2008 Waterways Water Plan
Consultation Draft

Melbourne Water

I love living here*
*So please protect our rivers & creeks

Victoria
The Place To Be

2008 Waterways Water Plan
Consultation Draft

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1 Overview

Melbourne Water is a water resource manager, providing waterways and drainage services to the greater Melbourne community and wholesale water, sewerage and recycled water services to retail water businesses. In doing so, we are committed to managing our business efficiently to achieve our vision of *'working together to ensure a sustainable water future'*.

In providing waterways and drainage services, Melbourne Water works with Government regulators and the community to deliver programs to improve and protect the health of rivers and creeks and enhance their environmental, economic and social values. Melbourne Water also plans and delivers drainage infrastructure to service urban growth and provide a safe level of flood protection for communities within the Port Phillip and Westernport region.

This Consultation Draft has been prepared to facilitate public comment before the formal submission of Melbourne Water's 2008 Waterways Water Plan to the Essential Services Commission (the Commission) in December 2007. The Consultation Draft summarises the outcomes, actions and expenditures that Melbourne Water proposes to undertake and the prices it proposes to charge over the 2008 regulatory period (2008/09 to 2012/13). All expenditures and prices have been expressed in real 2006/07 dollars. Performance over the 2005 regulatory period (2005/06 to 2007/08) is also discussed, as are the factors impacting on performance over the 2005 and 2008 regulatory periods.

Over the past two years, Melbourne Water has made considerable effort to define its role as a regional provider of waterways and drainage services and to set clear goals and targets for its programs. This has included:

- Extensive engagement with local governments and the community in Melbourne Water's extended operating area to establish service levels
- Revised terms of reference and membership of the Waterways Advisory Committee to strengthen its role and the participation of regulators
- Preparation of major strategies for key service areas including:
  - Flood Management and Drainage Strategy
  - Better Bays and Waterways Water Quality Improvement Plan
  - Regional River Health Strategy
  - Development Services Strategy and program
  - Community and Stakeholder Engagement Framework
- Preparation of a new waterways Operating Charter in consultation with the Waterways Advisory Committee.

The proposals included in this Consultation Draft reflect the outcomes of this work and Melbourne Water's commitment to:

- Build on the improvements to river health and stormwater quality achieved over the current regulatory period to achieve 10 year targets set out in the Regional River Health Strategy and the Waterways Operating Charter
- Improve awareness of flood risks and adopt a more targeted drainage and flood protection capital works program focusing on intolerable flooding risks
- Consolidate newly introduced services to customers in Melbourne Water's extended waterways operating area
- Continue to engage local government, the private sector and the community to gain a shared understanding of waterway and flooding issues and priorities to develop more inclusive, cost effective outcomes including greater use of at source rather than end of pipe solutions
- Continue to plan appropriately for urban growth and provide efficient and responsive services to the development industry
- Continue to undertake monitoring and research to better understand the effectiveness of management actions in relation to river health, environmental and recreational water quality and flood management and enable an adaptive approach to program delivery.

The Consultation Draft has also been prepared in a changing environment, characterised by climate uncertainty and drought. Rainfall has been at historically low levels resulting in less water being available for environmental needs and a significant reduction in inflows to Melbourne's water supply storages. Melbourne has also experienced a number of major storms in recent years which have resulted in localised flooding and property damage. In addition to environmental change, Melbourne Water's service obligations have also changed since the Commission last set prices in 2005. There have also been industry wide increases in some key input costs such as contract and labour rates. These factors have impacted on Melbourne Water's financial and non financial performance over the current regulatory period, increased the challenges associated with moving to a longer regulatory period and highlighted the need for a regulatory framework that provides for appropriate risk allocation and adaptive service delivery.

Delivering on the outcomes set out in this Consultation Draft will necessitate an increase in capital and operating expenditure despite ongoing initiatives to improve the efficiency and effectiveness of service delivery. Increasing expenditures will in turn lead to an increase in prices. Melbourne Water's waterway and drainage prices are forecast to increase on average for customers in its existing service area by inflation plus 1% per year over the 2008 regulatory period. Melbourne Water also proposes to commence charging for waterway and drainage services provided to customers in its extended operating area.

In addition to improving the services Melbourne Water provides, the Consultation Draft also includes proposals to improve the prices we use to fund waterways and drainage activities. The proposed prices have been developed in consultation with Government and key stakeholders to ensure that prices:

- Better reflect the extent to which customers impact on, or benefit, from the services provided
- Take into account the interests of customers (including appropriate transitional arrangements)
- Are understandable to customers
- Are consistent with providing a sustainable regulated revenue stream for regulated activities
- Minimise administration costs.

A key determinant of future prices and returns to Government is the weighted average cost of capital (WACC). Melbourne Water and the metropolitan retail water businesses have received independent advice that the WACC should be 6.4% rather than the 5.1%, as currently adopted by the Commission. However, adopting a higher WACC could increase prices by a further 1.7% per year. Melbourne Water has used the lower WACC recommended by the Commission in preparing this Consultation Draft.

In preparing this Consultation Draft, Melbourne Water has endeavored to clarify future stakeholder requirements and priorities, recommend appropriate changes to the regulatory framework, continue to refine its forecasting methodologies and adopt the best available information to put forward realistic expenditure estimates.

Melbourne Water's final 2008 Waterways Water Plan, to be submitted to the Commission in December 2007, will reflect public, Government, regulatory and customer feedback on this Consultation Draft as well as any material changes in its operating environment or expenditure estimates.

2 Background and industry context

2.1 Melbourne Water

Melbourne Water is a statutory corporation, fully owned by the Victorian Government.

Melbourne Water is a water resource manager, providing waterways and drainage services to the greater Melbourne community and wholesale water, sewerage and recycled water services to retail water businesses.

As Victoria's largest urban water business, Melbourne Water provides over 60% of the State's potable water, and 11% of total water supplied in Victoria for urban and rural purposes. It also currently treats around 300 GL[1] of sewage collected by the three metropolitan retail water businesses, of which over 20% is currently recycled.

The Government's White Paper, Our Water Our Future, designated Melbourne Water as the caretaker of river health and authority responsible for waterway, regional drainage and floodplain management across the entire Port Phillip and Westernport region (an area of more than 12,000 km^2 with 3.6 million residents). Successful provision of this role involves:

- **Community and stakeholder engagement** and involvement to build trust and strengthen working relationships with key stakeholders and the community
- **Managing waterways** to ensure Melbourne's rivers and creeks are healthy, with increased numbers of native fish, platypus and plant life
- **Managing environmental flows** to ensure sufficient environmental flows to support river health and protect beneficial uses of the waterways
- **Managing water quality** to collaborate with others to achieve objectives for water quality in accordance with State environmental protection policies and targets set out in the Regional River Health Strategy and Waterways Water Quality Strategy
- **Flood and drainage management** to minimise all currently known intolerable flooding risks to public health and safety, property and infrastructure and increase community understanding and preparedness for floods
- **Managing urban growth** to ensure urban development achieves appropriate standards of flood protection, protects waterway health and is sensitive to other environmental and social values, and deliver an efficient service and provide accurate, timely and reliable information to the development industry and community
- **Monitoring, investigations and research** to build a comprehensive knowledge base to improve decision making and evaluate progress against performance targets.

A detailed description of Melbourne Water's waterways and drainage services, its goals and targets is provided in the Waterways Operating Charter for 2008/09 to 2012/13[2].

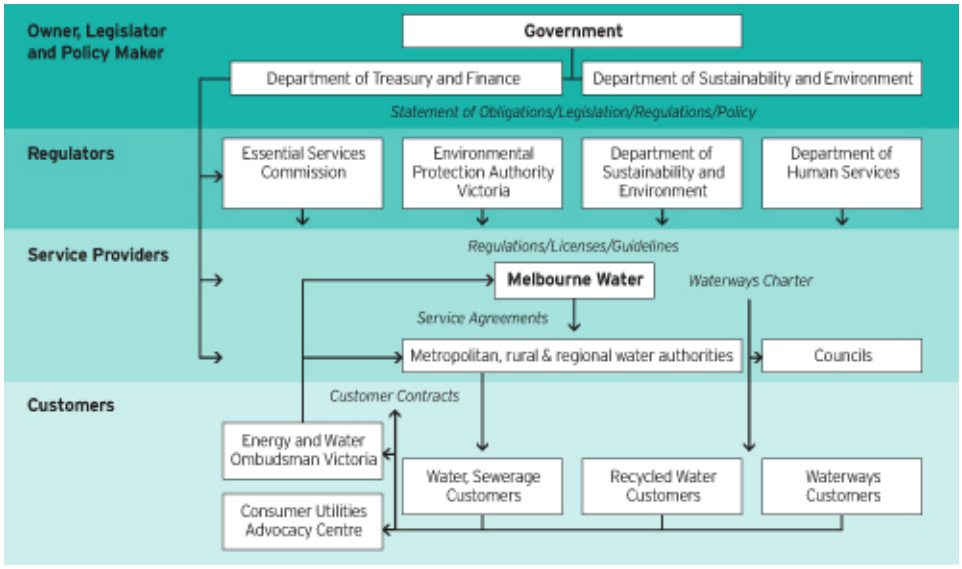
[1] A gigalitre (GL) is equivalent to a billion litres

[2] A copy of the Waterways Operating Charter is available on Melbourne Water's website www.melbournewater.com.au

2.2 Regulatory framework

The structure of the Melbourne metropolitan water industry is illustrated below in Figure 2.1.

Figure 2.1 – Industry Structure and Regulatory Framework



The Melbourne water industry clearly separates the roles of ownership, regulation and service provision

The State Government sets the policy and legal framework, specifies water business obligations and monitors water business performance. The Minister for Water, supported by the Department of Sustainability and Environment, sets out specific requirements for each business through Statements of Obligations. The Minister for Water is also responsible for allocating water resources. In the metropolitan sector, the Treasurer, in consultation with the Minister for Water, monitors financial performance and represents the State Government's shareholder interests, including returns to government and borrowing requirements.

The Commission regulates prices and customer service standards for prescribed water, sewerage, waterways and drainage and recycled water services across Victoria consistent with its legislative requirements[3] and the Water Industry Regulatory Order. EPA Victoria sets and enforces environmental standards consistent with key principles set out in the Environment Protection Act 1970. The Department of Human Services sets and enforces water quality standards to ensure water provided by the water businesses complies with relevant State Government legislation and regulations as well as national and international water quality guidelines.

Waterways and drainage service standards are set out in Melbourne Water's Waterways Operating Charter which is developed in consultation with its Waterways Advisory Committee representing key stakeholder and customer interests and the Department of Sustainability and Environment. Councils manage the local drainage network (catchments generally less than 60 hectares) and work with Melbourne Water to provide flood protection and manage stormwater quality.

Melbourne Water also provides wholesale water, sewerage and recycled water services to the retail water businesses who provide reticulation services and manage the interface with water and sewerage customers.

[3] Legislative provisions relevant to the Commission's regulation of the water industry include those of the *Essential Services Commission Act 2001* and the *Water Industry Act 1994* as amended by the *Water Legislation* (*Essential Services Commission and Other Amendments) Act 2003*.

2.3 The price setting process

As economic regulator for the Victorian water industry, the Commission is responsible for determining prices and overseeing the service standards to be achieved by each of the State's urban and rural water businesses. The Commission makes its determination taking account of proposals put forward by water businesses as well as the input of the community, who are consulted through the water planning process.

The Water Industry Regulatory Order sets out which services are to be regulated and provides guidance to the Commission on how economic regulation should be applied. Each water business' Statement of Obligations defines the content and timing of the price and service proposals put forward by water businesses.

This Consultation Draft has been prepared to facilitate public comment on Melbourne Water's proposed waterways and drainage activities, expenditures and prices before formal submission of a final 2008 Waterways Water Plan to the Commission in December 2007.

The proposals summarised in this document have been developed in consultation with Melbourne Water's customers, stakeholders and regulators including:

- Waterways Advisory Committee
- Diversion customer advisory committees
- Department of Treasury and Finance
- Department of Sustainability and Environment
- EPA Victoria
- Essential Services Commission
- Retail water businesses.

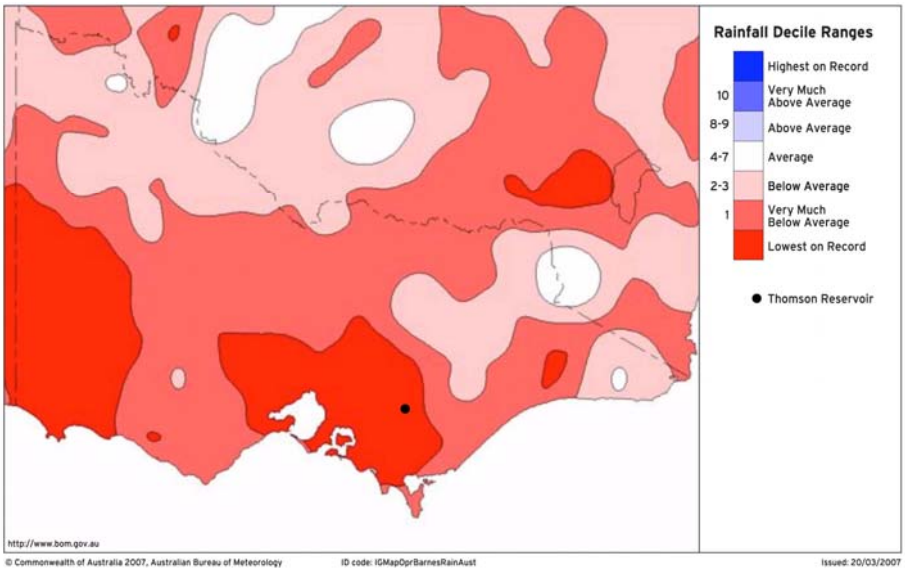
2.4 Operating environment

This Consultation Draft has been prepared in a changing environment.

Climate uncertainty

The last decade has seen some of the lowest rainfall on record across Melbourne's water supply catchments and its rivers and creeks (Figure 2.2). For example, Yarra River stream flows for the 2006 calendar year were the second lowest on record and for the period 1997/98 to 2006/07 was about 63% less than the long term average (1892/93 to 2006/07).

Figure 2.2 – Rainfall Deciles for Victoria – 1997 to 2006



Melbourne's water supply catchments and its rivers and creeks have experienced very low rainfall for an extended period

In addition to the effects of the drought, Melbourne has also experienced a number of major storms in recent times. Events in 2003, 2004, and 2006 led to localised flooding, disruption and property damage.

Figure 2.3 – Localised flooding in 2005

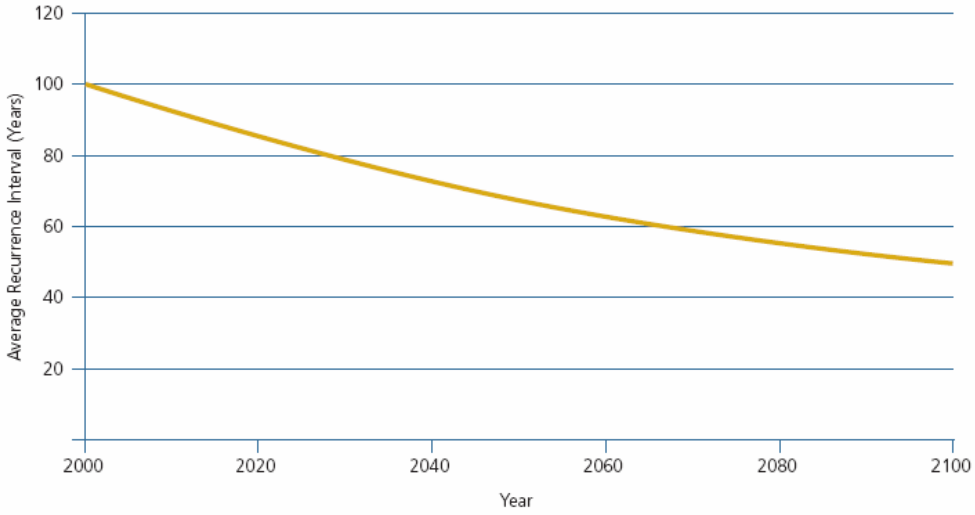
Dandenong Creek, Dandenong, 2005

Kororoit Creek, Deer Park, 2005

While in the midst of drought Melbourne has also experienced major storms causing localised flooding

The Melbourne Climate Change Study was completed by CSIRO in March 2005. The study anticipates that while the amount of overall rainfall received each year is predicted to decrease, the rainfall may occur in more intense storm events rather than our normal winter and spring rains. This change in rainfall patterns is more likely to result in an increase in overland flows than riverine flooding because the short, sharp nature of these intense storms results in sudden large volumes of water. As illustrated in Figure 2.4, it is likely that storms that occur on average every 100 years in 2000 are likely to occur once every 50 years by 2100 which could also result in more frequent flooding above existing floor levels.

Figure 2.4 – Change in Average Storm Recurrence Intervals



Research suggests that storms that occur on average every 100 years in 2000 are likely to occur once every 50 years by 2100

Implications for Melbourne Water

Melbourne Water has previously been able to rely on historical records as a basis for planning for the future. Recent experience and an increasing body of scientific information[4] suggest that Melbourne may have experienced a step change in the frequency, magnitude, location and duration of our weather events. While there is still some uncertainty as to the exact size of this change, it is clear that there is a need for:

- Ongoing research on climate change/variability and its implications for water businesses
- Effective planning and investment that optimises the use of available water supplies, strikes an effective balance between community and environmental needs and includes appropriate provision for contingency measures
- Adaptive program delivery
- A regulatory framework that not only creates incentives for improved performance but also ensures a reasonable allocation of risks in an uncertain operating environment.

[4] For example, The Intergovernmental Panel on Climate Change's Fourth Assessment Report 2007 concludes that the evidence supporting warming of earth's climate system is unequivocal. The Melbourne Climate Change Study was completed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in March 2005 and identified the potential for higher average and summer temperatures, reduced rainfall and more extreme weather events.

Prolonged drought has resulted in a significant reduction in inflows to Melbourne Water's reservoirs. Inflows for the 2006 calendar year were the lowest on record, while average inflows to Melbourne's four major harvesting storages for the period 1997/98 to 2006/07 were about 35% less than the long term average (1913/14 to 2006/07).

While the community has responded by reducing water consumption significantly and the Melbourne metropolitan water industry and Government have implemented a range of contingency measures (including Stage 3a restrictions and temporarily reducing environmental flows for the Yarra and Maribyrnong rivers) this has only partially offset the significant reduction of inflows in 2006 and the water levels in storages have fallen significantly.

To secure the community's water needs into the future Our Water Our Future, The Next Stage in the Government's Water Plan contains a number of major water supply augmentations including:

- Funding construction of a seawater desalination plant which will provide up to an additional 150 GL per year by the end of 2011
- Constructing the Sugarloaf Interconnector pipeline linking the Melbourne supply system to the Goulburn River and contributing to the Food Bowl Modernisation project to secure up to 75 GL per year by mid 2010
- Constructing a water treatment plant at the Tarago Reservoir by the end of 2009 which will add around 15 GL to annual supply
- Upgrading the Eastern Treatment Plant to tertiary standard by 2012 to facilitate increased water recycling opportunities and improved environmental outcomes.

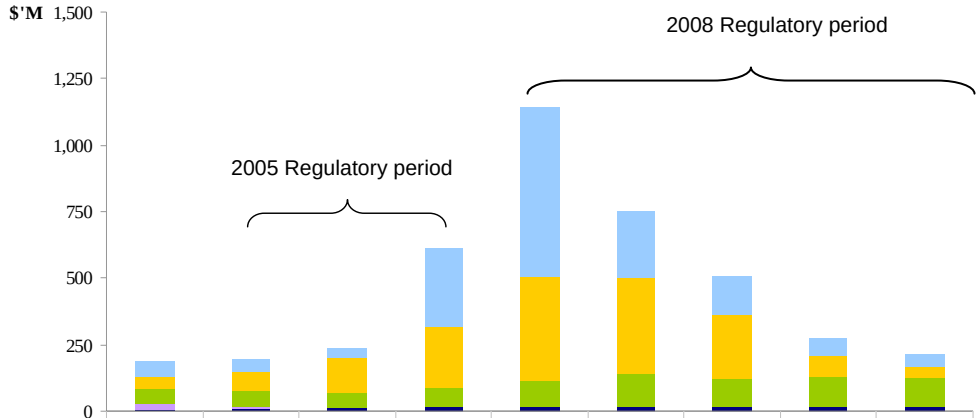
Delivering and operating these projects will involve significant additional capital and operating expenditure.

Other risks to the business from climate change include increased risk of bushfires in catchment areas, increased incidence of sewer overflows and increased risk of pipe failure and collapse due to dry soil conditions.

Melbourne Water's planned capital investment and forecast operating expenditure over the 2008 regulatory period incorporates measures to manage the impacts of climate change, particularly in relation to securing future water supplies, are detailed in Figure 2.5 and Figure 2.6 below[5].

[5] For the purposes of this Consultation Draft Melbourne Water has assumed that seawater desalination is delivered as a public private partnership (PPP).

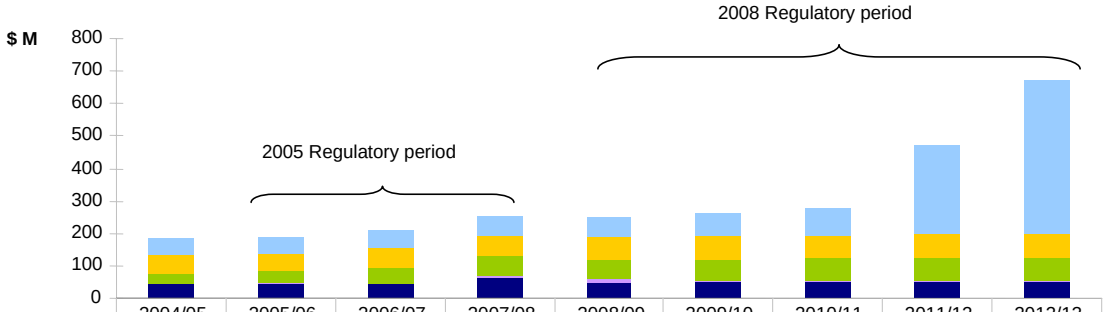
Figure 2.5 – Actual and Forecast Melbourne Water Capital Expenditure – 2004/05 to 2012/13
(2006/07 dollars)



	2004 /05	2005 /06	2006/07	2007 /08	2008 /09	2009 /10	2010 /11	2011 /12	2012 /13
Water	63.1	45.2	35.6	294.0	633.8	249.9	147.7	65.9	48.7
Sewerage	41.0	74.3	130.1	234.3	391.9	359.0	233.6	78.5	43.6
Waterways	58.6	59.5	58.7	72.3	99.0	124.7	112.5	114.5	105.0
Recycled Water	20.3	4.5	1.9	0.3	0.3	0.1	0.1	0.2	0.4
Corporate	8.0	9.2	10.7	14.2	16.6	17.0	13.7	17.4	17.2
Total Capex	190.9	192.6	237.0	615.0	1,141.6	750.7	507.6	276.7	214.8

The Sugarloaf Interconnector pipeline, Tarago Treatment Plant, ETP Tertiary Treatment as well as a sewage spills project and sewerage main renewal are expected to drive a significant increase in Melbourne Water's total capital expenditure

Figure 2.6 – Actual and Forecast Melbourne Water Operating Expenditure – 2004/05 to 2012/13
(2006/07 dollars)



	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Water	47.0	46.8	54.5	59.5	63.2	73.5	81.8	276.2	472.2
Sewerage	59.6	55.7	61.0	66.3	65.9	71.8	71.8	74.3	77.2
Waterways	30.0	36.3	47.0	58.9	63.9	64.0	66.8	67.6	67.8
Recycled Water	2.2	3.3	2.3	7.8	5.8	5.0	4.7	4.3	4.4
Corporate	44.5	45.6	44.1	62.3	51.9	51.3	51.0	51.4	51.7
Total Opex	183.3	187.7	208.9	254.7	250.7	265.6	276.0	473.9	673.3

Annual PPP payments for seawater desalination services as well as costs associated with the Sugarloaf Interconnector pipeline are expected to drive a significant increase in Melbourne Water's total operating costs

Climatic conditions also pose challenges in delivering waterways and drainage services. Melbourne Water works in partnership with Government agencies, industries, landowners and the community to manage environmental flows for river health and to support a wide range of beneficial uses. The challenge for Melbourne Water is how to manage environmental flows given competing demands for water, particularly when a reduction in stream flows is anticipated with climate change.

The degree of impact on river health will depend upon the magnitude and variability of the change in stream flows. The current extreme drought has seen temporary reduction in environmental flows. More frequent or intense droughts will require environmental flows to be carefully monitored and managed to avoid environmental decline of rivers and creeks. The current drought has also resulted in river diverters' access to water being restricted or suspended to avoid environmental impacts necessitating effective customer engagement and enforcement.

More frequent, intense storms in different locations have the potential to place increased demands on Melbourne Water's and local government's stormwater assets. Further, as experienced in the 2005 regulatory period, there may be significant expenditures associated with responding to the effects of flooding where there is inadequate provision for overland flows. Increasing urbanisation is also likely to increase run-off and infrastructure upgrades may be necessary to preserve service levels.

The effects of climate change on the intensity and duration of storms are not well understood. The challenge therefore is to develop greater understanding of the likely timing and impacts of climate change to enable the development of appropriate adaptation strategies.

New obligations

Melbourne Water's operating environment has also changed as a result of ongoing industry reform and policy development that was not known at the time of the Commission's 2005 Price Determination. For example, additional expenditures have arisen from:

- Undertaking initiatives in the Yarra River Action Plan to reduce the environmental impact of stormwater on waterways in urban areas
- Managing waterway environmental flows in line with newly established bulk entitlements and environmental entitlements
- Applying sustainable management principles to programs and activities to ensure the ongoing sustainability of resources, consistent with changes to Melbourne Water's Statement of Obligations.

Industry wide cost increases

Unanticipated industry wide increases in some key input costs have, and will, impact on expenditure levels and financial performance. For example, infrastructure providers in Australia, including water, electricity, gas and transport businesses, have, and will continue to, experience significant construction cost pressures. Industry wide increases are also being experienced in labour and contract rates. A combination of increasing demand and the continuing drought are impacting on electricity generators and resulting in significant forward electricity price increases.

3 Progress over 2005 regulatory period

The urban water industry is a little over two thirds of the way through the 2005 regulatory period and Melbourne Water has achieved a high level of compliance with the targets included in the Commission's 2005 Price Determination. It has become clear, however, that continued achievement of high levels of compliance will see Melbourne Water's total capital and operating expenditures over the 2005 regulatory period vary from the benchmark expenditures adopted by the Commission in its 2005 Price Determination.

3.1 Service outcomes

To date, Melbourne Water has achieved most of its 2005/06 and 2006/07 performance targets in relation to waterways and drainage services and is making good progress towards its end of period targets as illustrated in Table 3.1.

Table 3.1 – Key Performance Indicators for Waterways and Drainage

Key Performance Indicator	2005/06 Actual	2006/07 Actual	2007/08 2005 Water Plan target
Waterways condition			
Regional River Health Strategy (percentage achievement of 3-year target)			
– rivers with negotiated environmental flow regimes	40%	67%	6
– rivers with improvements made to environmental flow regimes	57%	75%	8
– area of streamside land under management agreements	20%	55%	500 Ha[6]
– length of streamside land revegetated	46%	76%	260 km[7]
– barriers where fish passage is improved	30%	40%	10
– length of river subject to streamside weed control	37%	> 100%	300 km[5]
– plans developed for rivers and creeks of high social value	100%	> 100%	2
– rivers where heritage values are protected or improved	67%	> 100%	15
– plans developed for rivers and creeks of high environmental value	100%	> 100%	2
– investigations to fill data gaps in high value or high risk rivers or creeks	100%	> 100%	6
– sites subject to bed and bank stabilisation	35%	> 100%	20

[6] The target for area of streamside land under management agreements was originally incorrectly specified as 5 hectares. The target was revised following discussions with the Commission.

[7] These targets have since been revised upward by Melbourne Water to 460 km in consultation with the Department of Sustainability and Environment as part of finalising the Regional River Health Strategy.

Key Performance Indicator	2005/06		2006/07	2007/08	
	2005 Water Plan target	Actual	2005 Water Plan target	Actual	2005 Water Plan target
Drainage and flood protection					
– flood prone floors that are protected[8]	32	52	36	52	81
– development applications processed within timeframe	100%	100%	100%	100%	100%
– planning controls: percentage of new properties meeting new flood protection	100%	100%	100%	100%	100%
– planning controls: number of flood prone properties in redevelopment areas reduced (approximate number)	250	250	250	267	250
Stormwater quality					
– cumulative reduction in nitrogen loads to Port Phillip Bay from wetlands	37 tonne	52 tonne	56 tonne	54.5 tonne	59 tonne
Diversion services					
– number of licences greater than 5ML/year metered or assessed for metering at 30 June	640	642	732	704	732

As detailed in Table 3.1, Melbourne Water has made good progress towards achieving the 2007/08 targets in relation to the Regional River Health Strategy[9] and has achieved all drainage and flood protection targets specified in the Commission's 2005 Price Determination for 2005/06 and 2006/07. To improve response times for processing development applications the current information technology processing system was upgraded in 2006 with a further upgrade planned before the end of the 2005 regulatory period to streamline the approval process.

The target for reduction in nitrogen loads to Port Phillip Bay from wetlands was met in 2005/06, with an annual reduction of 21.3 tonnes in nitrogen to give a cumulative reduction of 52 tonnes.[10] Nitrogen loads arising from the impact of urban stormwater run-off to Port Phillip Bay have been reduced using water quality improvement infrastructure (e.g. wetlands). The result for 2006/07, however, is slightly short of the target due to delays experienced in completing the revegetation phase of some projects due to poor planting conditions arising from the drought. The program to achieve nitrogen reduction targets has been reviewed and further wetlands and projects are planned for the remainder of the 2005 regulatory period.

The target in 2005/06 for the number of licences greater than 5 ML[11] per year metered, or assessed for metering, was met. However, the target for 2006/07 was not met due to delays in the supply of additional meters by the supplier and diversion of resources to urgent drought related projects.

[8] The yearly targets for 2005/06 – 2007/08 were revised following discussions with the Commission.

[9] These targets do not cover Melbourne Water's extended operating areas which were included subsequent to the Commission's 2005 Price Determination

[10] This is a cumulative target that was carried over into the 2005 regulatory period.

[11] A megalitre (ML) is equivalent to a million litres

3.2 Demand outcomes

Melbourne Water's waterways and drainage customer numbers (excluding Melbourne Water's extended waterways area[12]) are expected to grow to 1.5 million by the end of the 2005 regulatory period consistent with the forecast used by the Commission in its 2005 Price Determination. Table 3.2 illustrates a minor difference between 2005 Water Plan forecasts and actual customer numbers over the 2005/06 to 2006/07 period.

Table 3.2 – Actual and Forecast Waterway and Drainage Customer Numbers

	2005/06		2006/07		2007/08
	2005 Water Plan forecast	Actual	2005 Water Plan forecast	Actual	2005 Water Plan forecast
Number of customers[13]	1,452,018	1,458,776	1,475,503	1,485,149	1,498,887

In relation to the cash contributions received by Melbourne Water from the development industry for the construction of drainage infrastructure to service urban growth, forecast contributions for the 2005 regulatory period are expected to be $11.3 million higher than forecasts used by the Commission in its 2005 Price Determination (excluding Melbourne Water's extended waterways area). This is a result of higher than anticipated levels of industrial land development activity occurring due to favourable economic conditions.

Table 3.3 outlines developer cash contribution comparisons between 2005 Water Plan forecasts and actual numbers over the 2005/06 to 2006/07 period.

Table 3.3 – Actual and Forecast Developer Cash Contributions[14] (2006/07 dollars)

	2005/06		2006/07		2007/08	
	2005 Water Plan forecast ($M)	Actual ($M)	2005 Water Plan forecast ($M)	Actual ($M)	2005 Water Plan forecast ($M)	Forecast ($M)
Developer cash contributions	30.2	31.4	31.1	36.0	30.9	36.0

[12] Properties within Melbourne Water's extended waterways and drainage boundary areas were not included in the Commission's 2005 Price Determination

[13] The mid-point has been applied to actual year end property numbers to ensure consistency with the methodology used to calculate 2005 Water Plan forecasts

[14] 2007/08 figure is based on Corporate Plan forecasts

3.3 Capital expenditure outcomes

Melbourne Water has, in the main, delivered the service standards and outcomes detailed in the Commission's 2005 Price Determination. However, delivering these outcomes and accommodating new obligations is expected to see Melbourne Water spend $34.7 million more than the allowance provided by the Commission for the 2005 regulatory period (including corporate allocations).

Figure 3.1 illustrates, at an aggregate level, these higher than planned capital expenditures over the 2005 regulatory period, which are driven by:

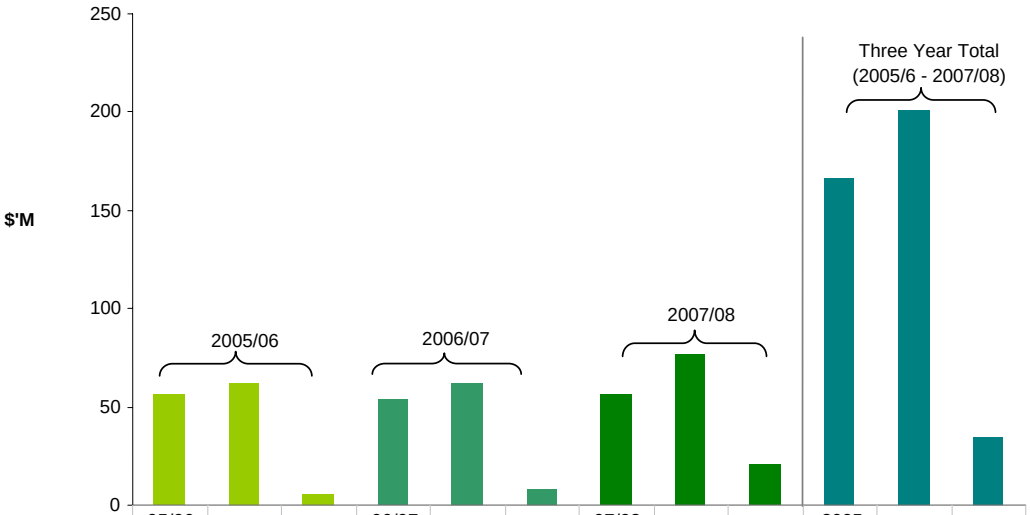
- New regulatory obligations not included in the 2005 Water Plan in relation to Implementing initiatives in the Yarra River Action Plan to reduce the environmental impact of stormwater on waterways in urban areas ($0.9 million)
- Additional expenditure related to the extension of Melbourne Water's waterway boundary ($11.9 million) which was not included in the Commission's 2005 Price Determination given the timing of the Government's decision to extend Melbourne Water's operating area and the uncertainty regarding future expenditure requirements. As directed by the Commission in its June 2005 Final Decision, Melbourne Water has ring fenced the additional extended area expenditures for recovery through prices in the 2008 regulatory period
- Higher than expected expenditure ($31.6 million) on developer-funded drainage growth works due to:
  - Higher than anticipated levels of industrial land development activity requiring capital works to be brought forward
  - Increased land acquisition costs for retarding basins and wetlands
  - Increased costs of meeting environmental standards and heritage requirements.

Melbourne Water has in place processes to ensure that the additional capital expenditures incurred over the 2005 regulatory period are prudent and efficient. This includes its competitive tendering processes, capital planning and delivery framework and asset management system.

The drivers of increased capital expenditures are offset by reductions in Regional River Health Strategy expenditures and nitrogen water quality treatment works over the 2005 regulatory period ($11.8 million) due to project delays. The project delays have resulted in nitrogen reduction loads falling slightly short of the 2006/07 performance target. Delays in project delivery have been attributed to building the necessary capacity to plan and deliver an extensive waterway improvement works program comprised of a large number of small value projects which are dependant on weather conditions and require building relationships with landowners to access waterways. A subsequent review of project planning processes has been undertaken and improvements implemented to increase the capital planning and delivery capabilities for waterways related works.

There are no material variances in corporate related capital expenditures.

Figure 3.1 – Waterways and Drainage Capital Expenditure – 2005/06 to 2007/08[15]
(2006/07 dollars)



	05/06 Water Plan	05/06 Actual	05/06 Variance	06/07 Water Plan	06/07 Actual	06/07 Variance	07/08 Water Plan	07/08 Forecast	07/08 Variance	2005 Water Plan	Actual Total	Variance Total
Waterways	56.5	62.3	5.8	53.8	62.0	8.2	56.2	76.9	20.6	166.5	201.2	34.7

Higher than expected expenditure on developer funded drainage growth works and additional expenditure in Melbourne Water's extended areas contribute to the increase in capital expenditure over the 2005 regulatory period

3.4 Actual operating expenditure associated with delivery of outcomes

Melbourne Water's operating expenditures are expected to exceed the expenditures allowed by the Commission in its 2005 Price Determination (including corporate allocations) by $41.4 million. Figure 3.2 illustrates, at an aggregate level, the higher than planned operating expenditures over the 2005 regulatory period which are driven by:

- New legislative and regulatory obligations not included in the 2005 Water Plan, in particular:
  - Implementing initiatives in the Yarra River Action Plan to reduce the environmental impact of stormwater on waterways in urban areas ($10.9 million)
  - Managing environmental flows in line with newly established Environmental Entitlements, as the Manager of Environmental Reserves ($0.5 million)
- Additional expenditure related to the extension of Melbourne Water's waterway boundary ($19 million)[16]

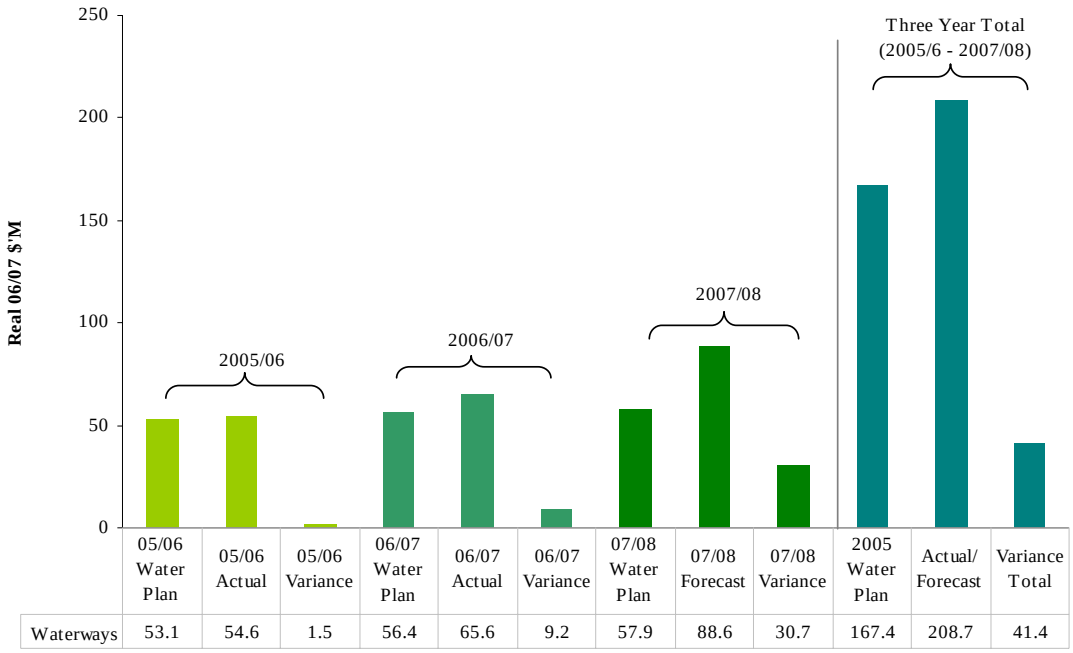
[15] 2007/08 figures are based on Corporate Plan forecasts

[16] Extended area expenditures were not included in the Commission's 2005 Price Determination given the timing of the Government's decision to extend Melbourne Water's operating area and the uncertainty regarding future expenditure requirements. As directed by the Commission in its June 2005 Final Decision, Melbourne Water has ring fenced the additional extended area expenditures which are eligible to be recovered through prices in the 2008 regulatory period. Expenditure includes estimate costs associated with introducing charges from 2008/09.

- Increase in business as usual expenditure as a result of:
  - Higher than planned expenditure for labour. This is driven by pay increases above the 3.5% allowed in the Commission's 2005 Price Determination consistent with Melbourne Water's Enterprise Agreement and by additional labour as the business positions itself to meet its obligations over the 2008 regulatory period ($3.6 million)
  - Higher civil maintenance costs ($5.6 million). This includes additional clean up costs associated with the 2005/06 floods and more maintenance for the increasing number of wetlands and retarding basins (e.g. desilting)
  - One off corporate costs associated with implementing drainage rate reform in Melbourne Water's existing waterways and drainage boundary area (estimated $2.8 million)[17].

The drivers of increased operating expenditures are offset by costs savings through efficiency initiatives and project reprioritisation.

Figure 3.2 – Waterways and Drainage Operating Expenditure – 2005/06 to 2007/08[18]
(2006/07 dollars)



	05/06 Water Plan	05/06 Actual	05/06 Variance	06/07 Water Plan	06/07 Actual	06/07 Variance	07/08 Water Plan	07/08 Forecast	07/08 Variance	2005 Water Plan	Actual/ Forecast	Variance Total
Waterways	53.1	54.6	1.5	56.4	65.6	9.2	57.9	88.6	30.7	167.4	208.7	41.4

Introducing services to Melbourne Water's extended boundary areas together with new obligations and increased business as usual expenditures have contributed higher operating expenditure than provided for in the Commission's 2005 Price Determination

[17] Preliminary estimate will be revised following further consultation with retail water businesses

[18] 2007/08 figures are based on Corporate Plan forecasts

4 Proposals for the 2008 regulatory period

4.1 Regulatory framework

The current framework for economic regulation is in its fourth year, and while much has been achieved, further refinement is possible.

Melbourne Water supports moving to a longer regulatory period as a means of reducing the costs associated with economic regulation and strengthening incentives for improved performance. However, in doing so it will be important that the framework for economic regulation provides sufficient mechanisms to enable water businesses to deal with the uncertainties and risks that may arise over the 2008 regulatory period.

Melbourne Water has seen a significant number of new obligations added to its service responsibilities over the first two years of the current regulatory period due to Government directions. This, combined with the effects of the worst drought on record, has had a material impact on Melbourne Water's financial performance.

In order to adequately manage uncertainty and ensure optimal risk allocation, the regulatory framework needs to incorporate a cumulative, end-of-period, pass through mechanism for additional and new legislative or regulatory obligations that are unforeseen and which arise once the 2008 Water Plan period has commenced. This would be symmetrical in application[19] and have a materiality threshold of 1% of revenues (currently at 2.5% of revenues).

In principle, Melbourne Water also supports provision within the regulatory framework for a within-period pass through process (as identified in the Commission's March 2007 Guidance Paper) for certain, specified major projects that are either still being considered by regulatory agencies or the Government or which are in the very early stages of planning. In practice, there are no waterways and drainage projects planned for the next regulatory period that are sufficiently large or uncertain to warrant application of this mechanism.[20]

Provided these mechanisms are in place to manage uncertainty, Melbourne Water considers that over the 2008 regulatory period price caps should be applied to its waterways and drainage prices.

4.2 Service outcomes

In delivering its waterways and regional drainage services, Melbourne Water must comply with the Waterways Operating Charter, as required under its Statement of Obligations.

The Waterways Operating Charter summarises obligations emanating from various pieces of legislation and Government policy and sets out long term aims, specific 10 year goals and performance targets for waterways and regional drainage services. The outcomes to be delivered over the 2008 regulatory period are summarised below for each service.

[19] That is, apply to increases and decreases in costs arising from additional and new legislative or regulatory obligations.

[20] This is in contrast to water and sewerage services where application of this mechanism would be appropriate for projects such as seawater desalination, the Sugarloaf Interconnector pipeline or the Eastern Treatment Plant outfall extension or advanced effluent treatment

Managing river health

River and creek management works will be delivered to meet Regional River Health Strategy implementation targets that contribute towards the 10 year goal of having 50% of rivers and creeks in good or excellent condition by 2015. This includes works to protect and improve the condition of river and creek beds and banks, aquatic habitat and streamside vegetation, programs to manage and improve environmental flows in major rivers and creeks, along with undertaking detailed planning to assist in the effective implementation of waterway programs. The 5-year implementation targets for river health are outlined in Table 4.1 below.

In addition, licences for stream diversions and farm dams will be managed to ensure environmental flows are protected and to meet service requirements set out in Melbourne Water's Customer Charter for Diversion Services.

Table 4.1 – River Health 5-Year Implementation Targets

Target Area	5 Year Target 2008/09 to 2012/13
Number of rivers with negotiated environmental flow regimes[1]	12 *
Number of rivers with improvements made to environmental flow regimes[1]	17 *
Area of streamside land under management agreements	10 km^2
Length of streamside land revegetated ~ +	1026 km#
Number of fish barriers removed	31
Length of riparian land subject to weed management +	2042 km#
Number of plans developed for rivers and creeks of high social value	15 ^
Rivers where heritage values are protected or improved	34
Number of plans developed for rivers and creeks of high environmental value	11 ^
Number of investigations to fill data gaps in rivers or creeks	55
Number of sites subject to bed and bank stabilisation	55
Number of IRC reaches with instream habitat reinstated	12

[1] Target relates to rivers within Melbourne Water's area of responsibility
~ Kilometres of rivers and creeks for streamside revegetation may overlap with kilometres of weed management
+ Length calculated for both sides of the stream
*^ Denotes action which covers multiple Management Units, counted as one target in the overall targets
# Target has been adjusted to reflect 80% of the total kilometres of stream length

Managing water quality

Works and programs will be delivered to manage runoff from urban and rural areas to meet Waterways Water Quality Strategy implementation targets. These targets contribute towards the 10 year goal to protect and improve water quality in waterways and bays in accordance with long term State environmental protection policies. This will be achieved by working collaboratively with others[21] to significantly counteract the effects of growth in greater Melbourne and achieve a net reduction in pollutant loads.

[21] This includes Government agencies, local government, industry, rural landholders and the community.

This includes working in partnership with stakeholders and the community to develop regulatory frameworks that ensures urban development meets best practice stormwater quality objectives and institutionalises water sensitive urban design. Also included are initiatives to increase community awareness of water quality improvement actions, programs to build the capacity of industry and local government to deliver sustainable urban water management and works to reduce pollutant loads from stormwater and rural runoff.

The 5-year implementation targets for water quality are outlined in Table 4.2 below.

Table 4.2 – Stormwater Quality 5-year Implementation Targets

Target Area	5 Year Target 2008/09 to 2012/13
Planning for Improved Water Quality	
Develop a draft Better Bays and Waterways Plan	2008
Percentage of programs implemented from the Better Bays and Waterways Plan assigned to Melbourne Water	100%
New or revised State Government requirements for all industrial, commercial, residential development to meet best practice water quality objectives	2013
Equipping Agencies, Communities and Industry to Manage Water Quality	
Develop and commence implementation of a land management program to manage run-off in rural areas	2009
Decrease in number of rivers and creeks where stock access poses a high risk to water quality	Demonstrated decrease
Number of training modules delivered under the Clearwater program per year with assistance from Melbourne Water	10
Percentage of councils with improved performance in delivering sustainable urban water management (as measured by the Council Needs Analysis)	70%
Number of guidelines and/or tools prepared to assist in the application of best practice stormwater management	6
Number of rain gardens built in the community with support from Melbourne Water	10,000*
Targeted Water Quality Works	
Percentage of councils that have committed to water sensitive urban design implementation targets for pollutant loads, flow and effective imperviousness	50%
Percentage of actions implemented from council Stormwater Management Plans assigned to Melbourne Water	70%
Reduction of nitrogen loads in urban stormwater by 2010	100 tonnes
Annual reduction in nitrogen loads through the establishment of wetlands for the period 2010 to 2013	2 tonnes
Number of pollution load hotspots addressed	8
Monitoring, Investigations and Research	
Number of new monitoring programs to fill knowledge gaps for toxicants and pesticides	2
Percentage of health risk assessments completed for major rivers and creeks with a high level of recreational activity	100%
Completion date for delivering the faecal investigations program	2013

* Denotes a target that covers multiple programs

Regional drainage and floodplain management

Flood protection works will be delivered over the 2008 regulatory period to reduce currently known intolerable flood risks by 10%, which contributes towards the 10 year goal of reducing intolerable flood risks by 30% by 2018. This includes further consultation with stakeholders and research into defining flood tolerability and programs designed to increase community and local government understanding and preparedness for flood risks.

Managing urban growth

Works and programs will be delivered to meet the 10 year goal of ensuring that urban development achieves appropriate standards of flood protection and environmental performance. At the same time these works will provide for regional drainage and water quality improvement infrastructure to service growth areas in a sustainable manner, whilst delivering an efficient level of service.

Monitoring, investigations and research

Monitoring, investigations and research programs will be implemented for river health, environmental and recreational water quality and flood management to determine changes in condition over time; address gaps in understanding and to explore new technologies; provide information for management decisions so that activities, plans and policies are based on sound knowledge and best practice; and track progress towards achieving targets.

Community and stakeholder engagement

Communication and engagement programs will be implemented to inform the community, Government and stakeholders and raise awareness of issues related to the health of the region's rivers, water quality and flooding and to provide opportunities for their involvement in improving waterway health.

4.3 Forecast demands

The expected increase in rateable waterways and drainage properties is around 126,300 over the 2008 regulatory period, representing an average annual growth rate of 1.6%. This varies for retail water business areas due to different rates of development activity. The corresponding increase in rateable properties in the extended areas is forecast to be about 37,400 over the 2008 regulatory period, representing an average annual growth rate of 4.1%. The higher annual growth rate is due to a larger number of growth corridors in the extended areas compared to the existing retail water business areas.

Forecasts of property growth are consistent with the Government's Victoria in the Future 2004 projections.

In relation to developer cash contributions, Melbourne Water forecasts to receive a total of $228.8 million[22] in contributions from the development industry to provide drainage related works for urban expansion. This represents an average annual growth rate of 6% over the 2008 regulatory period from 2007/08 levels.

Forecasts of land development activity have been informed by detailed planning, expected development rates sourced from the land development industry and Government's Victoria in the Future 2004 projections.

[22] Includes $19.9 million in the extended boundary areas

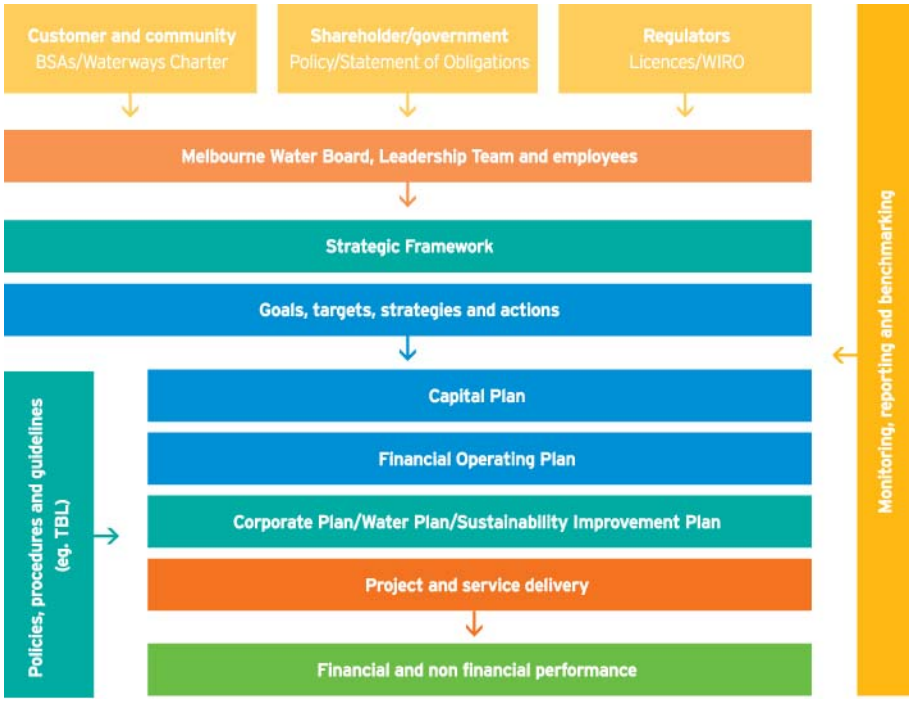
4.4 Planning processes

Melbourne Water's planning processes are integrated, robust and take explicit account of stakeholder and community interests.

Melbourne Water's proposed outcomes and expenditure for the 2008 regulatory period have been developed through Melbourne Water's Planning Framework (Figure 4.1) which:

- Ensures alignment with Government policy priorities, customer needs, regulator requirements and prudent risk management
- Ensures alignment between long term planning and day to day operational considerations
- Factors in broader economic, social and environmental considerations
- Achieves continuous improvement through regular benchmarking and review of planning processes and outcomes.

Figure 4.1 - Melbourne Water's Planning Framework



Melbourne Water's planning framework ensures alignment of planning processes and promotes continuous improvement

Melbourne Water's vision, sustainability principles, values and goals are outlined in Sustainable Water – A Strategic Framework[23]. This framework ensures Melbourne Water's long-term objectives are aligned to Government, regulatory and customer priorities as set out in key documents such as the Waterways Operating Charter, Our Water Our Future, the Central Region Sustainable Water Strategy, Our Environment Our Future and Melbourne 2030. It also provides the context for Melbourne Water's planning process, ensuring that social, environmental and economic aspects are all considered.

Detailed capital and operating expenditure plans support delivery of short and medium term targets set out in periodic Water Plans and annual Corporate Plans.

[23] A copy of the Strategic Framework is available on Melbourne Water's website www.melbournewater.com.au

Regular review and continuous improvement are an integral part of Melbourne Water's Planning Framework. For example, since submission of the 2005 Water Plan, Melbourne Water has undertaken reviews and benchmarking studies with a view to strengthening its capital planning and delivery processes and systems:

- During 2005/06, a benchmarking study was undertaken with a leading United Kingdom water company with a specific focus on capital planning and delivery processes
- In June 2006, Melbourne Water engaged KPMG to review its capital planning and delivery process against industry 'best practice' to provide a basis for improving the process itself and the systems and other factors that support it.

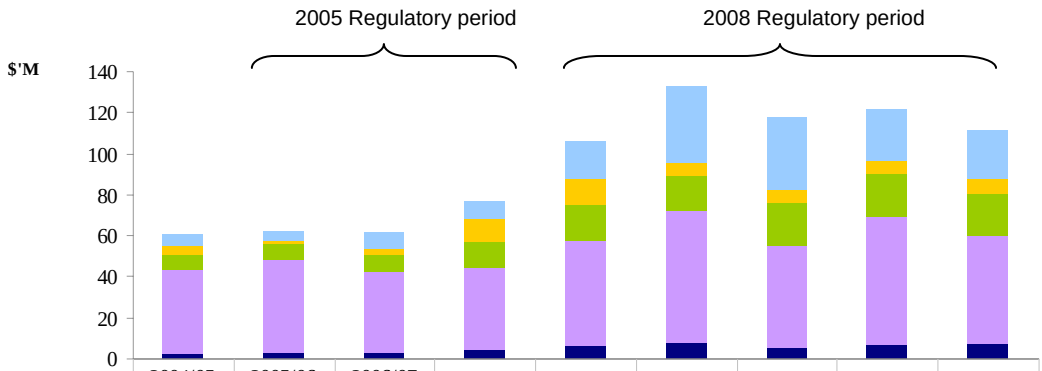
The results of these reviews are progressively being implemented. Improvements to date include:

- Strengthened governance arrangements through the establishment of a Board committee on capital planning and delivery
- A more rigorous process of review/challenge of project proposals
- A streamlined capital planning process which frees up resources for program/project review
- Improved forecasting of renewals capital expenditure on mechanical and electrical equipment
- Introduction of Triple Bottom Line guidelines for evaluating expenditure proposals
- Improved cost estimation methodologies for high value/high risk projects.

4.5 Capital expenditure

Planned waterways and drainage investments total $589.5 million over the 2008 regulatory period, which includes corporate overhead allocation of $33.7M (5.7% of planned investment). Figure 4.2 shows historical and proposed expenditure by program.

Figure 4.2 – Waterways and Drainage Capital Programs – 2004/05 to 2012/13 (2006/07 dollars)

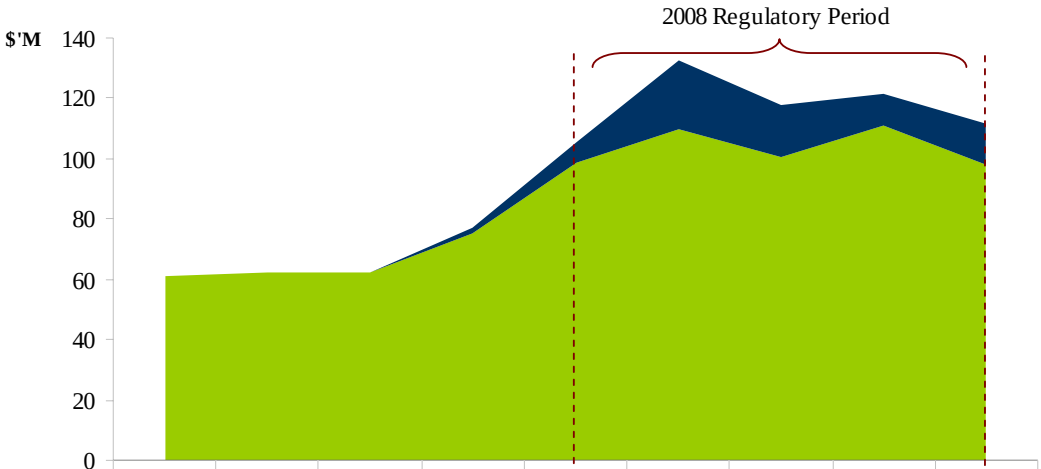


	2004/05 Actual	2005/06 Actual	2006/07 Actual	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Drainage & Flood Protection	5.7	4.3	8.5	9.2	18.0	37.3	35.5	24.9	23.9
Stormwater Quality	4.9	2.1	2.5	11.2	12.5	5.6	6.5	6.4	7.3
Waterways Condition	7.2	7.9	8.4	12.0	17.0	17.6	20.7	20.7	20.7
Land Development	40.8	45.1	39.3	40.0	51.4	64.2	49.9	62.6	53.1
Corporate Overhead Allocation	2.4	2.8	3.3	4.6	6.7	7.9	5.4	6.9	6.8
Product Total	**61.0**	**62.3**	**62.0**	**76.9**	**105.7**	**132.6**	**118.0**	**121.4**	**111.8**

Capital expenditure is forecast to decrease after peaking in 2009/10

Capital investment is expected to increase over the 2008 regulatory period, on average, by approximately 8% per year relative to 2007/08. Increases are forecast for business as usual investments early in the regulatory period and additional investment is required to comply with new obligations and service standards. Figure 4.3 shows the profile of business as usual (88%) and new obligations (12%) investments over the 2008 regulatory period.

Figure 4.3 – New and Business as usual Capital Expenditure – 2005/06 to 2012/13 (2006/07 dollars)



	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
New Obligations	0.0	0.0	0.0	1.4	7.1	22.7	17.4	10.4	13.7
Business as Usual	61.0	62.3	62.0	75.5	98.6	109.9	100.6	111.0	98.1

After an initial increase business as usual capital expenditure is forecast to remain relatively stable. Expenditure on new obligations will fall after peaking in 2009/10

Melbourne Water has adopted a supplementary approach to the Commission's definition of new obligations to include obligations coming into effect within the 2005 regulatory period and which were not included in the 2005 Water Plan.

Over the 2008 regulatory period, capital expenditure on new obligations is $71.3 million. In particular, significant capital expenditure is planned to meet the following new obligations:

- Investment in flood protection works to meet the new requirement of reducing intolerable flood risks in areas where flooding results in high economic and social costs ($63.9 million)
- Program of load reduction works to remove a range of pollutants from stormwater and catchment run-off to meet new requirements in the Waterways Operating Charter and targets set out in the Waterways Water Quality Strategy ($4.4 million)
- Managing environmental flows in line with newly established Environmental Entitlements ($0.7 million) and works to improve estuary environments in line with new responsibilities as caretaker of river health in the Port Phillip and Westernport region ($2.3 million).

Planned investment in Melbourne Water's extended areas totals $55.1 million over the 2008 regulatory period.

Increases in business as usual investments over the 2008 regulatory period, relative to 2007/08 are primarily driven by:

- Acceleration of works to restore waterway health to meet the objectives in the Regional River Health Strategy and Waterways Operating Charter ($18.5 million)
- Increased developer-funded growth works to meet industry and Government land development projections ($77 million).

Melbourne Water recognises the challenge of delivering a much larger investment program (not only for waterways and drainage services but also for its water and sewerage services) in a highly competitive contracting market.

Melbourne Water has consulted waterways, water and construction industry consultants and contractors on its planned water, sewerage and waterways and drainage capital expenditure over the 2008 regulatory period. The feedback is that the proposals are ambitious, but achievable. This view is supported by industry data that shows the recent rapid growth in construction activity has been absorbed by industry growth and therefore capacity will exist to service Melbourne Water's capital program.

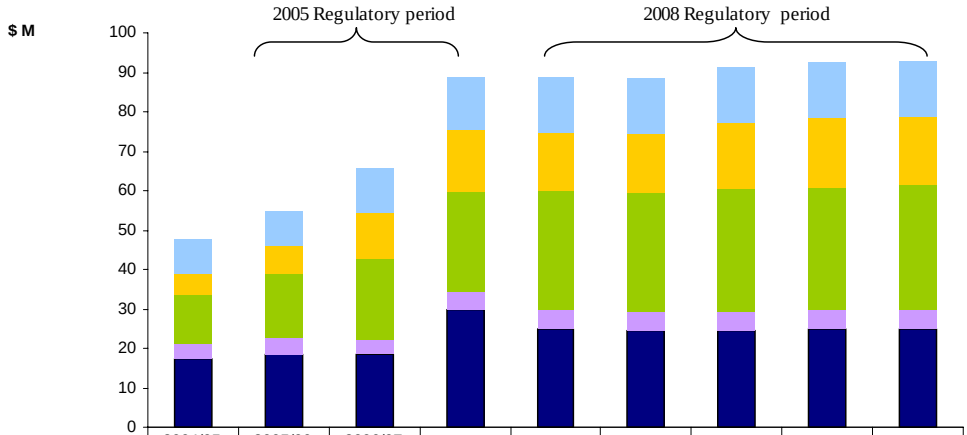
To deliver a significantly larger total business (including waterways and drainage) capital program, Melbourne Water is making changes to the way projects are planned, contracted, resourced and delivered. Melbourne Water is confident that successful delivery of the capital program can be achieved based on:

- Its successful track record in delivering its capital expenditure program over the past 5 years during which time capital expenditure has nearly doubled
- Approaching the market early and publicising the upcoming work widely to assist contractors and consultants with their business planning and recruitment and training of industry specialists. This is important in both attracting the right contractors and consultants with specialised skills for the projects and in ensuring that Melbourne Water establishes arrangements that have the appropriate allocation of risk and resources
- Choosing contract and delivery strategies appropriate to the size, complexity and risk of projects. A decision matrix will be used to select the delivery model best suited to each project, group of projects or program
- For the Waterways and Stormwater Program, major and medium scale projects will be delivered through collaborative contracts. For minor capital works, service provider contracts will deliver both day to day maintenance and high volume, low risk capital works
- Continuing the current panel arrangements for consultants and spreading the workload across a number of firms to underpin and assist the expansion of the water sector consulting industry in Victoria
- Considering the 'bundling' of smaller projects to improve efficiency
- Improving working relationships with key stakeholders to negotiate optimum solutions and timing for projects
- Identifying the skills required to deliver the capital program and implementing human resources initiatives to attract and retain the requisite skills. Operations and asset management teams will be supplemented with additional staff to facilitate appropriate input to the program
- Enhancing the processes and information technology systems that support the capital planning and delivery process.

4.6 Operating expenditure

Forecast operating expenditure totals $453.5 million over the 2008 regulatory period, which includes corporate overhead allocation of $123.4 million (27% of total operating expenditure). Figure 4.4 shows historical and proposed expenditure by program. The corporate overhead allocation includes costs associated with functional areas such as information technology, human resources, finance, risk management, insurance and research and technology.

Figure 4.4 – Waterways and Drainage Operating Expenditure by Program – 2004/05 to 2012/13
(2006/07 dollars)

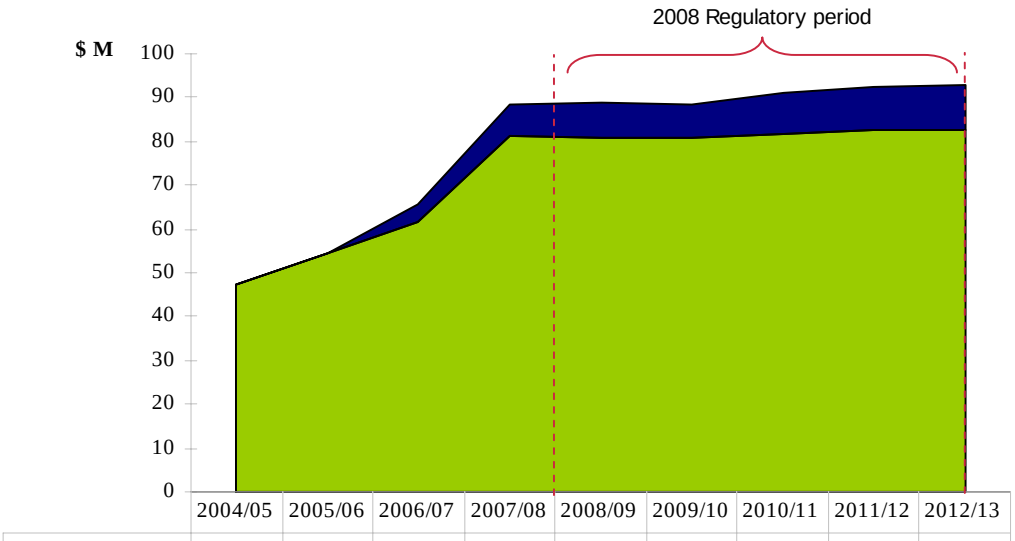


	2004/05 Actual	2005/06 Actual	2006/07 Actual	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Drainage & Flood Protection	8.5	8.5	11.2	13.2	14.1	14.0	14.0	14.1	13.9
Stormwater Quality	5.4	7.1	11.7	15.9	14.5	14.7	16.8	17.5	17.4
Waterways Condition	12.6	16.4	20.3	25.0	30.2	30.4	31.0	31.1	31.5
Land Development	3.5	4.3	3.9	4.8	5.1	4.9	5.0	5.0	5.0
Corporate Overhead Allocation	17.5	18.4	18.5	29.7	24.7	24.5	24.4	24.8	25.0
Product Total	**47.5**	**54.6**	**65.6**	**88.6**	**88.7**	**88.4**	**91.2**	**92.4**	**92.8**

After increasing over the 2005 regulatory period operating expenditure is forecast to remain relatively stable

Waterways and drainage operating expenditure is expected to increase over the 2008 regulatory period, on average, by approximately 0.9% per year relative to 2007/08. Figure 4.5 illustrates that a key driver of the increase in operating expenditure is due to meeting new obligations, while expenditure associated with business as usual activities will remain relatively stable relative to 2007/08.

Figure 4.5 – New and Business as usual Operating Expenditure – 2005/06 to 2012/13
(2006/07 dollars)



	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
New Obligations	-	0.3	3.8	7.3	8.0	7.7	9.3	9.9	10.1
Business as Usual	47.5	54.3	61.8	81.2	80.6	80.7	81.9	82.5	82.8

After increasing over the 2005 regulatory period business as usual operating expenditure is forecast to remain relatively stable. Expenditure on new obligations is the key driver of the increases in operating expenditure

The significant increase in operating expenditure for 2007/08 is mainly due to the continued phase-in of waterways management and drainage services to Melbourne Water's extended boundary areas, one-off billings and collections costs associated with implementing rate reforms and meeting requirements under new obligations.

Melbourne Water has adopted a supplementary approach to the Commission's definition of new obligations for the 2008 Water Plan to include obligations coming into effect within the 2005 regulatory period and which were not included in the 2005 Water Plan.

Over the 2008 regulatory period, operating expenditure planned for new obligations includes:

- Managing environmental flows in line with newly established Environmental Entitlements ($2.9 million)
- Implement the final stages of the Lower Yarra Stormwater Quality Program (part of the Yarra River Action Plan) to reduce the environmental impact of stormwater on waterways from nominated council areas ($1.2 million)
- Undertaking load reduction programs to remove a range of pollutants from stormwater and catchment run-off to meet targets in the Waterways Water Quality Strategy and the 2007 Waterways Operating Charter ($36 million)
- Implementing flood protection measures to reduce currently known intolerable flooding risks to public health and safety, property and infrastructure as set out in the 2007 Waterways Operating Charter ($4.9 million).

Business as usual expenditure is forecast to remain relatively stable over the 2008 regulatory period in absolute terms and, when adjusted for growth, is expected to fall by at least 1.5% per year relative to 2007/08.

This reflects initiatives expected to yield ongoing efficiency savings and is in spite of upward pressure on costs arising from:

- Higher labour costs due to above consumer price index (CPI) increases in labour rates, based on current movements in the labour market, and additional headcount required to deliver services to extended areas ($11.5 million)
- Higher civil maintenance costs ($20.7 million) due to the:
  - increasing size of Melbourne Water's waterways and drainage asset base
  - assets experiencing a periodic increase in activity e.g. the need for de-silting recently constructed wetlands, along with increased riparian management activities to ensure that the condition of vegetation near rivers and creeks is maintained
  - above CPI increases in contract rates influenced by market conditions.

Provision of waterway and drainage services to Melbourne Water's extended boundary area will lead to costs of $41 million over the 2008 regulatory period.

4.7 Regulatory asset value and depreciation

The Commission's 'building block' method for calculating prices adds actual investment over the 2005 regulatory period and forecast investment over the 2008 regulatory period to Melbourne Water's regulated asset value. This then forms the basis for the depreciation and commercial return provisions included in prices.

In determining the regulatory asset value as at 1 July 2008, Melbourne Water considers that using actual capital expenditure, contributions and disposals for the period from 1 July 2004 to 30 June 2006 and forecasts for 2007/08 is a more appropriate basis for rolling forward its regulatory asset value than using the provisions included in the Commission's 2005 Price Determination. This is particularly important given the significant changes to Melbourne Water's operating environment over the 2005 regulatory period including new obligations and changes to project scopes and costs. Adopting this approach would result in a rolled forward regulatory asset value as at 1 July 2008 of approximately $861 million for waterways and drainage services.

Melbourne Water considers that the capital expenditures forecast for 2007/08 are both prudent and efficient.

Guidance provided by the Commission identifies straight line and reducing balance depreciation as options in calculating the return of capital over the regulatory period. Melbourne Water has adopted the straight line approach in preparing this Consultation Draft.

4.8 Cost of capital and taxation

The Commission includes a commercial return in the prices as measured by its assessment of the Weighted Average Cost of Capital (WACC). Melbourne Water has used a real post-tax WACC of 5.1%, consistent with guidance provided by the Commission, in preparing this Consultation Draft.

Melbourne Water and the retail water businesses commissioned consultants, the Strategic Finance Group (SFG), to provide an empirical estimate of the WACC for their businesses.

SFG developed a real, post-tax WACC mid-point estimate of 6.2% but recommended a 75th percentile figure of 6.4%, based on empirical analysis of the underlying data, financial theory and the requirement for all WACC parameters to be estimated in an internally consistent manner. Adopting the recommended value could add at least an additional 1.7% to Melbourne Water's proposed price path.

While supporting the conclusions of the SFG consultancy, in light of stakeholders' concerns in relation to the numerous upward pressures on prices, at this point in time Melbourne Water has not used the recommended real, post-tax WACC estimate of 6.4%. Melbourne Water does, however, believe that the issue of the appropriate WACC for water businesses should be further debated particularly in relation to issues around the empirical estimates for equity beta and gamma.

The Commission makes provision for company tax in regulated prices, as it is seen to be a legitimate business cost. As a result of a large number of Melbourne Water's major assets becoming fully depreciated for tax purposes, tax payable over the 2008 regulatory period is expected to increase which will impact on the level of the proposed prices.

4.9 Required revenue

Over the 2008 regulatory period, Melbourne Water's smoothed revenue requirement for waterways and drainage services is $748 million.[24] This reflects the costs associated with delivering improvements in river health, reducing intolerable flood risks and consolidating the provision of services to Melbourne Water's extended boundary areas.

While the impact on individual customers will vary, for customers in Melbourne Water's existing service area raising the required revenue will necessitate an average price increase of CPI+1% per annum. Melbourne Water also proposes to commence charging for services provided in the extended boundary areas.

4.10 Prices

Melbourne Water has investigated alternatives to the current property valuation based prices for waterways and drainage services with a view to establishing prices that better reflect the cost and benefits of the services received by different customer groups, are easier for customers to understand and that are more cost effective to administer.

Microeconomic reform has seen water authorities across Australia move away from using property values as a basis for setting water, sewerage and drainage prices.

In Melbourne, the use of property values in setting water and sewerage prices was phased out in the late 1990s. While there are some important differences with water and sewerage services, the current approach to pricing waterways and drainage services needs to be reviewed because of:

- The link between a customer's capacity to pay (the original basis for choosing property values) and their current price is questionable as:
  - There have been significant changes in property values since 1990
  - 60% of residential customers currently pay the minimum price
- The use of 1990 property values is inconsistent with values used by Councils for rating properties, creating customer confusion and complaints
- The high cost of maintaining 1990 property values for billing purposes (over $1 million per annum)
- Appropriate pricing arrangements need to be developed and implemented in Melbourne Water's extended boundary areas.

[24] This includes miscellaneous revenue for waterways services of $15M.

Experience with the reform of water and sewerage prices indicates that any change to valuation based prices, including updating valuations, will result in material customer impacts. Melbourne Water has considered a range of alternative pricing methodologies including:

- Catchment based prices
- Area based prices
- Updating property valuations
- A fixed annual service price for each customer category.

Following extensive analysis, a suite of annual service prices has been selected as the preferred option as it:

- Better reflects the extent to which customers impact on, or benefit, from the services provided
- Achieves a higher level of transparency and customer understanding
- Delivers significant implementation and administration cost savings
- Results in lower customer impacts relative to some other options
- Will result in more stable prices over time compared to catchment based charges given that expenditure across catchments is prioritised and varies significantly from one regulatory period to the next.

The challenges associated with reforming valuation based water and sewerage prices also suggests a staged approach will enable an initial focus on the areas of greatest potential gain, help manage impacts on customer bills and allow sufficient time to work through complex issues.

Melbourne Water proposes an initial round of price reform over the 2008 regulatory period with the following prices introduced in 2008/09:

- Commence phasing in a single service price for residential customers by increasing the minimum price to $57 while maintaining prices for customers who currently pay above the minimum
- Decreasing reliance on property values for non-residential customers by increasing the minimum price to $75, with further reform during the next regulatory period
- Ensuring rural customers only pay for the services they receive by replacing existing prices for rural customers located outside the Urban Growth Boundary with a lower waterways service price of $36 (see Figure 4.6)
- Commencing charging customers in the extended area for the provision of waterways and regional drainage services by introducing a single service price of $57 per year for residential customers, $75 for non-residential customers and $36 for customers located outside Urban Growth Boundary
- Continuing discussions with customer committees within the special drainage areas to move towards an improved basis for pricing.

The proposed waterways and drainage prices to apply from 2008/09 are outlined in Appendix 1.

While price reform is proposed on a number of different fronts, and will effect customers differently, the proposed prices for customers in the existing service areas would increase on average by CPI+1% per year over the 2008 regulatory period. This increase is consistent with delivering the service outcomes discussed in earlier sections. The proposed prices for the different customer groups and associated impacts are discussed below.

Residential customers

Broadly speaking, residential customers are fairly uniform in terms of the benefits they receive and the costs they impose on waterways and drainage services. Consequently, a single price based on the average cost of providing services to residential customers is a reasonable proxy for the true costs incurred and benefits received by this group.

Melbourne Water proposes to transition residential prices to the average cost by increasing the minimum price by $2 plus inflation each year over the 2008 regulatory period and maintaining prices for customers who currently pay above the minimum until the transitional arrangements are complete in 2012/13.

Setting the minimum price at $57 in 2008/09 would increase customer bills by $2 in real terms for 60% of residential customers (about 804,000) who currently pay the minimum price of $55. Prices for 40% of customers currently paying above the minimum (about 539,000) would remain constant in real terms.

Table 4.3 outlines the proposed price path for residential customers over the 2008 regulatory period. The average price for a customer paying above the minimum in 2007/08 has been used to illustrate the price path for these customers.

Table 4.3 – Proposed price path for residential customers – 2008/09 to 2012/13 (2006/07 dollars)

		Current	Proposed				
		2007/08 ($/yr)	2008/09 ($/yr)	2009/10 ($/yr)	2010/11 ($/yr)	2011/12 ($/yr)	2012/13 ($/yr)
Residential properties	Paying minimum price	55	57	59	61	64	66
	Above minimum price (average)	86	86	86	86	86	66

Non-residential customers

In contrast to residential customers, there are significant differences between non-residential customers (who range from cafes to shopping centres to warehouses) in terms of:

- The costs they impose on services (as measured by their contribution to stormwater run-off)
- The level of benefits they receive (e.g. the level of foregone earnings as a result of flooding)
- Opportunities to change behaviour to reduce the quantity (e.g. through stormwater reuse) or improve the quality of stormwater run-off from their property.

An extensive review that commenced following the Commission's 2005 Price Determination explored a number of price reform options for non-residential customers. The review highlighted the diversity within current non residential prices and the significant potential impacts of moving to a more cost reflective approach.

As a first stage reform measure Melbourne Water proposes that the current minimum price be increased to $75 in 2008/09 and property values be retained pending further analysis and development of reform proposals for inclusion in the next regulatory period.

Increasing the minimum from $55 to $75 in 2008/09 results in increasing the number of non-residential customers paying the minimum price from around 16,000 (14%) to approximately 27,200 (23%). This reduces reliance on property values and establishes a higher base price upon which future tariff reform can take place.

Table 4.4 outlines the proposed price path for non-residential customers over the 2008 regulatory period. The average price for a customer paying above the minimum in 2007/08 has been used to illustrate the price path for these customers.

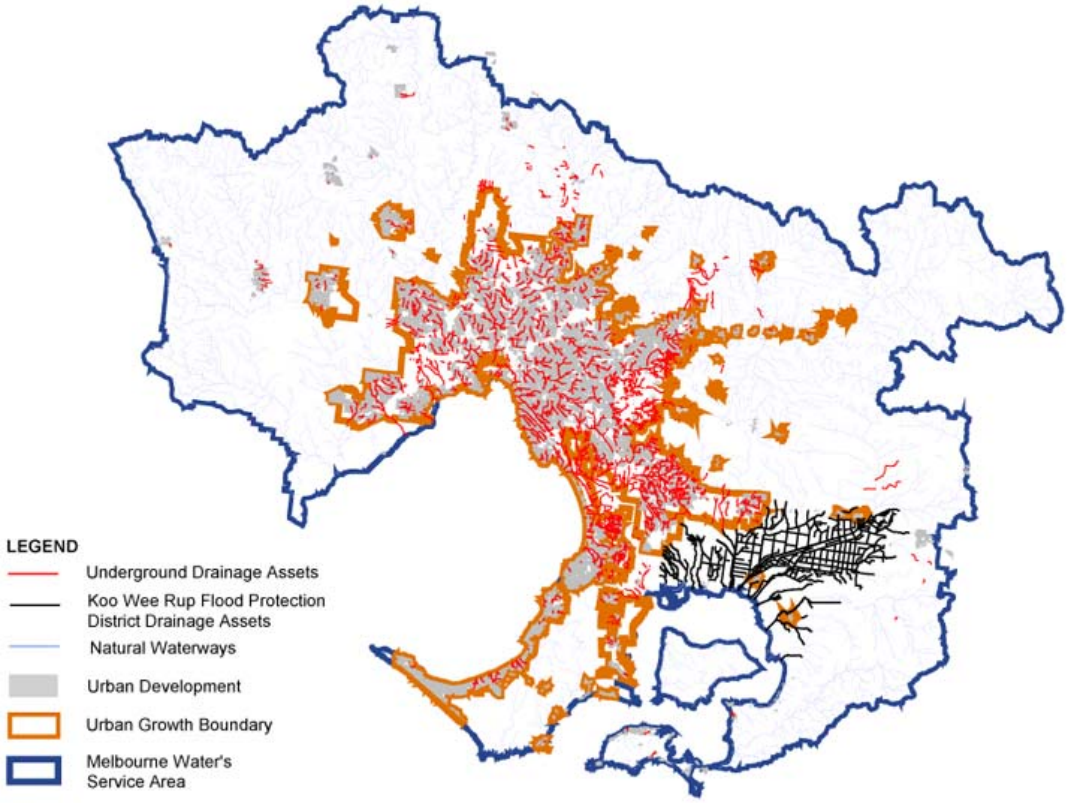
Table 4.4 – Proposed price path for non-residential customers – 2008/09 to 2012/13 (2006/07 dollars)

		Current 2007/08 ($/yr)	Proposed 2008/09 ($/yr)	2009/10 ($/yr)	2010/11 ($/yr)	2011/12 ($/yr)	2012/13 ($/yr)
Non-residential properties	Paying minimum price	55	75	78	80	83	86
	Above minimum price (average)	455	471	487	504	522	540

Rural customers

As illustrated by Figure 4.6, with the exception of the Koo Wee Rup Flood Protection District, Melbourne Water's regional drainage assets are located predominantly within urban areas which have been designated by the Urban Growth Boundary[25]. As customers located outside the Urban Growth Boundary (which are largely comprised of rural properties) do not receive the full benefits of Melbourne Water's regional drainage services, it is proposed that these customers pay for the cost of waterways services only. The average annual cost of providing waterways services in the greater Melbourne metropolitan area is around $36.

Figure 4.6 – Urban Growth Boundary and Melbourne Water assets



[25] Defined in the State Government's *Melbourne 2030* which indicates the long term limits of urban development and where non-urban values and land uses should prevail in metropolitan Melbourne

Moving to a waterways service price of $36 in 2008/09 for rural customers located outside the Urban Growth Boundary would result in an average $45 decrease for about 47,000 residential and non-residential customers.

It is also proposed that historic exemptions be removed for 3,200 farm properties in the Yarra and Maribyrnong catchments which have received services following previous extensions of Melbourne Water's service area in 1981 and 1984. 95% of these properties are located outside the Urban Growth Boundary and would pay a price of $36 for waterways services.

Table 4.5 outlines the proposed price path for rural customers over the 2008 regulatory period. The average price for a customer paying above the minimum in 2007/08 has been used to illustrate the price path for these customers.

Table 4.5 – Proposed price path for rural customers – 2008/09 to 2012/13 (2006/07 dollars)

		Current	Proposed				
		2007/08 ($/yr)	2008/09 ($/yr)	2009/10 ($/yr)	2010/11 ($/yr)	2011/12 ($/yr)	2012/13 ($/yr)
Rural properties	Paying minimum price	55	36	37	38	40	41
	Above minimum price (average)	112	36	37	38	40	41

Extended areas

Given that customers within the extended areas will receive an equal level of waterways and regional drainage services to other areas within Melbourne Water's service area, it is proposed that prices be uniformly applied across the whole of the Port Phillip and Westernport catchment areas.

Introducing 1990 property values as a basis for charging residential and non-residential customers in the extended areas is expensive and likely to result in customer confusion and be difficult to explain. It is recommended, therefore, that in light of the proposal to move residential customers to a single service price over the 2008 regulatory period, a flat service price of $57 be applied in 2008/09 for all residential customers (approx 118,000) in the extended area. Due to further investigations planned for non-residential prices and potential future reforms, it is also proposed that a flat service price of $75 be applied in 2008/09 for all non-residential customers (approx 5,000 customers) in the extended area as an interim measure.

An estimated 54,000 customers outside of the Urban Growth Boundary would pay a fixed waterways service price of $36.

Table 4.6 outlines the proposed price path for extended area customers over the 2008 regulatory period.

Table 4.6 – Proposed price path for extended area customers – 2008/09 to 2012/13 (2006/07 dollars)

	Current	Proposed				
	2007/08 ($/yr)	2008/09 ($/yr)	2009/10 ($/yr)	2010/11 ($/yr)	2011/12 ($/yr)	2012/13 ($/yr)
Residential properties	N/A	57	59	61	64	66
Non-residential properties	N/A	75	78	80	83	86
Rural properties	N/A	36	37	38	40	41

Special drainage areas

Special drainage area customers represent 0.3% of Melbourne Water's customer base. Melbourne Water sets prices for these customers in consultation with customer advisory committees. Melbourne Water has consulted on its intention to reform special drainage area prices over the 2008 regulatory period. Working with customer advisory committees to appropriately manage any customer bill impacts will be an important consideration in this process. In the interim, it is proposed that the current approach and principles used to set prices for these customers be retained for around 3,000 customers in the Koo Wee Rup Flood Protection District and approximately 1,200 customers in the Patterson Lakes area.

Diversion services

Melbourne Water proposes to retain the existing structure for diversions prices, where a flat service price and volume-based price (peak, off-peak and non-consumptive) is levied for administering waterway diversion licences. Price proposals for the 2008 regulatory period include increasing annual service prices by an average of 4% per annum and increasing volume based price by an average of 16% per annum.

Consultation with Melbourne Water's customer advisory committees indicate that the proposed prices and service outcomes for the 2008 regulatory period are considered to be not unreasonable with the major concern for licence holders being the security of access to water resources.

The proposed price increases will ensure that Melbourne Water is able to effectively manage customer compliance to protect water entitlements for all diverters while respecting the needs of the environment as well as improving information services for customers.

Developer cash contributions

Melbourne Water proposes to continue using pricing principles as a basis for setting developer charges in Development Service Schemes. Cash contributions received from these schemes are used by Melbourne Water to construct drainage works to service urban growth areas. In applying these principles Melbourne Water has responded to issues identified by the Commission in its 2005 Price Determination and subsequent consultation with industry. Melbourne Water has also responded to legislative change in relation to accountability for water sensitive urban design.

Miscellaneous services

Melbourne Water currently charges for a variety of miscellaneous services provided to the retail water businesses, developers and the general public. The prices for these services are set to reflect the cost of the service delivered. Appendix 1 outlines the proposed prices in 2008/09.

5 Consultation and next steps

Process to date

Effective stakeholder engagement has been a critical input to developing this Consultation Draft. To date, valuable input has been provided by:

- Waterways Advisory Committee
- Diversions customer advisory committees
- Department of Treasury and Finance
- Department of Sustainability and Environment
- EPA Victoria
- Essential Services Commission
- Retail water businesses.

This feedback has assisted Melbourne Water to:

- Clarify the outcomes to be delivered over the 2008 regulatory period
- Discuss the activities needed to deliver these outcomes and their associated cost
- Establish relative priorities given potential customer impacts
- Set the structure, level and phasing of proposed prices
- Agree appropriate planning assumptions
- Discuss the regulatory framework needed to create incentives for improved business performance and manage risks appropriately.

Next steps

This Consultation Draft provides an opportunity for Melbourne Water to consult more widely on its 2008 Waterways Water Plan proposals.

Your comments on this Consultation Draft are invited before 16 November 2007.
You can comment via our website www.melbournewater.com.au or write to:

Water Plan
PO Box 4342
Melbourne VIC 3001

Comments will be considered as we finalise our submission to the Commission, who ultimately determine waterways and drainage prices, as Melbourne Water seeks to deliver a final 2008 Waterways Water Plan that reflects public, Government, regulatory and customer feedback while meeting the challenges that lay ahead.

Appendix 1: Table of Proposed Prices

Melbourne Water

Proposed prices for 2008/09 (in 2006/07 dollars)

All 2008/09 prices are rounded to the nearest dollar

	Tariff and Price Component	Price (1 July 2008)
1.1	**Waterways and drainage charge – All properties located within the area designated as the Urban Growth Boundary as at 1 July 2008**	
	Residential	
	– Rate in $ NAV (cents per annum)	0.7728
	– Minimum fee ($ per annum)	57
	Non-residential	
	– Rate in $ NAV (cents per annum)	0.7999
	– Minimum fee ($ per annum)	75
1.2	**Waterways and drainage charge ($ per annum) – All new properties within the area designated as the Urban Growth Boundary from 1 July 2008**	
	Residential	57
	Non-residential	75
1.3	**Waterways charge ($ per annum) – All properties located outside the area designated as the Urban Growth Boundary**	36
1.4	**Diversion charges unregulated waterways**	
	Licence service fee – All months ($ per annum)	183
	Licence service fee – On-stream winter-fill ($per annum)	183
	Licence service fee – Off-stream winter-fill ($ per annum)	183
	Licence service fee – Licensed farm dam ($ per annum)	183
	Licence service fee – Non-consumptive ($ per annum)	183
	Licence service fee – Power generation ($ per annum)	183
	Licence service fee – Stormwater ($ per annum)	183
	Plus fee per kilowatt ($)	17
	Charge $ per ML – All months	14
	Charge $ per ML – On–stream winter-fill	7
	Charge $ per ML – Off–stream winter-fill	7
	Charge $ per ML – Licensed farm dam	7
	Charge $ per ML – Non-consumptive	1
	Charge $ per ML – Stormwater	14
	Diversion/stormwater licence application fee ($)	320
	Works/construction licence application fee ($)	538
	Dam operating licence ($)	62
	Transfer of ownership (including temporary) ($)	92
	Transfer of ownership with dam sharing agreement ($)	186
	Resource assessment fee for downstream trade/transfer ($)	320
	Resource assessment fee for upstream or cross catchment trade/transfer ($)	589
	Licence renewal fee following failure to renew (Domestic and stock) ($)	87
	Licence renewal fee following failure to renew (all other licences) ($)	174
	Reissue after Melbourne Water cancellation or breach of conditions ($)	585

1.5	Diversion charges regulated waterways	
	Licence service fee – All months ($ per annum)	183
	Licence service fee – Off-stream winter-fill ($ per annum)	183
	Charge $ per ML – All months	41
	Charge $ per ML – Off-stream winter-fill	7
	Diversion licence application fee ($)	320
	Works/construction licence application fee ($)	538
	Transfer of ownership along Maribyrnong River (includes temporary) ($)	92
	Licence renewal fee following failure to renew (Domestic and Stock) ($)	87
	Licence renewal fee following failure to renew (all other licences) ($)	174
	Reissue after Melbourne Water cancellation or breach of conditions ($)	585
	Diversion licences - meter	cost of meter
1.6	**Property Information Statements ($ per statement)**	
	City West Water	4.30
	South East Water	4.30
	Yarra Valley Water	4.30
1.7	**Provision of flood level information ($)**	36
1.8	**Provision of hydrologic data ($)**	
	Storm frequency analysis for selected storm events	119
	Standard fee: One type of daily data from maximum of two stations	74
	Standard fee: One type of hourly data from a single station	74
	Provision of one type of 6 minute data from a single station for a period of up to 5 years	74
	Other requests (per hour)	119
1.9	**Application fee for construction over Melbourne Water easements or underground pipe ($)**	155
1.10	**Storm water connections/other authorities works ($ per connection)**	
	Application fee	115
	Inspection fee	315
1.11	**Flood feasibility study ($ per half day)**	
	Flood feasibility study	610
1.12	**Developer charges, drainage schemes pricing principles**	
	(a) Identifying future capital expenditure for each year of the expected life of the scheme	
	(b) Identifying forecast developable hectares for each year using an estimate of development density	
	(c) Applying a pre-tax real discount rate to convert future cash flows into present value terms	
	(d) Setting the developer charge such that the present value of future income equals the present value of future costs. Future income is equal to the developable hectares in each year multiplied by the developer charge	
	(e) Reviewing the financial assumptions relating to each scheme on an annual basis and reviewing engineering specifications every five years	

1.13	**Developer charges, stormwater quality pricing principles**
	For development in existing greenfield schemes, existing and future commercial-industrial schemes and / or where on-site stormwater treatment works undertaken by the developer do not meet pollution reduction targets, stormwater quality pricing principles apply.
	(a) The Stormwater quality charges comprise of a Scheme Stormwater Quality Charge and a General Stormwater Quality Charge and reflect the nitrogen discharged by the scheme relative to the minimum standard
	(b) The Scheme Stormwater Quality Charge is scheme-specific and recovers the cost of scheme related Stormwater quality initiatives
	(c) The General Stormwater Quality Charge is equal to the average cost for nitrogen removal as identified by Melbourne Water's regional Stormwater quality improvement program
	(d) Both charges are applied to the mass of nitrogen discharged, relative to the required minimum standard
	(e) Where a development does not meet the minimum standard, Stormwater quality charges will apply. Where on-site Stormwater treatment is undertaken the developer will receive an offset of up to the full amount of their Stormwater Quality Charges
	(f) Charges for Greenfield Schemes will be based on on-site works undertaken by the developer, the general stormwater quality charge and scheme stormwater quality charges the general Stormwater water quality charge