurement and reporting procedures, background documentation and data collection and reporting procedures;
- a review of the report for any major anomalies;
- an overview of the embeddedness of Melbourne Water's key social, environmental and public health policies;
- a series of interviews with key personnel, responsible for data provision, collating and writing various parts of the report in order to ensure selected claims were discussed and substantiated;
- the examination of the aggregation and derivation of, and underlying evidence for, over 100 selected data points and statements made in the report;

and

- a review of selected external media sources relating to Melbourne Water's adherence to its sustainability policies.

In addition, the scope incorporated reviewing reported performance against the three principles of the AA1000 Assurance Standard: materiality, completeness and responsiveness.

Assurance Limitations

- Our scope of work did not involve verification of financial data, other than that relating to environmental, social or broader economic performance.
- Our Scope did not involve external stakeholder engagement as part of the AA1000 review.

Our Opinion

Based on the scope of the assurance process, the following represents URS' opinion.

- The level of data accuracy presented within the report is considered high. Only some additional improvements to data management are recommended to reduce potential for minor anomalies. Data trails selected were easily identifiable and traceable, and the personnel responsible were able to reliably demonstrate the origin(s) and interpretation of data.
- The statements made in the report appropriately reflect environmental, social and economic performance achieved during the period.

Overall, the auditor is satisfied that the report is a fair and accurate representation of the organisation's environmental, social and economic performance. Melbourne Water has also taken on board recommendations made by URS in 2003. Our opinion is based on the conclusions drawn from the assurance process, details of which are provided below.

Conclusions

- **Accuracy of reported information:** The findings of the assurance programme provide confidence in the reporting processes established. The examination of selected data points and statements made in the report resulted in URS identifying a low percentage of minor inaccuracies in the reported information. The identified inaccuracies were satisfactorily amended by Melbourne Water prior to publication of the report.
- **Materiality:** Material issues relating to sustainability performance are discussed within the report. This aspect would be further enhanced by some level of external stakeholder engagement as part of the assurance process to establish potential stakeholder materiality issues.
- **Completeness:** The report represents a complete account of organisational performance. URS found that indicators cover a significant breadth of sustainability issues faced by the sector.
- **Responsiveness:** A review of stakeholder engagement processes and outcomes suggests that responsiveness to stakeholder concerns at Melbourne Water is high. Notwithstanding, a stakeholder-engaged assurance process would enhance the AA1000 review.
- **Recommendations:** URS has provided suggestions for consistency in reporting between reporting periods, a longer-term outcome-based approach to assurance and extending the stakeholder engagement process to include external stakeholders in assurance. These have been outlined in a more detailed management report presented to Melbourne Water.

On behalf of the audit team
7th September 2004, Melbourne, Australia

Terence Jeyaretnam, Principal, URS

Auditor-General's report



AUDITOR GENERAL
VICTORIA

AUDITOR-GENERAL'S REPORT

To the Members of the Parliament of Victoria, responsible Ministers and Members of the Board of Melbourne Water Corporation

Audit Scope

The accompanying financial report of Melbourne Water Corporation for the financial year ended 30 June 2004, comprising statement of financial performance, statement of financial position, statement of cash flows and notes to the financial statements, has been audited. The Members of the Board of Melbourne Water Corporation are responsible for the preparation and presentation of the financial report and the information it contains. An independent audit of the financial report has been carried out in order to express an opinion on it to the Members of the Parliament of Victoria, responsible Ministers and Members of the Board as required by the *Audit Act 1994*.

The audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance as to whether the financial report is free of material misstatement. The audit procedures included an examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial report, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether, in all material respects, the financial report is presented fairly in accordance with Accounting Standards and other mandatory professional reporting requirements in Australia, and the financial reporting requirements of the *Financial Management Act 1994*, so as to present a view which is consistent with my understanding of the Corporation's financial position, and its financial performance and cash flows.

The audit opinion expressed in this report has been formed on the above basis.

Audit Opinion

In my opinion, the financial report presents fairly in accordance with applicable Accounting Standards and other mandatory professional reporting requirements in Australia, and the financial reporting requirements of the *Financial Management Act 1994*, the financial position of Melbourne Water Corporation as at 30 June 2004 and its financial performance and cash flows for the year then ended.

MELBOURNE
20 August 2004

J.W. CAMERON
Auditor-General

Victorian Auditor-General's Office Level 24, 140 William Street, Melbourne Victoria 3000
Telephone (03) 8601 7000 Facsimile (03) 8601 7010 Email comments@audit.vic.gov.au Website www.audit.vic.gov.au

Auditing in the Public Interest

Disclosure index

The Annual Report of Melbourne Water is prepared in accordance with all relevant Victorian legislation. This index has been prepared to facilitate identification of compliance with statutory disclosure requirements.

Legislation	Disclosure Required	Page
Ministerial Directions		
Report of operations		
<i>Charter and purpose</i>		
FRD 22	Manner of establishment and the relevant Minister	1, 56–58
FRD 22	Objectives, functions, powers and duties	2, 3, 56–58
FRD 22	Nature and range of services provided	2, 3
<i>Management and structure</i>		
FRD 22	Organisational structure detailing members of the Board, Audit and Corporate Risk Committee, Managing Director, senior officers and their responsibilities	53, 56–58
<i>Financial and other information</i>		
FRD 10	Disclosure index	90
FRD 22	Statement of workforce data and merit and equity	50
FRD 22	Summary of the financial results for the year	8, 9, 59
FRD 22	Significant changes in financial position during the year	8, 9, 59
FRD 22	Operational and budgetary objectives and performance against objectives	8, 9, 91–94
FRD 22	Major changes or factors affecting performance	8, 9, 91–94
FRD 22	Subsequent events	63
FRD 22	Application and operation of <i>Freedom of Information Act 1982</i>	96
FRD 22	Compliance with building and maintenance provisions of <i>Building Act 1993</i>	97
FRD 22	Statement on National Competition Policy	95
FRD 22	Application and operation of the <i>Whistleblowers Protection Act 2001</i>	97
FRD 22	Details of consultancies over \$100,000	95
FRD 22	Details of consultancies under \$100,000	95
FRD 22	Statement of availability of other information	98
FRD 22	Occupational health and safety matters	51
FRD 22	Environmental performance	37, 62, 98
FRD 25	Victorian Industry Participation Policy disclosures	63
Financial Statements		
<i>Financial statements required under Part 7 of the FMA</i>		
SD 4.2(b)	Statement of financial performance	64
SD 4.2(b)	Statement of financial position	65
SD 4.2(b)	Statement of cash flows	66
SD 4.2(b)	Notes to the financial statements	67–86
SD 4.2(c)	Compliance with Australian accounting standards and other authoritative announcements	67
SD 4.2(c)	Compliance with ministerial directions	67
SD 4.2(c)	Accountable officers' declaration	87
SD 4.2(d)	Rounding of amounts	67
<i>Other disclosures in notes to the financial statements</i>		
FRD 3	Dividends	59, 78, 81
FRD 11	Disclosure of ex-gratia payments	82
FRD 19	Private provision of public infrastructure (BOO/BOOT)	80–81
FRD 21	Responsible person and executive officer disclosures	56–58, 84
FRD 23	Superannuation liabilities and disclosure	82
Legislation		
<i>Freedom of Information Act 1982</i>		96
<i>Building Act 1993</i>		97
<i>Whistleblowers Protection Act 2001</i>		97
<i>Victorian Industry Participation Policy Act 2003</i>		63

Statement of Corporate Intent

Who we are

Melbourne Water is owned by the Victorian Government. Our operating area extends from Melbourne's water supply catchments high up in the Yarra Ranges, to the Mornington Peninsula and Western Port, north to Yan Yean and west to Werribee.

We are a significant business, managing \$7.9 billion of natural and built assets. Our annual operating revenue of more than \$520 million is earned from water supply, sewage treatment and drainage rates. This is used to fund dividends and equivalent taxes to the Victorian Government, our operations and our capital program, and to pay off debt.

We invest about \$190 million a year on our infrastructure including reservoirs, sewage treatment plants, pumping stations, sewers and drains to help ensure we meet our objectives. We are committed to decision-making based on economic, social and environmental considerations.

An independent Board of Directors is responsible for the governance of Melbourne Water. The responsible Minister is the Minister for Water.

Our people have diverse skills and expertise, and range from environmental scientists to engineers and research and technology specialists, and we place a high priority on building strong partnerships and relationships in the government, industry and community sectors.

Who we work with

EPA Victoria and the Department of Human Services regulate the environmental and public health aspects of our business. We work across several arms of the Victorian Government, including the Department of Sustainability and Environment, and the Department of Treasury and Finance.

Our customers include the metropolitan retail water businesses – City West Water, South East Water, Yarra Valley Water – other water authorities, local councils, land developers, businesses that divert river water, and water recyclers.

We work with a wide range of partners including the Port Phillip and Westernport Catchment Management Authority, the Master Plumbers Association, the Municipal Association of Victoria, the Sustainable Energy Authority of Victoria, the State Emergency Service, and Australand.

Research organisations, such as the CSIRO and Co-operative Research Centres, engineering consultants, and contractors who carry out tasks ranging from inspecting and maintaining assets to catchment surveillance and litter removal, also assist us to achieve our objectives.

We are involved with a wide range of community stakeholders including "Friends of", Landcare, resident and environment groups, advisory bodies, rural landowners, and the education sector.

Vision, Values, Business Priorities

At Melbourne Water, we understand that engaging our stakeholders is the key to achieving our vision of *making Melbourne the world's most water-sensitive city*.

We also appreciate that achievements occur through the contribution of our people and through our values. We are people who:

- Recognise that we achieve more by working with others
- Feel privileged to be the custodians of our water resources
- Behave with integrity
- Attain excellence through creativity and innovation
- Celebrate our achievements and learn from our experiences.

Initiatives to support the achievement of the vision are outlined under Melbourne Water's business priority areas, which are:

- Managing Melbourne's water resources and the environment
- Protecting our rivers, creeks and the marine environment
- Managing risk and our natural and built assets
- Sound financial management and sustainable growth

- Our employees
- Stakeholder, customer and community relations.

These initiatives support key Victorian Government policy platforms and are developed within a framework of decision-making based on economic, environmental and social considerations. They reflect our commitment to:

Conserving Melbourne's high quality, affordable drinking water for present and future generations without the need for further dams and operating in a manner that improves the environment by:

- Making a significant contribution to achieving the Victorian Government's target of 15% reduction on water consumption by 2010
- Achieving the Victorian Government's target of 20% water recycling by 2010 by providing recycled water for irrigation from our Eastern and Western treatment plants
- Maintaining a high level of community commitment to water conservation and working with the Victorian Government and retail water businesses to achieve long-term change in water use
- Maintaining the high level of regard the community has for our drinking water
- Working with key stakeholders such as the retail water businesses, the development industry, the community and the Municipal Association of Victoria to implement our Water Conservation Action Plan
- Develop contingency plans to counter the impact of climate change on water resources
- Proposing an upgrade of the Eastern Treatment Plant to reduce environmental impacts consistent with community expectations by 2007
- Reducing greenhouse gas emissions by 35% by 2006
- Recycling 100% of biosolids produced at our sewage treatment plants by 2010 consistent with the Victorian Government's commitment to sustainability
- Achieving our goal of eliminating odours from any Melbourne Water asset by 2007.

Undertaking innovative water resource management by:

- Adopting an integrated approach to managing available water resources including the use of groundwater, stormwater and treated effluent
- Exploring the feasibility of transporting recycled water to Gippsland for use in power generation
- Undertaking a business case study to investigate the opportunity to deliver recycled water to the Moorabool district.

Ensuring Melbourne's rivers and creeks are healthy with increased numbers of native fish, platypus and plant life by:

- Working in consultation with Port Phillip and Westernport Catchment Management Authority, the Department of Sustainability and Environment, EPA Victoria and other stakeholders to improve the health of rivers and creeks across the Port Phillip and Westernport catchment
- Working with the Port Phillip and Westernport Catchment Management Authority to complete the Regional River Health Strategy by June 2005
- Undertaking a range of projects that will contribute to the rehabilitation and renewal of Melbourne's rivers and creeks.

Improving the health and amenity of Port Phillip Bay and Western Port for the prosperity and enjoyment of present and future generations by:

- Reducing nitrogen inputs to Port Phillip Bay from the Western Treatment Plant by a minimum of 500 tonnes a year by 2006
- Reducing nitrogen inputs to Port Phillip Bay from the stormwater system by 100 tonnes a year by 2010.

Ensuring that the integrity of our water, sewerage and drainage infrastructure is well maintained and protected now and into the future by:

- Managing our built assets to ensure we meet the essential service needs of Melburnians now and into the future
- Ensuring efficient and effective asset management and investment programs
- Implementing procedures to monitor the condition and assess the risk related to our assets to enable the likelihood and consequence of an asset failing to be calculated
- Proactively managing the security of our natural and built assets
- Protecting our water supply catchments from the threat of bushfires.

Remaining the most efficient water authority in Australia and providing improved financial returns to our owner, the Victorian Government, by:

- Continually seeking business improvements through operating efficiencies, and participating in benchmarking studies to learn from others and assess our performance
- Giving appropriate consideration to economic, environmental and social issues in planning our projects.

Ensuring we have a motivated and skilled workforce that generates new ideas, is aligned to the latest technologies and innovations, and actively engages the community and key stakeholders in the decisions we make by:

- Implementing policies and procedures to encourage leadership and effective communication
- Implementing a capacity building program on community consultation and engagement
- Encouraging innovation and a diversity of views to foster debate and informed decision making
- Reviewing our core competencies and implementing training and development programs as required

- Investing to improve our health and safety performance in order to achieve zero lost time injuries for our employees and contractors.

Providing excellent customer service and to enjoy highly effective stakeholder relationships by:

- Ensuring that we understand the needs of our stakeholders and work with them to enable them to meet their obligations
- Surveying all our stakeholders to enable us to continuously improve service delivery
- Effectively communicating with river diverters and water recyclers to ensure that they receive the information they require in a timely and responsive manner.

Ensuring that the community is well-educated and informed about water issues by:

- Establishing partnership agreements with education providers and industry associations to enable water issues to be given a high priority in the curriculum and training programs
- Educating local councils and the community on flooding and its impact on the drainage system
- Investing in education programs that contribute to long term behavioural change.

Scale of the business

Melbourne Water:

- Has total fixed assets valued at approximately \$7.9 billion in replacement cost terms
- Has an annual operating revenue of approximately \$520 million derived mainly from bulk water and sewerage services to the retail water businesses and from drainage services to the community
- Supplies some 460,000 million litres of drinking water to the retail water businesses annually
- Collects some 320,000 million litres of sewage from the retail water businesses annually for treatment and disposal
- Is responsible for providing regional drainage services within the greater Melbourne area covering approximately 7800 square kilometres.
(Municipalities are responsible for local drainage systems.)

Capital investment

Melbourne Water has made provision for significant capital investment for its business priorities:

- Managing Melbourne's water resources and the environment
- Protecting our rivers, creeks and the marine environment
- Managing risk and our natural and built assets
- Sound financial management and sustainable growth
- Our employees
- Stakeholder, customer and community relations.

Capital investment for 2004/05 is \$193.6 million.

Dividend

The dividend to be paid to the Victorian Government will be in accordance with the amount determined by the Victorian Treasurer after consultation with Melbourne Water's Board of Directors.

Statutory requirements

Melbourne Water is committed to meeting statutory and environmental and health regulations, including:

- Complying with EPA Victoria discharge licences issued for the Eastern and Western treatment plants and other related agreements or understandings
- Achieving drinking water quality and supply standards specified in the bulk water supply contracts between Melbourne Water and City West Water, South East Water and Yarra Valley Water and other water authorities, including Southern Rural Water, Western Water and Gippsland Water
- Complying with the *Victorian Occupational Health and Safety Act 1985* and regulations.

Performance reporting

Melbourne Water's operational and financial position is reported to its owner, the Victorian Government, at the end of each financial year.

Melbourne Water demonstrates its commitment to environmental and public health performance and to meeting its community obligations by annual public reporting on its regulatory and internal procedures and policies and performance against established benchmarks.

Business policies

Melbourne Water has policies covering its key responsibilities and obligations including environment, public health, community, employees, occupational health and safety, risk management, accounting, legal and commercial.

Key performance indicators 2004/05–2006/07

Managing Melbourne's water resources and the environment

Indicator	2004/05	2005/06	2006/07
% of community that continue to rate Melbourne's drinking water as good or very good	85	85	85
Water conservation – % reduction in water consumption resulting from Melbourne Water initiatives	0.5	0.6	1.0
Proportion of water recycled – Cumulative % of water recycled from the total volume discharged from sewage treatment plants	8	10	12
% reduction in greenhouse gas emissions	20	35	38
% of biosolids recycled:			
■ Eastern Treatment Plant	100	100	100
■ Western Treatment Plant	0	33	33
Odour complaints:			
■ Eastern Treatment Plant	0	0	0
■ Sewage Transfer System	20	18	16
■ Western Treatment Plant	6	0	0

Protecting our rivers, creeks and the marine environment

Reduction in nitrogen load to Port Phillip Bay from Western Treatment Plant	400 tonnes	500 tonnes	600 tonnes
Cumulative reduction in nitrogen load to Port Phillip Bay from wetlands	31 tonnes	37 tonnes	58 tonnes
% achievement of EPA licence requirements:			
■ Eastern Treatment Plant	100	100	100
■ Western Treatment Plant	100	100	100
% of water harvesting points meeting environmental flow requirements to rivers	100	100	100
Number of sewage spills:			
■ wet weather	4	4	4
■ dry weather	0	0	0

Sound financial management and sustainable growth

Free cash flow (\$M)	141.0	160.0	166.5
Debt to assets ratio (%)	37.7	37.8	37.5
Operating Return (EBIT) on Average Total Assets (%)	8.1	7.9	8.1
Return on Equity (%)	8.8	9.2	9.2
Economic return on Capital Employed (%)	6.8	7.0	7.1
Interest coverage ratio (EBIT/Interest expense)	3.3	3.2	3.3
Returns to Government (\$M)	111.9	126.0	124.6

Stakeholder, customer and community relations

Customers

% of waterway plans in place for river diverter customers	33	66	100
% of compliance with retail water company water pressure requirements	99.5	99.5	99.5
% compliance with water colour and turbidity requirements	100	100	100
% achievement of requirements under Safe Drinking Water Act	100	100	100

Community

% effectiveness of community consultation programs	82	85	95
% level of community knowledge and understanding of water resource issues	75	80	80
% level of knowledge and understanding of the organisation's business priorities by our people	75	80	90
Number of lost-time injuries:			
■ Melbourne Water people	0	0	0
■ Major contractors	0	0	0

Statutory information

Publications

Melbourne Water produces a range of publications to increase community knowledge and understanding of water issues and our activities. In 2003/04, we produced the following magazines, booklets, brochures, newsletters, CD ROMs and technical papers:

Annual Report

- Melbourne Water Annual Report 2002/03
- Melbourne Water Water Resources and Environment 2002/03
- Melbourne Water Social Report 2002/03
- Melbourne Water Annual Report 2002/03 CD ROM

Consultation

- Community Information Bulletins for various capital works programs
- Patterson Lakes newsletters
- Eastern Treatment Plant Community Liaison Committee newsletters
- Werribee Irrigation District Recycled Water scheme newsletters
- Stream News
- Water Diverters Update Issues 1-8

Education

- EdStream Newsletter Issue 3 September 2003
- EdStream Newsletter Issue 4 February 2004
- EdStream Newsletter Issue 5 June 2004
- Drain safety – the signs are everywhere (reprint)
- Water Education Tours
- Drains to our waterways (booklet and video)
- Home Water Investigator (CD ROM)
- Western Treatment Plant Explorer (CD ROM)
- Eastern Treatment Plant Explorer (CD ROM)
- All About Water – an education resource (CD ROM)
- Essential Facts – various fact sheets

Internal

- Code of Conduct
- Western Treatment Plant, Managed Habitat Strategy Part 2: Management Protocols for Shorebird Conservation Ponds

Recycling/sewage treatment

- Bin it, recycle it, don't flush it away (reprint)
- Western Treatment Plant Environment Improvement Plan (online version only)
- Western Treatment Plant Environment Protection and Biodiversity Conservation Compliance Plan 2003
- An introduction to the proposed Balliang district recycled water pipeline studies

Stormwater/drainage/rivers and creeks

- Protecting stormwater quality from building and construction sites (with Municipal Association of Victoria and EPA Victoria)
- Care about the bay – don't throw it away (reprint)

The Source

- Issue 27, August 2003 (CD ROM and web-based)
- Issue 28, November 2003 (CD ROM)
- Issue 29, February 2004 (CD ROM)
- Issue 30, May 2004 (CD ROM)

Technical

- Constructed Wetland Systems – Design Guidelines for Developers (revised 2nd edition)
- Constructed Shallow Lake Systems – Design Guidelines for Developers

Water

- Melbourne's Rivers and Creeks Report 2004
- Yan Yean – A history of Melbourne's early water supply
- Living with Drought (Reprint)
- Water Conservation Action Plan

Consultants

During 2003/04, Melbourne Water engaged 60 consultants at less than \$100,000 each to undertake operational and capital projects at a total cost of \$1.2 million.

In addition, Melbourne Water engaged five consultants (see table below) at over \$100,000 each to undertake the following projects at a total cost of \$1.3 million. Total expenditure approval obtained for the projects was \$1.8 million. A further \$60,000 remains for future committed consultancy activity.

Consultant	Project
CSIRO	Climate change study
Kellogg Brown & Root Pty Ltd	Recycling water projects – Balliang and Moorabool
KPMG	Eastern Irrigation Scheme project
Marsden Jacob Associates Pty Ltd	Balliang District Recycled Water
Quay Connections	Developer Services Review

Government grants

During 2003/04, Melbourne Water received \$20,000 in grants from the Port Phillip and Westernport Catchment Authority and various local councils to undertake the Waterwatch program.

National Competition Policy

A significant contributor towards meeting the Victorian Government's National Competition Policy was the White Paper entitled *Securing our Water Future Together*. Melbourne Water made a significant contribution to the White Paper and will continue to support the Government in implementing the actions outlined that pertain to Melbourne Water.

From 1 January 2004, the Essential Services Commission became the economic regulator for the Victorian Water Industry. This is consistent with the National Competition Policy's institutional reform objectives. Melbourne Water worked with the Government to establish the framework.

Freedom of information

Melbourne Water is subject to the *Freedom of Information Act 1982 (Vic.)* and is committed to making documents and information available to the community whenever it can.

The designated persons for the purpose of the Act are:

Principal officer:

Brian Bayley
Managing Director
Melbourne Water

Authorised officer:

Freedom of Information Officer
Melbourne Water

Requests for information

This year we received 17 requests for access to documents under the Freedom of Information legislation.

We processed these requests as follows:

Access in full	10
Access in part	4
Access refused	0
Documents not located	1
Transferred to another agency	0
Applicant did not proceed	2
Not finalised	0

The applications received related to the following issues:

Property development	5
Personal injury	4
Environment and planning	3
Occupational health and safety	2
Litigation	2
Tendering	1

Year	Number of requests
2000/01	19
2001/02	22
2002/03	6
2003/04	17

Access to documents

People wanting access to Melbourne Water documents under the *Freedom of Information Act 1982 (Vic.)* should write to:

Freedom of Information Officer
Melbourne Water
PO Box 4342
Melbourne Victoria 3001

Each application must clearly identify the documents sought and be accompanied by a \$20 application fee. General inquiries concerning Freedom of Information can be made by telephoning the Freedom of Information Officer on (03) 9235 7184 between 8am and 5pm, Monday to Friday or via email to: foi@melbournewater.com.au

Information on our consultative arrangements, required under Section 7 of the Act, is available on our website, melbournewater.com.au

Information on our publications, also required under Section 7, is included on page 95.

Categories of documents

We use a computerised records management system to manage our correspondence and documents. We use online computer systems to manage our financial, human resource and other operational activities and plans relating to our water supply, rivers and creeks, and drainage and sewerage responsibilities. Historical archives on our activities are available through the Public Record Office Victoria.

Pricing changes

Bulk water and sewerage charges to the metropolitan retail water businesses and drainage rates increased up to 3.1% in accordance with the Victorian Government's pricing order. Further information on bulk water and sewerage charges and drainage rates is available at melbournewater.com.au

Bulk entitlements

The following tables detail how Melbourne Water managed our bulk entitlements from the Thomson and Maribyrnong rivers in 2003/04.

Entitlement to water in Rosslynne Reservoir as at 30 June 2004

	Volume (million litres)
Releases made from the reservoir to supply our licence customers	0
Share of storage capacity	51
Inflows attributed to Melbourne Water for the year	138
Transfers and operating losses within the system	0
Melbourne Water releases to meet environmental flow requirements	47
Water taken by licence holders from the Maribyrnong River to satisfy entitlements	259*
Transfer of licences	0

* Excludes domestic and stock licences, which are currently unmetered.

Entitlement to water in Thomson Reservoir as at 30 June 2004

	Volume (million litres)
Water taken by Melbourne Water to supply Melbourne	84,564
Water releases for flood control	0
Water released for hydro-electricity generation*	0
Melbourne Water releases to meet environmental flow requirements	41,842
Melbourne Water's share of storage	402,330
Inflows attributed to Melbourne Water for the year	204,273

* Environmental flow and irrigation releases were made via the Thomson hydro-electricity station. However, no releases were made specifically for hydro-electricity generation.

Privacy legislation

Melbourne Water is subject to the *Information Privacy Act 2000* and the *Health Records Act 2001* and is committed to protecting the privacy of all personal and health information we collect and handle. We collect and handle personal and health information only to carry out our functions and activities.

Melbourne Water is committed to openness and transparency and welcomes any queries about our approach to privacy. We also endeavour to resolve any privacy complaints quickly and effectively. People wanting to make a privacy complaint should write to:

The Privacy Officer
Melbourne Water
PO Box 4342
Melbourne Victoria 3001.

Energy and Water Ombudsman (Victoria)

The Energy and Water Ombudsman's role is to receive, investigate and facilitate resolution of complaints and disputes between Victorian consumers of energy and water and providers of these services. The scheme provides consumers with a free, specialised and independent dispute resolution process as an alternative to legal proceedings or other complaint processes.

Industry participants fund the scheme and its Board includes representatives from the water, gas and electricity industries as well as consumer bodies. Its independent chairman is appointed by the Victorian Government, which also appoints the Ombudsman.

Melbourne Water has a procedure to ensure prompt response to all complaints received from the Ombudsman's office. Our objective in investigating issues underlying these complaints is to improve our service to customers.

Melbourne Water responded to 73 cases this financial year. Of the 73 cases, 70 were enquiries and three were complaints. The three complaints related to land issues and a wetlands being built near a property. Fifty-six of the 70 enquiries related to a single land issue. Cases were dealt with promptly but two of the complaints were not resolved by 30 June 2004.

Whistleblowers' protection and procedures

The *Whistleblowers Protection Act* commenced operation on 1 January 2002. It aims to encourage and facilitate disclosure of improper conduct by public officers and public bodies.

Melbourne Water is committed to the aims and objectives of the Act, has established the following procedures and takes the following approach to disclosures of improper conduct:

- A reporting system has been established with Protected Disclosure Officers reporting to the Protected Disclosure Co-ordinator, who in turn, reports to the Managing Director
- Melbourne Water will take all reasonable steps to protect the identity of a whistleblower and is committed to the protection of genuine whistleblowers against reprisals for making protected disclosures
- The principles of natural justice will be followed in any investigation of a public interest disclosure.

The following appointments have been made to facilitate and manage disclosures of improper conduct:

Protected Disclosure Co-ordinator
General Manager, Human Resources

Protected Disclosure Officers:

Nick Ronan
Kevin Woff
Salyana Williams
Steve Hosking
Peter Wylie
Judith Palmer
Linda Duprey
Nicole Latham

Melbourne Water has established written procedures, which can be obtained by visiting our website or contacting a Protected Disclosure Officer or the Protected Disclosure Co-ordinator at:

Melbourne Water
PO Box 4342
Melbourne Victoria 3001
Telephone: 03 9235 7297

We are required to report annually on activities relating to the *Whistleblowers Protection Act*. For 2003/04:

The number of disclosures made to Melbourne Water	Nil
The number of disclosures referred by Melbourne Water to the Ombudsman for determination as to whether they are public interest disclosures	Nil
The number of disclosed matters referred to Melbourne Water by the Ombudsman	Nil
The number of disclosed matters referred by Melbourne Water to the Ombudsman to investigate	Nil
The number of investigations of disclosed matters taken over by the Ombudsman from Melbourne Water	Nil
The number of requests made under section 74 to the Ombudsman to investigate disclosed matters	Nil
The number of disclosed matters that Melbourne Water has declined to investigate	Nil
The number of disclosed matters that were substantiated on investigation	Nil
Any recommendations of the Ombudsman under the Act that relate to Melbourne Water	Nil

Compliance with Building Act 1993

Melbourne Water complies with the building and maintenance provisions of the *Building Act 1993* (Vic.) for buildings and structures we own.

Office-based environmental impacts

Melbourne Water aims to reduce the environmental impacts made by our office-based activities such as procurement, energy usage, waste production, paper use, water consumption and transportation.

Energy use

Melbourne Water plans to reduce our greenhouse gas emissions by 35% by 2005/06 and cut our use of electricity from the grid by 10% compared with 2000/01 levels. By 2008, we plan to fully compensate for the electricity we import from the grid by generating the equivalent amount from renewable energy. We consume most of our energy in sewage treatment processes. In regard to the energy consumed within our office space, our 13,050 square metres of office space consumed 2916 megawatt hours of energy in 2003/04, resulting in 0.22 megawatt hours per square metre of total energy usage and associated greenhouse gas emissions. For more information on our energy consumption visit melbournewater.com.au

Waste production

On average, Melbourne Water employees create approximately one kilogram of waste per week. There are about 400 people who work in Melbourne Water's head office in East Melbourne, producing some 20.8 tonnes of waste annually.

Paper use

Melbourne Water employees each used approximately 16 reams of paper in 2003/04 (500 sheets per ream). However, recycled paper is used in all day-to-day applications, and all desk bins are recycling bins. One hundred per cent of printer cartridges are also recycled, and all printers and photocopiers have duplex capability.

Transportation

Melbourne Water's total fuel consumption for 2003/04 was about 1.2 million litres (unleaded, LPG and diesel), and a total of 8.5 million kilometres was travelled for office purposes. Melbourne Water is the second largest State Government owner of the Toyota Prius, the world's first mass-produced hybrid electric engine car. There are currently 24 Prius cars in the fleet.

Information available on request

Further information is available on request: pecuniary interests of relevant officers, details of Melbourne Water publications, major external reviews carried out on Melbourne Water, research and development activities, overseas visits, major promotional and public relations activities, assessments and measures to improve the occupational health and safety of employees, statement of industrial relations and details of time lost through industrial accidents and disputes, and major sponsorships. Please ring 131 722 (within Victoria) or (03) 9235 7100 (within the rest of Australia) or visit melbournewater.com.au

Committees

Melbourne Water consulted with the following committees in 2003/04. A more comprehensive list is available on our website at melbournewater.com.au

Association of Land Development Engineers (ALDE) committees
Development Industry – Water Industry Liaison Committee
Urban Development Institute of Australia Liaison Committee
Koo Wee Rup and Longwarry Drainage and Flood Mitigation Advisory Committee
Patterson Lakes Advisory Committee
Yallock Drainage and River Improvement Rates Advisory Committee
Bulk Entitlements committees
Diversion Management Advisory Committee

Keilor Diverters Advisory Group
Metropolitan Drought Response Plan Co-ordination Committee (MDRP)
Stream Flow Management Plan committees
Thomson/Macalister Environmental Flow Working Group
Water Market and Irrigation Reforms Steering Committee
Friends of Groups (various)
Landcare groups
Melbourne Waterwatch committees
Port Phillip and Westernport Regional River Health Strategy Steering Committee and Working Group
Australian Water Association
Board of Water Services Association of Australia (WSAA)
Co-operative Research Centres (CRC)
Index of Stream Condition Steering Committee
Victorian Flood Warning Consultative Committee (Bureau of Meteorology)
Victorian Stormwater Advisory Committee, Working Group and Technical Group
Victorian Water Industry Association
Board of Port Phillip and Westernport Catchment Management Authority
Port Phillip and Westernport Regional Catchment Strategy Steering Committee
Waterways and Drainage Advisory Committee
Devilbend Reference Group
Eastern Treatment Plant Community Liaison Committee
Western Treatment Plant Community Liaison Committee
Western Treatment Plant Wildlife Consultative Committee
Stormwater Industry Association (Victorian Committee)
Bureau of Meteorology/Victorian State Emergency Service, Melbourne Water Steering Group
Regional Fire Prevention committees
Victorian State Emergency Service/Melbourne Water/Municipal Association of Victoria.

Glossary

Activated sludge process This process involves using naturally occurring micro-organisms to feed on the organic material in the sewage. Activated sludge is a rich mixture of bacteria and minerals. The process is used in sewage treatment plants to break down organic matter and nitrogen compounds.

Aeration Adding oxygen (usually in air) by mixing air into sewage processes or water bodies by mechanical aerators or blowing air through diffusers to ensure that aerobic processes are maintained.

Algae Large group of generally aquatic, non-flowering plants, many microscopic.

Algal bloom A rapid increase in the numbers of algae, usually caused by a change in the flow, light, temperature or nutrient levels of the water in which it lives.

Ammonia A chemical compound made up of carbon and hydrogen that can be toxic, and also contribute to the nutrient enrichment of waters.

Biodiversity The range of plants and animals, and the habitat that they live in.

Biogas A by-product of the sewage treatment process that includes carbon dioxide and methane. Melbourne Water uses biogas as a source of renewable energy.

Biosolids The treated and stabilised solids in sewage.

Catchment The area of land drained by a creek or river system, or a place set aside for collecting water which runs off the surface of the land. Catchments provide the source of water for the dams and reservoirs in which our drinking water is collected.

Coliforms Bacteria that are used to indicate the presence of pathogens from faecal contamination of water. They are not generally pathogenic themselves.

CSIRO Commonwealth Scientific and Industrial Research Organisation.

Dam Technically, the dam is the wall that holds the water in and the reservoir is the water.

Disinfection Any process that destroys or removes disease-causing organisms such as viruses, bacteria or protozoa. It is used as part of the purifying of drinking water.

E. coli *Escherichia coli* is a bacteria/bacterium found in the stomachs of mammals, for example humans, and used as an indicator of recent faecal contamination.

Ecosystem The system of animals and plants and the environment they inhabit.

Effluent Treated sewage that flows out of a sewage treatment plant.

Environmental flow The minimum designated flow in a waterway needed to satisfy specified ecological requirements. Water released from a reservoir to maintain water levels downstream of a dam.

Greenhouse gases Vapours, including water, in the lower atmosphere, which reflect solar radiation back to earth.

Greywater Sewage from the kitchen, laundry and bathroom (but not the toilet). It usually contains soap, detergents and fats.

Groundwater Water collecting below ground level in an aquifer or water table.

Heavy metals General term for cadmium, chromium, copper, iron, mercury, nickel, manganese, lead, zinc, arsenic and selenium.

Hydrology The study of water occurrence, distribution, movement and balances in ecosystems; the seasonal patterns of a river's flow.

Irrigation The use of water to nourish cultivated land or open space to promote the growth of vegetation.

Mega A factor of one million. Therefore, a megalitre of water is one million litres. Melbourne's Thomson Reservoir holds 1,068,000 million litres.

Methane A chemical compound made up of carbon and hydrogen produced as a by-product of anaerobic sewage treatment. Methane can be used as a fuel source for energy generation.

Nitrogen A chemical element essential for the growth of plants and animals. Our atmosphere is comprised of 79% of nitrogen.

Nutrients Substances such as nitrogen and phosphorus in various forms required for the growth of plants. Excess concentrations of nutrients can be harmful in rivers, creeks and bays.

Outfall Pipeline discharging treated effluent.

Phosphorous A chemical element essential for growth. It is present in many fertilisers and its overuse may contribute to the formation of algal blooms in waterways.

Pollution The results of activity that is detrimental to beneficial use by plants, animals or humans of water, air or land.

Protected catchment Protected catchments have no farms, houses or factories, so they provide water free of any pollutants these and other human activities produce. Most of Melbourne's catchments are protected.

Reservoir A major body of water created in a river valley by building a dam (see Dam).

Run-off Rain or water, which flows from a catchment into a river, stream, lake or reservoir.

Sediment Sand, clay, silt, pebbles and organic material deposited in water.

Sewage and sewerage Sewage is the waste carried in our sewers. Sewerage is the system of pipes, pumps and treatment plants to manage sewage.

Stormwater Rainfall that runs off roofs, roads and other surfaces where it flows into gutters, streams, rivers and creeks, and eventually into the bays. This water can carry contaminants such as plastic bags, detergents, nutrients and heavy metals.

Suspended solids Solids that float on the surface or are suspended in water, and which are largely removable by filtering.

Tertiary treatment A level of sewage treatment that is beyond secondary treatment by further reducing the level of nutrients and suspended solids.

Toxicants Harmful substances, including heavy metals, chemical compounds and excessive concentrations of nutrients.

Trihalomethanes Formed during the disinfection of water with free chlorine.

Turbidity The presence of fine suspended matter such as clay or silt in water causing the water to be cloudy or muddy in appearance.

Weir A structure across a waterway to stop and raise water levels.

Wetlands Low-lying areas of land intermittently or permanently covered with either fresh or salt water. Wetlands occur naturally and can be constructed.

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**Community
Languages**

For information on Melbourne's water resources in languages other than English, call 131 722 or visit **melbournewater.com.au** and click on the Community Languages link.

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