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METROPOLITAN MELBOURNE WATER PRICE REVIEW 2009

FINAL DECISION

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PREFACE

This final decision completes the Essential Services Commission's review of metropolitan Melbourne water prices and service standards for the four year regulatory period commencing on 1 July 2009.

In reaching its final decision, the Commission's main focus has been to ensure that prices are fair and reasonable, that is, as low as possible but still sufficient to recover the businesses' efficient costs of providing services.

The major augmentation projects financed by the prices approved in this final decision will provide customers with additional benefits in terms of improved reliability and security of supply, and an easing of water restrictions.

This review commenced in November 2008 when City West Water, South East Water, Yarra Valley Water and Melbourne Water submitted their Water Plans. These plans set out: the expected costs involved in delivering water and sewerage services; planned capital works programs; the forecast volumes of water that will be delivered; and the levels of service promised to customers. Each business proposed prices that would raise sufficient revenue to recover its expected costs over the regulatory period.

Consistent with the Commission's charter and practice, this review has been undertaken in an open and consultative manner. This has included releasing, for public comment, an issues paper in December 2008 and a draft decision in April 2009, and conducting public meetings in March and May 2009. The Commission also met with the water businesses, community organisations and customer advocacy groups during the review process to obtain further information and feedback.

The Commission has assessed critically the Water Plans submitted by the four metropolitan businesses. To assist it in this task, the Commission worked with its consultants to assess whether the proposals submitted by the water businesses were reasonable and deliverable. The results of this investigation, including the consultants' reports, are available on the Commission's website.

The Commission's final decision results in a net $218 million reduction in the revenue requirement proposed by the retail businesses. Consequently, price increases are significantly lower than initially proposed in the Water Plans, saving a typical household up to $70 on its average annual water bill.

On average, approved prices in the final decision will be 2.7 to 3.8 per cent higher in 2012-13 (the final year of the regulatory period) than those proposed in the Commission's draft decision in April. The major reason for the increase in approved prices arises from assumed financing costs having risen from 4.8 per cent to 5.1 per cent since April, reflecting recent market conditions and updated advice from the Treasury Corporation of Victoria on an appropriate debt margin. This accounts for over half the increase in prices since the Commission's draft decision. The remaining increase is largely due to additional and revised capital and operating expenditures.

In recognition that the bill increases resulting from this final decision may cause difficulties for some customers, the Commission will extend the Guaranteed Service Level scheme to increase the businesses' incentives to adequately address payment difficulties experienced by their customers. This will ensure that customers experiencing hardship are treated fairly, with dignity and in a timely manner. The design of this incentive will be the subject of further public consultation in coming months.

Transparency about service delivery and value for money remains integral to the regulatory regime for the Victorian water sector. To this end, the Commission will continue to monitor, audit and publicly report on the performance of the metropolitan water businesses in delivering services to their customers.

Dr Ron Ben-David
Chairperson

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FINAL DECISION SUMMARY

The price review process

In November 2008, the Commission commenced its review of the four metropolitan Melbourne water businesses' proposals for the four year regulatory period commencing 1 July 2009.

Under the price review process specified by the Victorian Government, Melbourne Water and the three metropolitan retail businesses (City West Water, South East Water and Yarra Valley Water) submitted Water Plans setting out the expected costs involved in delivering water and sewerage services, their planned capital work programs, the forecast volumes of water to be delivered and the level of services promised to customers. Each business also proposed prices that would raise sufficient revenue to recover its expected costs over the regulatory period.

In preparing its draft decision (April 2009), the Commission undertook an extensive analysis of the proposals included in the businesses' Water Plans. To assist it in this task, the Commission worked with its consultants to assess whether the businesses' proposed expenditures are reasonable and deliverable. The businesses were given an opportunity to comment on the consultants' reports. They were also asked to respond to the draft decision with comments and further information and explanation.

Consultation with customers and other stakeholders has formed an important part of the price review process. The Commission has undertaken an extensive consultation process during this price review, including:

- releasing for public comment an issues paper in December 2008 and a draft decision in April 2009
- conducting public meetings in March and May 2009 to obtain feedback from stakeholders, and
- meeting with a number of community organisations and customer groups during the review process to obtain further information and feedback.

In reaching its final decision, the Commission has given careful consideration to all submissions, comments and information received. It has also sought information and comments from relevant government departments. In its final decision, the Commission has made a number of revisions to the assumed expenditure levels and prices proposed in its draft decision, reflecting feedback and new and revised information received since releasing the draft decision.

Context and key issues

Prolonged drought conditions and ongoing water restrictions have, over recent years, created many challenges for the water businesses and their customers. Melbourne is now in its third year of restrictions.

In *Our Water, Our Future: The Next Stage of the Plan* (released in 2007), the Victorian Government announced a number of major supply augmentation projects for metropolitan Melbourne. These projects include the desalination plant, the Sugarloaf pipeline (in conjunction with the Foodbowl Modernisation Project), construction of a water treatment plant at the Tarago Reservoir, and upgrading the Eastern Treatment Plant to increase water recycling. Melburnians will benefit directly from these augmentation projects through improved reliability and security of water supply and an easing of water restrictions. Obtaining these benefits requires substantial increases in expenditure by the Melbourne water businesses.

In addition, the businesses proposed further expenditure in their Water Plans on improving or replacing ageing assets (such as the Melbourne main sewer) and meeting environmental, drinking water quality and recycling regulatory obligations. These additional investments are needed to meet the Government's requirements and ensure that the services received by customers are maintained.

At the same time as these major investments are being undertaken, water use is significantly lower than historical levels due to conservation measures and water restrictions. The combination of large expenditure increases and reduced water use resulted in the businesses proposing substantial price increases in their Water Plans. All the businesses noted, however, that their pricing proposals were consistent with the Government's expectation that water bills will no more than double over the five year period from 1 July 2008.

During the price review process, customers, and business and community groups raised the following major concerns:

- the structure of prices, particularly high fixed charges, and customers' consequent limited ability to reduce their bills by reducing their water usage
- the affordability of much higher water and sewerage bills, particularly for pensioners, tenants, other low income earners and large families
- the adequacy of hardship programs and other assistance measures
- the 'price shock' resulting from the businesses' proposals for a large first year increase followed by smaller annual increases and
- the appropriate pricing of recycled water, including incentives for customers to use recycled water when water restrictions are eased.

The Commission's approach

The Commission is required to assess prices and revenues proposed in the businesses' Water Plans against the principles set out in the Water Industry Regulatory Order (WIRO). The WIRO principles require that prices are set to:

- generate each business' revenue requirements and allow it to recover the costs of delivering services to customers

- ensure the businesses’ financial viability, including earning a reasonable return on capital
- reflect the costs of providing water and sewerage services and provide incentives for sustainable water use and
- take into account the interest of customers, including low income and vulnerable customers.

In applying these principles, the Commission has focussed on ensuring that prices are as low as possible while recovering the businesses’ efficient costs.

Revenue requirements

The businesses’ revenue requirements comprise their forecast operating expenditure, a return on assets (existing and new assets) and regulatory depreciation (return of assets). In reviewing its draft decision on the businesses’ revenue requirements, the Commission has taken into account stakeholder submissions, revisions to their expenditure proposed by the businesses, and new information received since the draft decision was made. It has also updated its view on an appropriate rate of return.

The final decision results in a revenue requirement for the retail businesses of $6.3 billion. The net total revenue assumed in the final decision is 3.5 per cent higher than that assumed by the Commission in the draft decision, but 3.3 per cent lower than that originally proposed by the businesses in their Water Plans. For Melbourne Water, the Commission’s draft decision results in a revenue requirement of $3.2 billion over four years. This is 2.8 per cent higher than that assumed by the Commission in the draft decision but 1.2 per cent lower than that originally proposed by Melbourne Water in its Water Plan.

Table 1 shows the total revenue requirement approved for each retail business for the regulatory period, comparing the businesses’ proposals in their Water Plans, the draft decision and the final decision.

Table 1 **Total revenue requirement (all businesses)[a], 2009-10 to 2012-13**
$ million in January 2009 prices

	Businesses’ Water Plans	*Draft decision*	*Final decision*
City West Water	1 571.4	1 464.3	1 519.9
South East Water	2 442.1	2 267.2	2 342.8
Yarra Valley Water	2 529.0	2 378.3	2 462.2
Retailers’ total revenue requirement	**6 542.4**	**6 109.8**	**6 324.8**
Melbourne Water	3 239.4	3 115.9	3 201.6

Note: [a] The total revenue requirement for the three retailers represents the amount to be recovered from metropolitan Melbourne customers. Melbourne Water’s revenue requirement is recovered largely from bulk charges paid by the retailers (and included in their revenue requirements), as well as bulk charges paid by some regional water businesses.

The major reasons for the increase in the retailers' revenue requirements for the regulatory period are:

- an increase in approved financing costs from 4.8 per cent to 5.1 per cent, reflecting recent market conditions and updated advice from the Treasury Corporation of Victoria on an appropriate debt margin
- an increase in bulk charges payable to Melbourne Water, reflecting the increase in its revenue requirement caused by higher financing costs, contributions to project costs and interconnection works related to the desalination plant, and a net increase in its other expenditures, and
- an increase in the retailers' total operating and capital expenditures reflecting the combined impact of a number of minor revisions to assumptions.

Table 2 compares the operating and capital expenditures proposed in the businesses' Water Plans and those assumed in the draft and final decisions.

Table 2 **Total capital and operating expenditure (all businesses), 2009-10 to 2012-13**
$ million in January 2009 prices

	Operating expenditure (net of bulk charges)			*Capital expenditure*		
	Businesses' Water Plans	*Draft decision*	*Final decision*	*Businesses' Water Plans*	*Draft decision*	*Final decision*
City West Water	381.0	363.5	364.3	469.9	436.4	504.7
South East Water	564.1	526.1	525.3	602.7	566.3	634.6
Yarra Valley Water	520.0	498.2	499.8	912.6	981.9	1 050.2
Total retailers	**1 465.1**	**1 387.9**	**1 389.5**	**1 985.1**	**1 984.6**	**2 189.5**
Melbourne Water	1 450.2	1 406.8	1 416.8	1 774.0	1 765.1	1 911.9

Demand forecasts

Changes in customer numbers and consumption levels are important determinants of the water and sewerage infrastructure needed to provide services and consequent need for expenditure on renewal and augmentation. Maintaining or improving the reliability, security and quality of services to customers often requires large, one-off investments in infrastructure. Consequently, forecast changes in demand (that is, customer numbers and consumption levels) have a direct bearing on the prices faced by customers.

In the period covered by this pricing decision, large investments combine with constrained demand to place upward pressure on the price of delivering services to customers. The Commission expects that, in the next pricing period 2013-2018, there will be a marked reduction in the upward pressure on prices for water and related services.

In reaching its final decision on the businesses' demand forecasts, the Commission has generally accepted the recommendations made by its demand consultant, which reviewed the businesses' responses to the draft decision. The final decision includes some relatively minor adjustments from the draft decision, largely to take account of updated information on the impact of the Government's Target 155 program. The adjustments have no significant impact on prices.

The Commission considers that its final decision on demand forecasts provides a reasonable sharing of risk between businesses and customers, despite being based on forecasts lower than historical averages reflecting low total inflows and behavioural responses to restrictions and Target 155.

Prices

As a result of the Commission's final decision, household water and sewerage bills will not increase as much as sought by the businesses in their Water Plans. Average annual price increases will, however, be 1.6 to 1.7 per cent higher than proposed in the Commission's draft decision, reflecting the Commission's final decision on the retailers' revenue requirements discussed above.

Table 3 **Price increases by the metropolitan retailers**[a]
(per cent, in January 2009 prices)

	Proposed	*Draft decision*	*Final decision*
	Average annual increase		
City West Water	14.0	10.5	12.2
South East Water	15.3	12.3	14.0
Yarra Valley Water	15.7	13.1	14.7
	Total four year increase 2008-09 to 2012-13		
City West Water	63	48	53
South East Water	70	53	59
Yarra Valley Water	71	60	64
	Total five year increase 2007-08 to 2012-13 [b]		
City West Water	87	70	76
South East Water	95	76	82
Yarra Valley Water	97	84	89

Notes: **a** Figures do not include Melbourne Water drainage and waterways charges or Parks Victoria charges. **b** Prices for the three retail businesses increased by 14.8 per cent in 2008-09.

Table 3 shows the average annual increase in prices over the regulatory period approved in the Commission's final decision, compared with those proposed by the businesses in their Water Plans and in the draft decision. It also shows the total increase in prices over the four year regulatory period from 1 July 2009 and the five year period from 1 July 2008.

Table 4 illustrates the overall impact of the prices approved in the final decision by estimating annual bills for a representative 'average' household in 2009-10 and 2012-13 (the first and final years of the regulatory period). It also shows the current annual bill for a representative 'average' customer for each water business.

Table 4 **Illustrative annual residential bills**[a]
Metropolitan retail businesses ($ in January 2009 prices)

	Current bill	*Businesses' Water Plans*		*Draft decision*		*Final decision*	
	2008-09	2009-10	2012-13	2009-10	2012-13	2009-10	2012-13
City West Water	568	671	925	636	840	641	858
South East Water	566	667	963	656	865	662	894
Yarra Valley Water	585	725	1004	679	936	687	960

Notes: **a** Estimated average annual household bills are based on average consumption of 165 kL each year and prices proposed by businesses in their Water Plans. Figures do not include Melbourne Water drainage and waterways charges or Parks Victoria charges. **b** The 2008-09 bill is based on price increases determined by the Minister for Water in June 2008.

The Commission recognises that affordability will be an issue for particular customer groups, such as low income and vulnerable groups. During 2009-10, the Commission will work with the three metropolitan retailers, customer and welfare groups, relevant government departments and other stakeholders on defining and implementing an effective hardship Guaranteed Service Level (GSL) event for introduction in 2010-11. This GSL event will enhance the businesses' incentives to ensure that customers facing financial difficulties are offered adequate assistance under existing hardship programs.

The other main features of the final decision bearing on the structure of bills are:

Bulk water and sewerage tariffs

- The Commission has approved Melbourne Water's proposal to restructure its bulk water and sewerage tariffs in 2009-10. Subsequent price increases have been set to raise sufficient revenue to recover costs each year.
- There will be a step increase in Melbourne Water's bulk water costs in 2011-12 and 2012-13 with the commencement of toll payments associated with the desalination plant.
- Melbourne Water and the retailers will be required to develop a consistent approach to pricing the salt load discharged into the sewer system by non-residential customers.

Retail water and sewerage tariffs

- The Commission has determined larger increases in variable water charges than for fixed water charges. This will improve customers' ability to reduce their bills by reducing their water use. For the three retailers, variable water charges will increase by 20 per cent in 2009-10 and by a total of 73 per cent over the four year regulatory period. Fixed water charges will increase by significantly less – by 32 per cent for City West Water, 38 per cent for South East Water and 58 per cent for Yarra Valley Water over the four year period.
- For sewerage services, the fixed charge will increase by significantly more than the sewage disposal charge. The Commission's decision to place a greater emphasis on the fixed charge relative to the variable charge better reflects actual costs and takes into account customers' concerns about the estimation of sewage volumes.
- The restructuring of retail water and sewerage tariffs determined by the Commission in its final decision does not increase the illustrative bill for an 'average' customer shown in table 4. Larger increases in variable water charges and fixed sewerage charges are offset by much smaller increases in fixed water charges and variable sewerage charges.

Recycled water

- The Commission has approved the retail businesses' proposals to continue to set the variable recycled water charge for third pipe customers equal to the first tier potable water price while stage 3A restrictions are in place. There will be no increase in real terms in the fixed charge for recycled water customers.
- To retain pricing incentives to use recycled water, the retail businesses must apply to the Commission with new recycled water tariff proposals as water restrictions are eased during the coming regulatory period.

Adjusting prices during the period

The Commission has approved a hybrid form of price control that combines individual price caps with scope for businesses to apply during the period to adjust their tariff strategies or prices where they have consulted with customers and met other requirements set out by the Commission.

It has also approved a mechanism that sets out a process for applying for a price adjustment to take account of events that were uncertain or unforeseen at the time of the final decision. In applying this mechanism, the Commission will only take into account factors that do not fall within the businesses' control. The Commission will strongly encourage the water businesses to seek to manage such circumstances within their existing budgets to ensure customers do not face unnecessary price changes and price volatility is avoided.

1 INTRODUCTION

On 5 November 2008, the three metropolitan retail water businesses (City West Water, South East Water and Yarra Valley Water) and Melbourne Water, in respect of its bulk water and sewerage charges, submitted final Water Plans to the Commission. These plans set out: the revenue that each business argued it requires to deliver its water, sewerage and other related services; the prices each business proposed to charge to raise that revenue; and supporting information on proposed strategies and initiatives for the four year period commencing 1 July 2009. In developing their Water Plans, the businesses were guided by the Government's water policies, including the Central Region Sustainable Water Strategy, its *Our Water, Our Future* statements,[1] and the Governments' stated pricing expectations.[2]

This is the Commission's fourth independent review of water prices. The Commission completed price reviews in June 2005 for 17 metropolitan and regional businesses providing urban services and in June 2006 for five businesses providing rural services. In its 2008 price review, the Commission determined prices for the then 16 regional businesses servicing rural and urban customers and for Melbourne Water's drainage and waterways services.[3]

The three metropolitan retailers and Melbourne Water, in the case of its bulk water and sewerage services, were not required to submit final Water Plans to the Commission as part of the 2008 price review process. The review of their prices was delayed while the Victorian Competition and Efficiency Commission (VCEC) conducted an inquiry into the structure of Melbourne's retail water industry. Interim water and sewerage price increases for the metropolitan businesses were determined by the Minister for Water for 2008-09.[4]

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1 The Victorian Government publications *Our Water Our Future* (2004) and *Next Stage of the Plan* (2007) are available at www.ourwater.vic.gov.au/programs.

2 The Minister for Water has indicated that the Government has an expectation that average water bills will not more than double in real terms over the five year period to July 2013. See Minster for Water, '*Water industry efficient and price constraints on track*', Media release, 3 July 2008.

3 Essential Services Commission 2008, *2008 Water Price Review: Regional and Rural Businesses' Water Plans 2008-2013, Melbourne Water's Drainage and Waterways Water Plan 2008-2013 — Final Decision*, June. The Commission's Determination in respect of Melbourne Water's drainage and waterways charges for the five year period commencing 1 July 2008 is available on its website www.esc.vic.gov.au.

4 The Commission released Determinations for these businesses setting out approved prices for 2008-09 that are consistent with the interim price increases set out in the Water Industry Regulatory Order (WIRO) and the businesses' Statements of Obligations. The Determinations are available on the Commission's website www.esc.vic.gov.au.

1.1 Legislative framework and role of the Commission

In carrying out its role, the Commission is guided by the regulatory framework set out in the *Essential Services Commission Act 2001* and the *Water Industry Act 1994* (box 1.1). The more detailed framework is set out in the Water Industry Regulatory Order (WIRO) made by the Governor in Council in 2003 under the *Water Industry Act*.[5]

Box 1.1 **The Commission's regulatory objectives**

The *Essential Services Commission Act 2001* outlines objectives to which the Commission must have regard in undertaking its functions across all industries. The Commission's primary objective is to promote the long-term interests of Victorian consumers with regard to the price, quality and reliability of essential services. In seeking to achieve this primary objective, the Commission must have regard to:

- facilitating the efficiency, incentives for long term investment and the financial viability of regulated industries
- preventing the misuse of monopoly or transitory market power
- facilitating effective competition and promoting competitive market conduct
- ensuring regulatory decision making has regard to the relevant health, safety, environmental and social legislation applying to the regulated industry
- ensuring users and consumers (including low income or vulnerable customers) benefit from the gains from competition and efficiency, and
- promoting consistency in regulation across States and on a national basis.

The *Water Industry Act 1994* contains the following additional objectives that the Commission must meet in regulating the water sector:

- wherever possible, ensure that the costs of regulation do not exceed the benefits
- regulatory decision making and regulatory processes have regard to any differences in the operating environments of regulated entities, and
- regulatory decision making has regard to the health, safety, environmental sustainability (including water conservation), and social obligations of regulated entities.

The WIRO requires the Commission to approve or specify the price arrangements to apply to each of the water businesses for each regulatory period. The Commission must approve the price arrangements if it is satisfied that the prices or the manner in which prices are to be calculated or otherwise determined have been developed in accordance with the procedural requirements and comply with the regulatory principles outlined in the WIRO. Alternatively, the Commission may

[5] The WIRO is available on the Commission's website www.esc.vic.gov.au.

specify the prices that a business may charge or the manner in which those prices are to be calculated or otherwise determined if it is not satisfied that the arrangements proposed in the Water Plan were developed in accordance with the procedural requirements and comply with the regulatory principles.

The procedural requirements include the need for businesses to consult with customers and relevant regulatory agencies before submitting the Water Plan to the Commission for assessment. The WIRO sets out a number of regulatory principles with which the businesses must comply in proposing prices and the Commission must comply in approving prices (box 1.2).

In addition to regulating the prices charged for water, sewerage and other related services, the Commission's role encompasses regulation of service standards, performance monitoring, oversight of market conduct, and inquiries into issues referred to it by the Minister for Finance (such as its current inquiry into developing a third party access regime for water and sewerage infrastructure services).

1.2 Commission's approach to assessing Water Plans

The Commission is required to assess the Water Plans against the regulatory principles outlined in the WIRO.[6] In deciding whether to approve a business' proposed prices, the Commission must be satisfied that they provide the business with only enough revenue over the regulatory period to meet its obligations and deliver the level of service required by customers. Revenue must be sufficient to allow the business to recover operating and capital expenditure and receive a reasonable return on assets, but not allow monopoly profits. The Commission must also ensure that:

- the expenditure forecasts reflect the efficient delivery of the proposed outcomes outlined in the Water Plan and take into account a long term planning horizon
- the businesses have incentives to pursue efficiency improvements in delivering services to customers and to promote sustainable water use
- prices signal to customers the costs of using water and give them incentives to use water sustainably
- the interests of customers have been taken into account, and
- customers or potential customers are readily able to understand the prices charged or how they have been calculated.[7]

The Commission's approach to assessing proposed prices (often described as a 'building block' approach) is characterised by three steps (see figure 1.1). The first step involves identifying the service standards and other outcomes that a business proposes to deliver over the regulatory period. These standards and outcomes reflect obligations imposed by the Minister for Water through the Statement of

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6 See clause 14(1) of the WIRO.

7 For some services, such as those involving unique or non-standard circumstances, the Commission does not set scheduled prices. Instead, it sets pricing principles with which the businesses must comply in setting prices for individual customers or services covered by the principles. These principles set out the method for how prices must be calculated.

Obligations, the Environment Protection Authority (EPA), the Department of Human Services (DHS), the Department of Sustainability and Environment (DSE), and customer preferences for service improvements. Customer service standards proposed by each business must be clear, appropriate and reflect the needs and interests of customers.

Figure 1.1 **Steps in assessing and approving prices**

Step 1 confirm outputs/outcomes	**Step 2** determine revenue requirements	**Step 3** translate into prices
Outputs/outcomes • service standards • regulatory obligations (eg. water quality, dam safety) • demand and supply	Expenditure requirements • service improvement • compliance • augmentation/extension • renewal ✚ Other financial inputs • cost of capital • regulatory depreciation • value of past investments	Prices • structure of prices • annual price control/approvals • adjustments during period

In the second step, the Commission determines the revenue the business requires to meet the service obligations and expected outcomes identified in step one. The Commission is required to assess whether the business' expenditure forecasts reflect efficient costs of supply, its capital works program is deliverable over the period, and its business strategy reflects a long term planning horizon. The Commission must also ensure that the businesses receive a return on their capital investments that reflects an efficient cost of capital.

The Commission makes assumptions about efficient expenditure to assess whether prices will result in the business earning sufficient revenue to deliver services. However, the assumed expenditure levels do not represent amounts businesses are required to spend or direct to particular activities or projects. In consultation with customers, businesses are free to determine their own expenditure priorities in light of changing circumstances and to implement innovations and efficiencies that enable them to outperform the cost assumptions.

Sometimes, because of changing circumstances, a business may not proceed with a project or activity that it had proposed in its Water Plan and that was included in the Commission's calculation of assumed expenditure. Generally, this would occur when the business, in consultation with its customers, identified a higher priority project or activity that should be undertaken instead. Alternatively, when costs have increased by more than forecast at the time of the price review, the business could defer or cancel a lower priority project or activity to ensure that projects and activities that are more highly valued by customers can still go ahead without leading to a revenue shortfall that has to be recouped from customers at a later date.

The third step in the process involves determining the prices that will apply during the regulatory period. The Commission must ensure, for each business, that prices will generate the business' revenue requirement, taking into account forecasts of demand (which determine quantities expected to be used). The Commission assesses whether the businesses' demand forecasts are reasonable and reflect the best available information. The Commission also considers whether prices and proposed tariff structures provide appropriate signals about the costs of providing services, provide incentives for sustainable water use and take into account the interests of customers.

1.3 Consultation process for this price review

The businesses released draft Water Plans for public consultation in August 2007. With the announcement of the VCEC inquiry and the one-year deferral of the price review process for the metropolitan businesses, the consultation process on these Plans (excluding Melbourne Water's drainage and waterways services) was suspended. In November 2008, the businesses' final Water Plans were released for public consultation.[8] These plans were also provided to the Minister for Water, the Commission and other regulators.

The Commission has undertaken an extensive consultation process during this price review:

- On 12 December 2008, the Commission released an issues paper summarising the businesses' proposals and highlighting issues on which the Commission sought stakeholder comments. Twenty-one written submissions were received.
- In January and February 2009, the Commission met with the businesses' customer committee representatives and other stakeholder groups.
- On 5 March 2009, the water businesses and a number of community and business groups presented their proposals and comments at a public meeting organised by the Commission. Feedback was also received from customers present at the meeting.
- On 21 April 2009, the Commission released its draft decision for public comment. Twenty-nine written submissions were received.
- On 13 May 2009, the Commission organised a public meeting to explain its draft decision, answer questions and receive comments from stakeholders.
- In May and June 2009, the Commission met with a number of community organisations and customer groups to discuss its draft decision and receive further detailed feedback.

In addition, the Commission worked with the water businesses to obtain further information and clarification of their proposals. It engaged independent consultants

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8 Copies of the Water Plans submitted by the businesses are available on the Commission's website www.esc.vic.gov.au.

to assist it in critically assessing the businesses' expenditure and demand forecasts.

In submissions to the issues paper, the Commission received a number of comments about the consultation process for this price review. The Ethnic Communities' Council of Victoria highlighted the difficulties that non-English speaking customers and older customers without internet access can experience in obtaining information about the businesses' proposals and the price review process.[9] The Consumer Utilities Advocacy Centre and Consumer Action Law Centre advocated strengthening customer engagement, including by improving customer understanding of the Commission's regulatory decision-making process.[10]

The Commission has followed up these issues and adopted several measures to enhance its consultation processes. Information about the Commission's price review process and its draft and final decisions is being provided in six non-English languages on the Commission's website. In addition, the Commission is advertising its final decision more broadly, including in the daily metropolitan newspapers, in Melbourne suburban newspapers and in a selection of non-English newspapers.

1.4 Structure of the final decision

This final decision sets out the prices for water and sewerage services and associated services that have been approved by the Commission for the four year regulatory period commencing on 1 July 2009.

In explaining the analysis and reasoning behind these approved prices, this decision summarises the Commission's detailed analysis of the businesses' Water Plan proposals that was set out in its draft decision.[11] It highlights the amendments suggested in the draft decision and identifies the water businesses' responses to those suggestions. It also discusses responses to the draft decision by other stakeholders, further issues and arguments put forward by the businesses and other stakeholders, and new information that has become available since the draft decision was made.

Chapter 2 sets out the key outcomes to be delivered by the businesses during the regulatory period, including their major projects and the service standard targets approved by the Commission.

Chapter 3 sets out the Commission's decision on the total revenue required by each business, based on its operating expenditure (chapter 4), capital expenditure (chapter 5) and the costs of financing its capital expenditure program (chapter 6).

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9 Ethnic Communities' Council of Victoria 2009, *Submission to the Metropolitan Melbourne Water Price Review 2009-13*, 3 February.

10 Consumer Utilities Advocacy Centre and Consumer Action Law Centre 2009, *Submission to the Metropolitan Melbourne Water Price Review 2009-13*, 12 February.

11 The Commission's draft decision and supporting documents are available on its website www.esc.vic.gov.au.

Chapter 7 sets out the demand forecasts applied by the Commission to calculate approved prices for the period. Chapter 8 summarises the overall level of prices and average price changes over the period resulting from the Commission's assessment of the businesses' revenue requirements and demand forecasts. Chapters 9-13 discuss the approved tariff structures for bulk water (chapter 9), retail water and sewerage services (chapter 10), recycled water (chapter 11), trade waste (chapter 12), and new customer contributions and miscellaneous charges (chapter 13). Chapter 14 outlines how prices will be adjusted during the regulatory period, including the form of price control and mechanisms for dealing with uncertainty.

In addition, the Commission has issued each metropolitan business with a Determination specifying the maximum prices that may be charged for certain services during the regulatory period and the methods for adjusting those prices during the period. Each Determination also specifies the manner in which prices are to be calculated or otherwise determined during the period for services where prices are set according to pricing principles. The Determinations are available on the Commission's website www.esc.vic.gov.au

2 KEY OUTCOMES AND SERVICE LEVELS

Over the last few years, the Victorian water businesses and their customers have had to deal with many challenges associated with prolonged drought conditions. Metropolitan Melbourne customers, like most customers around the state, have been on water restrictions. Water restrictions have been in place since September 2006, progressively increasing from stage 1 to stage 3A in April 2007. Melbourne is therefore in its third year of water restrictions. Such restrictions result in social and economic costs to both residential and non-residential water customers.[12]

In 2007, the Government announced a number of major supply augmentation projects for metropolitan Melbourne. Customers will benefit from these augmentation projects through improved reliability and security of water supply and an easing of water restrictions. The businesses have also proposed additional expenditure to improve or replace assets (such as the Melbourne main sewer) and to meet environmental, drinking water quality and recycling regulatory obligations. The businesses' major capital projects are discussed in chapter 5.

Improving the reliability and security of water supply, achieving an easing of water restrictions and ensuring compliance with environmental and other regulatory requirements requires substantial increases in expenditure by the Melbourne water businesses. Consequently, prices must increase significantly to recover the businesses' higher expenditures. To avoid further increases in prices, the businesses have decided not to incur additional expenditure on improving existing service standards.

This chapter discusses the Commission's final decision on the metropolitan water businesses' core services standards (section 2.1), additional services standards (section 2.2), and Guaranteed Service Level (GSL) schemes (section 2.3).

2.1 Core service standards

Core service standards reflect the key issues of concern to customers and key cost drivers for businesses. The core set of service standards have common definitions specified by the Commission. All urban retailers provide targets for the core service standard measures.

2.1.1 Overview of the draft decision

The Commission's draft decision noted that targets for the core service standards should be based on actual performance in the current operating environment and

[12] See, for example, Productivity Commission 2008, *Towards Urban Water Reform: A Discussion Paper*, Productivity Commission Research Paper, Melbourne, March.

that targets should maintain recent average performance. In its guidance to the businesses on finalising their Water Plans, the Commission stated that targets based on the three year average performance would be appropriate. The Commission proposed to approve the service standard targets proposed by City West Water, South East Water, Yarra Valley Water, and Melbourne Water that reflected this approach.

Only one business' water plan targets were not approved in full in the draft decision. South East Water based its targets on a long term average performance, which resulted in targets that were worse than recent average performance. The Commission was not satisfied that the targets produced by this methodology represented a reasonable level of service. The Commission approved proposed targets for five of South East Water's 22 core service standards and proposed the three year average performance as the target for the remaining 17 service standards. Table 2.1 shows full details of South East Water's service standards.

2.1.2 Responses to draft decision

The Victorian Council of Social Services (VCOSS) supported the Commission's decision to set South East Water's service standards to reflect the three year average, stating that they 'do not believe that it is appropriate for the quality of service to customers to decrease over time'.[13]

In its response to the draft decision, South East Water accepted six of the Commission's revised targets and suggested alternatives for 11 measures. The main reason cited for deviating from the Commission's three year average is the impact of ongoing dry weather on underground water and sewerage pipes. Very dry soil will contract and this can cause bursts in water pipes. Dry conditions can also drive tree roots into sewerage pipes as the plants search for moisture.

Where the Commission's draft decision was based on the average performance from 2004-05 to 2007-08, South East Water recalculated recent average performance using 2006-07, 2007-08 and the available data for 2008-09. Its revised targets reflect the latest operating conditions, which have contributed to a decline in average performance compared with the three year's data used in the draft decision.

For two measures (average frequency of planned water supply interruptions and average time to rectify a sewer blockage) South East Water's adjustments are simply due to rounding of the Commission's calculated average.

2.1.3 Final decision

The Commission has accepted South East Water's methodology for calculating recent average performance and the rounding of targets. Table 1.1 compares the Commission's final decision on core service standards targets with the business' proposed targets and the draft decision targets.

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13 Victorian Council of Social Services 2009, *Submission to the Metropolitan Water Price Review 2009 Draft Decision*, 14 May.

Table 2.1 **Core service standards**
South East Water

Retail water		*Water plan*	*Draft Decision*	*Final Decision*
Number of unplanned water supply interruptions (per 100 kilometres)		35	29.6	31.2
Average time taken to attend bursts and leaks (minutes) Priority 1		40	40	40
Average time taken to attend bursts and leaks (minutes) Priority 2		120	120	120
Average time taken to attend bursts and leaks (minutes) Priority 3		550	550	550
Unplanned water supply interruptions restored within 5 hours (per cent)		99.6	99.6	99.6
Planned water supply interruptions restored within 5 hours (per cent)		75	78.5	78.5
Average unplanned customer minutes off water supply (minutes)		22	17.2	17.6
Average planned customer minutes off water supply (minutes)		12	7.7	7.7
Average frequency of unplanned water supply interruptions (number)		0.230	0.195	0.21
Average frequency of planned water supply interruptions (number)		0.060	0.0378	0.4
Average duration of unplanned water supply interruptions (minutes)		95	87.8	87.8
Average duration of planned water supply interruptions (minutes)		220	205.6	205.6
Customers experiencing more than 5 unplanned water supply interruptions in the year (number)		235	139	209
Unaccounted for water (per cent)		np	9.5	9.5
Minimum flow rates at	20 millimetres	20	20	20
	25 mm	35	35	35
	32 mm	60	60	60
	40 mm	90	90	90
	50 mm	160	160	160
Retail sewerage				
Number of sewerage blockages (per 100 kilometres)		22.5	19.48	21.3
Average time to attend sewer spills and blockages (minutes)		56	45.87	48.3
Average time to rectify a sewer blockage (minutes)		180	160.7	161
Spills contained within 5 hours (per cent)		100	100	100
Customers receiving more than 3 sewer blockages in the year (number)[a]		8	0.333	0
Retail customer service				
Complaints to EWOV (per 1000 customers)		0.15	0.15	0.164
Telephone calls answered within 30 seconds (per cent)		np	97.2	94

[a] Between the draft and final decisions, South East Water revised its internal definition for this measure to exclude blockages on the housing connection branch. This is consistent with the Commission's definition.

The Commission has approved the core service standard targets proposed by City West Water, Yarra Valley Water and Melbourne Water and the final decision targets shown in table 2.1 for South East Water. The targets for each business' core service standards for the regulatory period are set out in its Determination.

Final decision – core service standards

The Commission has approved the core service standard targets proposed by City West Water, Yarra Valley Water and Melbourne Water.

The Commission has approved South East Water's revised targets for the following service standards:

- Number of unplanned water supply interruptions (per 100kms)
- Average unplanned customer minutes off water supply (minutes)
- Average frequency of unplanned water supply interruptions (number)
- Average frequency of planned water supply interruptions (number)
- Customers experiencing more than 5 unplanned water supply interruptions in the year (number)
- Number of sewerage blockages (per 100 kilometres)
- Average time taken to attend sewer spills and blockages (minutes)
- Average time to rectify a sewer blockage (minutes)
- Customers receiving more than 3 sewer blockages in the year (no.)
- Complaints to EWOV (per 1000 customers)
- Telephone calls answered within 30 seconds (per cent)

and the targets for South East Water's other core service standards set out in the Commission's draft decision.

The Commission requires all metropolitan businesses, by 21 August 2009, to submit to the Commission for approval revised Customer Charters reflecting their core service standard targets for the coming regulatory period.

2.2 Additional service standards

Beyond the core set of service standards applying to all urban water businesses, individual businesses can nominate additional service standards and outputs that reflect business-specific services, local issues and other government obligations (such as those relating to sustainability). As these obligations are often significant drivers of expenditure, the Commission asked the metropolitan businesses to provide relevant output based targets as additional service standards for the coming regulatory period.

Some new measures are being introduced for all metropolitan retailers during this regulatory period based on the sustainability requirements in the Statements of Obligations issued by the Minister for Water.

2.2.1 Overview of the draft decision

New service standards were proposed by all businesses to put measurable targets around key requirements included in the Statements of Obligations. The five areas covered by the new additional service standards are: CO_2 emissions; water recycling; biosolids reuse; sewer backlog; and water conservation.

The Commission approved most of the targets supplied for these measures, with the exception of Yarra Valley Water's target for per capita daily water use in Melbourne. The Commission suggested that average household water consumption would be a more appropriate measure of water conservation. The Commission accidentally omitted the water conservation standards and targets proposed by City West Water and South East Water from its draft decision.

The Commission approved all the targets and measures put forward for existing business-specific additional service standards. It requested Yarra Valley Water to supply targets for the following measures:

- compliance with Environment Protection Authority (EPA) discharge monitoring programs for Yarra Valley Water's sewage treatment (per cent) and
- compliance with *Safe Drinking Water Act 2003* obligations (per cent).

2.2.2 Responses to draft decision

Yarra Valley Water agreed to include targets for the two compliance measures but questioned the Commission's decision not to approve its target for total potable water use per person per day. It stated that its target is consistent with several Government strategies and that the Commission's suggested revision ignores conservation efforts directed beyond the residential sector.

While the Commission's draft decision accepted the targets proposed in businesses' water plans for CO_2 emissions, some questions have been raised since then about whether all proposed activities meet the Commission's requirement that offsets must be recognised by an accredited scheme.

Yarra Valley Water's Water Plan proposed a net emissions target of zero for each year of the period. The proposed offsets were largely composed of credits for showerhead replacement. In response to the draft decision, Yarra Valley Water acknowledged that its current showerhead exchange program, where customers install the replacement showerheads themselves, does not qualify for credit under the Victorian Energy Efficiency Target (VEET) scheme. Yarra Valley Water requested approval for additional operating expenditure to purchase accredited Victorian Energy Efficiency Certificates (VEECs) in order to meet its zero greenhouse gas emissions target.

A joint submission from the Consumer Utility Advocacy Centre and Consumer Action Law Centre (CUAC and CALC) questioned the impact on prices of setting ambitious targets for CO_2 offsets.

There is a real risk that the cost of offsets will be passed through to consumers based upon premium costs when in fact they may have very little real benefit.[14]

2.2.3 Final decision

The Commission confirms its draft decision to approve all the targets and measures proposed by the businesses for existing business-specific additional service standards. It also confirms its approval of the new additional service standards that it proposed to approve in the draft decision. Its final decisions on the additional service standards that were not approved in the draft decision are set out below.

Additional compliance service standards

The Commission accepted Yarra Valley Water's targets for the two additional service standards relating to compliance (per cent). Targets for these measures are shown in table 2.2.

Table 2.2 **Additional service standards for compliance**
Yarra Valley Water

	2009-10	*2010-11*	*2011-12*	*2012-13*
Compliance with EPA discharge monitoring programs for YVW's sewage treatment plants (per cent)	100	100	100	100
Compliance with *Safe Drinking Water Act 2003* obligations (per cent)	100	100	100	100

Water conservation targets

In respect of the water conservation targets proposed by the businesses in their Water Plans, the Commission acknowledges Yarra Valley Water's comments that an appropriate measure of water conservation should extend beyond residential water initiatives. However, in light of the Target 155 campaign, the Commission considered it would be difficult for residential consumers to understand a water conservation target measured in litres per person per day that was defined differently from the Target 155 methodology.

South East Water included a second conservation measure in its Water Plan that is measured on the same basis as the Target 155 campaign. The Commission decided to extend this measure to all metropolitan retailers. City West Water and Yarra Valley Water have supplied targets for this measure in response to Commission requests since the draft decision. The approved targets are shown in table 2.3 (and are broadly consistent with the demand forecasts in chapter 7).

14 Consumer Utilities Advocacy Centre and Consumer Action Law Centre 2009, *Submission to the Metropolitan Melbourne Water Price Review 2009-13 Draft Decision*, 27 May.

Table 2.3 **Residential potable water use targets**
Litres per person per day

Measure	*2009-10*	*2010-11*	*2011-12*	*2012-13*
City West Water	165	171	174	170
South East Water	155	163	169	168
Yarra Valley Water	155	164	161	164

Net CO_2 emission targets

The Commission considered Yarra Valley Water's request for additional expenditure to meet its target of zero carbon emissions. The Commission approved expenditure to allow Yarra Valley Water to purchase greenhouse gas offsets, such as Victorian Energy Efficiency Certificates (VEECs) to reduce its carbon emissions to 20 per cent below its 2007-08 net carbon emissions (that is, 20 788 tonnes). The Commission has adjusted Yarra Valley Water's target for net CO_2 emissions accordingly. (Operating expenditure on purchasing greenhouse gas offsets is discussed further in chapter 4; see section 4.3.2).

Final decision – additional service standards

The Commission approved Yarra Valley Water's targets for the following measures:

- compliance with EPA discharge monitoring programs for Yarra Valley Water's sewage treatment plants (per cent) and
- compliance with *Safe Drinking Water Act 2003* obligations (per cent).

The Commission approved the following additional service standard targets for the metropolitan retailers:

- total potable water use (litres per person per day)
- residential potable water use (litres per person per day)

The Commission revised the target for net CO_2 emissions for Yarra Valley Water to represent a 20 per cent reduction on 2007-08 levels.

The Commission approved all other service standard targets proposed by the three retail businesses.

The Commission requires the three retail businesses, by 21 August 2009, to provide to the Commission for approval revised Customer Charters reflecting additional service standards and targets approved for the coming regulatory period.

2.3 Guaranteed Service Levels (GSLs)

Metropolitan water retailers have had GSL schemes in place for over ten years. Under their GSL schemes, businesses provide payments to customers who receive a level of service that is significantly worse than the average level of performance expected by most customers. The schemes aid businesses in identifying their worst served customers and specific areas in which businesses need to improve service. In addition, the schemes provide financial incentives for businesses to focus on providing good quality, reliable service to all customers.

2.3.1 Overview of draft decision

The Commission made no changes to the events subject to GSL payments in its draft decision. The Commission agreed with Yarra Valley Water's proposal to double the size of payments and approved the same increase in payment levels for City West Water and South East Water.

In light of the large price increases facing customers over the regulatory period, the Commission proposed that the metropolitan businesses develop an appropriate GSL relating to customers in hardship. The draft decision suggested businesses develop a measure related to compliance with their hardship policy requirements, offering the following as a starting point:

> *Restricting the water supply of, or taking legal action against, a customer in hardship who is complying with an agreed payment plan.*

The Commission asked businesses to consider the suggested hardship measure, an appropriate payment level, the processes that would need to be implemented to ensure auditable monitoring of compliance, and the appropriate timing for introducing a hardship GSL.

2.3.2 Responses to draft decision

City West Water and South East Water agreed with the Commission's decision to double GSL payments and requested commensurate increases in approved operating expenditure to cover the additional cost of higher payments. (Operating expenditure is discussed in chapter 4.)

In respect of a hardship GSL, VCOSS supported the use of the GSL scheme to target customers in hardship, adding that 'the proposed GSL should provide additional incentive to ensure that all households eligible for hardship programs are effectively identified and that businesses make all reasonable efforts to do so'.[15] Its submission suggested the wrongful disconnection procedure for electricity and gas was a good model for ensuring that customers in financial difficulty are offered hardship assistance.

CUAC and CALC supported the Commission's decision to target businesses' compliance with hardship policies through the GSL scheme but noted that 'it is

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15 Victorian Council of Social Services 2009, *op. cit.*

difficult to design an objective measure to identify cases in which a customer *should have* been offered hardship assistance'.[16] Their submission suggested that the Commission could use Energy and Water Ombudsman (Victoria) (EWOV) data as an intermediate step to assess qualification for a hardship GSL. For instance, if a customer contacted EWOV in relation to a payment issue, and it was established that a water business had not offered the customer appropriate hardship assistance under its hardship policy, the business could be liable for a GSL payment. This is similar to EWOV's role in wrongful disconnection claims in the electricity industry.

The metropolitan businesses agreed in principle to a GSL related to hardship. Yarra Valley Water and City West Water re-iterated the point made in the draft decision that any payment under the Commission's suggested measure would be highly unlikely given that it would reflect a breach of the Customer Service Code. South East Water stated that, given the time required to design and implement a new measure, a hardship GSL event should be introduced from 2010-11.

In relation to an appropriate payment for a hardship GSL, City West Water stated that $250 per day (the payment for wrongful disconnection in the energy sector) is excessive. Yarra Valley Water advocated a payment of $50. In contrast, CUAC and CALC stated that the payment should reflect the seriousness of breaching the hardship policy and suggested $500.[17]

2.3.3 Final decision

The Commission considers that a hardship GSL event would provide an added incentive for businesses to ensure their hardship policies are extended to all eligible customers. An appropriate GSL event must be objectively definable, easily understandable by customers and businesses, and able to be reported and audited. It should not create an unnecessary administrative burden on businesses.

In determining an appropriate payment level, the Commission notes that the purpose of GSL schemes is to provide a spur for businesses to improve their service levels, particularly for their worst served customers. GSL payments are not intended to be compensation for poorly-served customers or a punitive measure for non-compliance with codes and guidelines.

The Commission has concluded that further work is needed to develop a clearly defined and auditable hardship GSL event, to determine the payment level, and to put in place processes for auditable monitoring of compliance. During 2009-10, it will work with the three metropolitan retailers and other stakeholders on defining and implementing an effective hardship GSL event for introduction in 2010-11.

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[16] Consumer Utilities Advocacy Centre and Consumer Action Law Centre 2009, *op. cit*.

[17] *ibid*.

Final decision – Guaranteed Service Levels (GSLs)

The Commission has approved the businesses' proposed GSL events. It has approved an increase in GSL payments from $25 to $50, except for the two sewer spills measures where payments will increase from $500 to $1000.

The Commission requires all metropolitan businesses, by 21 August 2009, to provide to the Commission for approval revised Customer Charters reflecting the changes to GSL payments.

During 2009-10, the Commission will consult with businesses, customers, and other stakeholders on defining and implementing a hardship GSL event in 2010-11.

3 OVERVIEW OF REVENUE REQUIREMENT

Under the Commission's 'building block' approach (summarised in section 1.2), prices reflect the revenues required to recover the efficient cost of delivering services over the regulatory period, taking into account forecast levels of demand. The Commission must be satisfied that the prices it approves will provide each business with sufficient revenue over the regulatory period to meet its obligations and deliver the level of service required by customers. It must also ensure that prices do not reflect monopoly rents or inefficient expenditure.

The Commission has used the 'building block' approach to estimate the revenue that the businesses will require to deliver proposed service standards and outcomes over the regulatory period. Under this approach, the revenue requirement reflects operating expenditure and a return on the regulatory asset value updated each year to reflect any additional capital expenditure, net of asset disposals and regulatory depreciation. Chapters 4-6 discuss operating expenditure, capital expenditure and the financing of capital investments in more detail.

The revenue requirements are used solely to assess whether prices will result in each business earning sufficient revenue to deliver services. They do not represent amounts businesses are required to spend or to direct to particular activities or projects. In consultation with customers, businesses are free to determine their own expenditure priorities, taking into account changing circumstances, and to pursue innovation and efficiencies that enable them to outperform the revenue benchmarks.

It is important to note that as part of this price review, the Commission has only assessed revenue requirements in relation to the metropolitan businesses' water and sewerage services. Melbourne Water's revenue requirement for its drainage and waterways services is not subject to the current price review because the Commission approved prices for Melbourne Water's drainage and waterways services in the 2008 water price review final decision. All figures presented in this final decision exclude expenditure, revenue and prices in relation to Melbourne Water's drainage and waterways services.

3.1 Draft decision

The businesses' revenue requirements comprise their forecast operating expenditure, a return on assets (existing and new assets) and regulatory depreciation (return of assets). For the draft decision, the Commission reviewed the businesses' assumptions about expenditure levels and the return on and of assets over the regulatory period, based on its own analysis, its consultants' reports and further information provided by the businesses.[18] The Commission's draft decision resulted in a revenue requirement of $9.2 billion, which was $556 million lower ($424 million lower net of bulk charges) than that proposed by the businesses.

3.2 Final decision

For the final decision, the Commission has reviewed its draft decision on the businesses' assumptions and proposals, taking into account stakeholder submissions to the draft decision, revisions to their expenditure proposed by the businesses, and new information received since the draft decision was made. It has also updated its view on an appropriate rate of return.

The final decision provides the businesses with gross total revenue of $9.5 billion for the regulatory period, or $6.4 billion net of bulk payments by the retailers to Melbourne Water.[19] The total revenue requirement approved for each business is shown in table 3.1, comparing the businesses' proposals in their Water Plans, the draft decision and the final decision.

Table 3.1 **Total revenue requirement (all businesses)**
$ million in January 2009 prices

	Businesses' Water Plans	*Draft decision*	*Final decision*
City West Water	1 571.4	1 464.3	1 519.9
South East Water	2 442.1	2 267.2	2 342.8
Yarra Valley Water	2 529.0	2 378.3	2 462.2
Melbourne Water	3 239.4	3 115.9	3 201.6
Total revenue requirement (gross)	**9 781.8**	**9 225.7**	**9 526.4**
Less bulk charges	3 171.3	3 038.8	3 127.3
Total revenue requirement (net of bulk charges)	6 610.5	6 186.9	6 399.1

The net total revenue assumed in the final decision is 3.5 per cent higher than that assumed by the Commission in the draft decision, but 3.3 per cent lower than that

18 The Commission's draft decision and supporting documentation are available on its website www.esc.vic.gov.au.

19 It is important to recognise that the total amount of revenue to be recovered from customers is less than the sum of revenue requirements for all businesses. Of the total operating expenditure proposed by the businesses, $3.1 billion represents bulk charges paid by the retailers to Melbourne Water. The total amount of revenue to be recovered from customers is calculated by deducting total bulk charges from the sum of revenue requirements for all businesses. This amount is represented in the following tables as total revenue requirement net of bulk charges.

originally proposed by the businesses in their Water Plans. The two major reasons for the increase in the businesses' revenue requirements are:

- an increase in approved financing costs from 4.8 per cent to 5.1 per cent, reflecting recent market conditions and updated advice from the Treasury Corporation of Victoria on an appropriate debt margin (discussed in detail in chapter 6), and
- additional forecast capital expenditure reflecting a $267.8 million increase in Melbourne Water's contribution to the costs associated with the desalination plant (as advised by Department of Sustainability and Environment; discussed in chapter 5) and
- an increase in total operating and capital expenditures reflecting the combined impact of a number of minor revisions to assumptions (discussed in chapter 4 and 5).

Table 3.2 sets out the details of the revenue requirements implied by the Commission's final decision.

Table 3.2 **Components of final decision revenue requirement**
$ million in January 2009 prices

	Operating expenditure	*Return on existing assets*	*Return on new assets*	*Regulatory depreciaton*	*Tax*	*Total*
City West Water	1 124.5	186.0	72.3	108.4	28.8	1 519.9
South East Water	1 685.6	363.0	78.7	173.4	41.9	2 342.8
Yarra Valley Water	1 706.6	420.6	141.5	193.5	0.0	2 462.2
Melbourne Water	1 416.8	849.9	434.7	416.4	83.7	3 201.6
All businesses	5 933.6	1 819.5	727.3	891.7	154.4	9 526.4

Table 3.3 compares the operating and capital expenditures proposed by the businesses and those assumed in the draft and final decisions.

Table 3.3 **Total capital and operating expenditure (all businesses)**

$ million in January 2009 prices

	Operating expenditure (net of bulk charges)			*Capital expenditure*		
	Businesses' Water Plans	*Draft decision*	*Final decision*	*Businesses' Water Plans*	*Draft decision*	*Final decision*
City West Water	381.0	363.5	364.3	469.9	436.4	504.7
South East Water	564.1	526.1	525.3	602.7	566.3	624.6
Yarra Valley Water	520.0	498.2	499.8	912.6	981.9	1 050.2
Melbourne Water	1 450.2	1 406.8	1 416.8	1 774.0	1 765.1	1 911.9
All businesses	**2 915.3**	**2 794.6**	**2 806.3**	**3 759.2**	**3 749.7**	**4 101.4**

4 OPERATING EXPENDITURE

In their Water Plans, the businesses set out assumptions underpinning their forecast levels of operating expenditure over the regulatory period. In the draft decision, the Commission sought to identify the extent to which businesses' proposals reflect a reasonable trend in operating expenditure consistent with an efficient business.

Where the Commission considered that the proposed operating expenditure did not represent a reasonable trend, adjustments were made to the operating expenditure benchmark. The Commission also had regard to detailed assessments of the businesses' operating expenditure forecasts undertaken by Halcrow Pacific and Deloitte. The businesses were given an opportunity to comment on these assessments. The consultants' reports are available on the Commission's website.

It is important to recognise that the operating expenditure benchmarks adopted by the Commission for each of the businesses do not represent amounts that the businesses must spend or allocate to particular operational, maintenance and administrative activities. They represent assumptions about the overall level of expenditure to be recovered through prices that the Commission considers to be sufficient to operate the business and to maintain assets over the regulatory period.

Where a business' actual operating expenditure during the regulatory period exceeds the benchmarks used to set prices because of inefficiency or additional expenditure on other activities, the business is required to manage this rather than increase prices to customers. When a business identifies additional ways to improve the efficiency of its operations during the regulatory period, which reduces its operating expenditure, it would allow the business scope to either improve services to its customers or to reduce prices below the maximum prices approved by the Commission.

4.1 Overview of the draft decision

In the draft decision, the Commission proposed to adopt benchmarks that provided for total operating expenditure across all businesses of $5.8 billion over the regulatory period. Of the total, $1.4 billion represented Melbourne Water's operating expenditure and $1.2 billion the retailers' controllable operating expenditure. The remaining operating expenditure is predominately the bulk charges paid by the retailers to Melbourne Water.

Melbourne Water's operating expenditure was reduced by $43 million below that proposed in its Water Plan, representing a 3.0 per cent decrease. Controllable operating expenditure for the retailers (shown in table 4.1) was reduced by $79 million below that proposed in their Water Plans. This represented a

6.1 per cent decrease and comprised reductions to individual businesses' operating expenditure of:

- $17.8 million for City West Water, representing a 5.3 per cent reduction
- $38.6 million for South East Water, representing a 7.7 per cent reduction, and
- $22.5 million for Yarra Valley Water, representing a 5.0 per cent reduction.

Table 4.1 **Operating expenditure - business proposals compared to the draft decision**
$ million in January 2009 prices

		Proposed	*Draft decision*	*Difference (per cent)*
City West Water	Controllable[a]	336.8	319.0	-5.3
	Bulk and other	810.0	782.2	-3.4
South East Water	Controllable[a]	499.4	460.8	-7.7
	Bulk and other	1 242.9	1 194.7	-3.9
Yarra Valley Water	Controllable[a]	451.7	429.2	-5.0
	Bulk and other	1 295.6	1 240.7	-4.2
Melbourne Water		1 450.2	1 406.8	-3.0

Note: Numbers may not add due to rounding. [a] Controllable operating expenditure represents expenditure the businesses have direct control over. It excludes regulated bulk water charges, licence fees paid to regulators and the environmental contribution.

In assessing the businesses' proposed operating expenditure, the Commission identified the following key issues:

- Cost escalations — Businesses proposed real cost increases for a number of expenditure items, including electricity, chemicals and fuel. In the current economic conditions, the Commission considered it reasonable that operating input costs should be assumed to escalate at the same rate as the CPI.
- Labour costs and staffing levels — In assessing labour costs, the Commission considered it reasonable for businesses to include a 1.5 per cent real annual increase in labour costs over the regulatory period. Increases in staffing levels above business as usual levels were reviewed by the expenditure consultants.
- Bulk water expenditure — Adjustments were made to businesses' bulk water expenditure to reflect the Commission's draft decision on price increases proposed by Melbourne Water.
- Licence fees and environmental contribution — The Commission adjusted the businesses' forecasts to ensure that licence fees and the environmental contribution were consistent with advice provided by regulatory agencies.
- Other adjustments — The Commission made other adjustments to particular businesses in relation to GSL payment amounts, proposed audits, green power, asset write-offs and valuations, and changes to capital expenditure profiles.

4.2 Responses to the draft decision

Businesses questioned the expenditure adjustments reflected in the Commission's operating expenditure benchmarks proposed in the draft decision (compared to the businesses' Water Plan proposals). The businesses sought further adjustments or revisions to the draft decision operating expenditure benchmarks. Their reasons for these further adjustments and revisions included errors identified in the analysis underpinning the draft decision, further information or arguments presented to support their original forecasts (in their Water Plans), and proposed revisions to their original forecasts.

The Commission engaged Deloitte as consultants to review and report on the adjustments and revisions proposed by the businesses. Deloitte's report is available on the Commission's website.

4.2.1 Errors and omissions in the draft decision

Some businesses proposed adjustments that reflected errors or omissions in the operating expenditure adjustments proposed in the draft decision. The Commission has reviewed the proposals and adjusted the benchmarks as follows:

- Goulburn-Murray Water bulk charges to the metropolitan retailers and payments to the West Gippsland Catchment Management Authority were omitted from the bulk charges in the draft decision for City West Water and South East Water. Purchases of Class C treated water from Melbourne Water by South East Water were also omitted. The Commission has included allowances for these bulk water purchases in the final decision (see attachment 4A).
- A reduction was made in the draft decision to Yarra Valley Water's operating expenditure for the risk ranking of trade waste customers. The Commission acknowledges that this was an error in the consultants' report and has increased operating expenditure in the final decision by $1.0 million.[20]

4.2.2 Additional information in support of Water Plan forecasts

Businesses provided additional information on their Water Plan forecasts in response to adjustments made in the draft decision. The Commission has taken this information into account in reviewing the adjustments proposed by businesses.

Water conservation and Target 155

All businesses proposed operating expenditure increases for water conservation, including Target 155 (T155), for the final decision.

The draft decision included allowances for the T155 program, which was announced after Water Plans were submitted. Allowances for T155 were based on a benchmark of customer costs calculated from South East Water's proposed expenditure. In their responses to the draft decision, City West Water and Yarra Valley Water argued that this methodology was incorrect as contributions to advertising budgets were not linked to customer numbers and the three businesses had taken different approaches in allocating costs to the T155 program and

[20] Deloitte 2009, *further review of expenditure forecasts*, Deloitte, Melbourne, section 5.4.

general water conservation expenditure. South East Water further argued that expenditure for T155 should be provided for in 2010-11.

In 2008-09, each business contributed an additional $0.925 million above its annual $1.5 million contribution for the *Our Water, Our Future* advertising program; the additional amount related primarily to the T155 program.[21] In advising the Commission on operating expenditure adjustments for the final decision, Deloitte confirmed with the Department of Sustainability and Environment (DSE) that it expected each business to contribute a similar amount to the T155 advertising expenditure in 2009-10. DSE also advised that the program has not been committed to past 2009-10.

Melbourne Water submitted that its $1.5 million annual contribution to *Our Water, Our Future* would extend to the end of the regulatory period and that operating expenditure should be increased to reflect this cost.

The Commission has accepted the adjustments put forward by businesses to T155 expenditure in 2009-10 and for Melbourne Water's contribution to *Our Water, Our Future*. South East Water's proposed expenditure for T155 in 2010-11 was not accepted, reflecting DSE's advice that the program has not been committed to past 2009-10.

Smart Water Fund

Melbourne Water's submission proposed a real $1.0 million per annum adjustment to operating expenditure for the Smart Water Fund. Deloitte confirmed that all of the metropolitan businesses contribute $1.0 million per annum to the fund but it was a nominal amount, not a real amount as put forward by Melbourne Water.[22] Deloitte also identified that Melbourne Water had included forecasts of a lesser amount in its Water Plan. The Commission has accepted Deloitte's recommended adjustment and increased Melbourne Water's operating expenditure by $2.5 million over the regulatory period.

During the review of Melbourne Water's proposed adjustment for the Smart Water Fund, Deloitte identified that the assumptions put forward by the retail businesses vary from the nominal $1 million per annum. The Commission has made adjustments in the final decision to operating expenditure for City West Water (a decrease of $0.6 million) and Yarra Valley Water (an increase of $0.73 million). The Commission considered that the recommended variation for South East Water was not material and has not adjusted their operating expenditure in the final decision.

Defined benefits

Prompted by Melbourne Water and City West Water seeking adjustments to operating expenditure in relation to contributions to defined superannuation benefit schemes, Deloitte undertook a review of the assumptions for each of the businesses. The Commission has accepted Deloitte's recommendation that the operating expenditure benchmark be increased by $0.4 million for City West Water,

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[21] *ibid.*, section 2.2.3.

[22] *ibid*., section 2.2.

decreased by $1.4 million for Yarra Valley Water and increased by $6.5 million for Melbourne Water.[23]

Parks and waterways billing

South East Water and Yarra Valley Water both proposed adjustments to the allocation of operating expenditure between prescribed and non-prescribed services for billing and collection. The retail water businesses undertake the billing and collection for Melbourne Water's waterway and drainage charges and Parks Victoria charges, which is considered non-prescribed revenue. In the draft decision, the allowance for expenditure on this function was increased for City West Water and Yarra Valley Water, with an associated decrease in billing and collection costs in prescribed operating expenditure.

Yarra Valley Water argued that the adjustment in the draft decision was inappropriate as it does not reflect the level of resources required to provide the service. Yarra Valley Water appears to have compared only the direct costs of its prescribed expenditure against the total of the non-prescribed expenditure. The Commission considers that the non-prescribed expenditure allowance will include other cost components and that comparison used by Yarra Valley Water cannot be used to justify an adjustment to operating expenditure.

South East Water proposed a decrease in its non-prescribed expenditure to allow it the same margin as allowed for the other two retailers in the draft decision. The Commission identified that South East Water had not considered the increased revenue resulting from the change in customer numbers caused by the expansion of the waterways and drainage boundary. The Commission has not, therefore, accepted South East Water's proposed adjustment.

VCEC recommendations and shared services

South East Water, Yarra Valley Water and Melbourne Water all proposed increases in expenditure related to costs associated with implementing recommendations from the Victorian Competition and Efficiency Commission's 2008 report on the metropolitan retail water sector,[24] including expectations of efficiency gains through shared services.

None of the businesses provided new information to support their proposed adjustments. The Commission has therefore not accepted the adjustments.

City West Water adjustments

City West Water's submission to the draft decision proposed a number of adjustments specific to its business. The Commission's review of those adjustments has resulted in changes to operating expenditure for:

- Labour component of maintenance cost – City West Water submitted that its operating expenditure be adjusted to reflect a 1.5 per cent real increase for the labour component of its maintenance expenditure. Deloitte reviewed this proposal and considered that it would be reasonable to allow the additional expenditure as City West Water has a pass-through provision for labour with its

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23 *ibid*., section 2.1.

24 Victorian Competition and Efficiency Commission 2008, *Water Ways: Inquiry into Reform of the Metropolitan Retail Water Sector*, Final report, February.

alliance partner. The Commission has accepted Deloitte's recommendation and increased operating expenditure by $2.0 million.[25]

- Labour for technical officers – In the draft decision, the Commission accepted the expenditure consultants' recommendation for a reduction in labour expenditure associated with an attrition rate of 20 per cent for its technical officers. City West Water's response to the draft decision contended that technical officers who left the organisation would be replaced and requested an associated increase in operating expenditure. Deloitte reviewed City West Water's proposal and recommended that operating expenditure be increased to account for the inclusion of the technical officer positions.[26] The Commission has accepted Deloitte's revised forecast and increased the operating expenditure benchmark by $0.8 million.
- Guaranteed service levels - Based on the Commission's draft decision to double guaranteed service level (GSL) payments, City West Water submitted that the expenditure forecast for GSLs also be doubled. The Commission has accepted this proposal and increased the operating expenditure benchmark by $0.5 million.

The Commission has not accepted City West Water's proposal that its operating expenditure on purchases of greenhouse gas offsets be increased to reflect an allowance of $40 per tonne of carbon offset, compared to $10.80 per tonne in the draft decision. In its review of the proposed adjustment, Deloitte recommended an allowance of $12 per tonne. The Commission believes that an adjustment to reflect a change $10.80 to $12 per tonne is immaterial and has not made an adjustment to operating expenditure.

South East Water adjustments

South East Water's submission to the draft decision proposed a number of adjustments specific to its business. The Commission's review of those adjustments has resulted in changes to operating expenditure for:

- Double counting and cost mix adjustments – In response to the draft decision, South East Water contended that the reductions to labour expenditure, allowances for cost escalations and specific adjustments to program costs resulted in double counting of reductions for some programs. During Deloitte's review of the proposed adjustments, South East Water revised its proposal to differentiate between potential double counts and variations caused by the methodology it used to forecast operating expenditure. Deloitte recommended that South East Water's operating expenditure be increased by $1.2 million per annum to account for any double counting and variations resulting from the forecasting methodology.[27] The Commission has accepted Deloitte's recommendation and adjusted operating expenditure accordingly.
- Brainwaves Cup – South East Water argued that $0.2 million of annual operating expenditure associated with the Brainwaves Cup be included in the final

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[25] Deloitte 2009, *Further review of expenditure forecasts*, Deloitte, Melbourne, section 3.1.

[26] *ibid*., section 3.2.

[27] *ibid*., section 4.2.

decision. Deloitte considered that much of the Brainwaves Cup program is related to non-regulated expenditure and recommended that $0.15 million per annum be included in operating expenditure.[28] The Commission considers that Deloitte's recommendation is reasonable and has increased operating expenditure in the final decision.

- Based on the Commission's draft decision to double guaranteed service level (GSL) payments, South East Water submitted that the expenditure forecast for GSLs also be doubled. The Commission has accepted this proposal and increased the operating expenditure benchmark by $0.09 million.

The Commission has not accepted a number of South East Water's proposed adjustments, comprising:

- Plant costs – South East Water proposed an increase in operating expenditure to reflect an expected increase in lease costs associated with the field and maintenance truck fleet. The Commission agrees with Deloitte's assessment that the amount requested does not form a material change to the operating expenditure provision in the draft decision and has not made an adjustment in the final decision.[29]
- Billing and collection – South East Water sought an additional $0.3 million in 2011-12 and 2012-13 for an increase in printing costs once its current contract expires. Deloitte reviewed the proposed adjustment and concluded a change to the conclusions in the draft decision was not justified on the information provided by South East Water.[30] The Commission has not, therefore, made an adjustment.
- Financial reporting obligations – South East Water requested that additional operating expenditure be included for compliance with new financial reporting obligations. Deloitte considered that the costs could be undertaken using available resources within the normal cycle of business costs and savings. The Commission agrees with Deloitte's conclusion and has not made an adjustment to operating expenditure in the final decision.[31]

Yarra Valley Water adjustments

Yarra Valley Water's submission to the draft decision proposed a number of adjustments specific to its business. The Commission's review of those adjustments has resulted in changes to operating expenditure for:

- Greenhouse gas expenditure - Yarra Valley Water indicated that it was not now planning to participate in the VEET scheme and proposed an increase in expenditure to purchase the equivalent volume of offsets. The Commission has allowed for increased expenditure for Yarra Valley Water to purchase offsets equivalent to a 20 per cent reduction in its 2007-08 net greenhouse gas emissions. Based on a $12 per tonne offset allowance, operating expenditure increases by $0.4 million. The Commission considers a reduction of 20 per cent is broadly consistent with government targets and provides a reasonable balance

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[28] *ibid*., section 4.4.

[29] *ibid*., section 4.1.

[30] *ibid*., section 4.3.

[31] *ibid*., section 4.5.

between emission reductions and concerns about the pricing impacts of discretionary programs, as discussed in section 2.3.2.

- Billing and collection – Yarra Valley Water sought an increase in operating expenditure for billing and collection. Deloitte reviewed Yarra Valley Water's submission and considered that there was merit to the argument that the billing and collection costs in the draft decision were too low. Deloitte recommended that operating expenditure be increased by $0.75 million per annum.[32] The Commission has accepted Deloitte's recommendation and increased operating expenditure by $3.0 million over the regulatory period.
- Information technology – Yarra Valley Water proposed additional operating expenditure for external consultants ($0.25 million per annum) and for COMPASS system costs ($0.80 million per annum). Deloitte considered that the additional expenditure for external consultants was not reasonable and should be accommodated in a general information technology expenditure cycle.[33] Based on Deloitte's review, the Commission has adjusted Yarra Valley Water's operating expenditure to include an additional $0.8 million per annum for system costs associated with the COMPASS program.

In its response to the draft decision, Yarra Valley Water proposed a pass-through of costs if it was required to undertake a revaluation of assets to meet accounting standards. In the draft decision, $0.78 million of the reduction to minor expenditure items was linked to valuing assets at fair value. The Commission does not consider that this will warrant a pass-through adjustment and should be accommodated within the operating expenditure benchmark.

Yarra Valley Water proposed an increase in its allowance for uncollected revenue, which, although not a direct component of operating expenditure, forms part of the revenue requirement. Yarra Valley Water considered that the draft decision did not make any allowance for the number of customers who enter its 'Arrange and Save' program or default on payments. In considering the proposal, the Commission gave consideration to increased concession payments in the 2009 Victorian Budget, legislative changes providing additional protection to metropolitan water businesses for non-payment of bills, and the use of the Utility Relief Grant Scheme. The Commission has concluded that a doubling of the uncollected revenue allowance is reasonable and has not adjusted Yarra Valley Water's revenue requirement.

Melbourne Water

Melbourne Water's submission to the draft decision proposed a number of adjustments specific to its business. The Commission's review of those adjustments has resulted in changes to operating expenditure for:

- Tarago treatment plant – Melbourne Water submitted that the throughput of the Tarago treatment plant assumed in the draft decision was too low. The Commission has accepted that operating expenditure should be adjusted based

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[32] *ibid.*, section 5.2.

[33] *ibid.*, section 5.3

on 15 GL per annum being treated at the plant and increased the expenditure benchmark by $1.3 million.

- Land tax adjustment – Since the draft decision, Melbourne Water received its 2008 land tax assessment, which was provided for assessment with other supporting information. Deloitte concluded that operating expenditure should be reduced by $6.2 million.[34] The Commission has accepted Deloitte's findings and adjusted operating expenditure in the final decision.

4.2.3 New expenditure items

In response to the draft decision, a number of businesses proposed further revisions to their original forecasts. The Commission has only adjusted the benchmarks where these revisions reflect:

- additional obligations that have been imposed by other regulators that were not known or could not have reasonably been known at the time the Water Plan was submitted and
- material adjustments that have been proposed, such that the change in expenditure is so great as to create significant risks that prices may either not recover sufficient revenue or may significantly over-recover revenue.

The Commission has adjusted the operating expenditure benchmarks for the businesses as follows:

- Bushfire expenditure – Melbourne Water proposed additional operating expenditure resulting from the impacts of the February 2009 bushfires on its catchments and assets. Deloitte has reviewed Melbourne Water's proposal and identified $0.5 million nominated as operating expenditure that is capital expenditure. The Commission has increased Melbourne Water's operating expenditure by $1.9 million and added $0.5 million to capital expenditure.
- Winneke treatment plant sludge handling – Melbourne Water identified that no provision for operating expenditure associated with sludge handling at the Winneke Treatment Plant was included in its forecast operating expenditure. A review of the proposed operating expenditure identified that the allowance for labour was excessive and that no allowance had been made for operating expenditure that would be avoided at the Eastern Treatment Plant. The Commission has increased the operating expenditure benchmark by $3.4 million compared to Melbourne Water's proposal of $4.3 million.

4.3 Other adjustments

The Commission has made a number of other adjustments to operating expenditure in the final decision.

[34] *bid*., section 6.3.

4.3.1 Bulk water costs

The Commission has made adjustments to the assumed bulk water expenditures adopted in the draft decision, as shown in table 4.2, to reflect:

- Melbourne Water's bulk prices in the final decision
- payments to Goulburn-Murray Water for the use of bulk entitlements held in the Goulburn Basin, and
- a payment to the West Gippsland Catchment Management Authority in 2009-10, which formed part of the qualification of rights to temporarily reduce environmental flows in the Thomson River. The Commission has included $0.13 million in each of the retail businesses bulk water expenditure to reflect the payment.

Table 4.2 **Bulk water expenditure adjustments**
1 January 2009 prices

	2009-10	*2010-11*	*2011-12*	*2012-13*	*Total*
City West Water	0.2	5.4	2.0	15.1	22.5
South East Water	-0.1	5.6	2.6	23.1	31.1
Yarra Valley Water	0.2	7.2	3.3	24.4	35.2
Total	**0.3**	**18.2**	**7.9**	**62.6**	**88.9**

4.3.2 Showerhead replacement

Proposed adjustments to water conservation expenditure in businesses' responses to the draft decision prompted the Commission to consider further the operating expenditure for the showerhead exchange programs.

Businesses' Water Plans proposed around $30 million for showerhead replacement as part of their water conservation programs, with expenditure increasing over the period for additional marketing and commencing retrofit programs. In the draft decision, the Commission adjusted operating expenditure to provide for showerhead exchange only.

Businesses link their obligations for showerhead exchange to the conservation and efficiency actions of the Central Region Sustainable Water Strategy that assist in achieving the targeted reductions in total per capita water use. In particular action 4.32 asks businesses to implement an accelerated range of voluntary conservation and efficiency programs, including the water efficient showerhead program aiming to replace around 1 000 000 showerheads by 2015.[35]

[35] DSE 2006, Central Region Sustainable Water Strategy, Department of Sustainability and Environment, October, p94

The Commission considers it reasonable that the target should include allowances for the overall numbers of showerheads replaced, not just those replaced by the water businesses. On this basis, the potential for the significant numbers of showerhead replacements through the Victorian Energy Efficiency Target (VEET) should be considered when reviewing the operating expenditure associated with the water businesses' showerhead replacement programs.

Showerhead replacement is a key method for accredited parties to obtain Victorian Energy Efficiency Certificates (VEECs), of which 2.7 million per annum need to be created for the first three years of the scheme (2009-2011). By the beginning of June, VEECs had been created based on the replacement of over 20 000 shower heads in the metropolitan area since the scheme commenced on 1 January 2009.

This represents the initial stages of the scheme with only around 10 per cent of the 2009 VEET target being registered to the start of June. Relevant entities that are required to obtain VEECs will have strong incentives to accelerate the creation of number of VEECs through prescribed activities, including through showerhead replacement, to meet their 2009 obligations.

Proposed changes to the VEET scheme would allow VEECs to be created for each 0.1 tonne of CO_2-e of greenhouse gas reduced from prescribed activities, rather than 1 tonne.[36] This would increase incentives to install showerheads as the equivalent VEECs for a showerhead replacement in metropolitan Melbourne will increase from 1 to 1.8.

Advice from the Commission's Energy Targets group, which administers the VEET scheme, indicates that total showerheads replaced through the scheme would be expected to exceed the assumed decrease in showerheads replaced by water businesses in the final decision. It also indicated that the marginal cost for accredited parties to replace a showerhead would be expected to be less than that of the water businesses.

The Commission therefore considers it reasonable to reduce the operating expenditure included in the final decision based on an assumed reduction in the number of showerheads exchanged by the water businesses. For the final decision, an allowance of $30 per showerhead has been provided. The number of showerheads is assumed to fall from 2008-09 forecast numbers by 20 per cent in 2009-10, 50 per cent in 2010-11, 65 per cent in 2011-12 and 80 per cent in 2012-13, as shown in table 4.3.

These assumptions reduce operating expenditure over the regulatory period by $2.6 million for City West Water, $4.8 million for South East Water and $4.9 million for Yarra Valley Water. The Commission will require the retail water businesses to report on the number of showerheads each year. This will assist in monitoring progress on achieving the requirements of action 4.32 of the Central Region Sustainable Water Strategy.

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36 Department of Primary Industry 2009, *Open letter to stakeholders*, available at new.dpi.vic.gov.au/energy.

Table 4.3 **Allowances for showerhead replacement expenditure**
Number of showerheads exchanged

	2009-10	*2010-11*	*2011-12*	*2012-13*	*Total*
City West Water	17 100	11 400	7 980	4560	41 040
South East Water	37 500	25 000	17 500	10 000	90 000
Yarra Valley Water	45 386	30 258	21 180	12 103	108 927
Total	99 986	66 658	46 660	26 663	239 967

4.3.3 Other adjustments

During the review of adjustments proposed by the businesses, the Commission identified areas where it considered that further adjustments to the operating expenditure benchmarks are warranted, including:

- South East Water corporate expenditure – In assessing South East Water's response to the draft decision, the Commission considered the increases in corporate operating expenditure were not fully justified. The Commission requested Deloitte to provide advice on South East Water's corporate expenditure. Deloitte considered that South East Water had overstated corporate operating expenditure and recommended a reduction of $0.5 million per annum be included in the final decision.[37] The Commission has accepted this recommendation and reduced the operating expenditure benchmark by $2.0 million compared to the draft decision.
- City West Water licence fee – City West Water's forecast for the Commission's licence fee in 2012-13 was significantly higher than that for the other businesses. The Commission considers that a reasonable assumption for the licence fee is around $0.5 million, resulting in a reduction to the operating expenditure forecast of $0.4 million.
- The Commission identified that Yarra Valley Water had included the costs of bulk water for its share of the 75 GL from the Foodbowl Modernisation project in its water expenditure. For modelling purposes, this expenditure was removed and the expected costs included in bulk water expenditure.

4.4 Final decision

The Commission has considered the businesses' responses to the draft decision and has adjusted the relevant benchmarks for each business only where:

- errors have been identified in the assumptions or forecasts adopted by the Commission in its draft decision
- businesses have provided further information or arguments to support their original forecasts

[37] Deloitte 2009, *op. cit.*, section 4.6.

- additional obligations have been imposed by other regulators that were not known or could not have reasonably been known at the time the Water Plans were submitted or
- material adjustments have been proposed, such that the change in expenditure is so great as to create significant risk that prices may either not recover sufficient revenue or may significantly over-recover revenue.

The Commission has adjusted the controllable operating expenditure benchmarks for all businesses. Adjustments to the retailers' operating expenditure benchmarks, including bulk charges over the regulatory period, constitute an increase of $90.2 million from the draft decision. Melbourne Water's operating expenditure benchmark over the regulatory period was increased by $10.1 million from the draft decision, compared to Melbourne Water's proposal to increase it by $16.1 million.

The Commission considers that the operating expenditure forecasts adopted in the final decision provide a sufficient level of expenditure for the businesses to operate and deliver their proposed services. The benchmarks adopted in the final decision provide the retailers with $4.5 billion in operating expenditure over the period, including $1.2 billion of controllable expenditure. Controllable expenditure is decreasing from $307 million in 2009-10 to $302 million in 2012-13. Expenditure on bulk charges increases from $554 million in 2009-10 to $1.1 billion in 2012-13. Melbourne Water's operating expenditure of $1.4 billion over the period includes payments to the desalination plant operator from 2011-12.

The Commission does not believe the other proposed adjustments put forward by the businesses are material enough to increase the risk that the business will not recover sufficient revenue over the regulatory period. A summary of the adjustments sought by the businesses is set out in Attachment 4A.

Table 4.4 **Final decision — operating expenditure (2009-10 to 2012-13)**
$ million in January 2009 prices

	Draft Decision	*Final decision*				
		2009-10	*2010-11*	*2011-12*	*2012-13*	*Total*
City West Water	1 101.2	228.6	249.6	295.8	350.5	1 124.5
South East Water	1 655.5	333.6	372.0	441.0	539.0	1 685.6
Yarra Valley Water	1 669.9	344.2	376.4	446.9	539.1	1 706.6
Melbourne Water	1 406.8	196.3	201.4	405.7	613.5	1 416.8

Note Numbers may not add due to rounding.

Attachment 4A Summary of adjustments to operating expenditure for the final decision

Table 4A.1 **City West Water**
$ million in January 2009 prices

Description	*Proposed*[a]	*Approved*
Defined benefits contribution	1.1	0.4
Water conservation (Target 155)	0.5	0.6
Smart Water Fund	0	-0.6
Maintenance costs	3.3	2.0
Labour	0.8	0.8
Bulk charges	-14.8	22.5
Licence fee adjustment	0	-0.4
Payment to West Gippsland CMA	0.1	0.1
Showerhead reduction	0	-2.6
GSL scheme	0	0.5
Electricity	1.8	0
Bulk payments to GMW	2.2	0[b]
Total	-4.1	23.3

[a] Proposed by City West Water in its response to the draft decision. [b] Goulburn-Murray Water bulk expenditure included in bulk charges total.

Table 4A.2 **South East Water**
$ million in January 2009 prices

Description	*Proposed*[a]	*Approved*
Water conservation (Target 155)	1.3	0.3
Brainwaves cup	0.8	0.6
Corporate expenditure	0	-2.0
Melbourne Water bulk charges were adjusted to reflect the final decision	-21	30.9
Double counting and cost mix	9.5	4.8
Payment to West Gippsland CMA and Class C water	1.4	0.24
Showerhead replacement program	0	-4.8
GSL scheme	0.12	0.09
Operating expenditure escalation	0.4	0
VCEC savings	2.5	0
Billing and collections	0.6	0
Changes to accounting standards	0.5	0
Reallocation from non-prescribed to prescribed	3.2	0
Environment contribution	0.4	0
Total	-0.3	30.1

[a] Proposed by South East Water in its response to the draft decision.

Table 4A.3 **Yarra Valley Water**
$ million in January 2009 prices

Description	*Proposed*[a]	*Approved*
Defined benefit superannuation contributions	0	-1.4
Water conservaiton (T155)	1.2	0.9
Smart Water Fund	0	0.7
Greenhouse gas offsets	1.9	0.4
Billing and collection	4.6	3.0
Information technology (IT)	4.3	3.3
Minor items	1.7	1.0
Melbourne Water bulk charges were adjusted to reflect the final decision	0	35.2
Payment to West Gippsland CMA and Class C water	0	0.1
Showerhead reduction	0	-4.9
Original bulk expenditure forecast	0	-1.6
Prescribed - non-prescribed	5.0	0
Productivity gains (shared services)	2.0	0
Total	20.6	36.7

[a] Proposed by Yarra Valley Water in its response to the draft decision.

Table 4A.4 **Melbourne Water**
$ million in January 2009 prices

Description	*Proposed*[a]	*Approved*
Defined benefit	6.5	6.5
Water conservation	0.6	0.7
Smart water fund	4.0	2.5
Electricity and Tarago	1.3	1.3
Bushfire	2.4	1.9
Land tax	0	-6.2
Winneke Treatment Plant sludge handling	4.3	3.4
Shared services	1.3	0
Total	20.4	10.0

[a] Proposed by Melbourne Water in its response to the draft decision.

5 CAPITAL EXPENDITURE

Capital expenditure is a key component of the revenue requirement. Net capital expenditure is recovered by being added to the regulatory asset base (RAB) and is reflected in prices through a return on the RAB (that is the weighted average cost of capital (WACC) multiplied by the RAB) and a return of the RAB (through regulatory depreciation).

The WIRO requires the Commission to ensure the prices levied by the businesses provide them with a sustainable revenue stream that does not reflect monopoly profits or inefficient expenditure and allows the business to recover expenditure on renewing and rehabilitating existing assets. The Commission must also be satisfied that the proposed expenditure forecasts are efficient and account for a planning horizon that extends beyond the four year regulatory period.

5.1 Overview of draft decision

For the draft decision, the Commission sought to identify and assess the major projects that comprise a significant proportion of the total capital expenditure forecast, rather than assessing each of the business' entire forecast capital expenditure.

Halcrow Pacific and Deloitte (the expenditure consultants) jointly provided an independent assessment of the businesses' proposed expenditure. The businesses were given an opportunity to comment on the consultants' reports. These reports are available on the Commission's website.

In making its draft decision, the Commission generally accepted the expenditure consultants' recommendations regarding the required level of capital expenditure for each water business. As shown in table 5.1, the Commission proposed to approve total capital expenditure that was 0.3 per cent less than that proposed by the businesses.

The main reasons for adjustments to forecast capital expenditure programs between the submitted Water Plans and the draft decision related to:

- shifts of expenditure from 2008-09 into the 2009-2013 regulatory period
- revisions of capital works programs following consultation between the businesses, the consultants and other regulatory agencies
- lower cost escalation assumptions during the period and
- adjustments due to expected slippage and/or potential for prudent deferral due to proposed works being non-urgent.

Table 5.1 **Draft decision – capital expenditure 2009-10 to 2012-13**
$million in January 2009 prices

	Proposed	Draft decision					Change
	Total	*2009-10*	*2010-11*	*2011-12*	*2012-13*	*Total*	*per cent*
City West Water	469.9	133.6	150.0	98.5	54.3	436.4	-7.1
South East Water	602.7	153.6	148.0	136.2	128.4	566.3	-6.0
Yarra Valley Water	912.6	269.2	252.5	226.9	233.4	981.9	7.6
Melbourne Water	1 774.0	836.4	562.8	248.8	117.1	1 765.1	-0.5
Total	**3 759.2**	**1 392.8**	**1 113.3**	**710.4**	**533.3**	**3 749.7**	**-0.3**

The largest reductions in capital expenditure between that proposed in businesses' Water Plans and that proposed in the Commission's draft decision were for City West Water (7.1 per cent lower) and South East Water (6.0 per cent lower), mainly reflecting smaller assumed increases in capital input costs. Melbourne Water's capital expenditure forecast in its Water Plan was reduced by 0.5 per cent in the draft decision. The 7.6 per cent increase in Yarra Valley Water's capital expenditure forecast between its Water Plan and the draft decision reflected correction of an erroneous assumption (in its Water Plan) that $65 million of shared distribution assets would be funded by developers.

5.2 Responses to draft decision and Commission's assessment

In response to the draft decision, businesses provided further information in relation to issues raised in the draft decision or in relation to further issues that were identified. In making its final decision on capital expenditure, the Commission has assessed this information and adjusted the relevant benchmarks for each business.

The Commission engaged Halcrow Pacific as consultants to review and report on the adjustments and revisions proposed by Melbourne Water. Halcrow Pacific's report is available on the Commission's website.

5.2.1 Northern Victoria Infrastructure Renewal Project

In the draft decision, Melbourne Water's capital expenditure included a $300 million payment to the Department of Sustainability and Environment for a bulk entitlement of up to 75 gigalitres per annum, being the metropolitan water businesses' share of the water savings from the Northern Victoria Infrastructure Renewal Project (NVIRP), also known as the Foodbowl Modernisation Project.

As the bulk entitlement will be held by the three metropolitan retailers, the Commission has removed the capital expenditure from Melbourne Water and added it to that of the three retail businesses for its final decision. The schedule of payments in nominal terms is shown in table 5.2, with the retail businesses contributing equal shares.

Table 5.2 **NVIRP payments**
Nominal $

	2008-09	*2009-10*	*2010-11*	*2011-12*	*2012-13*
Total bulk entitlement payment	85	85	80	20	30
Payment by each retail business	28.3	28.3	26.7	6.7	10.0

5.2.2 Capital expenditure updates

In response to the draft decision, the Commission required businesses to provide updated estimates of capital expenditure for 2008-09 and to identify forecast 2008-09 expenditures that will now occur in 2009-10. The Commission has increased capital expenditure for the 2009-13 regulatory period for Melbourne Water by $53.4 million. This excludes any capital expenditure re-forecasts individually reviewed for the final decision, such as the Werribee Aqueduct project.

5.2.3 Cost escalation

In the draft decision, the Commission deducted additional expenditure proposed by City West Water and South East Water to cover forecast real increases in input costs. The Commission considered it reasonable to assume that, on average, water sector construction costs will increase at the same rate as the CPI, that is, there will be no real increase in prices. While there is arguably a case that increases in construction costs will be lower than CPI, at least during the early phases of the global economic downturn, adopting a CPI-based nominal escalation factor provides a reasonable average outlook over the whole regulatory period.

In its response to the draft decision, South East Water proposed that the 1.5 per cent real labour cost increase allowed for in operating expenditure forecasts be reflected in the labour component of its capital expenditure forecast.

The Commission considers that its draft decision allows for real increases in some input costs, such as labour costs, but within an assumption of no real increase in overall costs. It has not, therefore, accepted South East Water’s proposed adjustment.

5.2.4 South East Water renewals

In its response to the draft decision, South East Water submitted that the Commission should reinstate its forecast water main replacement lengths. The draft decision reduced South East Water’s capital expenditure by $14.3 million to reflect the expenditure consultants' recommendations of lower unit rates and changed work programs.

South East Water contended that the expenditure consultants had incorrectly interpreted the risk metric as only one component, being likelihood of failure. The Commission considers that the expenditure consultants interpreted risk correctly.

In regard to South East Water's St Kilda Road Stage 2 renewal, the business provided a revised capital expenditure forecast to the expenditure consultants. The revised forecast was assessed as reasonable by the consultants and accepted by the Commission in its draft decision. In its response to the draft decision, South East Water has reverted to its previous capital expenditure forecast (as provided in its Water Plan) but it has not provided any explanation for this change. The Commission has not accepted the proposed change.

5.2.5 Melbourne Water adjustments

Melbourne Water's response to the draft decision proposed capital expenditure adjustments for a number of capital projects reviewed for the draft decision as well as several new capital expenditure items.

Melbourne Water provided revised capital expenditure estimates based on improved information for:

- Winneke Treatment Plant sludge handling – An expenditure forecast based on the functional design for the sludge handling project was completed following the expenditure review for the draft decision. The Commission has accepted that the additional information provides an improved estimate of the project's cost and has increased capital expenditure by $9.2 million compared to the draft decision.
- Desalination interconnection works - Since the draft decision, Melbourne Water has progressed the approval process for the desalination interconnection works, including the submission of a business case for approval by the Department of Treasury and Finance. The Commission has accepted the forecasts, except for the costs associated with the Cardinia pipeline. The Commission considers that Melbourne Water has not justified why unit rates for the Cardinia pipeline are significantly above those being achieved for the Sugarloaf Pipeline and has reduced the revised forecast by $2.4 million so that the unit rates are in line with those achieved for the Sugarloaf Pipeline. The combination of Melbourne Water's revised forecast and the reduction in unit rates has resulted in a reduction in capital expenditure of $2.6 million compared to the draft decision.
- Western Treatment Plant wet weather upgrade – Melbourne Water provided updated project cost estimates based on a detailed design of the scheme, including an allowance for the full non-financial bonus payments. In the draft decision, the Commission considered that 50 per cent of the full provision should be included for pricing purposes for other Melbourne Water projects. The Commission has therefore adjusted Melbourne Water's forecast capital expenditure to reflect its revised estimates but including only 50 per cent of the full non-financial bonus payment. This results in an increase in capital expenditure of $8.5 million compared to the draft decision.
- Werribee aqueducts – Melbourne Water provided updated cost estimates, which had being independently reviewed. As with the Western Treatment Plant wet

weather upgrade, the cost estimates included an allowance for the full non-financial bonus payments. The Commission has adjusted Melbourne Water's capital expenditure to reflect Melbourne Water's revised cost estimate but including only 50 per cent of the non-financial bonus payment. This results in a $14.2 million increase compared to the draft decision.

Melbourne Water identified new expenditure related to the impact of the February 2009 bushfires on its assets. The Commission has increased Melbourne Water's capital expenditure by $1.8 million above the draft decision (including $0.5 million of capital expenditure that Melbourne Water's submission to the draft decision had incorrectly allocated to operating expenditure).

Based on advice from Department of Sustainability and Environment (DSE), Melbourne Water proposed new capital expenditure to meet all future costs for the oversight of construction and land acquisition of the desalination plant. Melbourne Water proposed an additional $162.3 million during the regulatory period, with a further $117.4 million contribution for money already spent up to 2008-09. These contributions were not known when the Water Plans and draft decision were prepared.

The Commission asked DSE to verify the advice provided to Melbourne Water. DSE advised the Commission that the $117.4 million contribution forecast for 2008-09 will be made in three equal annual payments from 2009-10 and that the forecast contributions are in nominal terms. The Commission has included the forecast contributions in Melbourne Water's capital expenditure for pricing purposes resulting in a $267.8 million increase in real terms.

Melbourne Water also put forward adjustments to expenditure for the Sugarloaf Pipeline project and mechanical and electrical renewals. Since Melbourne Water has not provided new information to support an adjustment to the capital expenditure benchmark, the Commission has not accepted the proposed adjustments.

5.2.6 Adjustment provisions during the regulatory period

The Commission has included an uncertain and unforeseen events mechanism to deal with uncertainty about the timing and costs of major capital projects (and other factors) during the regulatory period (see chapter 14).

The Commission will only consider adjusting prices for significant changes in the timing or costs of major projects that would impact on a business' ability to meet the service expectations of customers over the period. The Commission will not consider making adjustments for minor changes to the businesses' capital programs that occur during the period as all variations to the approved capital expenditure forecast will be adjusted for at the end of the regulatory period.

Melbourne Water was the only business to identify specific projects with significant uncertainty. Nominated projects included the Eastern Treatment Plant outfall extension or tertiary treatment and the Western Treatment Plant biosolids energy recovery project.

5.3 Final decision

The Commission considers the capital expenditure benchmarks adopted in this final decision will allow each business to deliver its proposed services and meet known regulatory obligations. It does not consider that, where proposed adjustments put forward by the businesses have not been accepted, they will restrict businesses' ability to recover sufficient revenue or meet their required levels of service delivery.

The Commission's final decision has provided for total capital expenditure of $4.1 billion over the regulatory period for the metropolitan water businesses.[38] The total capital expenditure comprises:

- $0.5 billion for City West Water, a 15.6 per cent increase over the draft decision
- $0.6 billion for South East Water, a 12.1 per cent increase over the draft decision
- $1.1 billion for Yarra Valley Water, a 7.0 per cent increase over the draft decision and
- $1.9 billion for Melbourne Water, an 8.3 per cent increase over the draft decision.

The increases in the retail businesses' capital expenditure are predominantly due to the NVIRP contribution being transferred from Melbourne Water. Changes to Melbourne Water's capital expenditure from the draft decision have resulted in an increase in its forecast capital expenditure. Reductions associated with the NVIRP contributions have been offset by increased desalination contributions and approved increases in capital expenditure estimates for the Winneke Treatment Plant, Werribee aqueduct, bushfire related expenditure, the Western Treatment Plant wet weather upgrade and expenditure moved from 2008-09 into the regulatory period.

Melbourne Water's capital expenditure increase over the regulatory period is largely offset by a significant reduction in the 2008-09 expenditure that will be used to set the regulated asset base.

The Commission will monitor the progress of each water business in delivering its key capital projects. The annual performance report will provide an opportunity for businesses to explain any changes in the timing or scope of their major capital projects as well as implications for any outcomes committed to in their Water Plans.

The Commission's final decision and draft decision are compared in table 5.3. A summary of the adjustments sought by the businesses is set out in Attachment 4A.

[38] The draft decision referred to total capital expenditure of $5.1 billion, which was for the five year period from 1 July 2008 (that is, 2008-09 plus the four year regulatory period 2009-13). The final decision sets out total capital expenditure for the regulatory period, that is, the four years from 1 July 2009.

Table 5.3 **Final decision — compared to draft decision**

$million in January 2009 prices

	Draft decision	**Final decision**					
	Total	*2009-10*	*2010-11*	*2011-12*	*2012-13*	*Total*	*Change per cent*
City West Water	436.4	161.3	175.4	104.7	63.4	504.7	15.6
South East Water	566.3	181.2	173.4	142.4	137.5	634.6	12.1
Yarra Valley Water	981.9	296.8	277.9	233.0	242.4	1 050.2	7.0
Melbourne Water	1 765.1	946.5	580.6	287.6	97.1	1 911.8	8.3
Total	**3 749.7**	**1 585.9**	**1 207.3**	**767.8**	**540.5**	**4 101.4**	**9.4**

Attachment 5A Summary of adjustments to capital expenditure for the final decision

Table 5A.1 **City West Water adjustments to capital expenditure**
$ million in January 2009 prices

	Final decision				
	2009-10	*2010-11*	*2011-12*	*2012-13*	*Total*
NVIRP contributions	27.7	25.4	6.2	9.1	68.3
Total	27.7	25.4	6.2	9.1	68.3

Table 5A.2 **South East Water adjustments to capital expenditure**
$ million in January 2009 prices

	Final decision				
	2009-10	*2010-11*	*2011-12*	*2012-13*	*Total*
NVIRP contributions	27.7	25.4	6.2	9.1	68.3
Total	27.7	25.4	6.2	9.1	68.3

Table 5A.3 **Yarra Valley Water adjustments to capital expenditure**
$ million in January 2009 prices

	Final decision				
	2009-10	*2010-11*	*2011-12*	*2012-13*	*Total*
NVIRP contributions	27.7	25.4	6.2	9.1	68.3
Total	27.7	25.4	6.2	9.1	68.3

Table 5A.4 **Melbourne Water adjustments to capital expenditure**
$ million in January 2009 prices

	Final decision				
	2009-10	*2010-11*	*2011-12*	*2012-13*	*Total*
Additional expenditure due to the impact of bushfires	1.3	0.5	0	0	1.8
Desalination contributions to DSE for project development	121.8	87.1	58.8	0	267.8
NVIRP contributions	-85.0	-80.0	-20.0	-20.0	-205.0
Desalination interconnection works	-3.4	0.8	0	0	-2.6
Sludge handling at Winneke treatment plant	7.0	2.2	0	0	9.2
Western treatment plant capacity upgrade	1.3	7.2	0	0	8.5
Werribee aqueduct	11.8	0	0	0	11.8
Mechanical and electrical renewals[a]	1.9	0	0	0	1.9
Forecast 2008-09 expenditure delayed until 2009-10	53.4	0	0	0	53.4
Total	110.1	17.8	38.8	-20.0	146.8

Note: totals may not add due to rounding [a] expenditure delayed from 2008-09 is reflected in the total expenditure delayed until 2009-10

6 FINANCING CAPITAL INVESTMENTS

The Water Industry Regulatory Order (WIRO) requires that prices allow each water business to recover:

- its expenditure on renewing and rehabilitating existing assets
- a rate of return on assets as at 1 July 2004 that are valued in a manner determined by, or at an amount otherwise specified by, the Minister at any time before 1 July 2004 and
- a rate of return on investments made after 1 July 2004 to augment existing assets or construct new assets.

In practice, these principles allow each water business to recover the cost of capital investments (which are initially funded by the water business) over time through regulatory depreciation and to recover financing costs through a return on assets.

This chapter sets out the Commission’s final decision on the assumptions used by the water businesses for financing capital investments, namely the initial regulatory asset values, the rate of return on investments and methods for calculating regulatory depreciation.

6.1 Rolling forward the regulatory asset base

The regulatory asset base (RAB) of each business represents the net value of its past capital investments for pricing purposes. The businesses recover a return on assets which is calculated by multiplying the RAB by a regulatory rate of return.

The RAB for each business reflects the initial regulatory asset value (at 1 July 2004), as determined by the Minster for Water, and the net value of new assets constructed by the businesses since the initial value was set. The RAB is adjusted each year to include new capital expenditure undertaken by the business and to deduct contributions, proceeds from asset disposals and regulatory depreciation.

The Commission will adopt the standard method for calculating an opening RAB for the regulatory period for each water business. The formula for calculating the opening RAB is:

Opening RAB $_{2009}$

equals	Opening regulatory asset value $_{2004}$
plus	Gross capital expenditure $_{2004\text{-}2009}$
less	Contributions (by government and customers) $_{2004\text{-}2009}$
less	Proceeds from disposal of assets $_{2004\text{-}2009}$
less	Regulatory depreciation $_{2004\text{-}2009}$

In updating the RAB, the Commission has adopted actual figures of capital expenditure, contributions and proceeds from disposals for the period 1 July 2004 to 30 June 2008 and forecasts for 2008-09. The regulatory depreciation assumptions adopted for the 2005-2008 regulatory period have also been used to update the RAB. Once the opening RAB has been established, the same approach is then used to roll forward the RAB for each subsequent year of the regulatory period, using forecasts of capital expenditure, contributions, proceeds from asset disposals and regulatory depreciation for this calculation. The RAB is then updated for actual figures at the start of the 2013-2018 regulatory period.

Deferral of regulatory depreciation

Each of the metropolitan water businesses has generally adopted the standard approach to updating and rolling forward the RAB in its Water Plan and provided all the required information. Yarra Valley Water, however, excluded regulatory depreciation on existing assets for 2008-09 in rolling forward its RAB for 2009-10, which the Commission did not accept in its draft decision. City West Water deferred its 2008-09 regulatory depreciation on existing assets, which the Commission also did not accept.

In response to the draft decision, Yarra Valley Water argued that the price increase approved for 2008-09 was less than the price increase required to ensure that its forecast revenue would equal its revenue requirement. It argued that the deferral of depreciation on new and existing assets would bring its revenue requirement closer to forecast revenue.

The Commission notes that the price cap for 2008-09 was set by the Minister and that any losses were not to be recovered through prices in the coming regulatory period. Further, Yarra Valley Water’s proposed approach is not consistent with the approach taken by the other retail businesses or Melbourne Water. Therefore the Commission maintains its view that depreciation on existing assets for 2008-09 should be removed from the amount rolled forward for Yarra Valley Water’s asset base for the coming regulatory period.

2008-09 capital expenditure forecasts

In determining the businesses’ opening asset bases for the final decision, the Commission sought a further update of actual figures for net capital expenditure for the period between 1 July 2008 and 31 March 2009 and updated forecasts for April-June 2009. This included the value of contracts in progress, contracts awarded but not started and contracts yet to be tendered. This provided the Commission with a more accurate estimate of capital expenditure for the current year and the extent to which actual capital expenditure will deviate from the Water Plan forecast. This resulted in some minor adjustments to the 2008-09 capital expenditure figures used in the draft decision and the transfer of Foodbowl Modernisation costs to the retailers (this is discussed in more detail in section 5.2).

Melbourne Water’s capital expenditure for 2008-09 has been reduced by $144 million from the amount used in the draft decision. This reduction includes the transfer of $85 million to the retail businesses for the Foodbowl Modernisation project, and a number of minor delays in expenditure that will be transferred into 2009-10. Melbourne Water had also proposed in response to the draft decision that a payment to DSE of $117.4 million as an additional contribution for the desalinisation project be included in its 2008-09 capital expenditure amount. For the final decision, however, this payment has been spread over the first three years of the regulatory period (see section 5.2).

The Commission has used the revised capital expenditure forecasts for 2008-09 shown in table 6.1 in rolling forward the RAB for each business.

Table 6.1 **Capital expenditure 2008-09**
$million in January 2009 prices

	Draft decision	*Adjustment*	*Final decision*
City West Water	85.4	33.6	118.9
South East Water	123.0	30.2	153.2
Yarra Valley Water	175.3	29.3	204.6
Melbourne Water	1004.6	-144.1	860.5

6.2 Rate of return

The WIRO allows the metropolitan water businesses to recover a rate of return on existing assets and on new capital expenditure. To estimate an efficient rate of return, the Commission uses a weighted average cost of capital (WACC), which reflects the cost of the two alternative sources of finance – debt and equity. Its standard practice is to adopt a WACC that is expressed in real post-tax terms.

The return on assets component of a water business' revenue requirement for any particular year is calculated as the product of the average regulatory asset base for that year and the approved WACC. As a post-tax WACC is adopted, benchmark assumptions about the businesses' tax liabilities also need to be incorporated into their revenue requirements.

6.2.1 Overview of draft decision

In the draft decision, the Commission calculated a feasible range for the WACC of between 4.3 per cent and 4.9 per cent. This range was calculated by adopting probable ranges for the real risk-free rate and the debt margin, which are the market based WACC parameters, and point estimates for the non-market parameters. From the feasible range, the Commission adopted a WACC of 4.8 per cent, which was towards the upper end of the range. The assumptions adopted by the Commission for the individual WACC components are outlined below in table 6.2.[39]

[39] For further details on the WACC calculations, see Essential Services Commission 2009, *Metropolitan Melbourne Water Price Review 2008-09—Draft Decision, Vol. I*, April, pp. 75-77.

Table 6.2 **Draft decision - real post-tax WACC**

Real risk free rate	*Equity beta*	*Market risk premium*	*Debt margin*	*Financing structure*	*Franking credit value*	*WACC (feasible range)*	*WACC (draft decision)*
(per cent)		*(per cent)*	*(per cent)*	*(per cent)*		*(per cent)*	*(per cent)*
1.508 - 1.755	0.65	6.00	2.0 - 2.7	60	0.5	4.3 – 4.9	4.8

In adopting a WACC towards the upper end of the feasible range, the Commission was mindful of a number of factors.

In the months leading up to the draft decision, there had been significant cuts in the official target cash rate by the Reserve Bank of Australia (RBA) that led to large decreases in the real risk-free rate. This was offset by the severe tightening of credit markets and subsequent increases in the cost of debt. The Commission adopted a WACC towards the conservative (higher) end of the feasible range in recognition of this volatility and the difficulty in forecasting how financial conditions may change over the coming regulatory period.

The Commission also had regard to the fact that the businesses often obtain credit at fixed rates and have borrowed at rates that are higher than present levels. Adopting a WACC towards the upper end of the feasible range ensured that the businesses will be able to cover their actual costs of existing debt and the likely cost of future borrowings.

The other key elements of the Commission’s draft decision on the rate of return were:

- The feasible range for the real risk-free rate was calculated using the average yield on nominal Commonwealth Government Securities (bonds) with a 10 year term to maturity over the 40 day trading period to 31 March 2009 as a proxy for the nominal risk-free rate. The average bond rate over this period was 4.299 per cent. This was converted to a real risk-free rate range by adopting an independent inflation forecast range of between 2.5 and 2.75 per cent.
- The feasible range for the debt margin was based on advice from the Treasury Corporation of Victoria (TCV) on its lending rates to government owned corporations with ‘stand alone’ credit ratings between BBB to AA+.
- Point estimates for the equity beta, market risk premium, financing structure and value of imputation credits were equal to those adopted in the 2008 water price review for regional and rural water businesses. These estimates also reflect previous decisions by the Commission and/or generally accepted regulatory precedent. The Commission adopted these estimates in the draft decision as there was no evidence of changes in conditions that would affect these parameters (such as a change in the non-diversifiable risk of the water industry).

6.2.2 Responses to draft decision

In response to the draft decision, the Commission received submissions on the WACC from Melbourne Water, South East Water and Yarra Valley Water.

Melbourne Water expressed views on a number of the WACC parameters but also noted the importance of balancing any change in WACC parameters against the resulting price impact on customers, particularly given the Government's commitment that an average water and sewerage bill will not more than double in real terms over the five year period from 1 July 2008. While it provided comments on the real risk-free rate, market risk premium, equity beta and debt margin, it only proposed that the market risk premium and the real risk-free rate be amended in the Commission's final decision.

Melbourne Water and Yarra Valley Water both argued that the market risk premium be increased from 6.0 per cent to 6.5 per cent to reflect the recent final decision by the Australian Energy Regulator (AER) on WACC parameters for electricity network service providers.[40]

Referring to the AER's analysis of the market risk premium, Melbourne Water argued that:

- Adjusting for imputation credits and using a range of estimated periods up to 2008, the most recent long term historical estimates average close to 6 per cent. However, the effect of concluding the estimation period in 2007 rather than 2008 would result in market risk premium estimates in the range of 6.6 to 7.2 per cent.
- The decline in equity markets throughout 2008 may have resulted in the market's expectation of lower future cash flows, and hence higher discount rates, possibly accompanied by a higher view of the long term market risk premium.
- Primary weight should be given to long term historical estimates of the market risk premium but cash flow based measures could also be considered. Cash flow based measures indicate that the forward-looking market risk premium has changed from below 6 per cent to above 6 per cent.
- Current market conditions suggest that the prevailing market risk premium is above its long term historical average levels. It remains to be seen, however, whether such conditions will revert to long term historical levels or whether there has in fact been a structural shift in the market premium.

Yarra Valley Water also referred to the AER's analysis of the market risk premium and suggested that the market risk premium adopted by the AER supersedes that adopted by the Commission in its draft decision.

Yarra Valley Water suggested that the real risk-free rate adopted by the Commission should not fall below the observed real yield on inflation indexed bonds. It argued that the real risk-free rate calculated using the Commission's approach results in a rate less than the rate on inflation indexed bonds, meaning that the bias between real and nominal bonds, which was highlighted as an issue during the Commission's 2007 gas access arrangements reviews (GAAR), has been reversed. It also referred to the AER analysis on the matter.

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40 Australian Energy Regulator 2009, *Review of the weighted average cost of capital (WACC) parameters – Electricity transmission and distribution network service providers*, May. See chapter 7 of the AER's decision (esp. pp. 235-238) for an analysis of the market risk premium.

South East Water noted that it had received correspondence from the Government suggesting use of a financial accommodation levy (FAL) of 200 basis points and stating its view that the FAL will be no more than 110 basis points. The range for the debt margin assumed by the Commission is consistent with a FAL of no more than 110 basis points.

Melbourne Water argued that the benchmark debt margin should be estimated by reference to the prevailing yields on 10 year BBB+ rated private sector corporate bonds, measured as a spread to the 10 year Commonwealth Government Bond yield using data obtained from CBA Spectrum.

Melbourne Water also queried the equity beta of 0.65 that was adopted by the Commission in the draft decision and in the 2008 water price review. It expressed concern that the equity beta value proposed by the Commission understates the level of non-diversifiable risk of water businesses generally. It pointed to previous regulatory decisions for water in Australia and noted that the equity beta adopted by the Commission is lower than decisions by other regulators. It also referred to a May 2007 report by SFG Consulting, which argued that the non-diversifiable risk of the water sector is not statistically different from other utilities.

6.2.3 Commission’s assessment

The Commission has considered the responses received by the businesses and developments in financial market conditions since the draft decision. This section sets out the Commission’s analysis on the real risk-free rate, debt margin, market risk premium and equity beta, including its responses to issues raised by the businesses.

Real risk-free rate

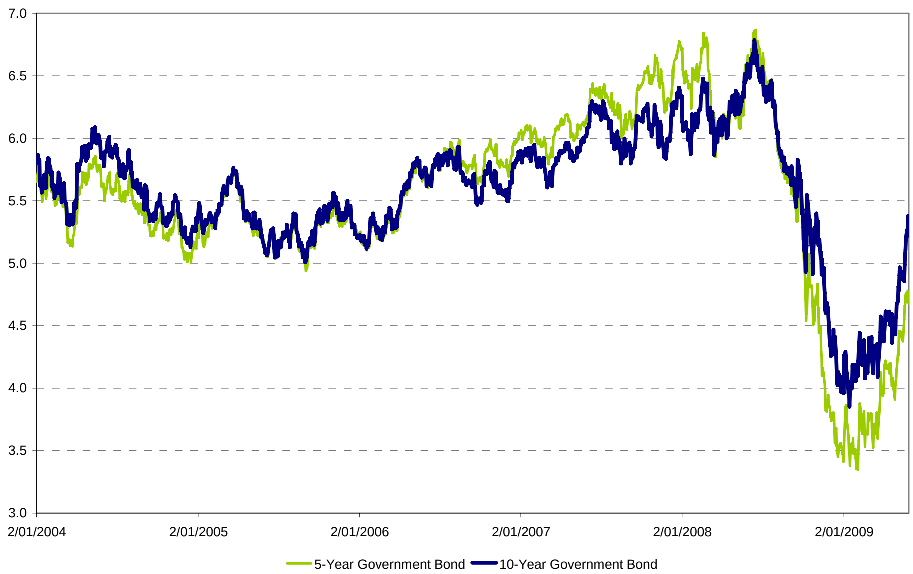
In its draft decision, the Commission constructed a range for the real risk-free rate using the average yield of 4.299 per cent on nominal Commonwealth Government Securities over the 40 day trading period to 31 March 2009 and an inflation range of 2.5 and 2.75 per cent.

For the final decision, the Commission has adopted the same approach to estimating the real risk-free rate as proposed in the draft decision. The Commission has used the average yield on nominal Commonwealth Government Securities over the 40 day trading period to 29 May 2009 to calculate a nominal risk-free rate of 4.774 per cent.

In regard to the inflation forecast, the Commission notes that CPI results for the March quarter 2009 indicated an annual inflation rate of 2.5 per cent, which represents a decrease from previous quarters. The Commission has, however, also had regard to the AER’s analysis of the real risk-free rate in its review of WACC parameters for electricity network service providers. In its draft decision, the AER recommended using a term to maturity matching the regulatory period for electricity network service providers, which suggested that a 5-year term to maturity was appropriate. In its final decision, it retained the 10-year timeframe as the appropriate term to maturity but noted that the 10-year assumption is expected to over-compensate an efficient energy network business.[41]

The Commission sees potential for over-compensation from using the 10-year bond rate. It notes the disparity between the 5-year and 10-year bond rates that has developed over the past 12 months. The 10-year bond rate is now materially higher than the 5-year bond rate, despite the two being closely aligned prior to the global financial crisis. Figure 6.1 provides a recent comparison of 5-year and 10-year bond rates.

Figure 6.1 **Comparison of 5 and 10-year Government bond rates**



The difference between the two rates suggests that economic recovery and higher inflation expectations in the longer term have been factored into 10-year bond rates but not into 5-year bond rates.

In order to calculate a reliable estimate for the real risk-free rate, the Commission considers that a longer term inflation forecast that extends beyond the regulatory period is required if the 10-year term to maturity is used. The Commission considers that an inflation range of between 2.4 and 2.7 per cent is a reasonable longer term inflation forecast and has adopted this range for the final decision. Together with the nominal risk-free rate of 4.774 per cent, this inflation range results in a feasible range for the real risk-free rate of between 2.020 and 2.318 per cent.

The Commission does not agree with Yarra Valley Water's argument that the real risk-free rate should be at least as high as the observed yield on inflation indexed

41 *ibid.*, p. 154.

bonds. The market for inflation indexed bonds has recently been regarded as being illiquid, which means that it is unlikely to provide reliable estimates for the real risk-free rate.[42] The market for nominal bonds is more widely regarded as exhibiting the characteristics of a well-functioning market and is now more widely used by Australian regulators to derive a real risk-free rate (in combination with an independent inflation forecast).

The Commission does not consider that the market for inflation indexed bonds provides a reliable proxy (either as a point estimate or a minimum rate) for the real risk-free rate. A similar view was expressed by the AER, which noted that:

> *There has been no evidence presented to suggest that the supply situation in indexed CGS markets has changed such that these yields can now be considered reliable. On this basis the AER maintains its previous view that any conclusions drawn from the indexed CGS market are questionable.*[43]

Debt margin

As noted in the draft decision, Australian regulators generally adopt benchmark assumptions for the cost of debt that reflect the latest market evidence on the borrowing costs of efficiently financed businesses. Benchmarks are used as opposed to actual borrowing costs as they provide greater incentives to pursue efficient financing arrangements.

The benchmark assumptions previously adopted by the Commission to estimate the cost of debt for water and energy is a BBB+ credit rating, a 10 year term to maturity for corporate bonds and a margin to account for establishment fees. This had previously been the approach generally adopted by Australian regulators to estimate the cost of debt. However, Australian regulators have recently reconsidered the consistent usage of this approach to establish a benchmark debt margin.[44]

In the draft decision, the Commission adopted a benchmark debt margin range based on advice from the Treasury Corporation of Victoria (TCV) on its lending rates. This was also the approach used in the 2008 water price review for the regional urban and rural water businesses. The Commission considers that because the water businesses only borrow through TCV (as opposed to private debt markets), a range of borrowing rates for representative government entities was likely to generate a more appropriate benchmark than corporate bond rates. Based on TCV's advice, the range adopted by the Commission for the debt margin in the draft decision was 2.0 to 2.7 per cent.

For the final decision, the Commission has obtained updated information from TCV. The updated advice from TCV suggested a benchmark debt margin range of between 1.7 and 2.4 per cent. The drivers behind the decrease in debt margins since the draft decision include a widening of the federal Government guarantee to

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42 See Australian Energy Regulator 2009, *op. cit.*, p. 138.

43 *ibid*., p. 138.

44 For further discussion, see Essential Services Commission 2009, *op cit.*, pp. 81-84.

include semi-government debts and improved liquidity in credit markets, particularly for short to medium term debts.

The Commission has also had regard to the fact that the metropolitan businesses have also previously acquired fixed-rate debts at higher borrowing rates. As in the draft decision, the Commission considers that adopting a debt margin towards the higher end of the feasible range will ensure that the nominal cost of debt implied by the WACC is sufficient to cover current borrowing costs. The businesses' actual borrowing costs were between 6.0 and 6.5 per cent in 2007-08 and borrowing costs on new debts have decreased since then.

In response to South East Water's comments on the debt margin, the Commission understands that the FAL will be adjusted to reflect its final decision on assumed financing costs.

The Commission notes Melbourne Water's views that the benchmark debt margin should be estimated by reference to the prevailing yields on 10-year BBB+ rated private sector corporate bonds. However, the Commission considers that the market for BBB+ corporate bonds is not likely to produce a reliable benchmark for the debt margin. This is due to reduced liquidity in corporate bond markets, particularly for BBB+ and longer term debts. Further, the risk of default is likely to be a factor in the recent high rates for corporate debt, which is not relevant for the Victorian water industry.

Equity beta

The equity beta reflects the non-diversifiable risk of an asset relative to the market as a whole. Assets that exhibit higher than average risk (that is, variability in returns) would be expected to compensate investors for this risk through a higher rate of return. The equity beta reflected in these assets would be greater than one, while assets with less than average risk would have an equity beta of less than one.

As noted by Melbourne Water, the equity beta of 0.65 that the Commission adopted in the draft decision and the 2008 water price review reflected analysis from the GAAR in 2007 that demonstrated that the appropriate equity beta for gas distribution businesses was 0.70.

The Commission recognises that that there is limited data on water industry equity betas as water businesses are generally government owned. The Commission's decision on the equity beta in the GAAR was predominantly based on analysis by the Allen Consulting Group (ACG) which established 0.5 to 0.8 as the feasible range for gas distribution businesses.[45] The equity beta was one of the elements of the GAAR final decision that was appealed by the gas distributors. The appeal panel upheld the Commission's decision on the equity beta. The Commission sees this as evidence that the analysis undertaken by ACG is reliable. The Commission maintains its view that 0.65 is appropriate as it is the midpoint of the range

45 Allen Consulting Group, *Empirical evidence on proxy beta values for regulated gas distribution activities*, June 2007.

calculated by ACG for gas distribution, which is likely to exhibit at least as much non-diversifiable risk as the water sector.

Further, an equity beta of 0.65 was adopted by the Queensland Competition Authority in its final report on the Gladstone Area Water Board pricing practices in 2005.[46] The AER's analysis of WACC parameters for electricity network service providers also included empirical evidence that the equity betas for that industry ranged between 0.44 and 0.68.[47] This range suggests that an equity beta of 0.65 for water is not unreasonable.

Market risk premium

As noted in the draft decision, the market risk premium of 6.0 per cent is consistent with observable long term market returns and has typically been adopted by Australian regulators in the past.

The Commission notes the recent AER final decision on WACC parameters for electricity distribution and transmission network service providers, in particular its decision to increase the market risk premium from 6.0 to 6.5 per cent. It also notes Melbourne Water's and Yarra Valley Water's proposals for the Commission to adopt this assumption for the market risk premium into the final decision.

The Commission does not, however, consider that there is sufficient evidence to change the market risk premium from the current rate of 6.0 per cent.

While the short term cost of raising capital may currently be higher than average due to recent market volatility, the standard practice among regulators is to adopt a market risk premium that reflects long run historical market returns. This view was also shared by the AER, which noted that 'primary weight should continue to be placed on long term historical estimates of the market risk premium'.[48]

In its analysis, the AER noted that the most recent long term historical average excess returns (assuming adjustments for an imputation take-up rate of 0.65, measured as a spread to the yield on 10-year bonds, and estimated over a range of long term estimation periods – 1883-2008, 1937-2008 and 1958-2008), are close to 6.0 per cent. The estimates vary but lead to a range of historical excess returns between 5.7 and 6.2 per cent. It then indicated that if the estimation period concluded at the end of 2007, that the range would be between 6.6 and 7.2 per cent. The AER appear to have used this result, and recent cash flow based measures of the market risk premium, to justify a market risk premium of 6.5 per cent.

However, the Commission considers that excluding 2008 from the estimation period is likely to overstate the market risk premium as it includes the higher than average returns in the years leading up to and including 2007, but does not include the effects of the market correction in 2008. Further, the Commission is not aware

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46 Queensland Competition Authority 2005, *Final Report – Gladstone Area Water Board: Investigation of Pricing Practices*, March.

47 Australian Energy Regulator 2009, *op. cit.*, p. 244.

48 See Australian Energy Regulator 2009, *op. cit.*, p. 237.

of other examples where up-to-date market information has been available but not used to estimate average long run market returns.

The AER further suggested that the market risk premium is higher in the medium term but would either revert to the long term market risk premium over time or would remain high due to a structural break.

While agreeing with this assessment, the Commission does not consider this is sufficient justification for increasing the market risk premium. The Commission does not consider it appropriate to adjust the market risk premium to reflect short to medium term conditions. A structural break that leads to higher average returns in the long run is likely to warrant an increase in the market risk premium but the Commission is not satisfied that there is sufficient evidence of such a structural change.

6.2.4 Final decision

The Commission did not receive any submissions relating to the other two WACC parameters (financing structure or franking credit value). As such, it confirms its draft decision to adopt a financing structure of 60 per cent and a franking credit value of 0.5.

Using these figures and the assumptions discussed in the previous section, the Commission has calculated a feasible range for the real post-tax WACC of between 4.6 and 5.3 per cent, as shown in table 6.3.

Table 6.3 **Final decision - real post-tax WACC**

Real risk free rate	*Equity beta*	*Market risk premium*	*Debt margin*	*Financing structure*	*Franking credit value*	*WACC– feasible range*	*WACC– final decision*
(per cent)		*(per cent)*	*(per cent)*	*(per cent)*		*(per cent)*	*(per cent)*
2.020–2.318	0.65	6.00	1.7–2.4	60	0.5	4.6–5.3	5.1

The Commission has adopted the same values for the equity beta, market risk premium, financing structure and franking credit values that were adopted for the draft decision. The feasible ranges for the real risk-free rate and the debt margin have been updated to reflect recent market conditions and further consideration of a number of issues, discussed in the previous section.

As in the draft decision, the Commission considers that a rate of return towards the upper end of the feasible range is appropriate. For the final decision, therefore the Commission has adopted a real post-tax WACC of 5.1 per cent.

Final decision

The Commission has approved a real post-tax weighted average cost of capital of 5.1 per cent.

6.3 Regulatory depreciation

The purpose of allowing a ‘return of’ capital expenditure through regulatory depreciation when setting regulated charges is to return to investors the value of the capital that has been invested over the life of the relevant asset. In the past, water businesses have generally proposed straight-line depreciation profiles and these have been approved by the Commission.

In the current situation where the metropolitan businesses’ asset bases are growing rapidly over a short period, it is appropriate to consider whether other approaches to regulatory depreciation may be more appropriate.

The Commission’s current approach is to recognise regulatory depreciation from the year in which the expenditure is incurred. For projects that take a number of years to complete, this approach results in businesses receiving regulatory depreciation on projects prior to assets coming into service. For small projects and projects that are spread across one or two years, this has little impact. However, for major projects with capital costs greater than $10 million per annum and spread across a number of years — as will occur in Melbourne over the next period — the impact is more significant.

Melbourne Water’s response to the draft decision argued that a threshold of $10 million is too low and would result in the deferral of only $6 million of regulatory depreciation. The Commission notes, however, that the $10 million threshold refers to annual capital costs figure for projects that are spread over a number of years.

The Commission has not altered its approach to regulatory depreciation between the draft and final decisions.

7 DEMAND

Demand forecasts play an important role in determining the prices needed to raise the revenue required by businesses to deliver services over the regulatory period. The demand forecasts have a direct bearing on the prices that customers will pay during the period. When businesses forecast low demand volumes it implies that water prices would have to be higher in order to recover the costs associated with operating Melbourne's water system, and vice versa.[49]

In addition, changes in customer numbers and consumption levels are determinants of the capacity of the water and sewerage infrastructure to provide services and of the need for expenditure on renewal and augmentation. The water businesses' demand forecasts represent a critical element of their service and expenditure proposals for the regulatory period.

In this chapter, the Commission sets out its final decision on what it considers are reasonable demand forecasts for the purpose of setting prices. It acknowledges that there may be uncertainty over future demand levels and will deal with this uncertainty under an uncertain and unforeseen events mechanism similar to that introduced for the regional and rural businesses in the 2008 price review (see chapter 14).

7.1 Overview of draft decision

The key demand parameters influencing prices and revenue are the total volume of water sold and the number of water and sewerage connections (which are primarily influenced by growth in new connections). The volume of wastewater is also a key charging parameter, which is directly related to the volume of water sold.

Figure 7.1 shows actual and forecast residential and non-residential water consumption from 2002-03 to 2012-13 as proposed in the businesses' Water Plans. It indicates that the businesses did not forecast volumes to return to levels consumed in 2002-03, despite ongoing population and connections growth and the predicted easing of restrictions in the later years of the regulatory period.

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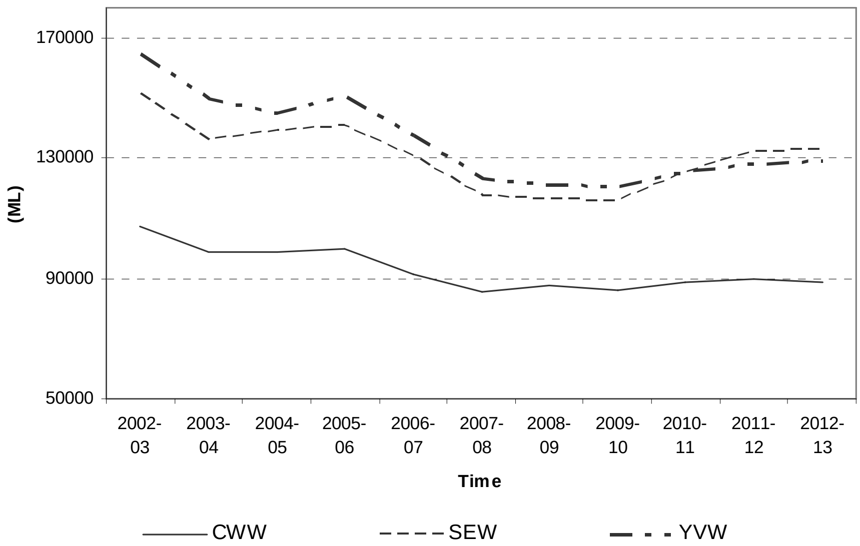
49 Much of the businesses' costs are fixed and do not vary with the volume of water or sewerage services provided to customers. The businesses incur these fixed costs regardless of the level of demand.

Figure 7.1 **Historical and forecast sales volumes supplied by the water businesses (ML)**



Overall, the businesses' proposed demand forecasts were lower than historical averages, reflecting drought conditions, uncertainty about future climate conditions and demand reduction targets.

In reviewing the businesses' proposed forecasts, the Commission considered whether they:

- had been developed using appropriate forecasting methodologies or approaches
- reflected reasonable assumptions about the key drivers of demand, including the impact of supply restrictions
- used the best available information, including historical data that can support trends in demand, and
- took account of current demand, climatic and economic conditions.

The Commission engaged PricewaterhouseCoopers (PwC) to assist in the review and assessment of the demand forecasts put forward by the water businesses. The detailed review has encompassed water, sewerage, recycled water and trade waste. Key issues in this assessment included the businesses' assumptions relating to future connections growth, the impact on demand of water conservation measures that are not price-based, and the impact of restriction levels applying to water consumption. The businesses were given an opportunity to comment on the consultant's report, which is available on the Commission's website.

The Commission's draft decision generally accepted the recommendations made by PwC in relation to the demand forecasts for water and sewerage customer connections, and water and sewerage volumes. The Commission considered that PwC's recommended demand forecasts reasonably took into account expected customer growth, water restriction assumptions, Target 155, and savings made from conservation measures.

Specifically the draft decision's main adjustments to the businesses' demand forecasts proposed in their Water Plans included:

- Target 155 was assumed to reduce water usage to 155 litres per person per day for South East Water and Yarra Valley Water and any residual impact from the program in the later years was removed.
- Customer growth forecasts for City West Water and South East Water were updated to be consistent with 2008 *Victoria in the Future* forecasts.
- Price elasticity effects were removed for non-residential customers participating in the WaterMap program.
- City West Water's non-residential sewerage volumes were adjusted from a seven year to a three year historical average.

7.2 Responses to the draft decision and Commission's assessment

In response to the draft decision, South East Water and Yarra Valley Water sought further amendments to the demand forecasts. In making its assessment of these responses, the Commission sought further advice from PwC. PwC's assessment is available on the Commission's website. The businesses' responses and PwC's assessment are outlined below.

7.2.1 Target 155

South East Water noted that the Target 155 (T155) program asks customers to limit their consumption to 155 litres per person per day. It argued that if customers already using less than 155 litres per day do nothing and customers using more than 155 litres per person per day reduce their consumption, then the average across the customer base is likely to be less than 155 litres per person per day. It argued that the T155 program would therefore achieve savings equivalent to stage 4, implying that the Drought Response Plan estimate is the most valid estimate of demand. South East Water therefore proposed volumes in 2009-10 of 150 litres per person per day and also allowed for residual water savings from T155 in subsequent years.

Yarra Valley Water argued that its customers are tracking towards consumption lower than 155 litres per person per day during 2009-10. It noted that, for the 2008-09 year-to-date, average consumption up to mid-May has already been at 155 litres per person per day. As storages are expected to remain low, Yarra Valley Water is expecting aggressive conservation programs to continue with messages to reduce consumption up to the end of 2009-10. It therefore proposed an average daily consumption of 150 litres per person per day in 2009-10.

Between making its draft and final decisions, the Commission asked the businesses to provide actual daily water consumption for the past two years and up to the end of April 2009. This information would help the Commission gain a better understanding of the impact of T155. The data provided by the water businesses suggested that, while average daily water consumption has declined in 2008-09, usage is unlikely to fall below 155 litres per person per day.

This conclusion was confirmed by PwC's analysis of the available data. In relation to South East Water, PwC noted that average usage has not fallen below 155 litres per person per day and concluded that it would be overly optimistic to expect average daily water consumption of less than 155 litres per person per day.

In relation to Yarra Valley Water, PwC noted that Yarra Valley Water's proposed forecasts were inconsistent with the strong cyclical pattern evident in its water consumption data where consumption bottoms out in June and begins to increase again from July. PwC was also concerned that the water reductions assumed by Yarra Valley Water were constant and did not take into account the reduced scope for saving water as consumption levels decreased (because a higher proportion of water use would be for non-discretionary purposes). In addition, PwC noted that it would not expect the same level of savings during periods where customers traditionally consume lower levels of water, such as in winter where less garden watering occurs.

Given the savings achieved so far, PwC considered that forecasting volumes at no lower than 155 litres per person per day in 2009-10 for South East Water and Yarra Valley Water is a reasonable approach. It concluded that forecasting even lower consumption levels could be overly optimistic about the expected savings resulting from the T155 program.

The Commission agrees with PwC's recommendations and for its final decision has retained the 2009-10 forecast residential volumes from its draft decision for South East Water and Yarra Valley Water based on an average daily usage of 155 litres per person per day. As noted in the draft decision, PwC also recommended removing South East Water's proposed residual savings from T155 in the final years of the regulatory period. This recommendation has also been accepted by the Commission.

7.2.2 Non-residential volumes

South East Water stated that, in its Water Plan forecasts, it included cumulative price elasticity impacts for non-residential customers as they are generally able to make savings of a more permanent nature. In its draft decision, the Commission expressed concern that including price elasticity impacts as well as the impact of the WaterMap program could result in a double counting of water savings. South East Water responded that its original forecasts only included the WaterMap savings realised in 2007-08, not any ongoing impact as assumed by PwC for the draft decision. South East Water submitted, therefore, that no double counting has occurred and the impact of price elasticity for non-residential customers needs to be reinstated.

In reviewing South East Water's forecasts, PwC found that South East Water had not included WaterMap savings in its forecasts for non-residential customers over 10 ML per annum, and has recommended allowing for elasticity assumptions for this group of customers. The Commission has therefore reinstated the price elasticity impact relating to WaterMap customers in its final decision volumes.

7.2.3 Inclining block tariff – block shares

In its response to the draft decision, Yarra Valley Water presented further analysis of how total household consumption drives usage in blocks 2 and 3, for the purpose of estimating how consumption should be allocated between blocks. This resulted in a reduced share in blocks 2 and 3 and an increase in block 1 for each year of the regulatory period.

PwC concluded, on a preliminary assessment of Yarra Valley Water's regression analysis, that it appeared reasonable. It expressed concern, however, that the data used was either not from a full year (given that T155 has only been in place for 6 months) or was from a previous year. It therefore recommended that the allocation across the tiers in the draft decision be retained.

The Commission agrees with PwC's recommendation. In addition, it does not consider that there is enough evidence to support the significant decline in volumes proposed by Yarra Valley Water for blocks 2 and 3 when compared with 2007-08 and 2008-09 data. The Commission notes that Yarra Valley Water's proposed change in block shares is not consistent with the block share proportions of the other businesses, which have both forecast higher proportions in blocks 2 and 3 in each year of the regulatory period.

7.2.4 Application of restriction assumptions

In response to the draft decision, South East Water noted that recent Government policy has been to announce changes to restriction levels in November after the winter/spring rain period. Therefore, where the restriction level is expected to change during the year, South East Water forecast volumes based on five months at the old level and seven months at the new level.

PwC considered there was merit in South East Water's response. However, it noted that traditionally the first five months of the year represent a period of relatively low use. The main impact of T155 (and subsequently the main impact from its removal) would, therefore, most likely occur in the high use period after November.

Taking into consideration the uncertainty surrounding the impact of T155, PwC recommended adjusting forecasts to account for the first four months of T155 in 2010-11 for South East Water and Yarra Valley Water. The additional savings were allocated across blocks 1 and 2 as savings are most likely to be made in these blocks during winter and spring months. PwC also recommended not adjusting volumes in subsequent years as the impact would be immaterial on the forecast volumes.

PwC did not recommend similar adjustments to City West Water's volumes as City West Water had not proposed any material decrease in usage associated with the T155 program. In addition, based on actual usage data per person per day, PwC considered City West Water's proposed forecasts to be reasonable.

The Commission has accepted PwC's recommendation to adjust residential volumes to account for T155 in the first four months of 2010-11 for South East Water and Yarra Valley Water.

7.3 Final decision on demand forecasts

The Commission's final decision on demand forecasts includes adjustments to its draft decision volumes to account for the additional months of T155 in 2010-11 for South East Water and Yarra Valley Water, and the impact of price elasticity for South East Water customers participating in the WaterMap program. Melbourne Water's forecasts have also been amended to reflect the amendments made to the retail water businesses' forecasts. The adjustments from the draft decision are relatively minor and have no significant impact on prices.

The Commission considers that its final decision on demand forecasts provides a reasonable sharing of risk between businesses and customers, despite being based on forecasts lower than historical averages reflecting low total inflows and behavioural responses to restrictions and T155. If inflows are greater than forecast, the Commission would expect stage 1 restrictions to be replaced with Permanent Water Saving Rules (PWSR) in 2012-13. Otherwise, the Commission continues to expect that stage 1 restrictions will shift to PWSR in 2013-14.

The Commission will monitor customers' behavioural responses and provide public updates as part of its annual water performance reporting framework. If there is a significant divergence between actual and forecast demand levels, the Commission may adjust prices under the uncertain and unforeseen events mechanism discussed in chapter 14.

The following tables outline the Commission's final decision for the demand forecasts for the three retail businesses.

Table 7.1 **Final decision – residential connections**

	2009-10	*2010-11*	*2011-12*	*2012-13*
City West Water	306 449	314 723	323 220	331 947
South East Water	576 630	587 009	597 575	608 331
Yarra Valley Water	597 300	605 400	613 400	621 500

Table 7.2 **Final decision – non-residential connections**

	2009-10	*2010-11*	*2011-12*	*2012-13*
City West Water	31 876	32 786	33 721	34 683
South East Water	49 594	50 725	51 873	53 038
Yarra Valley Water	40 700	41 200	41 600	42 100

Table 7.3 **Final decision – residential water volumes (ML)**

	2009-10	*2010-11*	*2011-12*	*2012-13*
City West Water	49 139	52 251	54 307	54 324
South East Water	83 355	89 765	91 880	96 742
Yarra Valley Water	92 860	97 137	97 715	100 268

Table 7.4 **Final decision – non-residential water volumes (ML)**

	2009-10	*2010-11*	*2011-12*	*2012-13*
City West Water	37 765	37 624	36 580	35 882
South East Water	28 947	33 486	33 787	36 240
Yarra Valley Water	25 464	26 339	26 264	26 833

Table 7.5 **Final decision – residential sewage volumes (ML)**

	2009-10	*2010-11*	*2011-12*	*2012-13*
City West Water	31 215	33 192	34 498	34 509
South East Water	58 024	60 498	61 923	64 526
Yarra Valley Water	71 873	72 172	72 602	71 692

Table 7.6 **Final Decision – non-residential sewage volumes (ML)**

	2009-10	*2010-11*	*2011-12*	*2012-13*
City West Water	13 917	13 865	13 481	13 223
South East Water	13 945	15 925	16 068	17 031
Yarra Valley Water	11 459	11 853	11 819	12 075

8 PRICES AND CUSTOMER BILLS

The Water Industry Regulatory Order (WIRO) specifies the principles against which the Commission is required to assess prices. These principles require that prices must:

- provide incentives for the sustainable use of Victoria's water resources by providing appropriate signals to water users about:
  - the costs of providing services, including costs associated with future supplies and periods of peak demands and/or restricted supply and
  - choices regarding alternative supplies for different purposes
- take into account the interests of customers, including low income and vulnerable customers and
- enable customers to readily understand the prices charged, or the manner in which such prices are to be calculated or otherwise determined.

The Commission's final decision on the metropolitan water businesses' demand forecasts and expenditure proposals over the 2009-2013 regulatory period were discussed in chapters 3-7. Prices are set to recover the revenue required to deliver services, taking into account expected demand for water and sewerage services.

This chapter provides an overview of average water and sewerage prices over the period. It discusses the implications of proposed prices for an average customer's bill, the impact of proposed prices on customers, and the pattern of price increases over the period. Prices for specific water and sewerage services, and tariff structures, are discussed in chapters 9-13.

It is important to note that as part of this price review, the Commission has only assessed prices for the metropolitan businesses' water and sewerage services (including trade waste, recycled water and Melbourne Water's bulk services). Melbourne Water drainage and waterways charges and the Parks Victoria charge are not subject to the current price review.[50] All figures presented in this chapter exclude Melbourne Water drainage and waterways charges and Parks Victoria charges.

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[50] The Commission approved prices for Melbourne Water's drainage and waterways services in the 2008 water price review final decision. Parks charges are collected on behalf of Parks Victoria and are set annually by Governor-in-Council on recommendation by the Minister for the Environment and the Treasurer.

8.1 Average annual price increases

Table 8.1 compares the annual average increase in prices approved in the Commission's final decision with the annual average price increases proposed by the businesses in their Water Plans and proposed in the draft decision.

Table 8.1 **Price increases by the metropolitan retail businesses**[a]
(per cent, in January 2009 prices)

	Water Plans	*Draft decision*	*Final decision*
	Average annual increase, 2008-09 to 2012-13		
City West Water	14.0	10.5	12.2
South East Water	15.3	12.3	14.0
Yarra Valley Water	15.7	13.1	14.7
	Total four year increase 2008-09 to 2012-13		
City West Water	63	48	53
South East Water	70	53	59
Yarra Valley Water	71	60	64
	Total five year increase 2007-08 to 2012-13 [b]		
City West Water	87	70	76
South East Water	95	76	82
Yarra Valley Water	97	84	89

Notes: **a** Figures do not include Melbourne Water drainage and waterways charges or Parks Victoria charges. **b** Prices for the three retail businesses increased by 14.8 per cent in 2008-09.

Prices will, on average, increase by somewhat more than proposed in the Commission's draft decision, reflecting the Commission's final decisions on forecast operating and capital expenditure, financing costs, and forecast demand. The three major reasons for the increase in approved prices are:

- the increase in approved financing costs from 4.8 per cent to 5.1 per cent, reflecting recent market conditions and updated advice from the Treasury Corporation of Victoria on an appropriate debt margin (discussed in detail in chapter 6)
- additional forecast capital expenditure reflecting a $267.8 million increase in Melbourne Water's contribution to the costs associated with the desalination plant (as advised by Department of Sustainability and Environment; discussed in chapter 5) and
- an increase in total operating and capital expenditures reflecting the combined impact of a number of minor revisions to assumptions (discussed in chapters 4 and 5).

The Commission notes that the price increases approved in the final decision are consistent with the Government's pricing expectations. The Government has previously indicated that it expects water bills will not more than double in real terms over the five year period from 1 July 2008.[51]

8.2 Average customer bills

To show the overall impact of the prices approved in the final decision, the Commission has estimated illustrative annual household bills over the regulatory period. Average household bills are calculated using approved water and sewerage prices for the three retailers and an assumed consumption level representing an average household. The resulting indicative bill illustrates the total impact of the price increases on an average residential customer. Table 8.2 shows illustrative bills for an average residential customer for each metropolitan retail business.

Table 8.2 **Illustrative annual residential bills based on 2008-09 prices and prices approved in the final decision**
Metropolitan retail businesses ($ in January 2009 prices)

	2008-09	*2009-10*	*2010-11*	*2011-12*	*2012-13*
City West Water	568	641	720	791	858
South East Water	566	662	763	837	894
Yarra Valley Water	585	687	798	889	960

Note: Estimated average annual household bills are based on average consumption of 165 kL each year and prices approved in this final decision. Figures do not include Melbourne Water drainage and waterways charges or Parks Victoria charges.

It is important to recognise that the illustrative bills shown in table 8.2 are based on assumptions about an average customer's water consumption. The actual impact on bills of the prices approved in the final decision will vary between customers, depending on individual consumption patterns and how customers respond to price changes.

As foreshadowed the draft decision, the Commission has, in its final decision, approved a significantly larger increase in water variable charges than in water fixed charges. This tariff restructuring will lead to water usage charges comprising a higher proportion of household bills and give customers greater control over their bills as well as improved incentives to use water sustainably. The tariff restructuring is discussed in more detail in chapter 10.

As noted in section 8.1, the average price increases approved in the final decision are somewhat larger than those proposed in the Commission's draft decision.

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51 Minster for Water 2008, *Water industry efficient and price constraints on track*, Media release, 3 July. The Government's pricing expectations are a policy matter. As such, they do not fall within the Commission's regulatory framework.

Table 8.3 compares illustrative annual household bills for each of the three retailers under the businesses' proposals, the draft decision and the final decision. While the illustrative bill for an average customer is expected to be larger than expected in the draft decision, bills will remain significantly lower than those resulting from the prices proposed in the businesses' Water Plans.

Table 8.3 **Illustrative annual residential bills**[a]
Metropolitan retail businesses ($ in January 2009 prices)

	Water Plans		*Draft decision*		*Final decision*	
	2009-10	2012-13	2009-10	2012-13	2009-10	2012-13
City West Water	671	925	636	840	641	858
South East Water	667	963	656	865	662	894
Yarra Valley Water	725	1004	679	936	687	960

Notes: [a] Estimated average annual household bills are based on average consumption of 165 kL each year and prices proposed by businesses in their Water Plans. Figures do not include Melbourne Water drainage and waterways charges or Parks Victoria charges.

8.3 Managing customer impacts

Affordability has been a major focus of customer submissions to the Commission's issues paper and draft decision and of stakeholder comments at the public meetings. Customer groups, including the Consumer Action Law Centre (CALC), Consumer Utilities Advocacy Centre (CUAC), Ethnic Communities' Council of Victoria, Tenants Union and Victorian Council of Social Services, noted that affordability was a particular concern for low income and vulnerable groups, including pensioners, low income tenants and large families.

Although the price increases approved in the final decision are smaller than those proposed by the businesses in their Water Plans, the Commission recognises that affordability will be an issue for particular customer groups such as low income and vulnerable groups. Following the release of the draft decision, the Chairperson of the Commission wrote to the Treasurer and the Minister for Community Services to draw to the Government's attention to these affordability concerns.

In its 2009-10 Budget, the Victorian Government announced that it would provide $12.5 million in 2009-10 (and a total of $44.4 million over four years) to assist low income Victorians cope with rising water prices. Of this funding, $10.1 million will enable the water and sewerage concession cap to increase to $216.60 in 2009-10 from its current level of $189.70, an increase of 14.18 per cent. A further $2.4 million will be provided through the Water Wise program to fund an additional 4000 audits and retrofits to assist low income and vulnerable water customers reduce their water consumption and therefore their water bills. The 2009-10 State Budget aims to reduce the impact of water price rises on low income Victorians by increasing the water and sewerage concession cap and funding water consumption reduction initiatives for concession card holders.[52]

While the joint submission by CUAC and CALC supported the Government's increase in funding for water and sewerage concessions in the Budget, it reiterated its concern that the value of concessions will not keep up with the increases in water bills in future years.[53]

The Commission's draft decision outlined the various measures available to assist customers with their water and sewerage bills through federal and Victorian Government programs and the water businesses' hardship policies.[54] It noted several issues associated with the current range of water grants, rebates and concessions. CUAC and CALC's submission highlighted their agreement with the Commission's comment that assistance programs such as the Utility Relief Grant Scheme (URGS) and the Water Wise program have narrowly defined eligibility criteria. They recommended that these programs be revised to reach more customers in financial difficulty.[55]

The draft decision also noted that the Commission will monitor the businesses' compliance with their obligations under the Customer Service Code, including their provision of hardship assistance. As noted in chapter 2, the Commission has asked the water businesses to formulate a Guaranteed Service Level (GSL) event related to the businesses' compliance with the standards of customer service set out in their hardship policies and the Customer Service Code. During 2009-10, the Commission will work with the three metropolitan retailers, customer and welfare groups, relevant government departments and other stakeholders on defining and implementing an effective hardship GSL event for introduction in 2010-11.

8.4 Price paths

A price path represents how prices change over the duration of the regulatory period. The prices (and the associated price paths) proposed by each business should be set so as to recover the total revenue requirement over the regulatory period. In any individual year, however, the businesses are not required to set prices in accordance with the revenue requirement for that year. In order to smooth out price changes, the businesses may decide to recover more or less than their revenue requirement in any particular year provided that, over the full regulatory period, the total amount of revenue recovered from customers is sufficient only to meet its total revenue requirement for the period.

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52 Department of Human Services 2009, *2009-10 State Budget Fact Sheet: Increasing the water and sewerage concession cap*, available at www.dhs.vic.gov.au/__data/assets/pdf_file/0005/341573/17---Increasing-the-water-and-sewerage.pdf.

53 Consumer Utilities Advocacy Centre and Consumer Action Law Centre 2009, *op. cit*.

54 The Commission's draft decision is available on its website www.esc.vic.gov.au. See attachment 8A.

55 *ibid*.

In the final decision, the Commission has approved the businesses' proposals to smooth their price paths in order to smooth the impact of price changes on customer bills. While smoothing implies that the water businesses' revenues will not necessarily match their expenditures in any particular year, the total revenue recovered by each business is expected to be sufficient to meet its total expenditure over the four years of the regulatory period.

The draft decision noted that the businesses are currently raising significantly less revenue than required to recover their costs and that a larger than average price increase in the first year of the period would assist in bringing prices more into line with the businesses' underlying costs. The longer prices remain below the businesses' underlying costs, the more the businesses' accumulated revenue shortfall would grow, with negative implications for their capacity to deliver services to customers and for their financial viability. Eventually prices would have to be increased above costs to allow the businesses to recover the revenue shortfall. Consequently, the Commission concluded that suppressing price increases in this price review would not be in customers' longer term interests since this would necessitate even larger price increases at a later date.

The Commission proposed, in the draft decision, to approve price paths for the retail businesses that include larger first year price increases followed by lower annual price increases in the subsequent years. To minimise the 'price shock' to customers, the Commission proposed that the average first year price increase should not exceed 16 per cent for any of the retailers. In determining price increases for the remaining years of the regulatory period, the Commission stated that the retail businesses should aim to set a price path that results in 2012-13 prices being close to, and no more than, their revenue requirements for that year. This would avoid any large price adjustments in the following regulatory period.

For the final decision, the Commission has approved price increases that are larger in the first year and taper off over the period. The price paths are shown in table 8.4. The first year average price increases for South East Water and Yarra Valley Water exceed the 16 per cent limit proposed in the draft decision because of the increase in the businesses' revenue requirements for the regulatory period (see chapter 3).

Table 8.4 **Final decision – approved annual average price increases, 2009-10 to 2012-13**
Metropolitan retail businesses (per cent, in January 2009 prices)

	2009-10	*2010-11*	*2011-12*	*2012-13*	*Average*
City West Water	13.5	13.0	10.2	8.4	12.2
South East Water	17.2	15.4	9.9	6.8	14.0
Yarra Valley Water	17.3	16.1	11.4	8.1	14.7

Note: The average price increase across all water and sewerage services may vary from customers' bill increases depending on their usage of particular services.

9 BULK WATER AND SEWERAGE

The Water Industry Regulatory Order (the WIRO) defines storage operator and bulk water services as services provided by a regulated business in connection with supplying water to another business. Melbourne Water provides storage operator and bulk water services to City West Water, South East Water, Yarra Valley Water, Gippsland Water and Western Water. Bulk sewerage services are defined by the WIRO as a service provided by Melbourne Water in connection with the conveyance, treatment and disposal of wastewater for a regulated entity. Melbourne Water provides bulk sewerage services to the three metropolitan retailers.

9.1 Overview of draft decision

In the draft decision, the Commission proposed to approve most elements of Melbourne Water's proposed bulk water and sewerage tariffs. Melbourne Water's proposed bulk tariffs consisted of the following elements:

- Bulk water tariffs are to retain their general structure of fixed charges and usage charges applying separately for headworks and transport.
- Uniform usage charges for water headworks are to apply from 2009-10 for the three metropolitan retailers and Western Water to reflect the common security of supply provided.[56]
- Usage charges for the transfer component of bulk water are to remain differentiated to reflect the different cost of delivering water to each retailer.
- Bulk sewerage tariffs are to retain their general structure of fixed charges and usage charges.
- Fixed service charges for bulk sewerage are to be differentiated between the Eastern and Western systems.
- The existing volumetric bulk sewerage charge and non-major trade waste load volume are to be combined into a single volumetric charge.
- Major trade waste load usage charges are to be based on total kjeldahl nitrogen (TKN) instead of total nitrogen (TN) and inorganic total dissolved solids (ITDS) instead of total dissolved solids (TDS). Major trade waste load usage charges based on suspended solids and biological oxygen demand will remain.
- The usage charge on ITDS is to increase at a faster rate than other tariffs in order to meet the Environment Protection Authority (EPA) requirement that the

[56] Gippsland Water will be charged lower headworks usage charges to reflect the untreated and less reliable supply it receives from Tarago reservoir.

salt concentration in untreated sewage received at the Western Treatment Plant does not exceed a maximum level.

- The costs of providing bulk water and sewerage services are to be allocated between the retailers according to the recommendations of the Victorian Competition and Efficiency Commission (VCEC), which required that sunk costs be allocated according to 2004-05 volumes and future costs allocated according to forecast volumes.[57]
- Usage charges are to be based on estimates of long run marginal cost (LRMC) with any residual amount of revenue to be recovered through fixed charges.
- Rebalancing of the tariffs would occur in 2009-10 with uniform price increases to apply to each tariff component in the remaining years of the regulatory period.

In the draft decision, the Commission noted that it had difficulty in assessing how Melbourne Water has implemented the VCEC approach and how it was reflected in proposed prices. It indicated that it would seek further information from Melbourne Water before the final decision on how it incorporated the VCEC recommendations to verify that the cost allocation methodology is appropriate.

The Commission proposed not to approve Melbourne Water's proposed smooth price path from 2010-11 to 2012-13 as the difference between revenue collected and revenue required to recover costs each year would be too large in these years. It indicated that, in its response to the draft decision, Melbourne Water should nominate a price path that is more closely aligned with Melbourne Water's revenue requirement in each year of the regulatory period.[58]

While the Commission endorsed the change from TDS to ITDS as the preferred method for charging for salt discharges, it was concerned about the size of Melbourne Water's proposed increases for a number of reasons, including:

- the retailers' proposals not to pass through the salt charge to customers
- potential impacts on customers, particularly industry, if the charge were to be passed through by the retailers, and
- uncertainty about whether the intended price signal would be effective, considering that a large proportion of saline discharge is from residential customers or through salt water infiltration into the distribution network.

The Commission therefore proposed not to approve the size of the increase in Melbourne Water's ITDS and suggested that Melbourne Water propose a price path with more moderate increases.

The Commission was satisfied that all other elements of Melbourne Water's proposed bulk tariffs were consistent with the WIRO and proposed to approve them as part of the draft decision.

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57 Victorian Competition and Efficiency Commission 2008, *Water Ways: Inquiry into Reform of the Metropolitan Retail Water Sector, final report*, February.

58 In the draft decision the Commission suggested an indicative price path of 11.3, 30.7 and 21.3 per cent respectively for the final three years of the regulatory period.

9.2 Responses to draft decision

Melbourne Water proposed to retain a smooth price path for all bulk charges between 2010-11 and 2012-13. Specifically, they proposed an average increase in prices of 20.7 per cent in 2009-10 with uniform increases of 21.7 per cent in the remaining years.

Melbourne Water noted that the proposed price path was designed to ‘smooth’ the price changes for the retailers in each year of the regulatory period and to avoid price volatility for the retailers. Following the draft decision, it consulted with the retailers, which advised that they prefer a smoothed price path because it enables them to better manage the financial impacts on their businesses and achieve more stable financial outcomes over the regulatory period. Melbourne Water noted that while its proposed price path will result in some differences between the revenue collected and the revenue required to recover costs in each year, these differences are less than 5 per cent of costs, except in 2010-11 when the difference would be around 10 per cent.

Yarra Valley Water also indicated that it preferred a smooth price path for Melbourne Water’s bulk charges. It argued that bulk charges make up a significant proportion of its revenue requirement and that a smooth price path would minimise fluctuations in the revenue requirement.

South East Water suggested that combining the existing volumetric bulk sewerage charge and non-major trade waste load volume into a single volumetric charge may result in an over-recovery of revenue from trade waste customers, which pay separately for pollutant loads. It noted that while the materiality of this change is uncertain, it may have ramifications for pricing under an access regime for the water industry.

Melbourne Water proposed an amended price path with more moderate increases for its salt charges. Instead of its Water Plan proposal to establish an ITDS charge of $24 per tonne in 2009-10 followed by 21.9 per cent increases over the regulatory period, it has now proposed a price of $18 per tonne followed by annual increases of 18 per cent.

In regard to salt charges, Melbourne Water argued that the proportion of total salt load from trade waste customers is more readily measurable than from other sources and that trade waste demand is likely to be more responsive to price than residential sewage discharges. It also noted that while salt does come from various sources, trade waste customers individually send significant salt discharges to the treatment plants, particularly when compared to individual residential customers. It also noted that Melbourne Water does pass on the salt charge to residential customers through its volumetric charge at each treatment plant (and previously through the non-major trade waste load volume charge).

Melbourne Water noted that it originally intended to phase in the higher salt charges over two regulatory periods, with higher increases in the next regulatory period and lower increases in the following period. It noted that it still intends to use two periods to phase in higher charges.

Yarra Valley Water noted the importance of ensuring that Melbourne Water's cost allocation accurately reflects the VCEC recommendations, as the cost allocation methodology has material impacts on the bulk charges payable by each retailer.

9.3 Final decision

Following the release of the draft decision, Commission staff attended a detailed presentation on Melbourne Water's cost allocation models. This presentation focussed on how Melbourne Water implemented VCEC's recommended cost allocation methodology, in particular on how it had adapted its previous cost allocation models, which were based on assigning specific costs to each retailer. It also demonstrated how the cost shares to each retailer generated by the VCEC methodology had been reflected in its proposed prices.

Due to the complexity of the models it was not possible to obtain a documented explanation of the cost allocation models. On the basis of the explanation provided at this presentation, however, the Commission is satisfied that the cost allocation method recommended by VCEC has been adopted appropriately.

The Commission has approved all of Melbourne Water's bulk prices for 2009-10 as proposed in its Water Plan. The Commission has also approved the separate price paths for bulk water services to Gippsland Water and Western Water.[59] Melbourne Water indicated that these businesses require separate price paths as they only receive bulk water services. The Commission has also approved the price path for ITDS charges as proposed by Melbourne Water in the response to the draft decision (see below).

However, it has not approved the smooth price path for bulk charges to the three metropolitan retailers proposed by Melbourne Water. The Commission considers that the proposed price path results in too large an over-recovery of revenue in 2010-11 and under-recovery in 2011-12 and 2012-13. Instead of the uniform annual price increases of 21.7 per cent proposed by Melbourne Water, the Commission has approved a price path consisting of a 15.2 per cent price increase in 2010-11 and 27.6 per cent in 2011-12 and 2012-13. The approved price path includes an adjustment to proposed prices to reflect the higher revenue requirement discussed in chapter 3.

The Commission considers that a price path that is more closely aligned with revenue requirement is more appropriate. Under a smooth price path, the amount of revenue expected to be raised in 2012-13 would be significantly below Melbourne Water's revenue requirement. This would increase the possibility of large price increases in the following regulatory period, particularly if the costs incurred during the coming regulatory period are greater than expected. The revenue collected in 2012-13 under the Commission's price path is close to the revenue requirement for that year, which reduces the likelihood of large price increases in the following period.

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59 Western Water will still pay the same headworks usage charge as the retailers to reflect the same level of supply security that they receive.

The Commission has approved Melbourne Water's amended price path for its ITDS charges. As discussed in chapter 12, the retailers will be required to review their trade waste tariffs during the regulatory period to include ITDS charges. The Commission considers Melbourne Water's proposal to introduce its ITDS charges at a lower level and apply smaller increases over the period is appropriate, because it will reduce the customer impacts from passing through the charge at the retail level during the regulatory period.

The Commission has approved all other elements of Melbourne Water's pricing proposals for bulk water and sewerage services.

Final decision

The Commission has approved bulk water charges for 2009-10 as proposed by Melbourne Water in its Water Plan.

The Commission has not approved the smooth price path proposed by Melbourne Water for the remaining three years of the regulatory period. The Commission has approved a price path consisting of a 15.2 per cent price increase in 2010-11 and 27.6 per cent in 2011-12 and 2012-13.

The Commission has approved Melbourne Water's revised price path for its ITDS charges over the regulatory period.

The Commission has approved all other elements of Melbourne Water's proposed bulk water and sewerage tariffs.

10 RETAIL WATER AND SEWERAGE SERVICES

Retail water and sewerage services in metropolitan Melbourne are provided by the three retail water businesses, City West Water, South East Water and Yarra Valley Water. The tariffs proposed by the businesses for water and sewerage services provided to residential and non-residential customers can be broadly classified as two part tariffs, comprising a fixed component and a usage component related to metered water use.

In metropolitan Melbourne, non-residential customers are charged a flat usage charge where the price per kL of water is constant regardless of the volume consumed. Residential water customers are charged according to an inclining block tariff structure (IBT). Under IBT structures, customers are charged a higher price per kL as their consumption increases above a level that is generally regarded as non-discretionary in order to provide greater incentives to reduce discretionary water use.

10.1 Overview of the draft decision

The retail businesses proposed to maintain their existing two part tariff structures for the coming regulatory period. They proposed to increase all tariffs at the same annual rate in order to meet their interpretation of the Government's pricing expectation that average bills will not more than double in real terms over the five years from 1 July 2008.[60] In their Water Plans, the businesses noted that they had interpreted the Government's pricing expectation as ruling out any restructuring of tariffs during the regulatory period (to ensure that no individual bill would increase by more than double over the five year period).

In the draft decision, the Commission expressed a number of concerns with the retailers' water and sewerage tariff proposals. In particular, it was not satisfied that the tariffs proposed in Water Plans, with the exception of variable water charges, would be cost reflective or provide appropriate signals to customers. As such, the proposed tariffs would not comply with the pricing principles included in the Water Industry Regulatory Order (WIRO). The draft decision highlighted four main concerns:

- the structure of prices, particularly high fixed charges, and customers' consequent limited ability to reduce their bills by reducing their water usage
- the allocation of costs between water and sewerage services

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[60] See Minster for Water 2008, *Water industry efficient and price constraints on track*, Media release, 3 July. As an interim measure, uniform price increases of 14.8 per cent were approved for City West Water, South East Water and Yarra Valley Water for 2008-09.

- the methodology used to estimate customers' sewage discharges for pricing purposes and
- the implications of delaying tariff restructuring.

10.1.1 Structure of fixed and variable charges

In the draft decision, the Commission indicated that the water usage (variable) charges proposed by businesses in their Water Plans appeared reasonable on the basis of long run marginal cost. However, it proposed not to approve the other retail water and sewerage charges proposed in Water Plans because they did not accurately reflect the costs of providing water and sewerage services.

Over the regulatory period, operating expenditure for water services (a key driver of variable charges) is forecast to increase significantly relative to capital costs (a key driver of fixed charges). In the draft decision, the Commission indicated, therefore, that it expected variable water charges to increase at a faster rate than fixed water charges. It noted also that there is significant community support for greater emphasis on variable charges to give customers greater control over their water bills and stronger incentives to use water sustainably.

For sewerage services, the Commission noted that estimates of long run marginal cost are much lower than the sewage disposal charges (the variable charge) proposed by the retailers. It indicated that it expected fixed charges for sewerage services to increase at a faster rate than the sewerage usage charge (the sewage disposal charge).

10.1.2 Allocation of costs between water and sewerage services

The increase in the retailers' revenue requirements (see chapter 3), and consequent increase in prices over the coming regulatory period, are largely driven by higher costs of providing water services. These higher costs derive mainly from the large investments being undertaken by the businesses on water supply augmentation. The Commission's analysis shows that the average cost of providing potable water services is forecast to be around 50 per cent greater than the cost attributable to providing sewerage services.

In the draft decision, the Commission concluded that variable water charges should increase at a faster rate than fixed water charges and fixed and variable sewerage charges. It did not approve the fixed water charges and fixed and variable sewerage charges proposed in the businesses' Water Plans.

10.1.3 Sewage discharge factors

The retailers apply sewage discharge factors to estimate customers' sewage discharges for the purpose of calculating sewage disposal charges. The current seasonal indices used to determine a household's sewage discharge factor are based on pre-restriction patterns of water use. Yarra Valley Water proposed to set the seasonal indices according to the level of water restrictions in place. The proposed amendment would reflect lower outdoor usage and thus a higher proportion of water being returned to the sewer at times of water restrictions.

The Commission considered that Yarra Valley Water's proposed amendment to its seasonal sewage discharge indices would better reflect actual household sewage discharges. In the draft decision, therefore, the Commission proposed to approve Yarra Valley Water's proposed amendment to its seasonal sewage discharge indices and suggested that City West Water and South East Water consider adopting a similar approach for the coming regulatory period.

10.1.4 Tariff restructuring

Businesses proposed not to undertake any tariff restructuring until the 2013-2018 regulatory period and undertake a comprehensive tariff review during the coming period.

In the draft decision, the Commission acknowledged that restructuring during a period of rapid price rises could result in some customers experiencing much larger bill increases than other customers, depending on their consumption patterns. It concluded, however, that delaying a tariff restructure until the following period would only postpone an inevitable rebalancing towards a more efficient allocation of costs to services. It noted two potential consequences of delaying the required price rebalancing.

First, prices for some services might have to fall in the 2013-2018 regulatory period in order to be brought back into line with costs. Such price falls, after significant increases in the 2009-2013 period, would send conflicting and inconsistent price signals to customers.

Second, if an access regime for water and sewerage infrastructure services were to be established, access seekers could undercut the water businesses in providing services if there was a significant discrepancy between the actual cost of providing the service and the prices charged by the metropolitan businesses.

The Commission required the retailers to respond to the draft decision with pricing proposals that better reflect the underlying costs of providing retail water and sewerage services.

10.2 Responses to draft decision

The Commission received a large number of submissions from customers and customer groups on the structure of retail water and sewerage tariffs. It also received submissions from the retailers responding to the draft decision's requirement that they develop new tariff proposals that better reflect the underlying costs of providing retail water and sewerage services and provide better signals to customers.

10.2.1 Customer submissions

A number of customer submissions to the draft decision supported greater emphasis on variable charges compared to fixed charges to give customers greater control over their bills. Customer submissions also argued that a greater emphasis on variable charges would improve incentives to conserve water.[61] In addition, the Commission regularly receives correspondence from customers highlighting that reducing their water usage has little impact on their bills.

A customer submission suggested that the fixed charges for water and sewerage services should only increase by the Consumer Price Index (CPI) with the remainder of the retail businesses' revenue requirements being met by increasing the variable charges for water and sewerage services.[62]

The joint submission from the Consumer Utilities Advocacy Centre and the Consumer Action Law Centre also advocated greater emphasis on variable charges. It expressed concern that any increase in water and sewerage fixed charges would be passed through to tenants by landlords.[63]

Other submissions expressed disappointment with the businesses' proposals in their Water Plans to maintain their current tariff structures and made alternative suggestions. For example, the Victorian Council of Social Services advocated providing a free water allocation to all customers, calculated to meet non-discretionary or 'essential' water needs, as part of the IBT structure.

A customer submission suggested that the IBT pricing structure should be replaced by a flat variable tariff, citing the National Water Commission's guidance on urban water pricing. The customer suggested that this would be a more equitable pricing regime as the current IBT structure unfairly penalises large families. [64]

Two submissions expressed concern about the pricing differences between the metropolitan water businesses and the resulting differences in residential water and sewerage bills across Melbourne. Moreland City Council advocated a common pricing structure for the three retail businesses.[65]

A number of submissions argued that customers should not be charged variable sewage disposal charges when residential customers' sewage volumes are unmetered. A household's sewage discharge volume is estimated on the basis of the volume of water used by the household.

10.2.2 Revised retail tariff proposals by the retailers

As required by the draft decision, the retail businesses submitted new tariff proposals that better reflect the underlying costs of providing retail water and

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61 Submissions are available on the Commission's website www.esc.vic.gov.au.

62 Trevor Bergman 2009, *Submission to the Metropolitan Melbourne Water Price Review 2009-13*, 25 April.

63 Consumer Utilities Advocacy Centre and the Consumer Action Law Centre 2009, *Submission to the Metropolitan Melbourne Water Price Review 2009-13 – Draft decision*, 25 May.

64 Name withheld 2009, *Submission to the Metropolitan Melbourne Water Price Review 2009-13*, 18 May.

65 Moreland City Council 2009, *Submission to the Metropolitan Melbourne Water Price Review 2009-13*, 18 May.

sewerage services compared with their Water Plan proposals. The proposals were broadly consistent with the guidance provided in the draft decision.

The businesses proposed no change to the variable water charges proposed in their Water Plans, with the exception of City West Water which proposed a slightly lower price increase in the final year of the regulatory period (9.2 per cent compared to the 10 per cent originally proposed). Over the four year regulatory period, the variable water price was proposed to increase by 62 per cent for City West Water and 70 per cent for South East Water and Yarra Valley Water.

In respect of the fixed charges for water and sewerage services, businesses generally proposed lower price increases than those included in their Water Plans. City West Water and Yarra Valley Water both proposed to increase their fixed charges at the same rates. Over the regulatory period, City West Water proposed to increase its fixed charges by 48 per cent and Yarra Valley Water by 58 per cent. South East Water proposed a higher price increase for its fixed sewerage charges (71 per cent over the period) than for its fixed water charges (48 per cent).

All three businesses proposed to increase their variable sewerage charges at a slower rate than all other charges. Over the regulatory period, the variable sewerage price was proposed to increase by 23 per cent for City West Water, 40 per cent for South East Water and 49 per cent for Yarra Valley Water.

In response to the Commission's suggestion that City West Water and South East Water consider amending the seasonal indices used to estimate the rate of household sewage discharge, both businesses proposed to maintain their current indices. They argued that altering the seasonal indices used to calculate their sewage disposal charges would require substantial re-programming of billing systems that could not completed in time for the coming regulatory period. In addition, they stated that amending the seasonal indices may be inconsistent with possible removal of the sewage disposal charge, which will be considered during the comprehensive tariff reviews that will be conducted in the coming regulatory period.[66]

10.3 Commission's assessment

As noted in chapter 3, the retailers' revenue requirements have been revised upwards in the final decision (compared with the draft decision), reflecting updated estimates for the cost of financing their proposed capital programs, higher bulk charges payable to Melbourne Water, and other adjustments to their expenditure forecasts. The prices proposed by the businesses in their responses to the draft decision (discussed in the previous section) are inconsistent with those revised revenue requirements.

The Commission has, therefore, adjusted the businesses' tariff proposals in making its final decision (set out in the following section 10.4) to ensure that the

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66 City West Water 2009, *Submission to the Metropolitan Melbourne Water Price Review 2009-13*, 19 May and South East Water 2009, *Submission to the Metropolitan Melbourne Water Price Review 2009-13*, 19 May.

businesses will be able to raise sufficient revenue to meet their revenue requirements as set out in this final decision (see chapter 3).

The Commission has also decided to make some other adjustments to the businesses' revised proposals (submitted in response to the draft decision) for the reasons discussed below.

10.3.1 Structure of fixed and variable charges

In line with customer submissions and community support, the Commission considers that there is merit in increasing the emphasis on variable water charges and reducing the emphasis on fixed water charges. This restructuring will give customers greater control over their bills and better signal the costs of using water.

The scope for moving towards higher variable water charges has been limited by the retailers' request that no individual tariff should increase by more than 100 per cent over the period. This will ensure that the businesses are able to meet the Government's pricing expectation that average bills will not more than double over the five years from 1 July 2008. The Commission has accepted the businesses' argument. It also notes that phasing in the move towards higher variable charges relative to fixed charges will allow customers time to adjust their behaviour in response to the price signal.

In respect of sewerage charges, the Commission considers that reducing the emphasis on variable sewerage charge relative to the fixed charge would better reflect costs. The businesses' disposal costs for sewage are largely fixed as they relate to the capital cost of the underlying infrastructure. The marginal cost of treating sewage is low relative to the total cost of providing sewerage services.

There is strong support from customers to remove the variable sewerage charge because of the charge is based on an estimate of household sewage flows, which is calculated indirectly on the basis of household water usage. Customers have expressed concern that the estimated sewage flows are inaccurate and do not take into account conservation measures such as greywater re-use. The Commission notes that the regional Victorian water businesses do not levy variable sewerage charges.

The Commission sees merit in City West Water's and South East Water's plans to consider the removal of their variable sewerage charges in the tariff review to be undertaken in the coming regulatory period.

10.3.2 Allocation of costs between water and sewerage services

In approving prices, the Commission is required by the Water Industry Regulatory Order (WIRO) to ensure that prices reflect the costs of providing water and sewerage services. As noted in the draft decision, the substantial increase in the retailers' revenue requirements, and consequent need for significant price increases over the coming regulatory period, are largely driven by higher costs of providing water services. This implies that average water prices should increase by more than average sewerage prices.

The WIRO requirement is also relevant to submissions calling for uniform water and sewerage prices across Melbourne. The costs of providing water and sewerage services differ across the businesses. Costs are determined by factors that include (but are not limited to) the geographical profile of the retailer (such as the soil structure in the business' service area), age of infrastructure, distance to treatment plants or dams, and cost of meeting environmental obligations. Setting uniform prices across the three retailers would not reflect their costs and would not therefore comply with the WIRO.

10.3.3 Sewage discharge factors

As noted in the draft decision, the Commission sees merit in Yarra Valley Water's proposed amendment to its sewage discharge seasonal indices to reflect the water restrictions in place. For recycled water customers, however, the Commission has approved Yarra Valley Water's proposal to continue to apply the pre-restriction indices (instead of its amended indices) for estimating sewerage discharge volumes for those customers (see chapter 11).

The Commission is satisfied with City West Water's and South East Water's arguments for retaining their current indices in the coming regulatory period.

10.4 Final decision

As noted in the previous section, the prices proposed by the businesses in their responses to the draft decision were inconsistent with the revenue requirements for the regulatory period set out in this final decision. The Commission has, therefore, adjusted the proposed prices to ensure that they will raise sufficient revenue over the period to meet the businesses' revenue requirements, as required by the pricing principles in the WIRO.

The Commission has determined that variable water charges should increase at the same rate for the three retailers, resulting in a 73 per increase over the four year regulatory period.[67] Therefore, variable water charges for all customers across Melbourne (residential and non-residential) will increase by the same percentage in each year of the regulatory period. For the fixed water charge, the Commission has approved a total increase over the regulatory period of 32 per cent for City West Water, 38 per cent for South East Water and 58 per cent for Yarra Valley Water.

For the fixed sewerage charge, the Commission has approved price increases for South East Water and Yarra Valley Water equal to the price increase for variable water charges, that is, 73 per cent over the regulatory period. For City West Water, the Commission has approved a 66 per cent increase in the fixed sewerage charge. The Commission has approved much lower variable charges for sewerage services: 26 per cent for City West Water, 30 per cent for South East Water and 47 per cent for Yarra Valley Water over the period.

Under the Commission's final decision, variable and fixed charges for retail water and sewerage services will increase by the same percentage for non-residential customers as for residential customers. For example, although the underlying

[67] This corresponds to a 98 per cent increase over the five years from 1 July 2008.

prices are different, each tier of the variable water charge for residential customers will increase by the same percentage as the flat variable water charge for non-residential customers.

The Commission has approved Yarra Valley Water's proposed amendment to its seasonal sewage discharge indices to reflect the level of water restrictions in place at the time. It has approved City West Water and South East Water's existing sewage discharge indices.

The details of the retail water and sewerage tariffs determined by the Commission in its final decision are set out in the following decision boxes and in each business' Determination.

Final decision – City West Water

The Commission has not approved the prices proposed by City West Water. The Commission has determined the price increases set out below.

	2009-10	*2010-11*	*2011-12*	*2012-13*
	(per cent change in January 2009 prices)			
Water tariffs				
Residential and non-residential fixed	8.0	7.0	7.0	7.0
Residential variable				
Tier 1	20.0	19.0	12.0	8.0
Tier 2	20.0	19.0	12.0	8.0
Tier 3	20.0	19.0	12.0	8.0
Non-residential variable	20.0	19.0	12.0	8.0
Sewerage tariffs				
Residential and non-residential fixed	15.0	14.0	13.0	12.0
Residential and non-residential sewage disposal charge	6.0	6.0	6.0	6.0

Final decision – South East Water

The Commission has not approved the prices proposed by South East Water. The Commission has determined the price increases set out below.

	2009-10	*2010-11*	*2011-12*	*2012-13*
	(per cent change in January 2009 prices)			
Water tariffs				
Residential and non-residential fixed	14.0	10.0	6.0	4.0
Residential variable				
Tier 1	20.0	19.0	12.0	8.0
Tier 2	20.0	19.0	12.0	8.0
Tier 3	20.0	19.0	12.0	8.0
Non-residential variable	20.0	19.0	12.0	8.0
Sewerage tariffs				
Residential and non-residential fixed	20.0	19.0	12.0	8.0
Residential and non-residential sewage disposal charge	11.0	7.5	4.8	4.0

Final decision – Yarra Valley Water

The Commission has not approved the prices proposed by Yarra Valley Water. The Commission has determined the price increases set out below.

	2009-10	2010-11	2011-12	2012-13
	(per cent change in January 2009 prices)			
Water tariffs				
Residential and non- residential fixed	15.5	14.0	11.0	8.0
Residential variable				
Tier 1	20.0	19.0	12.0	8.0
Tier 2	20.0	19.0	12.0	8.0
Tier 3	20.0	19.0	12.0	8.0
Non-residential variable	20.0	19.0	12.0	8.0
Sewerage tariffs				
Residential and non-residential fixed	20.0	19.0	12.0	8.0
Residential and non-residential sewage disposal charge	12.0	10.5	10.0	8.0

Final decision – sewage discharge factors

The Commission has approved Yarra Valley Water's proposed amendment to its seasonal sewage discharge indices to reflect the level of water restrictions in place at the time.

The Commission has approved City West Water and South East Water's existing sewage discharge indices.

10.5 Future tariff restructuring

In making its final decision, a key focus for the Commission has been to ensure that the tariffs charged by the retail businesses better reflect their underlying costs. While the final decision moves water and sewerage prices in the right direction, there is still room to make prices more cost-reflective.

As noted in Water Plans, the businesses have proposed to undertake a comprehensive review of their tariff structures during the coming regulatory period, for implementation in the following regulatory period. To assist them in developing their pricing proposals for the 2013-2018 regulatory period, the Commission expects the businesses to consider the following issues in undertaking their tariff reviews:

- consistency of variable water charges with long run marginal costs, taking into account changes in cost structures resulting from the businesses' large investments in supply augmentation projects
- the allocation of costs between water and sewerage services
- the appropriateness of an inclining block tariff structure once supply augmentations come into operation and water restrictions are removed, and taking into account the impacts of those tariff structures on large families, and
- the appropriateness of variable sewerage charges, given that sewage discharges are not metered and marginal sewage disposal costs are very low.

The Commission intends, within the next 12 months, to issue a guidance paper to assist the businesses in undertaking their tariff reviews and developing pricing proposals for the 2013-2018 regulatory period. The Commission envisages that customer consultation will form an important element of the businesses' tariff review processes.

11 RECYCLED WATER

Melbourne Water and the metropolitan retail businesses are subject to water recycling targets, which are included in their Statements of Obligations by the Minister for Water. With the businesses having met the 2010 targets by 2006-07, the Victorian Government announced new targets to substitute 6.2 gigalitres of recycled water for potable water by 2015 and 10 gigalitres by 2030. To aid businesses in meeting these targets, the Minister for Water has enabled them to mandate the take-up of third pipe reticulated recycled water in new residential developments.[68]

Recycled water prices are regulated through a combination of scheduled prices and pricing principles. Prices charged for third pipe water services must be included in the businesses' tariff schedules.

11.1 Overview of draft decision

Businesses proposed to maintain a two part tariff for third pipe recycled water services with a variable charge pegged to the first tier price of potable water. They proposed to increase recycled water charges at the same rate as the charges for potable water.

The Commission proposed to maintain the existing recycled water pricing principles and approve the recycled water tariffs proposed by the retailers for third pipe customers. It acknowledged, however, that once water restrictions are eased, customers may become less willing to pay for recycled water because of its lower quality than potable water. Therefore, the Commission requested that businesses develop a pricing strategy to ensure that customers will have sufficient incentive to use recycled water as restrictions are eased.

The Commission also required the retail businesses, in their responses to the draft decision, to clearly explain whether customers' recycled water volumes are used to estimate household sewerage volumes discharged into the system.

11.2 Responses to the draft decision

Submissions were received from the PurplePipe Association, the Sandhurst and Hunt Clubs, and a number of individual customers. Generally, submissions argued that the businesses' pricing proposals provide customers with little incentive to use recycled water. The PurplePipe Association further submitted that recycled water is an inferior quality product that stains toilets, leaves streaks on windows and other surfaces, and has an unpleasant odour.

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68 Office of the Premier and Minister for Water 2007, *First mandatory recycled water for Melbourne*, Media release, 15 January.

The PurplePipe Association questioned the retail businesses' estimated costs associated with treating and delivering recycled water and suggested that proposed recycled water prices are inflated because costs are 'averaged'.

In their responses to the draft decision, the retail water businesses committed to developing a pricing strategy for recycled water during the forthcoming regulatory period.

In response to the Commission's request for a clear explanation of the calculation of sewerage disposal volumes for recycled water customers, South East Water advised the Commission that a household's sewage volume is estimated as a percentage of total recycled and potable water use unless the volume of recycled water used is so large that it is clearly for outdoor use. In this case, the sewage disposal factor is applied to potable water usage only. The information available to the Commission regarding South East Water's third pipe customers' bills confirms that only potable water use is used to estimate sewerage discharge volumes for these customers.

City West Water and Yarra Valley Water adopt the same approach to calculating sewage discharge factors for residential recycled water customers. The three retail businesses proposed to continue to use this approach. They argued that adopting a different method for calculating recycled water customers' sewage discharge factors would be complicated and not easily understood by customers.

In respect of the Western Irrigation District, Melbourne Water advised that it has agreed in principle to supply Southern Rural Water the same price for recycled water for above contract volumes as for volumes supplied within contract until mid-2011. After this time, Melbourne Water has committed to working towards full cost reflective pricing. The Commission noted in its draft decision that it would consult with Melbourne Water and Southern Rural Water closer to 2011 if more cost reflective pricing for recycled water to the Werribee Irrigation District after this time is proposed. The Commission will seek to ensure that any price increases are introduced gradually to minimise price shocks for customers.

11.3 Final decision

In response to submissions received since the draft decision, the Commission has given further consideration to a number of factors relevant to recycled water pricing.

11.3.1 Allocation of costs to recycled water services

In relation to the PurplePipe Association's concerns about the allocation of costs to recycled water services, the Commission notes that, to varying degrees, the businesses' Water Plans provided details of recycled water operating costs and capital projects. While the information available to the public is incomplete in terms of individual estates, the Commission notes that costs are not disaggregated to this extent for other water and sewerage services.

The costs that are directly attributable to providing recycled water in third pipe developments significantly outweigh the revenue received by the retailers for those services. For example, during the coming regulatory period, South East Water's operating and capital expenditure on providing recycled water services is expected to total $98.5 million, compared to forecast revenue of $7.6 million. The findings of the Commission's independent expenditure consultants' review of all costs confirmed that the costs allocated to water recycling are significantly higher than the revenue earned from its sale.[69]

The Commission notes further that some recycled water costs have been attributed to sewage services. For example, the Eastern Treatment Plant upgrade to tertiary treatment has been categorised as a sewerage cost although it will facilitate water recycling. The forecast costs provided by businesses for recycled water services are therefore likely to be understated.

The substantial revenue shortfall for recycled water services is cross-subsidised by the rest of the customer base. This has generally been accepted on the basis that use of recycled water helps the businesses balance water supply and demand and therefore provides some benefit to the broader customer base.

11.3.2 Incentives to use recycled water

As indicated in the draft decision, it is the Commission's view that while water restrictions are in place, third pipe customers receive a clear benefit from being able to use recycled water for outdoor uses that are restricted for customers without access to recycled water. In the absence of water restrictions, households (without access to recycled water) that use water for outdoor uses such as garden watering, would generally use sufficient water to fall into the second tier of the usage charges for potable water. Additionally, for customers who have plumbed recycled water indoors (for toilet flushing), it serves to reduce the customer's use of potable water.

Taking these factors into account, the Commission considers that the proposed prices for recycled water represent a discount for customers while stage 3A restrictions are in place. The Commission is therefore satisfied that customers currently have sufficient incentive to continue to use recycled water until restrictions are eased.

As discussed in chapter 7, water restrictions are expected to be eased during the coming regulatory period (although they are not forecast to be removed until after 2012).[70] As restrictions are eased, the benefits of using recycled water will diminish because households will be able to use potable water in a less restricted manner.

To ensure that customers will continue to have sufficient incentive to continue using recycled water, the Commission will require the businesses to revise their recycled water tariffs as restrictions are eased during the coming regulatory period. The Commission will also require the businesses to develop a full pricing strategy

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69 The consultants' reports are available on the Commission's website www.esc.vic.gov.au.

70 Once water restrictions are lifted, Permanent Water Saving Rules will still apply, continuing to restrict water uses to some degree. See the Our Water, Our Future website www.ourwater.vic.gov.au.

to be implemented for the forecast easing of water restrictions in the next regulatory period.

11.3.3 Application of sewage discharge factors

In determining appropriate sewage discharge factors, a key consideration for the Commission is ensuring that customers' estimated sewage volumes reflect the factors influencing customers' actual discharges. For recycled water customers, it is important to recognise that a high proportion of their recycled water use is outdoors and will not end up in the sewer.

In setting the sewage discharge factors applied to third pipe recycled water customers, the Commission recognises that there is limited data on the water consumption patterns of third pipe recycled water customers as the estates are relatively new. Developing a specific sewage discharge factor for these customers in the absence of historical data is difficult. In its submission, South East Water highlighted significant differences in recycled water consumption patterns across development estates.

Consequently, the businesses currently apply the same sewage discharge factors to the metered water use of all residential customers. For third pipe customers, 'metered water use' includes recycled water as well as potable water.

The Commission notes, however, that the retailers have used discretion when calculating household sewage discharge volumes for third pipe customers. For example, South East Water noted that it monitors the application of the sewage disposal charge to third pipe customers and where the volume of recycled water used is so large that it is clearly for outdoor use, the sewage discharge factor is applied to the customer's potable water use only.

In addition, sewerage customers who are able to demonstrate that they have been systematically disadvantaged by the sewage discharge factors can seek to have a customised discharge factor (using household consumption history) to determine the percentage of water discharged to the sewer annually. Businesses also have discretion to apply another formula or method for estimating the volume of sewage discharged from a property if it is satisfied that the current method is likely to systematically and substantially overestimate the actual volume.

In the absence of historical data for third pipe recycled water customers, the Commission considers that the pre-restriction indices for estimating sewage discharge volumes are appropriate for third pipe customers. The Commission has therefore approved Yarra Valley Water's proposal to continue applying the pre-restriction indices (instead of its amended indices, discussed in chapter 10) for estimating sewage discharge volumes for third pipe recycled water customers. City West Water and South East Water proposed not to adjust their respective sewage discharge factors.

The Commission will require the retail businesses to monitor the application of the sewage disposal charge to third pipe customers. Where the volume of recycled water used is so large that it is clearly for outdoor use, or where a customer is systematically disadvantaged by the sewage discharge factor, the business will be required to apply a customised factor to that customer.

11.3.4 Recycled water fixed charges

In its Water Plan, City West Water proposed not to increase the recycled water service charge for third pipe customers in real terms. That is, the charge would only increase in line with the CPI. The Commission has approved City West Water's proposal. It has determined that the same approach should be adopted for South East Water and Yarra Valley Water to ensure consistency across the three metropolitan retailers. It has not therefore approved their proposals for real increases in the recycled water service charge.

Final decision

The Commission has approved the retail businesses' proposals to continue to set the variable recycled water charge for third pipe customers equal to the first tier potable water price while stage 3A restrictions are in place.

The Commission has approved City West Water's proposal to increase the recycled water service charge in line with the Consumer Price Index (CPI), that is, no real increase. It has not approved South East Water's and Yarra Valley Water's proposals for real increases in the recycled water service charge and has determined that there will be no real increase in these charges over the coming regulatory period.

The retail businesses must apply to the Commission with new recycled water tariff proposals as water restrictions are eased during the coming regulatory period.

The Commission has approved City West Water's and South East Water's proposal to maintain their current sewage discharge factors. The Commission has also approved Yarra Valley Water's proposal to continue applying the pre-restriction indices for estimating sewage discharge volumes for third pipe recycled water customers.

The retail businesses are required to monitor estimated sewage volumes for third pipe recycled water customers to ensure that sewage volumes for these customers are not overestimated. Where the volume of recycled water used is so large that it is clearly for outdoor use, or where a customer is systematically disadvantaged by the sewage discharge factor, the business will be required to apply a customised factor to that customer.

The Commission requires the retail businesses to develop a pricing strategy for recycled water that takes account of the easing of water restrictions. They should include this strategy in their Water Plans for the 2013 price review.

12 TRADE WASTE

Trade waste is waste, other than normal domestic sewage, that is discharged into the sewerage system by industrial and commercial customers. Trade waste charges are applied by each of the metropolitan retailers. The charges are generally set as part of a defined schedule of tariffs that identify charges for a range of parameters including fixed charges, volume, and other key cost drivers such as biochemical oxygen demand (BOD) and suspended solids (SS). Where trade waste services are unique in nature (for example, due to discharge strength or volume), prices may be set on a case-by-case basis with reference to pricing principles included in a business' Determination.

12.1 Overview of draft decision

In the draft decision, the Commission recommended that the current principles for trade waste pricing be retained for the metropolitan retailers for the regulatory period. These principles include that trade waste prices must provide appropriate signals to trade waste customers about the relative merits of discharging to the sewerage system compared to alternatives such as waste minimisation and on-site treatment. This will strengthen incentives for efficient use of trade waste services, including providing appropriate incentives for investments in changing production methods or extending on-site treatment to reduce trade waste to efficient and sustainable levels.

The Commission proposed that the existing pricing principles for calculating non-scheduled trade waste prices, which are applied in cases where a customer's trade waste volume or discharge strength is unique, be retained for the regulatory period. These principles are:

- Volumetric and load based charges should, to the extent practicable, reflect the long run marginal cost of trade waste transfer, treatment and disposal.
- The total revenue received from each customer should be greater than the cost that would be avoided from ceasing to serve that customer and (subject to meeting avoidable cost) less than the stand alone cost of providing the service to the customer in the most efficient manner.
- The methodology used to allocate common and fixed costs to that customer should be clearly articulated and be consistent with any guidance provided by the Commission.
- Charges should reflect reasonable assumptions regarding the volume and strength of trade waste produced by that customer.
- Depreciation rates and rates of return used to determine charges should be consistent with those adopted by the Commission in its final decision.

- Customers should be provided with full details of the manner in which charges have been calculated.
- Where applying these principles results in significant changes to charges or tariff structures, arrangements for phasing in the changes may be considered and any transitional arrangements should be clearly articulated.

The Commission also proposed to approve the retailers' proposed scheduled trade waste charges (including volumetric, pollutant load and various administration charges) for 2009-10.

However, the Commission was concerned about the lack of an integrated approach to trade waste pricing between Melbourne Water and the retailers, particularly in regard to salt charges. While Melbourne Water proposed to replace its charges on total dissolved solids (TDS) with charges on inorganic total dissolved solids (ITDS), the retailers proposed to maintain their current trade waste tariff structures over the regulatory period. In particular, City West Water and Yarra Valley Water proposed to maintain their existing TDS charges while South East Water did not propose to introduce either a TDS or ITDS charge.

The Commission argued that retail trade waste prices should reflect Melbourne Water bulk sewerage charges as these are the major driver of the retailers' trade waste costs. The Commission therefore proposed to provide notional approval of the retailers' trade waste prices for the remaining years of the regulatory period and to require the retailers to review and amend their trade waste tariffs during the regulatory period, including introducing charges for ITDS.

The retailers were asked to identify, in their responses to the draft decision, when during the regulatory period a review of trade waste tariffs will be possible. The Commission also indicated that the retailers should start collecting the information required to assess the customer impacts of varying its trade waste charges, in particular introducing ITDS charges.

12.2 Responses to draft decision

City West Water advised that it has already started collecting information on ITDS from existing trade waste customers. It also indicated that it is important to introduce retail ITDS charges early if it is to reflect Melbourne Water's charge by the end of the regulatory period.

Yarra Valley Water indicated that it plans to phase in an ITDS charge from 1 July 2010 with the full impact of Melbourne Water's ITDS being reflected in trade waste charges by 2012-13.

City West Water and Yarra Valley Water both proposed a timetable for reviewing, consulting on and amending their trade waste tariffs during the regulatory period. The proposed timetable is as follows:

- November 2009 – discuss interim proposals with the Commission
- December 2009 – release draft proposal for consultation
- March 2010 – submit final proposal to the Commission
- May 2010 – Commission's consultation
- June 2010 – Commission's decision.

South East Water indicated that it intends to replace its Total Nitrogen charge with a Total Kjeldahl Nitrogen charge from 2009-10 to reflect the change to Melbourne Water's bulk sewerage charges. It did not propose a specific timeframe for reviewing its trade waste charges during the regulatory period but indicated that it will consider the proposed change to ITDS as part its general tariff review during the period.

Melbourne Water provided a response to the draft decision on its ITDS charges, which is discussed in more detail in chapter 9. It indicated that it had examined the potential impact of the proposed prices on the top 10 trade waste customers (as at September 2008) and assessed these impacts as not excessive for large industrial customers.

The Commission did not receive any customer submissions to the draft decision on trade waste.

12.3 Final decision

The Commission has approved the trade waste tariff structures and parameters proposed by the businesses. It will, however, require the retailers, in consultation with Melbourne Water, to review and amend their trade waste tariffs during the regulatory period. Each retailer's Determination includes a provision requiring it to review its trade waste tariffs at the Commission's request, including submitting amended tariffs to the Commission for approval.

The Commission has adjusted the trade waste tariff levels proposed in the businesses' Water Plans to reflect the increase in the revenue requirement approved in the final decision (see chapter 3). Approved trade waste tariffs for each business are set out in their Determinations.

The Commission endorses the proposal by City West Water and Yarra Valley Water to introduce ITDS charges from 1 July 2010. The Commission will consult with South East Water shortly on the possibility of it reviewing its trade waste tariffs according to the timetable proposed by the other retailers. It will consult with all retailers on further details of the review.

Final decision

The Commission has approved the existing pricing principles for calculating non-scheduled trade waste prices for the regulatory period.

The Commission has approved the structure and parameters of the retailers' proposed scheduled trade waste tariffs and will require the retailers to review and amend their trade waste tariffs during the regulatory period.

The Commission has adjusted the levels of trade waste tariffs to reflect the increase in each business' revenue requirement approved in this final decision.

13 OTHER SERVICES

This chapter discusses new customer contributions and miscellaneous charges.

13.1 New customer contributions

New customers and property developers typically pay upfront contributions to the metropolitan water businesses when they connect to their water and sewerage networks. Existing customers are also required to make upfront contributions if they connect to additional services. One of the Commission's responsibilities is to approve these upfront contributions, known as new customer contributions, or specify the method by which they are calculated.

Melbourne Water applies drainage developer charges to new customers located in defined drainage development schemes. In the 2008 water price review final decision, the Commission approved pricing principles for Melbourne Water's drainage developer charges for the 2008-2013 period. These principles are not subject to the current price review.

13.1.1 Overview of draft decision

In the draft decision, the Commission proposed to maintain the current arrangements for new customer contributions that were approved in the 2008 water price review. These arrangements were approved for all regional urban water businesses for the 2008-2013 regulatory period and for the three metropolitan retailers for 2008-09.

The key elements of the current arrangements for new customer contributions are as follows:

- Scheduled charges may be applied to each new connection. The charges are applied on a per lot basis and are applied separately to water, sewerage and third pipe recycled water. The charges vary depending on lot size, with lots smaller than 450 square meters attracting a $550 charge, lots between 450 and 1350 square meters a $1100 charge and lots greater that 1350 square meters a $2200 charge.[71] Customers that connect to both potable and recycled water receive a 50 per cent discount on the potable water contribution.
- New customers are generally responsible for providing assets that are to be installed specifically to service their property or development (reticulation assets). Water businesses are responsible for assets that are generally provided to service more than one development (shared distribution assets).

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71 2008-09 prices. Scheduled new customer contributions will increase in line with inflation until 2013.

- The main determinant of whether an asset is a reticulation asset or a shared distribution asset is pipe size. Water mains that are 150 mm or less in diameter or sewer mains that are 225 mm or less in diameter and assets associated with pipes of this size (pump stations, for example) are generally considered to be reticulation assets, although there may be cases where the size thresholds are not appropriate.
- In cases where a developer is required to provide reticulation assets that exceed the requirements of their development in a material respect, the developer can only be required to contribute part of the costs of the reticulation assets reflecting the requirements of its development. The balance of the costs may be recovered via contributions from subsequent customers connecting to the reticulation assets in question.
- Water businesses may recover a contribution from developers for the provision of shared distribution assets if the assets do not form part of a logically sequenced network expansion and could not reasonably be expected to be required by the business within a short to medium term planning horizon:
  - A non-scheduled contribution equivalent to 40 per cent of the cost of the shared assets applies if the assets could reasonably be expected to have been required by the business within a long term planning horizon.
  - A non-scheduled contribution equivalent to 70 per cent of the cost of the shared assets applies if the assets could not reasonably be expected to have been required by the business within a long term planning horizon.

The only variation to the current arrangements proposed by the Commission in the draft decision was to include additional pricing principles for South East Water and Yarra Valley Water for calculating new customer contributions in sewerage backlog areas. Specifically, it proposed to approve a formula for calculating non-scheduled charges in these areas. (City West Water does not have any sewerage backlog areas.)

The formula was adopted during the 2005-2008 regulatory period and worked effectively in sewerage backlog areas as the timeframes for the construction of works are clearly defined. Further, these timeframes are developed in consultation with the Department of Sustainability and Environment, local councils and other stakeholders.

13.1.2 Final decision

City West Water, South East Water and Yarra Valley Water all indicated their support for the Commission's draft decision in relation to new customer contributions. The Commission received no further submissions on new customer contributions.

The Commission therefore confirms its decision on new customer contributions.

Final decision

The Commission has approved the existing arrangements for new customer contributions for City West Water, South East Water and Yarra Valley Water for the 2009-2013 regulatory period.

The Commission has approved pricing principles for South East Water and Yarra Valley Water to calculate non-scheduled new customer contributions in sewerage backlog areas. Non-scheduled new customer contributions in sewerage backlog areas are to be calculated according to the following formula:

$$NCC = 1 - \left[\frac{1}{(1+r)^n}\right]$$

where:

NCC is the non-scheduled new customer contribution, expressed as a percentage and applied to final construction costs

r is the implied pre-tax weighted average cost of capital as approved by the Commission and

n is the number of years the backlog sewerage works have been brought forward.

13.2 Miscellaneous charges

In addition to water and sewerage services, the metropolitan retailers also provide ‘miscellaneous’ services in connection with these core services. Examples of miscellaneous services include new connections and tappings, special meter reads, property information statements and applications to build over easements. Like water and sewerage services, miscellaneous services are prescribed services under the WIRO and are subject to price regulation by the Commission.

13.2.1 Overview of draft decision

In the draft decision, the Commission proposed to maintain the current approach to miscellaneous charges that was approved in the 2008 water price review. The approach was approved for all regional urban water businesses for the 2008-2013 regulatory period and for the three metropolitan retailers for 2008-09.

Under this approach, each business was required to nominate a set of ‘core’ miscellaneous services. This set consists of the business’ most important miscellaneous services and generates a significant proportion of miscellaneous revenue. Prices for these services are subject to individual price caps, with any single year increase in miscellaneous charges capped to ensure they do not increase disproportionately to other services. Prices for ‘non-core’ miscellaneous services are set in accordance with pricing principles related to actual cost.

In their Water Plans, the three metropolitan retailers proposed prices and pricing principles for miscellaneous services that are consistent with the current approach. Melbourne Water noted that it does not have any major miscellaneous services related to its bulk services, and proposed that any new miscellaneous service introduced during the regulatory period be set in accordance with the current pricing principles.

As the businesses' proposals were consistent with the Commission's current approach, the Commission proposed to approve them as part of the draft decision.

13.2.2 Final decision

South East Water and City West Water both provided updated tariff schedules with proposed miscellaneous charges, both of which were consistent with the Commission's current approach to miscellaneous charges. No other submissions were received in relation to miscellaneous charges. The Commission therefore confirms its draft decision and has approved all elements of the businesses' proposed miscellaneous charges.

Final decision

The Commission has approved the miscellaneous charges proposed by the metropolitan businesses.

14 ADJUSTING PRICES

Significant uncertainty about expected conditions during the coming regulatory period means that the assumptions about demand levels and business costs are subject to a higher than normal level of uncertainty. In the final decision on the 2008 price review, the Commission approved two mechanisms to assist the regional businesses in managing uncertainty:

- a hybrid form of price control (for the regional urban businesses) that combines individual price caps with scope for businesses to adjust their tariff strategies (and/or rebalance prices) at the time of the annual price review, and
- an uncertain and unforeseen events mechanism that sets out a process for applying for a price adjustment, either during or at the end of the regulatory period, to take account of events that were uncertain or unforeseen at the time of the price review process.

In supplementary guidance provided to the businesses in September 2008, the Commission suggested that it would be appropriate to approve these same mechanisms for the metropolitan businesses.

14.1 Overview of draft decision

In the draft decision, the Commission proposed to approve individual price caps for City West Water, South East Water, Yarra Valley Water, and for Melbourne Water in respect of its bulk water and sewerage services.

It also proposed to approve a hybrid form of price control for the four metropolitan businesses. The hybrid form of price control combines individual price caps with scope for businesses to apply during the period to adjust their tariff strategies (and/or rebalance prices) at the time of the annual price review. This form of price control balances the needs of businesses for revenue certainty and customers for price certainty and was approved for the regional urban businesses in the 2008 price review.

In addition, the Commission proposed to approve an uncertain and unforeseen events mechanism. This mechanism sets out a process for applying for a price adjustment to take account of events that were uncertain or unforeseen at the time of the final decision. It was approved for the regional urban businesses in the 2008 price review. In applying the uncertain and unforeseen events mechanism, the Commission will only consider applications that relate to events that do not fall within the businesses' control and cannot therefore be effectively managed by the businesses. This provides an incentive for the businesses to manage their costs where it is possible for them to do so.

In determining whether and when to make any price adjustments under the uncertain and unforeseen events mechanism, an important consideration is to avoid unnecessary volatility in prices and provide sufficient certainty for customers.

Consequently, the Commission proposed not to set a threshold for applying for a price adjustment under the uncertain and unforeseen events mechanism. Defining materiality thresholds would reduce businesses' and the Commission's flexibility to make appropriate adjustments for uncertain and unforeseen events. Since a number of aspects of the businesses' activities are subject to a relatively high degree of uncertainty, variations from the assumptions used in determining prices should be considered in totality, rather than taking account of each change separately.

The timing of any price adjustment would depend on the circumstances. In some cases, a within-period price adjustment may be approved. In other cases, adjustments may be deferred until the end of the regulatory period, particularly when there is a possibility of offsetting variations in later years' costs and/or demand levels.

14.2 Responses to draft decision

The businesses' submissions supported the adoption of a hybrid form of price control and an uncertain and unforeseen events mechanism. South East Water, however, reiterated its view that a threshold should be set for applications under the uncertain and unforeseen events mechanism.

Melbourne Water suggested that the uncertain and unforeseen events for which applications can be made under this mechanism should be expanded to include significant changes in the timing or scope of expenditure for major projects (not only capital projects), such as the Victorian desalination project or Melbourne Water's biosolids energy recovery project at the Western Treatment Plant. It also considered that the introduction of a national emissions trading scheme, or other schemes relating to the reduction of greenhouse gas emissions, should be included as uncertain and unforeseen events.

14.3 Final decision

The Commission has approved a hybrid form of price control – individual price caps with a mechanism for within-period adjustments – for each of the metropolitan businesses. Each business may apply during the period to adjust its prices or tariff strategy (within the constraints of a tariff basket) at the time of the annual price approval process. Businesses proposing to adjust their tariff strategies would have to demonstrate to the Commission that they have clearly articulated their new tariff strategy (or explained how the proposed price changes are consistent with their existing tariff strategy), undertaken appropriate customer consultation and addressed customer impacts.

The Commission has also approved an uncertain and unforeseen events mechanism that sets out a process for applying for a price adjustment, either during or at the end of the regulatory period, to take account of events that were uncertain or unforeseen at the time of the price review process. These events could include:

- significant changes in the timing or costs associated with major capital (or other) projects
- significant differences between actual and forecast demand levels
- changes in legislative and other Government-imposed obligations
- the introduction of a national emissions trading scheme or other schemes for reducing greenhouse gas emissions
- catastrophic events such as fire, earthquake or act of terrorism and
- for the three retailers, significant changes in Melbourne Water's bulk water and sewerage charges.

The Commission has not specified a threshold for applications under this mechanism. In deciding whether and when to make an application under the mechanism, the businesses should consider:

- the net impact on costs or revenue of all changes that have occurred during the period under consideration and whether the net effect is significant, and
- whether offsetting changes in costs or demand in later years of the regulatory period are possible and, if so, the likelihood of such changes.

The Commission will monitor demand and costs on an ongoing basis during the regulatory period to check whether circumstances have changed sufficiently to require a review under the mechanism. The Commission proposes, as for the regional businesses, that reviews under the uncertain and unforeseen events mechanism could be requested by the businesses or initiated by the Commission.

Final decision

The Commission has approved individual price caps for City West Water, South East Water, Yarra Valley Water, and for Melbourne Water in respect of its bulk water and sewerage services.

Each business may apply during the period to adjust its prices or tariff strategy at the time of the annual price approval process, within the constraints of a tariff basket approach. Businesses proposing to adjust their tariff strategies would have to demonstrate to the Commission that they have clearly articulated their new tariff strategy (or explained how the proposed price changes are consistent with their existing tariff strategy), undertaken appropriate customer consultation and addressed customer impacts. The Commission may then approve amended individual price caps consistent with the new tariff strategy for the remainder of the regulatory period.

The Commission has approved an uncertain and unforeseen events mechanism that sets out a process for applying for a price adjustment, either during or at the end of the regulatory period, to take account of events that were uncertain or unforeseen at the time of the price review process.