



PRICE REVIEW 2013: REGIONAL URBAN WATER BUSINESSES

DRAFT DECISION – VOLUME I

MARCH 2013

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PREFACE

In October 2012, 12 regional urban water businesses submitted their Final Water Plans to the Commission for assessment. This assessment relates to the third regulatory period for Victorian water businesses, for the five year period commencing 1 July 2013. The Water Plans set out the prices that each of the businesses propose to charge for their water, sewerage and other related services during the period. The plans also include information about the proposed expenditure and the revenue needs of the businesses from 2013-14 to 2017-18.

The Commission is required to assess the Water Plans and to decide whether to approve the prices proposed by the businesses. This draft decision outlines the Commission's views on whether to approve or not approve the proposal of each of the regional urban water businesses, and any suggested amendments or actions required for the proposal to be approved. Volume II of this draft decision summarises the Commission's proposed outcomes business-by-business, including any actions that may be required prior to our final decision in June.

Each water business is required to respond to this draft decision by no later than 2 May 2013. Businesses are required to submit a revised schedule of tariffs giving effect to any required amendments set out in this draft decision. Businesses are also required to provide any further information required by the Commission.

Consultation with stakeholders is an important part of the Commission's decision making process. Customers and other interested parties are invited to comment on the Commission's views as outlined in this draft decision. This can be done either through written submissions or by attending one of our public meetings. Details of these meetings will be available on our website (www.esc.vic.gov.au). Written submissions are due by 2 May 2013 and will be made public on our website unless specifically requested otherwise. Submissions can be lodged by email (water@esc.vic.gov.au).

Copies of this draft decision, various supporting documents and the Water Plans submitted by each business are available on the Commission's website www.esc.vic.gov.au.

Dr Ron Ben-David
Chairperson

RESPONDING TO THIS DRAFT DECISION

We are interested in thoughts and comments from the public about this draft decision. The responses will assist the Commission in making its final decision.

Interested parties can provide feedback on the draft decision in one of two ways:

Come to a public meeting

We will hold information sessions in a number of regional centres during April and May — details of these meetings will be published on the Commission's website.

The sessions provide an opportunity for interested parties to understand the key features of the draft decision and to provide comment.

Provide written comments or submissions

You can send a written submission or comments in response to the draft decision. Written comments are due 2 May 2013.

We would prefer to receive them by email at water@esc.vic.gov.au.

You can also send comments by mail to

Essential Services Commission
Level 37, 2 Lonsdale Street
Melbourne VIC 3000

The Commission's normal practice is to make all submissions publicly available on its website. If you do not have access to the internet, you can contact Commission staff to make alternative arrangements to view copies of the submissions.

If there is information that you do not wish to be disclosed publicly, on the basis that it is confidential or commercially sensitive, you should discuss the matter first with Commission staff.

GLOSSARY

2nd regulatory period	The period commencing 1 July 2008 and expiring 30 June 2013.
3rd regulatory period	The period commencing 1 July 2013 and expiring on a date specified by the Commission.
4th regulatory period	<p>For the metropolitan, regional urban and most rural water businesses, it is the period commencing 1 July 2018 and expiring on a date specified by the Commission.</p> <p>For Goulburn-Murray Water, the 4th regulatory period commences 1 July 2016 and expires on a date specified by the Commission.</p>
Bounce back	An increase in water use following a period of reduced water demand.
Building block	The allowed revenue of the regulated firm is equal to the sum of underlying components or building blocks consisting of the return on capital, the return of capital (also known as depreciation), the operating expenditure, and various other components such as taxes and incentive mechanisms.
Bulk Water	Water supplies between water businesses.
Business-as-usual operating expenditure (BAU)	The baseline level of operating expenditure is based on 2011-12 data, which was the last year of actual operating data. This expenditure excludes once-off or temporary costs associated with the drought and related major projects.



Capital expenditure (CAPEX)	Capital expenditure is incurred when a business spends money either to buy fixed assets or to add to the value of an existing fixed asset with a useful life extending beyond the taxable year.
Cistern	Waterproof receptacle for holding liquids, usually water. Cisterns are often built to catch and store rainwater.
Class A	Recycled water treated to a level that allows it to be used for residential uses such as toilet flushing, washing machines and gardens. Not fit for human consumption.
Consumer price index	The consumer price index published by the Australian Bureau of Statistics.
Core miscellaneous services	'Top 10' miscellaneous services that make up a majority of the revenue from miscellaneous services.
Core service standards	A common set of measurable aspects of metropolitan and regional water businesses' performance, established by the Commission. The core set is intended to reflect aspects of water businesses' services of greatest concern to customers. All water businesses are required to propose annual targets, in their Water Plans for each of the standards.
Customer Service Code	A code issues under section under section 4F of the Water Industry Act which set out the terms and conditions of service and supply.
Economies of scale	A reduction in the unit cost of an activity that occurs when the number of units produced (volume of output) increases.



Environmental Contribution	The Minister of Water determines an Environmental Contribution which is levied on all Victorian water businesses, to meet costs associated with managing environmental water. It is levied under section 192 of the <i>Water Industry Act 1994</i> and administered by the Department of Sustainability and Environment.
EPA Victoria	EPA is part of the environment portfolio (along with the Department of Sustainability and Environment and Sustainability Victoria) charged with protecting the Victorian environment.
Fixed charge/ fixed service fee	Charge for service that is the same regardless of the quantity used.
Form of price control	The high-level structure the regulator adopts for price limits. For example, price caps or revenue caps.
Guaranteed Service Level (GSL) scheme	An arrangement whereby water businesses provide a payment or rebate on bills to customers who receive services that do not meet predefined performance levels. The scheme is a mechanism for businesses to publicly acknowledge that service levels for some customers are significantly worse than average, while also providing a financial signal to the business.
Guaranteed service levels (GSL)	Predefined performance levels for a particular service standard.
Headworks	Dams, weirs and associated works used for the harvest, storage and supply of water.
Inclining block tariff (IBT)	Provide two or more prices for water used, where each price applies to a customer's use within a defined tier. Prices rise with each successive tier.



License Fee – Department of Health (DoH)	Fee payable to the Victorian Government determined by the Minister for Health under section 51 of the <i>Safe Drinking Water Act 2003</i> , for costs incurred by the Department of Health in administering the Safe Drinking Water Regulations.
License Fee – Environmental Protection Authority (EPA)	Fee payable to EPA determined by the Minister for the Environment under section 24 of the <i>Environment Protection Act 1970</i> , for costs incurred by EPA Victoria in administering discharge licences and works approvals with the amount depending on the type of operation and the volume and quality of any discharge to the environment.
License Fee – Essential Services Commission (ESC)	Fee determined by the Minister for Finance in consultation with the Minister for Water under section 4H(2) of the <i>Water Industry Act 1994</i> , for costs incurred by the Essential Services Commission in administering the economic regulatory framework.
Load based charges	A charge based on the mass quantity of a parameter in wastewater
Locational pricing	Prices for the same service differentiated by location.
Long run marginal cost (LRMC)	The change in total cost resulting from a one unit change in output, over a long enough timeframe such that no inputs are 'fixed'. It is the sum of short run marginal operating and long run marginal capital costs.
Marginal cost	The change in total cost when one additional unit is produced.
Megalitre	1000 kilolitres = 1 million litres



Miscellaneous services	Prescribed services that water businesses may provide to customers. For example, new connections, special meter reads and meter testing, the provision of property information statements and review of applications to build over easements.
New customer contributions (NCC)	New Customer Contributions are an upfront payment that may be levied by a water business when a customer builds or develops a property and connects to that water business's water, sewerage or recycled water network. Also known as developer charges.
Operating expenditure (OPEX)	Ongoing cost for running a product, business, or system.
Potable water	Water treated to a drinkable standard.
Pre-treatment	When a trade waste customer establishes processes to pre-treat or pre-clean trade waste before it is discharged into the sewage system.
Price cap	Government-imposed limit on how high a price is charged for a product.
Price determination	A determination in respect of a water business made by the Commission under section 33 of the <i>Essential Services Commission Act 2001</i> and clause 8 of the <i>Water Industry Regulatory Order 2003</i> .
Price elasticity of demand	A measure of the affect that a change in price will have on the volume of water used.
Pricing zone	An area that has specific water and/or sewerage prices based on service costs under locational pricing tariff structure (see locational pricing).
Recycled water	Wastewater that is treated to a standard appropriate for its intended use.



Regional water businesses	Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Goulburn Valley Water, Gippsland Water, North East Water, South Gippsland Water, Wannon Water, Westernport Water, GWMWater (Urban), Lower Murray Water (Urban)
Regulatory depreciation	An amount set to allow the regulated water businesses to recover the cost of capital investments over time. Also known as Return of Assets.
Reticulation	A network of local pipelines used for transporting water or sewerage.
Revenue cap	An approved maximum amount of revenue that a business is allowed to collect in each year of the regulatory period. If the business collects too much revenue, it must alter its prices to ensure that this revenue is passed back to customers
Revenue requirement	The revenue needed by each water business to cover operating costs and taxes, and provide a return on assets and a return of assets (depreciation).
Rural water businesses	Goulburn-Murray Water, GWMWater, Lower Murray Water, Southern Rural Water
Seasonal factors (for sewage disposal charge)	An adjustment factor for the season used by some water businesses when estimating the sewage volume discharged from customers' properties. For example, in summer, a lower proportion of water consumed flows into the sewerage system.
Service standards	Specific targets proposed by businesses for each of the core service standards (see: core service standards) and any additional service standards in their water plan. Each target sets the performance the business aims to achieve for that service standard in each year of the regulatory period.
Sewage	Liquid waste discharged into the sewerage system.



Sewage disposal charge (SDC)	<p>Method of estimating sewage volume discharged from customers' properties.</p> <p>It assumes a relationship between the volume of water used by a customer and the volume that is then discharged into the sewer system. Typically around 80 per cent of metered water is assumed to be discharged as sewerage. This may differ depending on the type of property.</p>
Sewerage	<p>A physical arrangement of pipes and plant for the collection, removal, treatment and disposal of liquid waste.</p>
Statement of Obligations (SoO)	<p>There is a Statement of Obligations (SoO) for each water business, specifying a number of requirements that the individual businesses must follow. They were made by the Minister for Water under section 4I of the <i>Water Industry Act 1994</i>, commencing from 16 September 2012.</p>
Stormwater	<p>Water that originates during precipitation events. Stormwater that does not soak into the ground becomes surface runoff, which either flows directly into surface waterways or is channelled into storm sewers, which eventually discharge to surface waters.</p>
Sunset	<p>A sunset clause or provision is part of a law or statute that can repeal the law or parts of it at a specified time period.</p>
Tariff basket	<p>Allows the business to flexibility to change tariffs within a regulatory period. However, the weighted average price change across all the business's tariffs must not exceed an approved overall percentage price change over the regulatory period.</p>
Tariff schedules	<p>A list of prices arranged or organised in a particular order.</p>



Tariff Structure	The way prices are organised, which can provide different incentives and signals to customers. For example, two part tariff (fixed service charge and IBT variable charge).
Third pipe/dual reticulation	The mechanism in which treated effluent or recycled water is supplied for urban re-use.
Trade waste	Industrial and commercial liquid waste (other than sewage) which is suitable for discharged to the sewerage system.
Trade waste customer	A customer who discharges or intends to discharge trade waste into a water business's sewer.
Variable charge	Charge for product/service based on the quantity used. Also known as a volumetric charge.
Wastewater	Includes greywater, sewage and stormwater.
Water Charge (Infrastructure) Rules (WCIR)	The Rules which apply to the regulation of entities in the Murray-Darling Basin.
Water entitlement	A right to use water determined by the Minister for Water under the <i>Water Act 1989</i> (Vic.). A water entitlement is the maximum amount of water authorised to be taken and used by a person or organisation under specified conditions.
Water Plan	A Water Plan is a document prepared and published by a water business, which sets out the services, key projects and prices it proposes to deliver over the next regulatory period. The primary purpose of the Water Plan is to inform and seek feedback from the public.
Water storages	A space to hold water, such as a dam or reservoir.
Weighted average cost of capital (WACC)	The rate that a company is expected to pay on average to all its security holders to finance its assets.



ACRONYMS

ACCC	Australian Competition & Consumer Commission
BOD	Biochemical oxygen demand
CAPEX	Capital expenditure
CAPM	Capital Asset pricing model
CGS	Commonwealth Government Securities
COD	Chemical oxygen demand
CPI	Consumer price index
Deloitte	Deloitte Touche Tohmatsu
DoH	Department of Health
DSE	Department of Sustainability and Environment
EPA Victoria	Environmental Protection Agency Victoria
EQT	Equivalent tenement method
ESC	Essential Services Commission
EWOV	Energy and Water Ombudsman Victoria
FAL	Financial accommodation levy
GSL	Guaranteed service levels
GWF	Gippsland Water Factory
IBT	Inclining block tariff



LRMC	Long run marginal cost
LVLB	Living Victoria Living Ballarat
LVLM	Living Vitoria Living Melbourne
MRP	Market risk premium
N	Nitrogen
NCC	New customer contributions
OPEX	Operating Expenditure
P	Phosphorous
PwC	PricewaterhouseCoopers
RAB	Regulatory asset base
SA	South Australia
SCADA	Supervisory control and data acquisition
SDC	Sewage disposal charge
SoOs	Statements of Obligations
SS	Suspended solids
TDS	Total dissolved solids
TKN	Total nitrogen
TOS	Total oxidised sulphur
VCOSS	Victorian Council of Social Services
WACC	Weighted average cost of capital
WCIR	Water Charge (Infrastructure) Rules
WIRO	Water Industry Regulatory Order



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SUMMARY OF DRAFT DECISION

BACKGROUND — THE PRICE REVIEW PROCESS

In October 2012, the Commission commenced its formal review of the regional water businesses' proposals for the five year regulatory period commencing on 1 July 2013.

Under the price review process, the 12 regional water businesses submitted Water Plans setting out the expected costs involved in delivering water and sewerage services, their planned capital works programs, the forecast volumes of water that will be delivered and the levels of service promised to customers. Each business also proposed prices that would raise sufficient revenue to recover its expected costs over the regulatory period. The water businesses were required to consult their customers during the development of their water plans.

Consultation with stakeholders is also an important part of the Commission's price review process. To inform water businesses and their customers of our expectations regarding the water planning process, we released a guidance paper in October 2011. In November 2012, we released a paper summarising the businesses' proposals and highlighting issues on which we were seeking stakeholder comments. The Commission received over 50 submissions. In addition, during November and December 2012 the Commission held a series of public meetings around the State where the water businesses presented their proposals. Customers and community and business groups then had the opportunity to respond.

The Commission has also formed a Customer Reference Panel. It includes consumer and business representative groups as well as individual customers. The Panel provides the Commission with its views on the issues its members consider important for our price review.

This draft decision is the next stage in the Commission's consultation process. It sets out the Commission's views on whether the prices proposed by the businesses satisfy the pricing principles set by the Government.

Interested parties now have a further opportunity to comment on the Commission's approach and our proposed decisions. These views will inform the Commission's final decision in June. Written submissions are invited by 2 May 2013:

We would prefer to receive them by email at water@esc.vic.gov.au.

You can also send comments by mail to

Essential Services Commission
Level 37, 2 Lonsdale Street
Melbourne VIC 3000

We will also be holding further public meetings in April and May. These will be advertised locally and on the Commission's website (www.esc.vic.gov.au).

CONTEXT AND KEY ISSUES

This assessment relates to the third regulatory period for Victorian water businesses, commencing 1 July 2013. Price Reviews are conducted in accordance with the Water Industry Regulatory Order (WIRO) issued by the Minister for Water. The WIRO was last updated in 2012 (see chapter 1). It outlines the principles to which the Commission must have regard when reviewing water plans. As a consequence, water businesses are expected to submit plans that are consistent with the WIRO. Moreover, the Commission issued guidance notes well ahead of formal submission to assist businesses in their preparation of water plans. Among other things, we required that the water plans should be informed by robust analysis, thorough consultation and reasonable assumptions about the future.

The Victorian water sector has confronted some major challenges. While the second regulatory period (2008-13) was overshadowed by a period of drought that resulted in major investments in new sources of water supply, the third regulatory period (2013-18) will see reduced spending reflecting the completion of this investment phase.

The key issues for the price review include:

- keeping price increases as low as possible given the substantial increase over the last five years without compromising service levels and
- ensuring water businesses continue to pursue improvements in service delivery and operational efficiency
- Understanding customers' expectations and their willingness to pay for different service offerings.

Other specific concerns raised by customers, and community and business groups include:

- the impact of past and proposed price increases, particularly for customers experiencing financial hardship
- the implementation of any proposed price increases, namely, whether increases should be 'smoothed' over a number of years rather than implemented as a "one-off" initial increase
- the mix of fixed and variable water charges and the consequences for different customer groups such as tenants (who only directly pay the variable charge)
- expectations that service levels should at least be maintained and
- support for the introduction of a Guaranteed Service Level scheme for all businesses.

In its guidance material, the Commission stated that it would also take a narrower view of non-contractual obligations; that is, it would exclude from allowed revenue the costs associated with alleged but unclear obligations. The Commission found there were few claims for such projects in the Water Plans.

THE COMMISSION'S APPROACH

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

- generate a business's revenue requirements and allow it to meet the costs of delivering services to customers
- ensure the business's financial viability, including a reasonable return on capital
- reflect costs and provide incentives for sustainable water use and
- take into account the interests of customers.

In applying these principles, the Commission's main focus has been to ensure that prices are as low as possible but still sufficient to recover the businesses' efficient costs of providing services. In approving tariff structures, the Commission has had regard to aligning prices with underlying costs as well as the expressed interests of customers.

In reaching its draft decision, the Commission assessed whether each business's proposed expenditure is efficient and prudent, its capital works program is deliverable over the period, and its business strategy is consistent with its objectives over a longer term planning horizon. The Commission also considered whether the proposed profile of capital expenditure should be smoothed to occur more evenly over the period, instead of being concentrated at the beginning of the period. In addition, it assessed whether it was prudent and efficient to defer some expenditure into the following regulatory period.

This draft decision outlines our approach to each element of the businesses' water plans. All supporting material is provided on our website. This includes the Commission's guidance documents, each business's Water Plan, our independent consultants' assessments of the Water Plans, fact sheets and summaries of the Commission's decision for each water business.

Unless otherwise specified, all values shown in this draft decision and supporting material are nominated in \$2012-13.

DRAFT DECISION OUTCOMES

SERVICE STANDARDS

Service standards will generally be maintained by the regional urban water businesses during the coming five years (see chapter 3). Further, with major supply augmentations and increased storage levels in the current regulatory period, customers will generally enjoy a higher security of supply.

REVENUES

In their water plans, the businesses' identified their revenue requirements for the third regulatory period (2013-18). These revenue forecasts reflect their expected operating expenditure, a return on assets (existing and new assets) and regulatory depreciation (return of assets). The 12 water businesses covered in this draft decision sought total revenues of \$4.2 billion over the next five years. The Commission's draft decision results in a revenue requirement for the regional urban water businesses of \$4.0 billion, which is \$185 million lower than that proposed by the businesses. This downward adjustment to their proposed revenue reflects the Commission's draft decision not to approve all the revenue sought by the water businesses in their Water Plans. By way of comparison, in the last price review the Commission approved \$3.7 billion for the same 12 businesses.

Each business's proposed revenue requirement and the Commission's draft decision is shown in Table 1. Revenue requirements are discussed more fully in chapter 5.

TABLE 1 PROPOSED REVENUE REQUIREMENT (ALL BUSINESSES)
\$2012-13

	Proposed by business	Draft decision	Difference	Per cent difference
Barwon Water	919.9	880.6	-39.4	-4.3
Central Highlands Water	414.2	396.9	-17.2	-4.2
Coliban Water	520.2	498.7	-21.5	-4.1
East Gippsland Water	153.6	149.5	-4.0	-2.6
Gippsland Water	569.8	552.2	-17.6	-3.1
Goulburn Valley Water	348.2	328.0	-20.2	-5.8
GWMWater	295.7	281.5	-14.2	-4.8
Lower Murray Water	162.3	157.8	-4.5	-2.8
North East Water	275.7	258.0	-17.7	-6.4
South Gippsland Water	135.7	125.8	-9.9	-7.3
Wannon Water	328.7	315.8	-12.9	-3.9
Westernport Water	102.4	96.3	-6.1	-5.9
Total revenue requirement	4 226.3	4 041.1	-185.1	-4.4

The main adjustments made by the Commission that resulted in the lower revenue requirements shown in table 2 include the following:

Operating expenditure (chapter 7)

The Commission's preliminary approved total operating expenditure over five years is \$2481 million, which is \$84 million (or 3.3 per cent) lower than the total proposed by the water businesses. Key areas of adjustment included labour and energy costs, and revisions to assumptions about the Environmental Contribution.

Capital expenditure (chapter 8)

The Commission's preliminary approved total capital expenditure over five years is more than \$120 million (or 8.1 per cent) lower than proposed by the water businesses. This reflects proposed changes to the timing of delivery of projects and the removal of some projects.

Financing costs (chapter 9)

Based on current market conditions, the Commission proposes to approve a real post tax weighted average cost of capital of 4.7 per cent. This is significantly lower than the 5.8 per cent that applies in the current regulatory period.

PRICES

The Commission is responsible for approving the maximum prices each water business can charge its customers in each year during the outlook period.

As a result of this downward revision to the water businesses' expenditure and revenue requirements, the Commission has reduced the maximum price increases proposed by each regional business. In a number of instances, we expect prices to decline in real terms over the coming five years.

The price increases over five years proposed by the 12 water businesses in their Water Plans ranged from -3.4 per cent to 28.3 per cent. Following the adjustments made by the Commission, these price increases have been moderated. The Commission proposes to accept price adjustments that range from -10.8 per cent to 20.0 per cent over the coming five years. Table 2 outlines the proposed and adjusted prices for each regional water business. Chapter 2 discusses price outcomes in greater detail.

TABLE 2 PRICE CHANGES PROPOSED BY BUSINESSES AND PRICES UNDER THE DRAFT DECISION — AVERAGE 2013-14 TO 2017-18

	Proposed by business	Draft Decision	Difference
Barwon Water	0.7	-10.8	-11.4
Central Highlands Water	8.4	2.9	-5.5
Coliban Water	28.3	20.0	-8.3
East Gippsland Water	6.9	1.0	-6.0
Gippsland Water	5.0	-5.6	-10.6
Goulburn Valley Water	12.6	-0.9	-13.5
GWM Water	12.4	3.1	-9.3
Lower Murray Water (Urban)	11.4	7.5	-3.8
North East Water	12.0	-4.4	-16.4
South Gippsland Water	10.2	-8.1	-18.3
Wannon Water	-3.4	-10.8	-7.4
Westernport Water	18.6	1.8	-16.8

In most instances, the proportional reduction in prices exceeds the reduction in revenues because of some upward revisions we have made to the water businesses' forecasts of growth in water consumption and growth in customer numbers over the next five years (see chapter 9). For some businesses, such as Barwon Water, which proposes higher new customer contributions, this has the effect of reducing the revenue that is needed to be collected through general customer tariffs and therefore result in lower real price increases.

HOUSEHOLD BILLS

As a result of this draft decision, household water and sewerage bills would not increase as much as sought by the businesses in their Water Plans.¹ Table 3 compares indicative bills for owner-occupiers in 2012-13 and 2017-18, based on

¹ The prices detailed in this draft decision are subject to consultation and may change under the Commission's final decision.

the prices proposed by the businesses' in their Water Plans and prices resulting from the Commission's draft decision. Table 4 compares indicative bills for tenants.

Most water businesses prices will vary with location. The typical bills shown in Tables 3 and 4 are based on typical consumption figures for owner-occupiers and tenants, respectively, in the largest town serviced by each water business. Bill outcomes will vary for individual customers.

The Commission's draft decision to limit price increases will go some way to addressing concerns about affordability. Nonetheless, we have encouraged all water businesses (particularly those facing price increases) to put in place measures to support customers who may have difficulty paying their bills and we will continue to monitor implementation of these measures.

TABLE 3 ILLUSTRATIVE ANNUAL RESIDENTIAL OWNER-OCCUPIER BILLS^a
\$2012-13

	Current bill	Bills based on businesses' proposals		Bills based on draft decision	
	2012-13	2013-14	2017-18	2013-14	2017-18
Barwon Water	1 049	1 050	1 055	1 011	933
Central Highlands Water	1 147	1 245	1 245	1 181	1 181
Coliban Water	1 003	1 153	1 297	1 153	1 256
East Gippsland Water	1 102	1 123	1 126	1 068	1 076
Gippsland Water	1 236	1 249	1 298	1 222	1 167
Goulburn Valley Water	819	839	926	811	806
GWMWater	1 168	1 204	1 323	1 204	1 207
Lower Murray Water	774	809	881	803	851
North East Water	836	855	935	824	795
South Gippsland Water	956	969	1 068	944	882
Wannon Water	1 163	1 131	1 131	1 127	1 045
Westernport Water	1 029	1 044	1 214	1 029	1 044

Note: real values. ^a Based on the businesses' proposed prices and draft decision prices. Bills are calculated using each business's average consumption.

TABLE 4 ILLUSTRATIVE ANNUAL RESIDENTIAL TENANTS BILLS^a
\$2012-13

	Current bill	Bills based on businesses' proposals			Bills based on draft decision	
	2012-13	2013-14	2017-18	2013-14	2017-18	
Barwon Water	338	338	340	326	300	
Central Highlands Water	235	255	255	242	242	
Coliban Water	328	346	390	346	377	
East Gippsland Water	224	258	340	255	257	
Gippsland Water	312	315	328	309	295	
Goulburn Valley Water	248	254	280	254	252	
GWMWater	321	330	363	330	331	
Lower Murray Water	174	196	214	195	206	
North East Water	417	427	467	412	397	
South Gippsland Water	189	193	218	188	176	
Wannon Water	264	263	263	262	243	
Westernport Water	108	129	150	125	127	

Note: real values. ^a Based on the businesses' proposed prices and draft decision prices. Bills are calculated using businesses' average consumption.

1. INTRODUCTION

The Essential Services Commission is Victoria's independent economic regulator of essential services. The Commission's role in the water industry includes the regulation of prices as well as the monitoring of service standards and market conduct of the 19 Victorian Government owned water businesses.

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). The more detailed framework is set out in the *Water Industry Regulatory Order* (WIRO) made by the Governor in Council in 2012 under the *Water Industry Act*.²

The WIRO requires the Commission to approve or specify the price arrangements for each of the water businesses for each regulatory period. The Commission must approve the price arrangements if satisfied the prices, or the manner in which prices are to be calculated or otherwise determined, comply with procedural requirements and the regulatory principles in the WIRO. If not satisfied, the Commission may specify the prices that a business may charge, or the manner in which those prices are to be calculated or otherwise determined.

Procedural requirements include the need for businesses to consult with customers and relevant regulatory agencies before submitting their Water Plan to the Commission for assessment. The WIRO sets out regulatory principles with which the businesses must comply in proposing prices and the Commission must comply in approving prices (this is discussed in more detail below).

² The WIRO is available on the Commission's website.

BOX 1.1 THE COMMISSION'S REGULATORY OBJECTIVES

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

- facilitating the efficiency, incentives for long term investment, and 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
- promoting consistency in regulation across states and nationally.

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

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

1.1 WATER PRICE REVIEW

The Commission is currently assessing the maximum prices that Victoria's 19 water businesses will be able to charge in the next regulatory period commencing 1 July 2013. This draft decision covers the twelve regional urban water businesses that submitted final Water Plans to us in September and October 2012. Separate draft decisions have been prepared for rural and metropolitan water businesses. Due to the integrated nature of GWMWater's rural and urban businesses, its rural service proposals are also covered in this draft decision.³

The final Water Plans were prepared by the water businesses for the Commission's assessment. The Water Plans include the businesses' proposals about service outcomes and their views on the costs of delivering these service outcomes. The Water Plans also set out the prices that each business proposes to charge for its water, sewerage and other related services for the regulatory period starting 1 July 2013.

In October 2011, the Commission released a guidance paper to help the water businesses prepare their Water Plans.⁴ The guidance paper provided comprehensive guidance about the Commission's expectations for the content of Water Plans. It also detailed our expectations for businesses' consultation with customers and other stakeholders to inform their Water Plans. In the guidance paper, the Commission emphasised businesses must undertake broader and more in-depth customer consultation on the content and presentation of their draft Water Plans, and following the release of their drafts.

The Commission's guidance paper noted that prices had increased rapidly in recent years due to substantial increases in expenditure, mainly reflecting the response to actual and anticipated water shortages. Given this, the Commission noted its expectation that customer prices will reflect:

- prudent and efficient expenditure only
- ongoing productivity improvement and

³ Lower Murray Water also provides both urban and rural services. The business's rural proposals are covered in the rural draft decision because its customers typically identify as either rural or urban customers.

⁴ Essential Services Commission 2011, *2013 Water Price Review — Guidance on Water Plans*, October.

- initiatives that garner customer support and reflect their willingness to pay, or reflect clearly defined government obligations.

The Commission also allowed flexibility for the businesses to adapt to changing industry conditions and customer needs. For example, the Commission provided a framework within which the businesses could provide customers with tariff choice, and allow businesses to apply for a regulatory period of more than five years.

Furthermore, to increase customer protection the Commission required all Victorian water businesses to propose a Guaranteed Service Level (GSL) scheme for the third regulatory period. Under the scheme, businesses provide an automatic payment to customers who receive a level of service that is significantly worse than the average level of performance expected by most customers. The scheme helps businesses to identify the worst-served customers and specific service areas that require improvement. In addition, the scheme provides financial incentives for businesses to focus on providing good quality, reliable service to all customers.

1.2 COMMISSION'S APPROACH TO ASSESSING PROPOSED PRICES

The Commission is required to assess the prices proposed by the water businesses against the regulatory principles of the WIRO.

In deciding whether to approve a business's proposed prices, the Commission must be satisfied those prices provide the business with only enough revenue to meet its obligations and deliver the level of service required by customers. Revenue must be sufficient to allow the business to recover operating expenditure and the cost of financing capital expenditure, as well as to receive a reasonable return on assets, but not allow monopoly profits.

The Commission must also be satisfied that expenditure forecasts reflect the efficient delivery of the outcomes proposed in the Water Plan and account for a long term planning horizon, signal to customers the costs of using water and sewerage services, and give customers incentives to use water sustainably.

The full list of the WIRO regulatory principles that the Commission must have regard for is provided in box 1.2. The WIRO was enhanced in 2012 to include new clauses that provide for customer tariff choice and strengthen requirements for cost-reflective new customer contributions. The changes also established that

taking account of low income and vulnerable customers is a standalone regulatory principle rather than a subordinate of the pricing principle (as was the case previously).

BOX 1.2 WIRO PRICING PRINCIPLES

Clause 14(1) of the WIRO requires the Commission to be satisfied that prices are set so as to:

- 1** provide for a sustainable revenue stream to the regulated entity that nonetheless does not reflect monopoly rents or inefficient expenditure by the regulated entity
- 2** allow the regulated entity to recover its operational, maintenance and administrative costs
- 3** allow the regulated entity to recover its expenditure on renewing and rehabilitating existing assets
- 4** allow the regulated entity to recover:
 - a** 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
 - b** a rate of return on investments made after 1 July 2004 to augment existing assets or construct new assets
 - c** in the case of Gippsland and Southern Rural Water Corporation only, all costs associated with existing debt incurred to finance expenditure prior to 1 July 2006 in a manner determined by the Minister at any time before 1 July 2006
 - d** investment in an asset or asset class as at 1 July 2004 using the value calculated in the manner determined by, or the amount otherwise specified by, the Minister for that asset or asset class at any time before 1 July 2004 and
 - e** investment in an asset or asset class made after 1 July 2004 to augment existing assets or construct new assets.

Continued next page

BOX 1.2 (CONTINUED)

- 5 provide appropriate incentives and signals to customers or potential customers about:
 - a the sustainable use of Victoria's water resources by reference to the costs of providing prescribed services to customers (either collectively or to an individual customer or class of customers), including costs associated with balancing supply and demand
 - b the costs associated with servicing a new development in a particular location.
- 6 provide the regulated entity with incentives to pursue efficiency improvements and to promote the sustainable use of Victoria's water resources
- 7 enable customers or potential customers of the regulated entity to readily understand the prices charged by the regulated entity for prescribed services, or the manner in which such prices are to be calculated or otherwise determined
- 8 provide for an appropriate adjustment mechanism to minimise the extent of any under or over recovery of revenue for the costs associated with the desalination plant during a regulatory period and
- 9 where appropriate, facilitate choice and innovation in the prescribed services and associated prices offered to customers.

The Commission must be satisfied that the expenditure forecasts contained in the Water Plan reflect the efficient delivery of the proposed outcomes contained in the Water Plan and take into account a planning horizon that extends beyond the term of the Water Plan and

The Commission must take into account the interests of customers of the regulated entity, including low income and vulnerable customers.

Source: *Water Industry Regulatory Order*, clause 14(1)

The Commission follows a 'building block' approach to assess prices. The approach is characterised by four steps (figure 1.1).

The first step involves establishing the service standards and 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 Obligations,⁵ EPA Victoria, the Department of Health, the Department of Sustainability and Environment, and customer preferences.

In the second step, the Commission determines the revenue that the business requires to meet the service obligations and expected outcomes. The Commission must assess whether the business's expenditure forecasts are efficient, whether its capital works program is deliverable within the timeframes proposed, and whether its business strategy reflects a long term planning horizon. The Commission must also ensure the business receives an efficient return on its capital investments.

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 that a business is required to spend or direct to particular activities or projects. In consultation with customers, businesses are free to determine their expenditure priorities in light of changing circumstances during the regulatory period, and to pursue innovation and efficiencies that enable them to outperform the cost assumptions. In this sense, the Commission's methodology does not bind water businesses' spending to particular projects or activities.

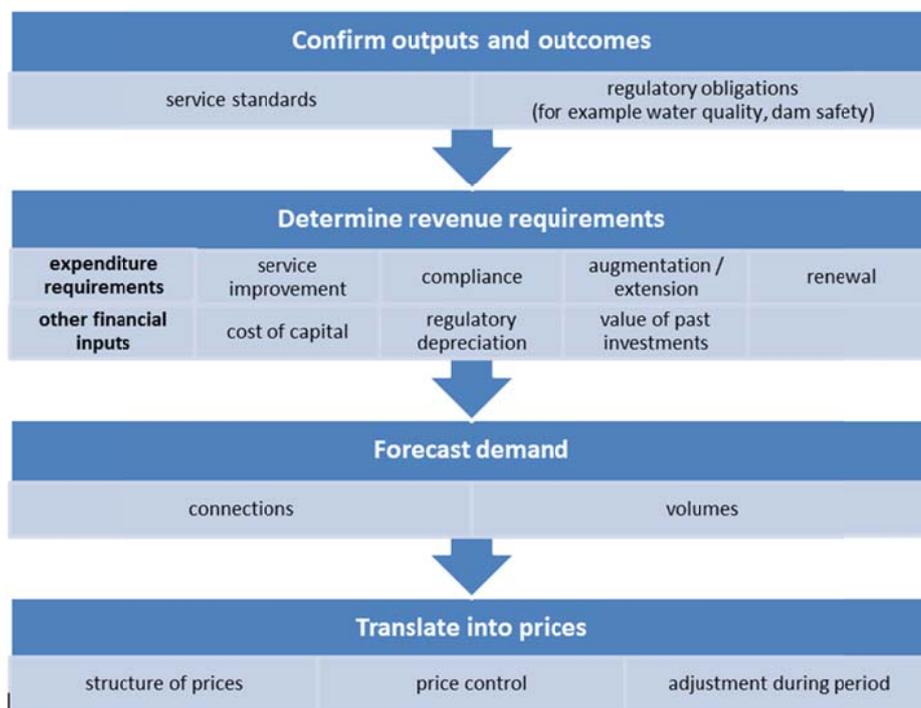
Sometimes, given changing circumstances, a business may not proceed with a project or activity that it proposed in its Water Plan and that the Commission included when calculating assumed expenditure. It might do so when it identifies, in consultation with its customers, a higher priority project or activity that should be undertaken instead. Or, if costs increase by more than forecast at the time of the price review, the business might defer or cancel a lower priority project or activity to ensure projects and activities more highly valued by customers can go ahead without the business then needing to recoup a revenue shortfall from customers.

⁵ There is a Statement of Obligations (SoO) for each water business specifying a number of requirements that the businesses must follow. The obligations are based on a combination of water legislation requirements and government policy. They were made by the Minister for Water under section 41 of the *Water Industry Act* (1994), commencing from 16 September 2012.

The third step in the process involves assessing a business’s forecast level of demand for water and sewerage services, and the assumed level of growth in customer connections.

The final step is determining the prices that will apply during the regulatory period. For each business, the Commission must ensure prices will generate the business’s revenue requirement, accounting for demand forecasts. It assesses whether the business’s demand forecasts are reasonable and reflect the best available information. It also considers whether prices and proposed tariff structures provide appropriate signals about the costs of providing services, and provide incentives for sustainable water use.

FIGURE 1.1 STEPS IN ASSESSING AND APPROVING PRICES



1.3 THE STRUCTURE OF THIS DRAFT DECISION

This draft decision is structured in two volumes. Volume I is an overview of the Commission's approach and assessment of businesses' proposals. It also summarises the suggested actions or amendments that a business will need to take or make if the Commission proposes to not approve that business's proposal.

As outlined in figure 1.1, the first step in assessing proposed prices is to establish the service standards and other related outcomes to be delivered, including expectations about the key water delivery and demand factors that are likely to underpin the delivery of services.

Chapter 2 sets out the businesses' proposals for prices (and the impact on customer bills), and compares these with outcomes under this draft decision. It also covers the proposed price paths of the businesses, and sets out any changes resulting from the Commission's draft decision.

Chapter 3 sets out the Commission's assessment of the core service levels underpinning the businesses' proposed price levels over the next regulatory period.

Chapter 4 assesses the Guaranteed Service Level schemes proposed by the businesses. These are schemes whereby customers receive a payment or rebate if their water supplier fails to meet certain standards.

Chapter 5 sets out the Commission's views on the revenue required by each water business to deliver services and meet its obligations. The revenue requirement is used to set the prices that will apply over the regulatory period as based on expenditure required to operate the business efficiently during that time. The Commission's views on the businesses' expenditure forecasts are set out in chapter 6 (operating expenditure) and chapter 7 (capital expenditure). Chapter 8 discusses issues related to financing capital investments, and chapter 9 contains the Commission's assessment of the businesses' proposed demand forecasts.

Chapters 10–18 discuss issues related to the businesses' proposed tariff structures for various services and how prices will be adjusted during the regulatory period.

Volume II provides a more detailed outline of the Commission's draft decision for each business. It specifies the actions required of businesses prior to the Commission making its final determination.

2 CUSTOMER BILLS AND PRICES

2.1 CUSTOMER BILLS

As a result of this draft decision, household water and sewerage bills would not increase as much as sought by the businesses in their Water Plans, noting that the prices detailed in this draft decision are subject to consultation and may change under the Commission's final decision. Table 2.1 compares illustrative bills in 2013-14 and 2017-18 for owner-occupiers, based on the prices proposed in the businesses' Water Plans and prices resulting from the Commission's draft decision. Table 2.2 displays the same information for tenant bills. Note that the Commission's draft decision does not include the effect of inflation, that is, it is expressed in *real dollar terms* (in 2012-13 dollars). Nominal prices can be calculated by including inflation — the Consumer Price Index (CPI).

2.1.1 OWNER-OCCUPIER BILLS

Based on this draft decision, Gippsland Water and GWMWater would have the highest average customer bills for owner-occupiers in 2013-14 at \$1222 and \$1204 respectively.⁶ Lower Murray Water and Goulburn Valley Water would have the lowest average customer bills in 2013-14 at \$803 and \$809 respectively.

Based on this draft decision, from 2012-13 to the end of the regulatory period in 2017-18, Coliban Water and Lower Murray Water would have the greatest dollar increase in average owner-occupier customer bills, with real increases of \$253 and \$77 per customer respectively. Barwon Water and Wannon Water would have the

⁶ The prices detailed in this draft decision are subject to consultation and therefore may change under the Commission's final decision.

greatest real dollar decreases in average owner-occupier customer bills, \$123 and \$118 per customer respectively.

TABLE 2.1 ILLUSTRATIVE ANNUAL RESIDENTIAL OWNER-OCCUPIER BILLS^a
\$2012-13

	Current bill	Bills based on businesses' proposals		Bills based on draft decision	
	2012-13	2013-14	2017-18	2013-14	2017-18
Barwon Water	1 049	1 050	1 055	1 011	933
Central Highlands Water	1 147	1 245	1 245	1 181	1 181
Coliban Water	1 003	1 153	1 297	1 153	1 256
East Gippsland Water	1 102	1 123	1 126	1 068	1 076
Gippsland Water	1 236	1 249	1 298	1 222	1 167
Goulburn Valley Water	819	839	926	811	806
GWMWater	1 168	1 204	1 323	1 204	1 207
Lower Murray Water	774	809	881	803	851
North East Water	836	855	935	824	795
South Gippsland Water	956	969	1 068	944	882
Wannon Water	1 163	1 131	1 131	1 127	1 045
Westernport Water	1 029	1 044	1 214	1 029	1 044

Note: real values. ^a Based on the businesses' proposed prices and draft decision prices. Bills are calculated using businesses' average consumption.

2.1.2 TENANT BILLS

Based on this draft decision, North East Water and Coliban Water will have the highest average customer bills for tenants in 2013-14 at \$412 and \$346 per customer respectively. Westernport Water and South Gippsland Water will have the lowest average tenant customer bills in 2013-14 at \$125 and \$188 per customer respectively.

Based on this draft decision, from 2012-13 to the end of the regulatory period in 2017-18, Coliban Water and Lower Murray Water will have the greatest real dollar increase in average bills for tenants with an increase of \$49 and \$32 per customer respectively. Barwon Water and Wannon Water will have the greatest real dollar decrease in average tenant customer bills, \$38 and \$21 per customer respectively.

TABLE 2.2 INDICATIVE ANNUAL RESIDENTIAL TENANT BILLS
\$2012-13

	Current bill	Bills based on businesses' proposals			Bills based on draft decision	
	2012-13	2013-14	2017-18		2013-14	2017-18
Barwon Water	338	338	340		326	300
Central Highlands Water	235	255	255		242	242
Coliban Water	328	346	390		346	377
East Gippsland Water	224	258	340		255	257
Gippsland Water	312	315	328		309	295
Goulburn Valley Water	248	254	280		254	252
GWMWater	321	330	363		330	331
Lower Murray Water	174	196	214		195	206
North East Water	417	427	467		412	397
South Gippsland Water	189	193	218		188	176
Wannon Water	264	263	263		262	243
Westernport Water	108	129	150		125	127

Note: The indicative bills are calculated using 2011-12 average consumption for each water business—estimates of average consumption vary for each business as their customers use different amounts of water. Where businesses have multiple pricing zones, the indicative household bill was calculated using the prices in the largest town. For example, the estimate for Coliban Water is based on a resident in Bendigo.

2.2 PRICES

Based on the Commission's draft decision, half of the regional water businesses would have real price increases and half would have real price decreases over the next regulatory period. Table 2.3 compares the average annual price rise proposed by each regional water business in their Water Plans with the Commission's draft decision on price rises.

2.2.1 PRICE CHANGES OVER THE NEXT REGULATORY PERIOD

Based on the Commission's draft decision, customers of Barwon Water, Gippsland Water, Goulburn Valley Water, North East Water, South Gippsland Water and

Wannon Water would all have real price decreases over the next regulatory period. Barwon Water would have the biggest percentage real decrease in prices over the next regulatory period, with a real decrease of 10.8 per cent.

Based on the Commission's draft decision, East Gippsland Water, GWMWater, Lower Murray Water and Westernport Water would all have real price increases over the next regulatory period. Coliban Water would have the biggest percentage increase in prices over the next regulatory period with an increase of 20 per cent.

Central Highlands Water's prices would increase in the first year and then remain constant in real terms over the remainder of the regulatory period.

2.2.2 CHANGES FROM PROPOSALS TO DRAFT DECISION

The Commission has reduced all regional water businesses' proposed prices for the next regulatory period — noting that prices detailed below are subject to consultation and therefore may change under the Commission's final decision. From their proposals to this draft decision, South Gippsland Water and Westernport Water would have the greatest reduction in prices from those that they proposed with a decrease of 18.3 per cent and 16.8 per cent respectively. Lower Murray Water would have the smallest change with a decrease from its proposal of 3.8 per cent.

2.2.3 PRICE PATHS

East Gippsland Water, Lower Murray Water and Westernport Water have smooth price paths over the regulatory period with consistent percentage price increases each year. Gippsland Water, Goulburn Valley Water, North East Water and South Gippsland Water have smooth price paths over the regulatory period with consistent percentage price decreases each year.

Coliban Water and GWMWater have larger price increases for the first year of the regulatory period followed by smaller price increases for the remaining years. Barwon Water and Wannon Water have larger price decreases in the first year of the regulatory period followed by smaller price decreases for the remaining years. Central Highlands Water has a price increase in the first year of the regulatory period and no price increase for the remaining years.

The profile of the businesses' price changes may change based on the businesses' responses to this draft decision.

TABLE 2.3 ILLUSTRATIVE AVERAGE ANNUAL PRICE RISE — DRAFT DECISION PRICE PATH
(percentage change)

	Draft decision					Total draft decision	Total proposed by businesses	Change
	2013-14	2014-15	2015-16	2016-17	2017-18			
Barwon Water	-3.3	-2.0	-2.0	-2.0	-2.0	-10.8	0.7	-11.4
Central Highlands Water	2.9	0.0	0.0	0.0	0.0	2.9	8.4	-5.5
Coliban Water	8.9	2.4	2.4	2.5	2.5	20.0	28.3	-8.3
East Gippsland Water	0.2	0.2	0.2	0.2	0.2	1.0	6.9	-6.0
Gippsland Water	-1.1	-1.1	-1.1	-1.1	-1.1	-5.6	5.0	-10.6
Goulburn Valley Water	-0.2	-0.2	-0.2	-0.2	-0.2	-0.9	12.6	-13.5
GWMWater	2.8	0.1	0.1	0.1	0.1	3.1	12.4	-9.3
Lower Murray Water	1.5	1.5	1.5	1.5	1.5	7.5	11.4	-3.8
North East Water	-0.9	-0.9	-0.9	-0.9	-0.9	-4.4	12.0	-16.4
South Gippsland Water	-1.7	-1.7	-1.7	-1.7	-1.7	-8.1	10.2	-18.3
Wannon Water	-3.7	-1.9	-1.9	-1.9	-1.9	-10.8	-3.4	-7.4
Westernport Water	0.4	0.4	0.4	0.4	0.4	1.8	18.6	-16.8

3 SERVICE STANDARDS

3.1 INTRODUCTION

The Commission consulted on service standards for the regional urban water businesses during the first regulatory period (2006-2008). A core set of service standards was established based on this consultation — these are measurable aspects of the businesses' performance that reflect aspects of their service offering of greatest concern to customers (table 3.1).

The Customer Service Code requires that water businesses propose targets for the core set of service standards, as well as any additional standards the businesses have proposed, in their Water Plans.⁷ These service standard targets reflect the level of service businesses aiming to achieve over the regulatory period. The Customer Service Code will be updated to reflect the Commission's final determination.

Service standards underpin the businesses' expenditure proposals for the regulatory period and thus proposed prices. Performance against defined service standard targets may also be used to determine if additional expenditure is necessary to maintain or improve existing services, or if seemingly efficient cost gains were achieved by lowering service levels for customers. The Commission considers whether there is sufficient evidence of customers' views and preferences about the proposed service standard targets, and their willingness to pay for improved or altered service levels.

⁷ Essential Services Commission 2012, *Urban Water Customer Service Code*, Issue No.8, June.

The Commission regulates standards and conditions for supplying retail water, sewerage and other declared services. Clause 15 of the *Water Industry Regulatory Order* (WIRO) states that the Commission can "... specify standards and conditions of services and supply with which a regulated entity is obliged to comply in connection with the provision by it of declared services". It may approve standards set out in a water business's Water Plan, specify those standards in a code, or do both.

TABLE 3.1 CORE SERVICE STANDARDS

Retail water
Number of unplanned water supply interruptions (per 100 kilometres)
Average time taken to attend bursts and leaks (minutes)
Unplanned water supply interruptions restored within [X] hours (per cent)
Planned water supply interruptions restored within [X] hours (per cent)
Average unplanned customer minutes off water supply (minutes)
Average planned customer minutes off water supply (minutes)
Average frequency of unplanned water supply interruptions (number)
Average frequency of planned water supply interruptions (number)
Average duration of unplanned water supply interruptions (minutes)
Average duration of planned water supply interruptions (minutes)
Number of customers experiencing [X] unplanned water supply interruptions in the year
Unaccounted for water (per cent)
Minimum flow rates at 20 millimetres (mm), 25 mm, 32 mm, 40 mm, 50 mm
Retail sewerage
Number of sewerage blockages (per 100 kilometres)
Average time to attend sewer spills and blockages (minutes)
Average time to rectify a sewer blockage (minutes)
Spills contained within [X] hours (per cent)
Customers receiving [X] sewer blockages in the year (number)
Retail customer service
Complaints to Energy and Water Ombudsman (Victoria) (per 1000 customers)
Telephone calls answered within 30 seconds (per cent)

Volume II of this draft decision contains a more detailed overview of each business's proposed targets for service standards and whether the Commission proposes to approve or requires businesses to revise targets.

3.2 APPROACH TO ASSESSING SERVICE STANDARDS

The Commission regulates the standards and conditions of supply of retail water, sewerage and recycled water services to regional customers in several ways:

- It monitors compliance with the Customer Service Codes, which impose a consistent overarching framework for delivering services. The codes set out service requirements for key matters as well as certain protections for customers.
- Businesses can propose their own targets for service standards, rather than meet a consistent level of performance. This flexibility aims to reflect the different operating environments each business faces and to allow customers to express their preferences about willingness to pay for services. Each business must express its service standards using common definitions. The Commission monitors each business's performance against its own targets and reports its performance in its annual performance reports.
- Each business must develop a customer charter that informs customers about the services it offers, the respective rights and responsibilities of the business and its customers, and the service standards the business proposes to deliver over the regulatory period. The charter must cover certain minimum information requirements set by the Customer Service Codes.

Because the WIRO grants the Commission power to regulate and set service standards and targets, the Commission set out in its 2011 guidance paper the methodology for businesses to use in developing their proposed targets.⁸ Specifically, businesses were required to propose targets that, at a minimum, reflected service outcomes achieved in the second regulatory period (2008-2013), unless consultation clearly demonstrated that customers preferred improved or reduced service levels as a trade-off for lower prices. The guidance paper stated that businesses could propose targets that deviated from the five year average performance, but that adequate justification for doing so was required; for example, specifying where conditions in the second regulatory period for some indicators do not reflect expected conditions going forward.⁹

⁸ Essential Services Commission 2011, *2013 Water Price Review — Guidance on Water Plans*, October.

⁹ Other examples of why a business's proposed targets might differ from historical performance might include where the five-year average did not accurately reflect the business's capabilities, current conditions, or customers' willingness to pay, or where the average is skewed by anomalous data.

In its annual performance reports, the Commission compares the water businesses' performance to the service standard targets determined in the most recent price review.¹⁰

The Commission notes that its approach is consistent with the view expressed by the Victorian Council of Social Services that “[w]ater businesses... with targets consistently less rigorous than the 5-year average, should clearly demonstrate the rationale for the level of their service standards or revise them”.¹¹

Given the potential for variation in performance from year to year (for example, where climatic conditions have affected reliability levels), the targets proposed for each year are not binding ‘absolutes’. Rather, businesses’ proposed average five-year performance should be no worse than that of the previous five years. Businesses can explain (through the Commission’s annual performance report) performance variations from the approved targets and how they plan to address any performance shortfalls. This ensures businesses are always conscious of their performance, and it gives each business an incentive to strive to meet its target. Businesses that fail to meet certain service levels covered by a Guaranteed Service Level scheme are required to make payments to the affected customers (see Guaranteed Service Levels in chapter 4). In addition, businesses that fail to meet their performance targets may find their allowed revenues reduced in future regulatory decisions.

3.3 OVERVIEW OF BUSINESSES’ PROPOSALS

Most regional businesses’ proposals contained several targets that differed from their five-year historical average. Some businesses explained these deviations in their initial submission. Wannon Water proposed a new approach, with targets set at their five-year average performance plus or minus one standard deviation.

In addition to its urban business, GWMWater supplies water and provides related services to rural customers under the pipeline arrangement. Rural businesses are not required to set targets for a single “core set” of standards, but are allowed to

¹⁰ Essential Services Commission 2012, *Performance of Victorian urban water and sewerage businesses 2011-12*, December.

¹¹ Victorian Council of Social Services, 2013, *Submission to the Water Price Review 2013-18*, 26 February.

individually propose standards that reflect their unique operating environment and customer preferences, based on consumer consultation and experience. GMMWater revised its service standards when the Wimmera Mallee pipeline was commissioned. It has proposed to retain these standards over the third regulatory period and set them at a level consistent with historical performance. GMMWater's rural service standards and targets are covered in detail in volume II of this decision.

3.4 COMMISSION'S ASSESSMENT

For at least one service standard, the Commission asked all water businesses (except Goulburn Valley Water) either to amend their target to the five-year average or to explain why the historical average was not appropriate for the third regulatory period. In this draft decision the Commission has indicated that it will approve proposed targets where the business's justification is adequate. If the explanation is inadequate the Commission proposes not to approve the target and instead require:

- the targets be set at the five-year average or
- for the business to further justify their proposed targets in response to the draft decision.

The Commission proposes to approve all targets proposed by Coliban Water, East Gippsland Water, Gippsland Water, and Lower Murray Water. These businesses either proposed targets consistent with the five-year average or were able to explain adequately targets that differed significantly from the five-year average, either in their original submissions or in response to the Commission's requests. Businesses cited factors such as the easing drought conditions leading to increases in planned maintenance, and the exclusion of outliers in calculating the average.

The Commission proposes to approve all service targets proposed by Westernport Water except one. The target proposed for 'Sewerage blockages (per 100 kilometres)' diverged from the five-year average without valid rationale being provided. Hence the Commission proposes to set this target at the historical five-year average.

The Commission proposes not to approve several targets proposed by the remaining regional water businesses. The targets proposed were inconsistent with the methodology set out in the guidance paper and the businesses did not adequately justify why these proposed targets deviated from the five-year historical average.

South Gippsland Water and Wannon Water argued that setting the target at the average was flawed because performance varied significantly from year to year. In response to a request for additional information, Wannon Water stated that using the five-year average leads, by definition, to "...half of the targets not be[ing] met in any one year". This argument does not address the objective of ensuring that customers continue to receive on average the level of service they have come to expect in the past.

For at least some service standards, Barwon Water, North East Water and Central Highlands Water proposed maintaining the target from the second regulatory period and altering it only for 'compelling' reasons. Similarly, GMMWater referred to the second regulatory period targets and the water industry average in setting its targets.

The Commission holds that the purpose of setting service standard targets is to reflect customer preferences. In order to encourage businesses to continue to provide the same level of service that customers have become accustomed to receiving, targets for the next period should at least reflect a standard the business has been able to achieve, on average, over the previous regulatory period.

Industry-wide averages and targets set in previous price reviews do not represent the current level of service experienced by customers of a particular water business. Businesses should only deviate from their own historical average where there is a significant reason to do so — such as a change in customer preferences. Targets should not be set at artificially low levels in order to create the impression that a business is exceeding its target each year.

Table 3.2 summarises the Commission's response to targets for core standards proposed by regional water businesses. More detail on each business's proposed targets can be found in volume II of this decision.

TABLE 3.2 SERVICE STANDARDS – DRAFT DECISION
Number of targets

Water Business	Commission proposes to approve	Commission proposes not to approve
Barwon Water	6	15
Central Highlands Water	14	7
Coliban Water	21	0
East Gippsland Water	21	0
Gippsland Water	21	0
Goulburn Valley Water	14	7
GWMWater (urban)	14	7
GWMWater (rural)	16	0
Lower Murray Water	21	0
North East Water	13	8
South Gippsland Water	18	3
Wannon Water	8	13
Westernport Water	20	1

GWMWater rural service standards

GWMWater proposed to maintain most targets for rural service standards at current levels and improve some targets it exceeded during the second regulatory period. The Commission proposes to approve GWMWater’s rural service standard targets.

3.5 DRAFT DECISION

The Commission proposes to approve all service standard targets proposed by Coliban Water, East Gippsland Water, Gippsland Water and Lower Murray Water.

The Commission proposes not to approve all service standard targets proposed by Barwon Water, Central Highlands Water, Goulburn Valley Water, GWMWater (for its regional customers), North East Water, South Gippsland Water, Wannon Water and Westernport Water.

The Commission proposes to approve all the targets proposed for service standards by GWMWater for its rural customers.

Details of these service standard targets the Commission proposes to approve and which it proposes not to approve can be found in volume II of this decision for each regulated entity.

4 GUARANTEED SERVICE LEVELS

4.1 INTRODUCTION

A guaranteed service level (GSL) scheme is a financial mechanism that provides incentives for regional water businesses to meet defined service standards. The schemes involve businesses providing payments or rebates to customers when they experience certain supply problems or do not receive defined levels of performance.

4.2 APPROACH TO ASSESSING GUARANTEED SERVICE LEVEL SCHEMES

The guidance paper stated all regional water businesses should propose a GSL scheme for the third regulatory period in their Water Plans.¹² GSLs should reflect the most important aspects of service delivery identified by customers. They should be based on customer consultation and be objectively definable, easily understandable, and able to be reported. Payment amounts are intended to provide incentives for businesses to deliver appropriate service levels to all customers, not to compensate customers.

The guidance paper included a core set of GSLs as a starting point for all urban businesses. Businesses could propose alternative GSLs if they considered the core set inadequately reflected their specific service offering or customer preferences. Further, incentives to address GSL events could be strengthened by

¹² Essential Services Commission 2011, *2013 Water Price Review – Guidance on Water Plans*, October.

proposing GSL payments and rebates that increase with each repeat instance of poor service to any given customer.

In assessing GSLs, the Commission considered whether the:

- payment levels are reasonable
- business has an existing obligation to meet the target reflected in the GSL
- GSL event reflects an aspect of service likely to concern customers
- GSL event is readily identifiable (and measurable where relevant) so automatic payments can be made.

4.3 OVERVIEW OF BUSINESSES' PROPOSALS

Since 1 July 2012, all regional water businesses have been required by the Commission to implement a hardship related GSL, which is defined as:

Restricting the water supply of, or taking legal action against, a residential customer prior to taking reasonable endeavours to contact the customer and provide information about help that is available if the customer is experiencing difficulties paying.

When breached, this GSL requires the water business to provide the affected customer with \$300, either as a payment or a rebate.

All businesses, except for Gippsland Water, proposed GSLs in addition to the hardship GSL. Businesses proposing to introduce the scheme for the third regulatory period (including Coliban Water, East Gippsland Water, Goulburn Valley Water GWMWater, Lower Murray Water, North East Water, South Gippsland Water, and Westernport Water) proposed between two and six additional GSLs in their Water Plans.

Central Highlands Water and Wannon Water proposed to maintain their existing GSLs.

Barwon Water proposed to maintain its existing four GSLs, but change 'no more than three sewer spills on a customer's property per year' to 'two sewer spills' — an increase in the service level for the business. In its Water Plan, the business indicated that it proposed this change in response to customer feedback. In terms of payment levels, the business proposed to:

- maintain the hardship GSL payment at \$300 and
- adjust the other GSL payment levels for inflation.

Other regional water businesses proposed changes to their GSL schemes:

- North East Water and South Gippsland Water proposed to implement two new GSLs as well as the hardship GSL
- Coliban Water, Westernport Water and Lower Murray Water proposed to implement three new GSLs as well as the hardship GSL and
- East Gippsland Water, GWMWater and Goulburn Valley Water proposed to implement four new GSLs as well as the hardship GSL.

Gippsland Water proposed to continue to implement the hardship GSL but did not propose any other GSLs for the third regulatory period. Instead, it proposed to monitor 'sewer spills in a house contained within one hour of notification' and 'unplanned water interruptions restored within five hours of notification' over the coming year for possible inclusion in the future.

Table 4.1 summarises new GSLs proposed by regional water businesses for the next regulatory period. Appendix C sets out the new and existing GSLs, with payment levels from the second regulatory period and proposed payment levels for the next regulatory period.

Volume II of this draft decision presents all the GSLs proposed by each business.

TABLE 4.1 NEW GSLS PROPOSED FOR THE THIRD REGULATORY PERIOD

Water Business	New GSL Proposed	Payment \$
Barwon Water	No more than two sewer spills on a customer's property per year	553
Central Highlands Water	No new GSLs proposed	
Coliban Water	More than five unplanned supply interruptions in 12 months	50
	More than three sewer interruptions in 12 months	50
	Sewer spill in a house not contained in one hour	1 000
East Gippsland Water	Planned interruption to water supply exceeds delay specified in notice	65
	Response to customer contact within 10 working days, if required	30
	Failure to update billing details	30
	Sewage spill caused by business within house	1 000
Gippsland Water	No GSL scheme proposed	
Goulburn Valley Water	More than five unplanned water interruptions within any 12 month period	50
	Sewage spills in a house contained within one hour of notification	1 000
	Water interruptions not restored within five hours of notification	50
	More than three sewerage interruptions within any 12 month period	50
GWMWater	Unplanned water interruptions not restored within five hours of notification	50
	Planned interruption longer than notification	50
	Sewer interruption not restored within five hours of notification	50
	Sewer spill within house, caused by failure of system, not contained within one hour	1 000
Lower Murray Water	More than five unplanned water interruptions in a year	75
	More than three sewer blockages in a year	75
	Priority 1 and 2 sewerage spills not contained within five hours	500
North East Water	More than five unplanned water interruptions within 12 month period	50
	Sewage spills in a house not contained within one hour of notification	1 000

Continued next page

TABLE 4.1 (CONTINUED)

Water Business	New GSL Proposed	Payment \$
South Gippsland Water	Unplanned water interruptions not restored within five hours of notification	75
	Unplanned interruptions to sewer service not rectified within five hours of notification	75
	Sewage spill within house caused by business	1 000
Wannon Water	No new GSLs proposed	
Westernport Water	Unplanned water interruption not restored within five hours of notification	50
	Sewage spills within a house not contained within one hour of notification	500
	Sewage spill not contained within five hours of notification	250

Note: A comprehensive overview of each business's proposed GSL scheme is contained in volume II of this draft decision.

4.4 COMMISSION'S ASSESSMENT

Except for Gippsland Water (which did not propose a GSL scheme), the GSL schemes proposed by the regional water businesses comply with the methodology proposed by the Commission in its guidance paper. On this basis, the Commission proposes to accept all GSL schemes proposed by regional businesses.

The Commission requires Gippsland Water to propose a GSL scheme (with appropriate payments) in response to this draft decision. At a minimum, the scheme must include the two aspects Gippsland Water proposed to monitor over the period:

- sewer spills in a house contained within one hour of notification and
- unplanned water interruptions restored within five hours of notification.

Some GSLs proposed by businesses are substantively similar but are worded differently. GSLs are relatively new to the regional water sector. As businesses become more experienced with their GSL schemes, the Commission will consider standardising the wording of common GSLs in future regulatory periods.

4.5 DRAFT DECISION

The Commission proposes to approve the GSL schemes proposed by Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Goulburn Valley Water, GWMWater, Lower Murray Water (Urban), North East Water, South Gippsland Water, Wannon Water and Westernport Water.

Gippsland Water are required to propose a GSL scheme prior to the final decision. At a minimum Gippsland Water's proposal must include GSLs for:

- sewer spills in a house contained within one hour of notification and
- unplanned water interruptions restored within five hours of notification.

5 OVERVIEW OF REVENUE REQUIREMENT

The Commission must be satisfied that maximum prices are set at a level that generates sufficient revenue for a water business to recover the efficient cost of delivering services over a regulatory period. It must also ensure that prices do not allow a business to collect revenue that reflects monopoly rents or inefficient expenditure.

The Commission has used the 'building block' approach to derive forward looking estimates of the revenue that the businesses require to deliver proposed service standards and outcomes over the regulatory period. Under this approach the revenue requirement for a business reflects operating expenditure and a return on the regulatory asset value that is updated each year to reflect any additional capital expenditure (net of asset disposals, customer and government contributions), and regulatory depreciation. The Commission's guidance paper explains the building block approach in more detail.¹³

5.1 IMPACT OF THE COMMISSION'S DRAFT DECISION

The Commission has reviewed the businesses' assumptions about expenditure, demand, and the return on and of assets for the next regulatory period, and adjusted each business's revenue requirement to reflect our current views of the efficient level of revenue that would enable the businesses to deliver on their service obligations over the next regulatory period (table 5.1).

¹³ Essential Services Commission 2011, *2013 Water Price Review – Guidance on Water Plans*, October, pp.8-9.

TABLE 5.1 DRAFT DECISION REVENUE REQUIREMENT
\$m 2012-13

	2013-14	2014-15	2015-16	2016-17	2017-18	Total
Barwon Water	172.2	174.3	176.1	178.6	179.3	880.6
Central Highlands Water	82.2	77.5	78.3	78.9	80.0	396.9
Coliban Water	96.2	98.1	100.3	101.8	102.4	498.7
East Gippsland Water	28.4	29.3	30.2	30.6	31.0	149.5
Gippsland Water	106.2	108.4	111.3	112.4	113.9	552.2
Goulburn Valley Water	62.9	63.5	65.3	67.5	68.7	328.0
GWMWater	55.3	55.9	56.8	56.7	56.7	281.5
Lower Murray Water	30.3	31.2	32.1	31.9	32.3	157.8
North East Water	50.2	51.1	51.6	52.2	53.0	258.0
South Gippsland Water	25.2	25.3	25.5	25.0	24.8	125.8
Wannon Water	61.8	63.0	63.4	63.9	63.7	315.8
Westernport Water	18.7	19.0	19.2	19.5	19.8	96.3
Total revenue requirement	789.8	796.5	810.1	819.1	825.7	4 041.1

Note: Volume II has tables with individual breakdowns for each business.

The Commission's draft decision results in a \$183.2 million (or 4.3 per cent) decrease in the revenue requirement for the regional water businesses, compared to what was proposed by the businesses in their Water Plans (table 5.2). Our draft decision reduces the revenue requirement for all regional businesses.

The reasons for the difference in the revenue requirement proposed by each business and the Commission's draft decision varies depending on the business.

Overall, however, the main drivers of the reduced revenue requirement are

- the impact of changed assumptions regarding the weighted average cost of capital (WACC), and therefore the cost of financing the businesses' proposed capital programs,
- reductions to proposed operating and capital expenditure, and
- the impact of the businesses' new customer contribution proposals submitted after the Water Plans (see chapter 15).

Relevant adjustments are discussed in the following chapters:

- chapter 6 — operating expenditure

- chapter 7 — capital expenditure
- chapter 8 — financing capital investments
- chapter 15 — new customer contributions.

The components of the Commission's proposed revenue requirement for each business are provided in volume II of this draft decision. The lower revenue requirement proposed for each business results in the downward adjustment to proposed prices (discussed in chapter 2).

TABLE 5.2 PROPOSED REVENUE REQUIREMENT
\$m 2012-13

	Proposed by business	Draft decision	Difference	Per cent difference
Barwon Water	919.9	880.6	-39.4	-4.3
Central Highlands Water	414.2	396.9	-17.2	-4.2
Coliban Water	520.2	498.7	-21.5	-4.1
East Gippsland Water	153.6	149.5	-4.0	-2.6
Gippsland Water	569.8	552.2	-17.6	-3.1
Goulburn Valley Water	348.2	328.0	-20.2	-5.8
GWMWater	295.7	281.5	-14.2	-4.8
Lower Murray Water	162.3	157.8	-4.5	-2.8
North East Water	275.7	258.0	-17.7	-6.4
South Gippsland Water	135.7	125.8	-9.9	-7.3
Wannon Water	328.7	315.8	-12.9	-3.9
Westernport Water	102.4	96.3	-6.1	-5.9
Total revenue requirement	4 226.3	4 041.1	-185.1	-4.4

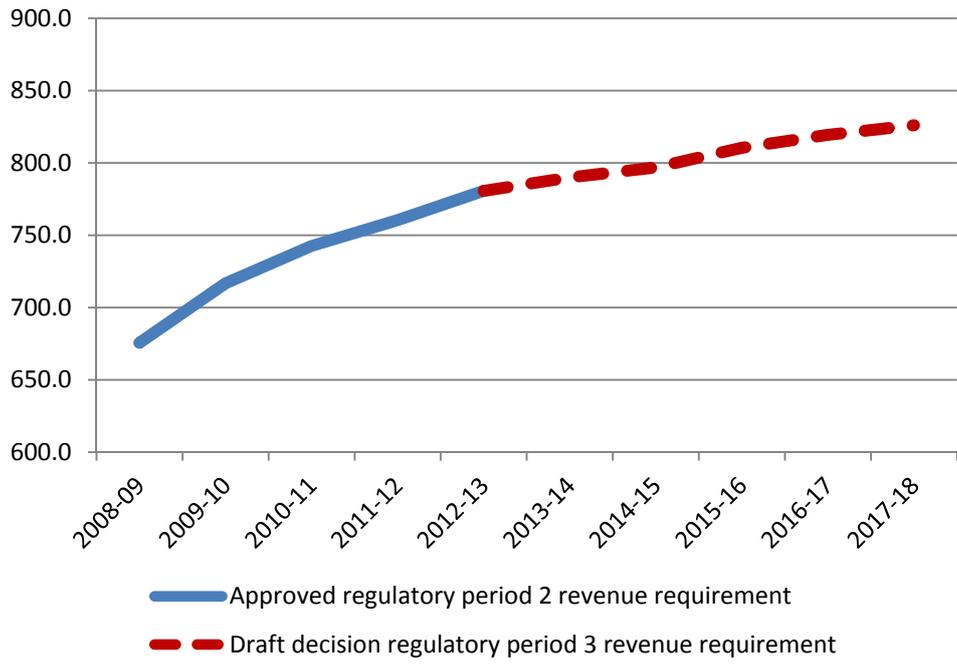
5.2 TRENDS IN THE TOTAL REVENUE REQUIREMENT

The revenue requirement under the Commission's draft decision is around 10 per cent higher than the approved amount for the current regulatory period (table 5.3). Figure 5.1 shows the trend in annual revenue requirement across all regional water businesses over the second regulatory period and under our draft decision for the next regulatory period.

TABLE 5.3 DIFFERENCE BETWEEN REGULATORY PERIOD 2 AND DRAFT DECISION REVENUE REQUIREMENT
\$m 2012-13

	Regulatory period 2 approved	Regulatory period 3 draft decision	Difference	
			<i>(\$m)</i>	<i>(per cent)</i>
Barwon Water	785.7	880.6	94.8	12.1
Central Highlands Water	374.1	396.9	22.9	6.1
Coliban Water	445.7	498.7	53.0	11.9
East Gippsland Water	134.0	149.5	15.6	11.6
Gippsland Water	490.6	552.2	61.6	12.6
Goulburn Valley Water	298.8	328.0	29.1	9.7
GWMWater	269.9	281.5	11.6	4.3
Lower Murray Water	149.1	157.8	8.8	5.9
North East Water	250.3	258.0	7.7	3.1
South Gippsland Water	116.9	125.8	8.9	7.7
Wannon Water	274.5	315.8	41.3	15.0
Westernport Water	86.6	96.3	9.7	11.2
Total revenue requirement	3 676.1	4 041.1	365.0	9.9

FIGURE 5.2 ANNUAL REVENUE REQUIREMENT, ALL BUSINESSES
 \$m 2012-13



6 OPERATING EXPENDITURE

6.1 INTRODUCTION

Operating expenditure comprises between 52 to 67 per cent of water businesses' forecast annual revenue requirement for the next regulatory period. Clause 14 of the WIRO guided the Commission in assessing businesses' operating expenditure. In particular, the WIRO requires the Commission to ensure:

- prices levied by the businesses provide them with a sustainable revenue stream that does not reflect monopoly rents or inefficient expenditure
- proposed expenditure forecasts are efficient and account for a long term planning horizon beyond the term of the Water Plan
- the prices, or the manner in which they are determined, provide incentives for the businesses to pursue efficiency improvements over the regulatory period.

Chapter 7 covers the Commission's draft decision on capital expenditure for the regional water businesses in the next regulatory period.

6.2 APPROACH TO ASSESSING OPERATING EXPENDITURE

The Commission outlined its approach to assessing operating expenditure in its 2011 guidance paper.¹⁴ For businesses to recover proposed expenditure through regulated prices, their Water Plans must demonstrate the expenditure is required to meet proposed service outcomes. The Water Plans must also demonstrate the businesses will achieve their proposed service outcomes as cost efficiently as possible. The Commission also considered businesses should be disciplined by the need to improve efficiency and manage controllable costs. The Commission

¹⁴ Essential Services Commission 2011, *2013 Water Price Review—Guidance on Water Plans*, October.

requires that all businesses should achieve a minimum of 1 per cent per year productivity improvement on their baseline operating expenditure.

To facilitate the expenditure assessment, the Commission identified in its guidance paper that Water Plans should outline forecast operating expenditure for each year of the regulatory period, the key drivers of expenditure, justification of expenditure forecasts, and evidence of achieving the Commission's productivity improvement target. The Water Plans should outline the relationship between expenditure and the delivery of obligations and service outcomes over the period.

As part of its information requirements, the Commission asked each business to consider:

- forecast changes in demand, including changes in customer numbers
- changes in input costs
- new or changed government obligations
- new or changed customer service standards.

It also required the businesses to consider and address a number of issues in their Water Plans such as cost items that have increased significantly during the second regulatory period like labour costs, electricity costs (including assumptions regarding the carbon price) and information technology (IT) costs.

The Commission also required the businesses to:

- summarise briefly how they have used shared services to deliver cost savings over the second regulatory period
- identify whether they adopted a strategic approach to procurement, including which elements are outsourced or provided inhouse
- make available to the Commission any benchmarking studies the businesses have undertaken.

The Commission generally expected the businesses to provide greater justification when proposing a significant departure from historical expenditure levels, or when forecasting expenditure for outcomes that are beyond what customers seek or regulators mandate.

The Commission engaged Deloitte Touche Tohmatsu (Deloitte) to review the efficiency of the regional businesses' controllable operating expenditure. Cardno undertook a similar review of the rural businesses which included Lower Murray

Water's urban operation and GWMWater, which are both covered in this regional draft decision. Controllable operating expenditure excludes expenditure for bulk water charges, licence fees paid to regulators, and the environmental contribution levy paid to the government. These 'non-controllable' costs have been verified by the Commission for this price review and are discussed later in this chapter.

Deloitte was engaged to conduct an expenditure review for the regional urban water businesses and was chosen because of its extensive experience in water price reviews, and a strong understanding of the Victorian water sector regulatory framework and the Commission's role. Key members of the Deloitte team, both economists and engineers, played similar key roles in the assessment of the Melbourne metropolitan water businesses for the 2009 price review. Deloitte also provides access to extensive internal resources to assist with assessment of cost escalations, particularly for energy, labour and IT.

Similarly, Cardno was selected to undertake an expenditure review of the rural water businesses because of its strong experience in water price reviews, having undertaken expenditure assessments for both the Commission and IPART (the NSW regulator), and in other Australian capital cities as well as for OFWAT in the UK. Cardno completed the expenditure review for the Victorian rural water businesses in 2008 using many of the same key personnel, and has extensive involvement in the annual regulatory audits administered by the Commission.

The Commission provided specific instruction to Deloitte and Cardno on the matters of significance that they must consider in the review, including the requirements from the WIRO. The Commission has also drawn to the consultants' attention the major areas of focus where there were relatively large movements in the expenditure trends during the second regulatory period. The consultants conducted their independent and professional assessment of the respective water businesses' expenditure forecasts in four months. This process involved them issuing a draft report to each water business, receiving further information and clarification from the businesses and providing a final report to the Commission for its deliberations for the draft decision.

The consultants undertook extensive information gathering and data analysis in preparing their final reports to the Commission. The Commission has confidence in the findings and recommendations of the expert consultants and has used their final reports as a basis for adjustments to expenditure that underpin the draft decision. Where the Commission has decided to not accept the expert consultants' recommendation, it has outlined the reason(s) for the decision.

Cardno assessed the proposed expenditure of GMMWater and Lower Murray Water, which both provide rural and urban operations.¹⁵ This draft decision covers Cardno's assessment for Lower Murray Water's urban operations only.

In summary, Deloitte and Cardno:

- established a business-as-usual (BAU) operating expenditure baseline by reviewing the actual 2011-12 costs (the last full year of actual expenditure data) and adjusting to remove any one-off expenditure items such as drought management and other non-recurring costs
- adjusted this baseline BAU amount to allow for average customer growth less a 1 per cent per year productivity efficiency saving required by the Commission, to produce a target BAU operating expenditure figure for each year of the next regulatory period
- assessed operating expenditure items identified by the businesses as new costs or those increasing in real terms above 2011-12 levels, and identified adjustments consistent with efficient expenditure. Where the consultants were not satisfied that the proposed expenditure increases were efficient, they recommended these costs be removed from the forecast
- adjusted each business's total forecast operating expenditure to reflect the recommended adjustments to expenditure related to new initiatives
- compared the recommended total expenditure, less any efficient new expenditure, with the target BAU to assess whether the Commission's productivity hurdle has been achieved.

Sections 6.5.9 and 6.5.11 discuss the Commission's assessments for non-controllable costs. The Commission adjusted businesses' forecasts for licence fees and the environmental contribution to ensure they are consistent with advice from the relevant regulatory agencies. For the draft decision, the Commission assumed bulk water charges for the relevant businesses as per their Water Plans.¹⁶ It will adjust these forecasts as needed once these businesses' bulk water charges are finalized. The Commission has proposed to approve Goulburn-Murray Water's bulk charges in the draft decision.

¹⁵ GMMWater did not break down expenditure for its rural and urban operations.

¹⁶ The businesses that proposed bulk water charges are Central Highlands Water, Coliban Water, Lower Murray Water (urban), North East Water and Wannon Water. These charges are to be paid either to Goulburn-Murray Water or GMMWater.

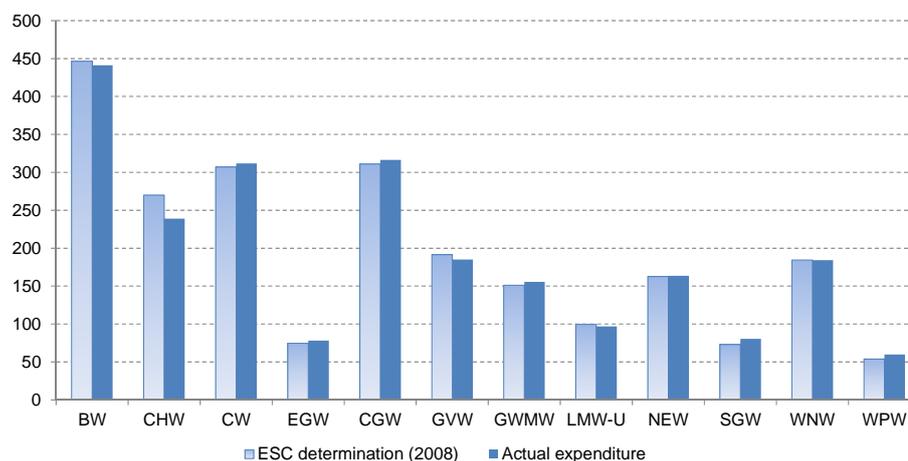
To calculate the total operating expenditure forecast for each business, the Commission added the controllable operating expenditure forecast (adjusted for growth and 1 per cent productivity improvement) to the non-controllable operating expenditure forecast. It also had regard to stakeholder submissions provided in response to the businesses' Water Plans.

Deloitte and Cardno's final expenditure reports assessing each business are released with this draft decision.

6.3 OVERVIEW OF BUSINESSES' PROPOSALS

For the second regulatory period, operating expenditure rose significantly for most regional water businesses. The main drivers were costs associated with actions responding to the drought. Using businesses' actual operating expenditure up to 2011-12 and their latest forecast for 2012-13, the overall total operating expenditure over the five years to June 2013 will be \$11.8 million (0.05 per cent) lower than the Commission approved in its latest price decision. The average annual increase in real expenditure was 3 per cent across the industry. Figure 6.1 shows that for the majority of water businesses actual expenditure aligned with Commission approved operating expenditure.

FIGURE 6.1 TOTAL OPERATING EXPENDITURE, 2008-09 TO 2012-13
Determination compared with actual^a (\$m 2012-13)

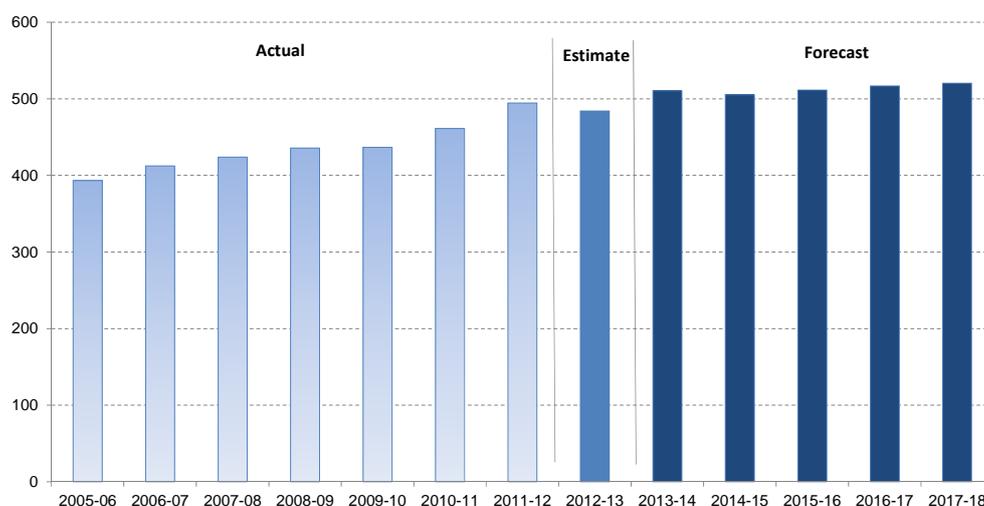


^a actual expenditure includes 2012-13 estimate.

For the next regulatory period, the regional businesses proposed a total operating expenditure of \$2.6 billion, approximately \$252 million (11 per cent) higher than that of the second regulatory period (table 6.1). All regional businesses proposed an increase in operating expenditure over five years, except Lower Murray Water. Goulburn Valley Water and Wannon Water forecast the largest percentage increases, at 18 per cent each.

Because operating expenditure is directly recovered through revenue and has a significant impact on water prices, the Commission required the businesses to provide both historical data and annual forecasts for the next 10 years. In total, the businesses' operating expenditure was proposed to rise by an average of almost 1 per cent per year over the period 2011-12 (the last full year for which actual data is available) to 2017-18. Total proposed operating expenditure is forecast to increase in 2013-14, but decrease slightly in 2014-15. It is forecast to then increase steadily from \$505 million to \$520 million by 2017-18.

FIGURE 6.2 TOTAL ANNUAL OPERATING EXPENDITURE
Total actual compared with total proposed, (\$m 2012-13)



The businesses identified the following key drivers of proposed increases to operating expenditure:

- higher labour costs due to higher wage rates
- higher energy costs due to the impact of the carbon price (introduced on 1 July 2012), increasing network charges and increasing electricity use
- defined benefits superannuation payments due to a shortfall in the funds
- the environmental contribution levy set by the Minister for Water to meet costs associated with managing environmental water will increase from 2013-14
- additional operating expenditure associated with new facilities such as treatment plants
- higher chemical costs due to forecast higher chemical prices for some businesses.

Each of these issues is addressed below.

TABLE 6.1 ANNUAL OPERATING EXPENDITURE
Total actual compared with total proposed, (\$m 2012-13)

	Actual					Estimate	Total WP2	Proposed					Total WP3	Difference from WP2 to WP3	
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14		2014-15	2015-16	2016-17	2017-18	<i>\$m</i>		<i>per cent</i>	
Barwon Water	83.0	84.9	84.8	96.8	91.8	441.2	93.7	94.5	95.6	97.7	98.9	480.3	39.1	8.9	
Central Highlands Water	48.1	44.3	46.2	51.8	48.7	239.1	51.7	52.7	53.9	54.9	56.5	269.7	30.6	12.8	
Coliban Water	61.3	62.7	60.2	62.1	65.6	311.9	67.3	67.0	67.5	68.4	67.3	337.5	25.6	8.2	
East Gippsland Water	14.6	15.2	15.5	17.1	15.9	78.3	17.0	17.2	17.9	17.8	18.1	87.8	9.6	12.2	
Gippsland Water	50.7	50.8	68.7	75.7	70.6	316.4	71.8	71.7	72.6	72.6	73.1	361.8	45.5	14.4	
Goulburn Valley Water	36.3	35.8	36.7	36.8	39.5	185.1	46.7	41.9	42.7	43.6	44.0	218.9	33.8	18.3	
GWMWater ^a	30.0	30.8	30.3	33.1	31.2	155.5	32.8	32.0	31.9	31.8	31.6	160.1	4.7	3.0	
Lower Murray Water	17.1	17.6	22.3	20.2	19.6	96.9	18.9	19.0	19.4	18.9	19.1	95.2	-1.7	-1.7	
North East Water	31.7	31.2	32.7	33.3	34.6	163.5	36.0	36.8	37.7	38.6	39.6	188.7	25.2	15.4	
South Gippsland Water	15.3	16.9	15.9	16.3	16.1	80.4	16.6	16.7	17.1	16.9	17.0	84.4	4.0	4.9	
Wannon Water	36.6	35.4	36.0	38.6	37.6	184.2	44.5	43.4	42.9	43.0	42.7	216.5	32.3	17.6	
Westernport Water	11.0	10.9	11.9	12.9	13.1	59.9	13.7	12.4	12.5	12.5	12.6	63.7	3.8	6.4	
TOTAL OPERATING EXPENDITURE	435.7	436.6	461.1	494.6	484.3	2 312.3	510.6	505.4	511.6	516.8	520.4	2 564.8	252.5	10.9	

^a Includes GWMWater's actual and forecast expenditure for its rural operations.

6.4 OVERVIEW OF DRAFT DECISION

The Commission formed its draft decision on operating expenditure forecast after considering the following:

- businesses' Water Plans
- additional information provided by the water businesses to support their forecasts
- consultation with the relevant regulatory agencies
- expenditure assessment reports prepared by Deloitte and Cardno
- water businesses' responses to the consultants' draft reports and
- customer and stakeholder submissions.

Including the impact of bulk water charges, the environmental contribution and licence fees (which fall outside the control of the businesses), the Commission's preliminary approved total operating expenditure over five years is \$2.5 billion, which is \$84 million (or 3.3 per cent) lower than the total proposed by the water businesses (table 6.2). The largest proposed reductions in total operating expenditure are for Central Highlands Water (6.1 per cent) and North East Water (8.1 per cent). Volume II of this draft decision discusses the adjustments proposed for each business.

As with capital expenditure (see chapter 7), the benchmarks that the Commission adopted for each business do not represent the amounts that 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 sufficient to operate the business and to maintain services over the regulatory period.

If a business operates inefficiently or incurs additional expenditure on other activities, and its actual operating expenditure during the regulatory period exceeds the benchmarks used to set prices, then those additional costs will be borne by the

business (rather than customers in the form of higher prices). The converse is true if the business makes an efficiency gain during the regulatory period.

The following key areas were the subject of close attention by the Commission in its assessment of proposed operating expenditure:

- labour costs
- defined benefits superannuation costs
- electricity costs
- carbon price and
- Intelligent Water Networks associated costs.

The following sections discuss the Commission's adjustments and draft decision on these issues.

TABLE 6.2 DRAFT DECISION FORECAST 2013-14 TO 2017-18
(\$m 2012-13)

	2013-14	2014-15	2015-16	2016-17	2017-18	Total draft decision	Total proposed by water businesses	Difference	
								(\$m)	(per cent)
Barwon Water	94.6	94.6	94.6	95.3	95.1	474.2	480.3	-6.1	-1.3
Central Highlands Water	50.3	50.3	50.6	50.7	51.3	253.2	269.7	-16.4	-6.1
Coliban Water	66.0	66.3	66.9	67.1	66.5	332.7	337.5	-4.8	-1.4
East Gippsland Water	16.9	17.1	17.4	17.4	17.5	86.2	87.8	-1.6	-1.8
Gippsland Water	71.2	70.7	71.0	70.4	70.4	353.7	361.8	-8.1	-2.2
Goulburn Valley Water	42.1	41.0	41.0	41.6	41.4	207.1	218.9	-11.8	-5.4
GWMWater ^a	31.3	30.4	30.3	29.9	29.6	151.5	160.1	-8.6	-5.4
Lower Murray Water	18.7	18.8	19.2	18.8	18.9	94.4	95.2	-0.8	-0.8
North East Water	34.6	34.7	34.7	34.7	34.7	173.5	188.7	-15.3	-8.1
South Gippsland Water	16.3	16.2	16.3	15.9	15.7	80.4	84.4	-4.1	-4.8
Wannon Water	42.8	43.0	42.4	42.2	41.7	212.1	216.5	-4.4	-2.0
Westernport Water	12.4	12.4	12.4	12.4	12.4	62.0	63.7	-1.7	-2.7
TOTAL OPERATING EXPENDITURE	497.4	495.6	496.9	496.3	495.0	2 481.1	2 564.8	-83.7	-3.3

^a Includes GWMWater's actual and forecast expenditure for its rural operations.

6.5 ADJUSTMENTS TO KEY INPUTS

6.5.1 LABOUR COSTS

Labour cost is the largest contributor to regional water businesses' operating expenditure. In the second regulatory period, it accounted for 15–54 per cent of business's total operating costs. The Water Plans noted labour cost increased by an average 5 per cent (in real terms) per year over the second regulatory period. Many businesses identified the drought and major project implementation as the reasons for the increase (covering internal and contract employment). For the next regulatory period, businesses forecast labour costs will increase by an average 2 per cent per year in real terms.

In its guidance paper, the Commission indicated improved inflows and higher storage levels across the state should result in lower labour costs associated with major capital works, drought management and restrictions enforcement. The Commission specified Water Plans must justify businesses' estimated staff numbers, and noted it will apply greater scrutiny to businesses forecasting increasing employment.

Wage rates

The Commission's approach to assessing wage rates is governed by the Victorian Government's wages policy.¹⁷ The policy states annual wage increases should not exceed a nominal 2.5 per cent (equivalent to the Department of Treasury and Finance inflation forecast of 2.5 per cent), and any real increases should be offset by real and bankable reductions in other wages costs. Currently, the regional water businesses' wage increases for most staff are subject to enterprise bargaining agreements (EBAs) approved by the government. Most of these EBAs provide for 4 per cent nominal wages growth each year, and most expire in 2013 or 2014. Some businesses' EBAs expired in 2012 and have been renegotiated. The businesses generally assumed similar arrangements would be reflected in their new EBAs.

¹⁷ Department of Treasury and Finance 2012, *Public sector workplace relations policies*, December, pp.7-8.

Deloitte took the following approach to assessing businesses' wage forecasts:

- wage increases in existing EBAs will apply until the EBA expires
- once a new EBA applies, no real growth will occur in wages.

Cardno adopted the same approach for GWMWater and Lower Murray Water (urban operations), and compared their labour costs with those of Goulburn Murray Water.

The Commission agreed with the consultants' approach to adopt the government wages policy as the basis for wage prices and FTE adjustments.

Staffing levels

Typically, regional water businesses increased the number of full-time equivalent staff (FTEs) in the second regulatory period, to meet increased workloads due to the drought and supply augmentation. For the next regulatory period, only Goulburn Valley Water (seven additional FTEs) — and East Gippsland Water, Lower Murray Water and South Gippsland Water to a lesser extent (two additional FTEs each) — proposed FTE increases.¹⁸ Goulburn Valley Water proposed additional staff 'to meet the intent of the Victorian Framework for Water Treatment Operator Competencies-Best Practice Guidelines'. Table 6.3 shows the businesses' actual and forecast FTEs per 1000 customers across the second and third regulatory periods. For most businesses, the ratio remains steady or is declining. The overall figure for regional water businesses is forecast to decline over the next regulatory period.

¹⁸ Goulburn Valley Water proposed an additional 15 FTEs in its Water Plan. During the expenditure review, they submitted to Deloitte a revised number of seven FTEs.

TABLE 6.3 FULL TIME EMPLOYEES PER 1000 CUSTOMERS

	Actual				Estimate	Proposed				
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Barwon Water	2.9	3.0	3.0	3.0	2.8	2.7	2.7	2.6	2.6	2.5
Central Highlands Water	3.0	2.9	3.0	2.9	3.0	2.8	2.8	2.8	2.7	2.7
Coliban Water	na	na	na	2.0	1.9	1.8	1.8	1.8	1.7	1.7
East Gippsland Water	3.6	3.7	3.7	3.8	3.9	3.9	3.8	3.9	3.8	3.7
Gippsland Water	3.3	3.5	3.5	3.7	3.8	3.7	3.6	3.6	3.5	3.4
Goulburn Valley Water	3.6	3.5	3.5	3.8	3.7	3.8	3.8	3.8	3.7	3.7
GWMWater ^a	7.2	6.5	6.5	6.5	6.5	6.4	6.2	6.0	5.8	5.6
Lower Murray Water	5.7	5.5	5.5	4.7	4.8	4.8	4.8	4.7	4.7	4.6
North East Water	3.1	3.1	3.2	3.3	3.3	3.3	3.2	3.2	3.2	3.1
South Gippsland Water	4.4	4.5	4.3	4.4	4.4	4.3	4.3	4.3	4.3	4.2
Wannon Water	4.6	4.6	4.8	5.2	5.2	5.2	5.2	5.1	5.0	5.0
Westernport Water	4.5	4.3	4.4	4.5	4.4	4.3	4.2	4.1	4.0	3.9
Overall weighted average ^b	3.8	3.8	3.8	3.8	3.8	3.7	3.6	3.6	3.5	3.5

^a Includes GWMWater's actual and forecast expenditure for its rural operations. ^b Average calculation excludes Coliban Water. na — not available.

Deloitte and Cardno assessed the businesses' forecast staff numbers on a case-by-case basis. They recommended the Commission accept all the businesses' proposed staff numbers, except for Goulburn Valley Water (to be adjusted from seven additional FTEs to six FTEs) and Coliban Water. Deloitte did not consider Coliban Water justified its revised proposal of an additional two FTEs.

Table 6.4 sets out the Commission's proposed adjustments to labour costs. Deloitte recommended not allowing North East Water's proposed 4 per cent per year real growth rate in wages for the next regulatory period because it is not consistent with the wages policy. Central Highlands Water's proposed superannuation guarantee increases of \$0.8 million and further nominal increase of 1.25 per cent to account for employees moving through salary bands were also not allowed given the Department of Treasury's advice that increases of this nature should be absorbed within the baseline wages increase.

The Commission agreed with this approach to limit all wages increases to CPI from the expiry of the current EBAs, consistent with the government's wages policy and adopted the recommendations of Deloitte and Cardno.

For further information about adjustments to labour costs, see volume II of this draft decision and Deloitte's (chapter 2) and Cardno's (chapter 4) final expenditure reports.

TABLE 6.4 LABOUR COSTS OVER 5 YEARS
\$m 2012-13

	Proposed total	Draft decision total	Difference	
			(\$m)	(per cent)
Barwon Water	202.3	199.2	-3.1	-1.5
Central Highlands Water	98.1	88.5	-9.6	-9.8
Coliban Water	59.7	58.9	-0.8	-1.5
East Gippsland Water	39.3	38.5	-0.8	-1.9
Gippsland Water	127.9	120.5	-7.4	-5.8
Goulburn Valley Water	97.4	92.8	-4.6	-4.7
GWMWater	91.4	88.5	-2.9	-3.0
Lower Murray Water	77.1	77.1	0.0	0.0
North East Water	79.8	69.8	-10.0	-11.5
South Gippsland Water	40.7	37.3	-3.3	-8.2
Wannon Water	91.3	91.3	0.0	0.0
Westernport Water	26.9	26.9	0.0	0.0
TOTAL	1 031.9	989.5	-39.1	-4.1

6.5.2 DEFINED BENEFITS SUPERANNUATION COSTS

Each of the regional water businesses has some employees on defined benefits superannuation arrangements through the Local Authorities Superannuation Fund (managed by Vision Super), which closed to new members in 1993. Under the fund, businesses are not required to make contributions when the returns are high, as was the case for several years up to 2007-08. Vision Super determined in December 2011 that recent reductions in the share market resulted in a fund shortfall of \$406 million and required additional contributions from the water businesses.

Vision Super advised the businesses that they could pay the required additional contributions as a lump sum or by equal instalments over a period of 15 years (at an interest rate of 7.5 per cent), or as a combination of the two options.

The regional water businesses have chosen different approaches to making their payments. All of the regional water businesses recognised the financial liabilities in

their 2011-12 annual reports. To varying degrees and methods, they sought to recover the amount over the next regulatory period. Some opted for either a lump sum payment in 2013-14 or payment by instalment over the next regulatory period. In some cases it was unclear how businesses were proposing to recover the shortfall.

Where businesses had included any additional superannuation payments in the 2011-12 base year, the consultants removed this amount as a non-recurring cost in determining the baseline BAU (see section 6.2).

Deloitte's initial recommendations in its draft expenditure report were to spread the additional contributions over the next 15 years using an interest rate of 5.5 per cent (Treasury Corporation of Victoria long term rate), and to not provide any allowance for those businesses that already made additional superannuation payments in 2010-11 or 2011-12. The businesses' responses to Deloitte's recommendations varied. Three water businesses agreed with Deloitte's recommendation, three considered the interest rate to be low, and the remainder preferred to recover the full amount in the next regulatory period (through either a lump sum payment in 2013-14 or installments over five years).

Deloitte considered the submissions but still recommended that "using a 'benchmark' 15 year period for all businesses represents a balanced outcome which treats each business equally, allows recovery of the payment, and does not impose an undue burden on customers in the short term".¹⁹ It increased the assumed borrowing rate from 5.5 per cent to 5.75 per cent, reflecting industry advice on current borrowing rates. This remains lower than Vision Super's discount rate.

The Commission agrees with the Deloitte approach to adopt the benchmark across the businesses given the variety of approaches in the Water Plans and proposes to adopt Deloitte's recommendations as set out in table 6.5. The Commission proposes this approach be applied to all businesses.

Cardno did not make any recommendations regarding additional defined benefits superannuation payments. However, the Commission notes the following observations. GWMWater indicated it would make a \$1.4 million payment to Vision

¹⁹ Deloitte 2013, *Essential Services Commission, expenditure review — Water Plan 3: final overview document*, February, p.28.

Super in 2012-13, but it did not specify how it would recover this amount. Lower Murray Water allocated \$0.17 million per year in its forecast operating expenditure to fully recover the costs during the next regulatory period.

The Commission has therefore applied the benchmark approach to Lower Murray Water and GMMWater for consistency across the sector. This resulted in a reduction for Lower Murray Water and including an allowance for GMMWater (see table 6.5).

The Commission welcomes any submissions on the manner in which the payments should be recovered. Businesses should update the Commission on any revised shortfall advice from Vision Super, given the improved financial market performance over the current financial year.

TABLE 6.5 DEFINED BENEFITS SUPERANNUATION COSTS OVER 5 YEARS
\$m 2012-13

Business	Liability recognised by water businesses	Amount proposed by water businesses to be recovered	Draft decision amount to be paid over period	Difference
				<i>(\$m)</i>
Barwon Water	12.1	0.0	5.7	5.7
Central Highlands Water	5.2	0.0	2.4	2.4
Coliban Water ^a	1.4	1.4	0.6	-0.8
East Gippsland Water	1.5	0.0	0.7	0.7
Gippsland Water	4.7	0.0	2.2	2.2
Goulburn Valley Water ^b	3.1	3.1	1.5	-1.6
GWMWater	1.4	0.0	0.7	0.7
Lower Murray Water ^a	0.9	0.9	0.4	-0.5
North East Water	2.0	0.0	0.9	0.9
South Gippsland Water	1.1	0.0	0.5	0.5
Wannon Water ^b	1.5	1.5	0.7	-0.8
Westernport Water ^b	0.7	0.7	0.3	-0.4
TOTAL	35.6	7.6	16.6	9.0

^a Proposing recovery of payments over 5 years in the next regulatory period. ^b Proposing lump sum recovery of payments in 2013-14.

For further information about the Commission's proposed adjustments for defined benefits superannuation payments, see volume II of this draft decision and Deloitte's report (see chapter 2).

6.5.3 ENERGY EXPENDITURE

The regional water businesses' water and wastewater pumping and treatment operations, as well as their head offices, can use a significant amount of energy (typically sourced from the electricity grid). The businesses' energy costs account for around 5 to 10 per cent of their total operating expenditure.

The Water Plans noted energy costs were a key driver of operating expenditure in the second regulatory period and will continue to be so. Industry-wide, energy costs increased by an average 5 per cent per year in the second regulatory period, and are forecast by businesses to increase by an average 6 per cent per year in real terms over the next regulatory period. Businesses cited the carbon price, increasing network charges and increasing electricity use as the main contributors to their increased energy cost forecast.

In calculating energy costs, several businesses based their electricity price forecasts on a report prepared for the Water Services Association of Australia (WSAA).²⁰

Electricity prices

Most of the regional water businesses buy electricity through bulk purchasing arrangements using Procurement Australia. The current bulk purchase agreement through Procurement Australia will expire in June 2013. Deloitte observed the businesses' assumptions about electricity use and prices varied considerably, including a wide range for the average price per kilowatt hour (from \$12.70/kWh to \$20.35/kWh in 2012-13).

In reviewing businesses' forecast electricity prices, Deloitte accounted for energy bill components such as the wholesale electricity price (including the impact of the carbon price), movements in network costs and other related costs. It also noted the businesses have received tenders for a recommended three year contract with Procurement Australia. This tender occurred while the expenditure review was underway and therefore represents a more efficient energy cost than presented in Water Plans. Under the tender, Procurement Australia generally offered lower electricity prices than assumed in the WSAA report and by the businesses. For this reason, Deloitte concluded many businesses have overstated their forecast energy costs.

Deloitte recommended the Commission adopt the Procurement Australia tender outcome, combined with known changes in network costs, as the basis for businesses' electricity price forecasts for the next regulatory period. Cardno recommended a similar approach for GWMWater and Lower Murray Water (urban operations).

²⁰ Water Services Association of Australia, 2012, *Energy price forecasts 2013 to 2032 report*.

Energy use

Deloitte and Cardno assessed each business's proposed energy use on a case-by-case basis. With a few exceptions, Deloitte accepted the energy use forecasts of the businesses. Cardno also accepted GMMWater's and Lower Murray Water's proposals.

The Commission considers Deloitte and Cardno's recommended approaches to be reasonable, noting that the Procurement Australia tender outcomes provide up-to-date market information on energy prices that was not available to the businesses when they prepared their Water Plans, and accepts their recommended adjustments for energy costs. Table 6.6 sets out the Commission's draft decision on energy costs. The reductions proposed mostly reflect the adoption of the lower electricity prices, with minor adjustments to energy usage for some businesses.

In the case of Coliban Water, the increased allowance for energy costs reflects an updated electricity model it submitted that incorporates the electricity rates under Procurement Australia's three year contract, and includes costs associated with a number of sites inadvertently omitted from Coliban Water's original electricity forecasts. For further information about the Commission's proposed adjustments to energy cost, see volume II of this draft decision and Deloitte's (chapter 2) and Cardno's (chapter 4) final expenditure reports.

TABLE 6.6 ENERGY COSTS OVER 5 YEARS
\$m 2012-13

	Proposed total	Draft decision total	Difference	
			(\$m)	(per cent)
Barwon Water	40.5	32.2	-8.3	-20.6
Central Highlands Water	22.2	19.3	-2.9	-13.0
Coliban Water	14.5	19.6	5.4	37.2
East Gippsland Water	5.9	5.6	-0.3	-5.2
Gippsland Water	20.3	20.3	0.0	0.0
Goulburn Valley Water	21.4	19.2	-2.2	-10.2
GWMWater	12.3	11.8	-0.5	-3.8
Lower Murray Water	8.9	8.9	0.0	0.0
North East Water	15.1	11.9	-3.2	-21.4
South Gippsland Water	4.8	4.5	-0.3	-6.1
Wannon Water	22.5	21.4	-1.1	-5.1
Westernport Water	3.3	2.9	-0.4	-11.4
TOTAL	191.7	177.9	-13.8	-7.2

6.5.4 CARBON PRICE (EXCLUDING ENERGY COSTS)

The Commonwealth Government introduced a carbon price on 1 July 2012, which will have indirect implications for all regional water businesses. Input costs may change as suppliers (including energy suppliers) pass on the carbon price.²¹ Other indirect effects may include reduced demand for water caused by higher energy costs; reduced water catchment yields as people plant more trees in catchment areas; and the impacts of major customers increasing or decreasing demand for water as production technologies change.

²¹ Deloitte noted that the Commonwealth Treasury modelling predicts a \$29 (nominal) carbon price in 2015-16. But it also noted prices could fall significantly in 2015, with the Commonwealth Government's August 2012 announcement that Australia and Europe will link their emissions trading systems from 1 July 2015 and that the price floor would not be implemented. Deloitte noted the current European carbon prices are approximately \$10 per tonne of CO₂.

In its guidance paper, the Commission specified that Water Plans needed to identify the costs affected by a carbon price and the extent of the assumed change. Water businesses must demonstrate their forecasts are reasonable, using the latest estimates of cost impacts. A price on carbon means businesses need to justify any proposed carbon mitigation programs via a cost–benefit analysis.

East Gippsland Water was the only business to suggest a more widespread impact is likely. It forecast increases of around 2.5 per cent (around \$90 000 per year) across a range of inputs, including:

- uniforms, accommodation and meals
- small tools, materials
- registration, subscriptions and memberships
- freight, contractors
- cleaning
- licences and analysis fees
- postage, printing, telecommunications, stationery and advertising
- fees, audit costs and other expenditure.

Deloitte considered the carbon price appears to be having a relatively small impact on non-energy cost inputs for water businesses. But it noted uncertainties about the future carbon price. As a result, it recommended:

- removing any broad based increases to operating expenditure that the businesses proposed as a result of the carbon price
- including proposed increases if businesses can demonstrate material carbon price impacts on individual cost categories (for example, by providing documentation from suppliers outlining cost increases in 2012-13 as a result of the carbon price)
- excluding proposed increases if documentation is not provided and/or costs are immaterial.

The Commission accepts Deloitte’s recommendation as reasonable. Its draft decision, therefore, is to not allow for the impact of the carbon price beyond inflation. As a result, the Commission removed East Gippsland Water’s proposed \$0.47 million allocation for the impact of the carbon price on non-energy items, for which the business provided insufficient evidence.

The Australian Industry Group's (AiGroup) submission to the Commission noted trade exposed businesses are facing difficulties in passing on increased costs due to the carbon price, and the majority are not intending to pass on the increased costs.²² The AiGroup noted its recent survey of a broad group of manufacturing, services and construction businesses on the initial impact of the carbon price showed:

- more than 60 per cent saw immediate input price rises, but less than 40 per cent intended to raise prices on any of their products
- of those that did intend to increase prices, three quarters did so on less than half of their products and only 7 per cent raised prices on all products.

On the basis of Deloitte's recommendations and the AiGroup submission, the Commission does not propose to make an allowance for non-energy costs related to the carbon tax, other than that covered by inflation.

6.5.5 DROUGHT RELATED EXPENDITURE

Additional expenditure was justified in the second regulatory period to manage drought related matters, such as water conservation, compliance with water restrictions, labour costs linked to major capital works needed to improve water security, and the costs of supplying water from alternative sources. With the end of the drought and a return to more secure water supplies, forecast operating expenditure for the next regulatory period should not include these costs, and BAU expenditure should be adjusted to remove them. Deloitte and Cardno adjusted each business's BAU to reflect the Commission's expectations (see discussion in section 6.2).

6.5.6 INTELLIGENT WATER NETWORK CONTRIBUTIONS

The Department of Sustainability and Environment (DSE) is working with water businesses to develop Intelligent Water Networks (IWNs). IWNs may have the potential to deliver service and price benefits to customers through a more integrated approach to water resource management (including greater use of real time information). The IWN program is centrally coordinated for trialling and developing new technologies across Victorian water businesses. It aims to avoid

²² Australian Industry Group, 2013, *Feedback – Water Price Review 2013-14 to 2017-18*.

trial duplication and thus minimise the cost impact on water customers through pooled resources. IWN activities for the next regulatory period generally involve trial work that may lead to new investments in the fourth regulatory period. Several businesses included an allowance in their Water Plans for annual contributions to the IWN program.

In its guidance paper, the Commission:

- supported proposals to validate the benefits of IWNs through small scale pilot projects before widespread adoption by the water industry. But the Commission also specified that businesses must justify why IWN related expenditure ought to be recovered through regulated prices in the next regulatory period
- stated it is unlikely to allow expenditure for industry-wide rollout of IWNs before the pilot projects confirm net customer benefits and willingness to pay, or demonstrate investment in IWNs will reduce operating costs, for example
- recommended businesses (together with the DSE) explore cost sharing arrangements for IWN related trials, given all Victorian water customers may benefit from IWNs.

Six regional businesses included IWN expenditure in their Water Plans, ranging from \$20 000 per year up to Central Highlands Water's forecast of \$250 000 per year. Westernport Water proposed an allowance of \$25 000 capital expenditure for IWN.

Deloitte considered industry expenditure on IWN over the next regulatory period is uncertain, so the forecasts submitted by the businesses are generally provisional. It noted the IWN program has the support of government and key stakeholders, and may lead to efficiency improvements and improved customer service. It thus recommended the Commission accept all IWN proposals from businesses forecasting \$50 000 or less per year, and review those that proposed expenditure higher than that amount (Central Highlands Water). The Commission accepted Deloitte's initial recommendations to adopt a benchmark approach as this is consistent with the Commission's proposal that IWN should be progressed on a cost-share basis. Table 6.7 shows adjustments for water businesses requesting more than \$50 000 per year.

For further information about the Commission's proposed adjustments to IWN costs, see volume II of this draft decision and chapter 2 of Deloitte's final expenditure reports.

TABLE 6.7 ADJUSTMENTS TO IWN EXPENDITURE OVER 5 YEARS
\$m 2012-13

	Proposed total	Draft decision total	Difference	
			(\$m)	(per cent)
Central Highlands Water	1.25	0.25	-1.00	-80.0
Goulburn Valley Water	0.50	0.25	-0.25	-50.0
TOTAL	1.75	0.50	-1.25	-71.4

6.5.7 OTHER OPERATING EXPENDITURE

The Commission also made adjustments for the following cost items. Note that more detailed information about the Commission's proposed adjustments is contained in volume II of this draft decision for each business as well as chapter 2 of Deloitte's final expenditure report.

Living Melbourne Living Victoria expenditure

Central Highlands Water and South Gippsland Water forecast expenditure on *Living Melbourne Living Victoria* (LMLV) for the next regulatory period. Deloitte noted the work program outlined by the Office of Living Victoria is for only the next 12 months, so the work program for the next five years is uncertain. Because Central Highlands Water and South Gippsland Water did not specify projects or programs for funding, Deloitte considered the forecasts are provisional in its draft report.

Central Highlands Water subsequently provided the Commission with information on the project that it will undertake under the LMLV program: the Ballarat West aquifer storage and recovery project. Central Highlands Water and the City of Ballarat will each contribute \$0.3 million for phase 1 of the LMLV project, with the balance of \$0.6 million being proposed for LMLV funding.

The Commission's draft decision is to treat Central Highlands Water's proposal as capital expenditure (chapter 7) rather than operating expenditure. The Commission did not allow South Gippsland Water's proposed expenditure because the business did not specify projects or programs to support its proposal.

Chemical costs

Businesses use chemicals for their water and wastewater treatment processes. Chemical costs are affected by the types of chemical used (which depend on the treatment methods applied), chemical prices and quantity. For the second price period, chemical costs increased significantly for a number of businesses, reflecting increases in both chemical prices and use.

For the next regulatory period, most businesses forecast small increases in their chemical costs, except Goulburn Valley Water and Wannon Water, which forecast more significant increases (4.7 per cent and 4.1 per cent in real terms, respectively). But the businesses' assumed chemical prices for the next regulatory period varied significantly — for example, Lower Murray Water forecast no real increase in chemical prices, while GWMWater's forecast was at historical levels.

Deloitte's draft report stated chemical prices can be reasonably assumed, for forecasting purposes, to remain at current levels. It adjusted the businesses' forecasts by allowing for a small real increase in chemical prices in 2012-13 from the 2011-12 base year prices, then no real price change thereafter. Some businesses accepted Deloitte's approach but others still argued prices would continue to rise in real terms. Deloitte noted no business could justify this position other than on the basis that prices had increased historically. Businesses did not provide additional information, such as suppliers' new prices that reflect the full impact of the carbon price. As a result, Deloitte maintained the approach set out in its draft report for adjusting businesses' forecasts.

The Commission agrees with Deloitte that, in the absence of market or contract information showing prices increasing, CPI be adopted. The Commission accepts Deloitte's proposed adjustments to businesses' forecast chemical costs. Table 6.8 sets out the Commission's draft decision showing where adjustments have been proposed to businesses' forecast chemical costs. However, businesses are welcome to provide the Commission with additional information on suppliers' chemical prices. The Commission will then reassess their proposals for the final decision.

TABLE 6.8 ADJUSTMENTS TO CHEMICAL COSTS OVER 5 YEARS
\$m 2012-13

	Proposed total	Draft decision total	Difference	
			(\$m)	(per cent)
East Gippsland Water	2.2	2.1	-0.1	-4.5
Goulburn Valley Water	15.2	13.9	-1.3	-8.6
South Gippsland Water	6.9	6.4	-0.5	-7.2
Wannon Water	5.6	4.8	-0.8	-14.3
Westernport Water	1.46	1.52	0.06	4.1
TOTAL	31.4	28.7	-2.7	-8.4

IT expenditure

Regional water businesses' IT costs include expenditure on items such as the implementation or upgrade of new or existing IT systems, software, hardware and other related costs, including contractor costs. Some businesses also categorised costs associated with SCADA (Supervisory Control and Data Acquisition) computerised industrial control systems as IT costs.

These IT costs represent 5 per cent on average of the businesses' controllable operating expenditure and increased considerably for most businesses over the second regulatory period (with average annual increases ranging from 2 per cent to 28 per cent). In its guidance paper, the Commission specified that it expects the businesses to link their past key IT projects to improved service outcomes or cost savings. The Commission also expects the businesses to justify any future IT expenditure in similar terms.

Most businesses forecast increasing IT costs for the next regulatory period. Their main reason for the increase in IT and SCADA costs is the need to reduce security risks. Deloitte noted the Victorian Auditor General's Office (VAGO) concluded in a 2010 report:²³

The risk of unauthorised access to water and transport infrastructure control systems is high. This access could compromise these systems and affect the stable delivery of essential services to the community.

Deloitte accepted the businesses' proposed IT costs and the Commission agrees, given the VAGO findings that increased costs on SCADA systems appear warranted. However, \$1.7 million has been removed from North East Water's IT forecast due to insufficient justification for some of its proposed IT costs.

GSL payments

Guaranteed service levels (GSLs) are the levels of performance that the water businesses guarantee their customers. If a business fails to meet these service standards, then the affected customers are eligible for a rebate. Four businesses included GSL expenditure forecasts for the next regulatory period: Central Highlands Water (GSL payments), South Gippsland Water and Wannon Water (GSL implementation costs), and Westernport Water (both GSL payments and GSL implementation costs).

Deloitte assessed the relevant businesses' proposals in accordance with the Commission's guidance paper which specifies that:

- the costs of implementing and operating a GSL payment should be between \$1.00 and \$2.00 per customer per year, and should fall over time, and
- where projected payments are the outcome of poor performance, these payments can be excluded because they are not an efficient administrative or operational cost.

²³ Victorian Auditor General Office (2010), *Security of Infrastructure Control Systems for Water and Transport*, October, page viii.

Deloitte also considered that proposed payments must be consistent with historical data on numbers of payments, or where there is a new GSL, generally consistent with historical services standards and service standard targets for the next regulatory period. These businesses' forecast GSL payments were reduced to make them consistent with their respective historic averages.

The Commission accepts Deloitte's approach as reasonable and accepts its recommended adjustments for the GSL forecasts of South Gippsland Water, Wannon Water and Westernport Water.

Fluoridation

Fluoridation is the controlled addition of fluoride to a public water supply to reduce tooth decay. The Department of Health (DoH) provides the capital funding for new fluoridation facilities. The water businesses are responsible for the ongoing operating costs. The DoH advised limited funding is available for new facilities for the next regulatory period. It has not announced any funding for new fluoridation plants over the period in addition to those already under construction.

The businesses' forecast operating expenditure for fluoridation for the next regulatory period includes costs associated with existing fluoridation plants, those under construction and those that could be constructed. Goulburn Valley Water identified eight water treatment plants that it considers are likely to require fluoridation systems.

Deloitte recommended allowing any expenditure above 2011-12 levels for fluoridation projects that are already completed or have confirmed funding, subject to a review of the efficiency of the proposed forecast. It recommended not allowing forecast operating expenditure for new projects that do not have confirmed funding. As a result, Deloitte recommended removing Goulburn Valley Water's forecast expenditure of \$0.87 million for eight proposed new plants. If funding becomes available the Commission will allow the return of this expenditure.

6.5.8 PRODUCTIVITY AND EFFICIENCY

The Commission considers it reasonable to expect businesses to improve the efficiency of delivery for their BAU over the regulatory period. In its guidance paper, the Commission specified businesses should apply a productivity factor to the customer growth adjusted BAU level of operating expenditure forecast for the next regulatory period. The methodology is discussed in section 6.2.

Seven of the twelve regional water businesses met the Commission's productivity hurdle of 1 per cent per year for the next regulatory period. Two businesses, Gippsland Water and North East Water, were marginal. Three businesses did not appear to meet the 1 per cent productivity hurdle and will need to provide further information in response to this draft decision to demonstrate that they have fully met the hurdle. They are East Gippsland Water, Goulburn Valley Water and Wannon Water. In the case of Wannon Water, the business voluntarily reduced price increases in 2012-13 and asked that this foregone revenue be considered as part of any efficiency assessment.

The Commission will consider adjusting these three businesses' operating expenditure forecasts in the final decision to meet the required productivity hurdle should these businesses fail to satisfy the Commission's requirements.

6.5.9 ENVIRONMENTAL CONTRIBUTION AND LICENCE FEES

The Commission adjusted the proposed operating expenditure forecasts to ensure forecast licence fees and environmental contributions are consistent with the advice provided by the relevant regulatory agencies.

Environmental contribution

The businesses' forecasts operating expenditure includes costs associated with their environmental contribution to the Victorian Government under s192 of the *Water Industry Act 1994*. The Department of Sustainability and Environment advised the Commission of the environmental contribution amount for each business commencing on 1 July 2013. These amounts will be held constant in nominal terms during the period. Table 6.9 shows the total contributions over the five year period.

TABLE 6.9 ENVIRONMENTAL CONTRIBUTION OVER 5 YEARS
\$m 2012-13

	Business proposed	Department advice	Adjustments
Barwon Water	30.7	30.6	-0.1
Central Highlands Water	15.6	14.4	-1.2
Coliban Water	15.1	15.1	0.0
East Gippsland Water	5.6	5.5	-0.1
Gippsland Water	22.4	21.4	-0.9
Goulburn Valley Water	11.2	11.1	0.0
GWMWater	8.5	7.8	-0.7
Lower Murray Water	5.9	5.6	-0.3
North East Water	10.4	9.6	-0.8
South Gippsland Water	5.1	5.1	0.0
Wannon Water	11.8	11.8	0.0
Westernport Water	4.0	3.7	-0.3
TOTAL	146.1	141.5	-4.6

Department of Health licence fees

The Minister for Health sets a licence fee payable by the water businesses under s51 of the *Safe Drinking Water Act* (2003), for costs incurred by DoH in administering the Safe Drinking Water Regulations.

Table 6.10 compares the forecast licence fee figures provided by the water businesses, with the adjustments based on figures provided to the Commission by the DoH. The department confirmed the fee for 2012-13 and advised it will likely remain constant in real terms through the next regulatory period, to be adjusted for inflation each year. However, the department is still considering its fee proposal to the Minister for Health for the next regulatory period, and the fees may change before the Commission's final decision.

TABLE 6.10 DEPARTMENT OF HEALTH LICENCE FEES OVER 5 YEARS
\$m 2012-13

	Business proposed	Department advice	Adjustments
Barwon Water	1.09	0.32	-0.77
Central Highlands Water	0.14	0.14	0.00
Coliban Water	0.16	0.16	0.00
East Gippsland Water	0.05	0.05	0.00
Gippsland Water	0.14	0.15	0.01
Goulburn Valley Water	0.13	0.13	0.00
GWMWater	0.08	0.08	0.00
Lower Murray Water	0.08	0.08	0.00
North East Water	0.65	0.11	-0.54
South Gippsland Water	0.05	0.04	0.00
Wannon Water	0.11	0.10	0.00
Westernport Water	0.05	0.03	-0.02
TOTAL	2.71	1.39	-1.32

Note: If a business provided a varying fee over the period, the Commission based its adjustment on the figure proposed for 2013-14.

EPA Victoria licence fees

The Minister for the Environment sets a licence fee payable by the water businesses under s24 of the *Environment Protection Act* (1970), for costs incurred by EPA Victoria in administering discharge licences and works approvals.

Table 6.11 compares the forecast licence fee figures provided by the water businesses, with the figures provided to the Commission by EPA Victoria based on the new fee schedule that came into effect in October 2012. The fee will be adjusted for inflation each year through the adjusted fee levy, as approved by Department of Treasury and Finance. The larger adjustments between the figures provided by the water businesses and those provided by EPA Victoria were mainly due to data entry errors in the Water Plans.

TABLE 6.11 EPA VICTORIA LICENCE FEES OVER 5 YEARS
\$m 2012-13

	Business proposed	EPA advice	Adjustments
Barwon Water	0.30	0.81	0.51
Central Highlands Water	0.92	0.89	-0.03
Coliban Water	0.74	0.54	-0.20
East Gippsland Water	0.20	0.11	-0.09
Gippsland Water	1.48	1.10	-0.38
Goulburn Valley Water	0.72	0.38	-0.34
GWMWater	0.50	0.21	-0.28
Lower Murray Water	0.30	0.17	-0.13
North East Water	0.10	0.39	0.29
South Gippsland Water	0.67	0.18	-0.49
Wannon Water	0.86	0.61	-0.25
Westernport Water	0.16	0.08	-0.08
TOTAL	6.94	5.48	-1.46

Commission licence fees

The Minister for Finance in consultation with the Minister for Water sets a licence fee payable by water businesses under s4H(2) of the *Water Industry Act (1994)*., for costs incurred by the Essential Services Commission in administering the economic regulatory framework.

The Commission assumed the total licence fees payable to it for the next regulatory period will be similar to the fees for the second regulatory period, so no real increase will occur across the periods. However, it adjusted the 2009-10 figure, which was an abnormally low licence fee. The fee profile across the next regulatory period is assumed to be flat for the first three years, stepping up over the final two years to reflect increased costs associated with the price review for the fourth regulatory period. Table 6.12 sets out the forecast Commission licence fees for each business.

TABLE 6.12 COMMISSION LICENCE FEES OVER 5 YEARS
\$m 2012-13

	Business proposed	Commission revised	Adjustments
Barwon Water	0.76	0.80	0.04
Central Highlands Water	0.32	0.37	0.06
Coliban Water	0.32	0.39	0.07
East Gippsland Water	0.20	0.14	-0.06
Gippsland Water	0.56	0.54	-0.02
Goulburn Valley Water	0.25	0.31	0.06
GWMWater	0.20	0.27	0.07
Lower Murray Water	0.11	0.20	0.10
North East Water	0.20	0.26	0.06
South Gippsland Water	0.08	0.13	0.06
Wannon Water	0.21	0.29	0.09
Westernport Water	0.05	0.09	0.04
TOTAL	3.24	3.80	0.56

6.5.10 OTHER ADJUSTMENTS

More detailed information about the adjustments discussed below is contained in volume II of this draft decision for each business.

Adjustments for new capital expenditure

Central Highlands Water, Goulburn Valley Water and North East Water proposed additional total operating expenditure of \$2.8 million arising from a number of new capital projects for the next regulatory period. Deloitte recommended reducing the forecast by \$0.65 million. Deloitte assessed the prudence of proposed expenditure and made sure timings are consistent with the implementation of new capital projects. The Commission agreed to Deloitte's recommended adjustments to forecast operating expenditure as a result of new capital expenditure projects.

Adjustments for new initiatives or other items

Central Highlands Water and Wannon Water proposed operating expenditure for new initiatives in addition to expenditure associated with carbon price, defined benefits superannuation costs, IWN and hardship GSL. Their proposed total expenditure for new initiatives is \$45.4 million. Some examples of Central Highlands Water's proposed new initiatives are Water Plan 4 Development, improvement of its asset management systems, Living Victoria Living Ballarat, development of Servicing Plans and implementation of biosolids strategy. For Wannon Water some examples include Safe work training and Konongwootong Master Plan Implementation.

Gippsland Water and Westernport Water proposed expenditure for other items which includes costs for research and development, auditors' remuneration, meter reading and freight, among other costs. Their proposed total expenditure for new items is \$7.6 million.

Deloitte assessed the prudence and efficiency of the proposed expenditure for new initiatives and other items on a case-by-case basis and recommended to disallow or reduce some of this forecast expenditure. The Commission agreed to Deloitte's recommended adjustments to forecast operating expenditure for the businesses' new initiatives or other operating expenditure items.

6.5.11 BULK WATER CHARGES

Bulk water charges are the payments made for water supplies between water businesses. It covers the cost of capturing, storing and bulk transporting of water to the point of sale. Table 6.13 sets out the businesses' proposed operating expenditure for external bulk water charges (excluding temporary markets). The forecasts are consistent with the businesses' actual bulk water charges for 2012-13. For this draft decision, the Commission assumed bulk water charges for the relevant businesses as per Water Plan proposals.

TABLE 6.13 FORECAST EXTERNAL BULK WATER CHARGES
\$m 2012-13

Business	Proposed total <i>\$m per year</i>	Bulk suppliers
Central Highlands Water	0.56	Goulburn Murray Water
Coliban Water	\$1.4 to \$1.7	Goulburn Murray Water and GMMWater
Lower Murray Water	\$0.67	Goulburn Murray Water
North East Water	\$0.61	Goulburn Murray Water
Wannon Water	\$0.31 to \$0.43	GMMWater

6.6 FINDINGS ON SHARED SERVICES PROVISION AND COMPETITIVE PROCUREMENT

In its guidance paper, the Commission required the businesses in their Water Plans to:

- summarise how they have used shared services to deliver cost savings over the second regulatory period, and
- identify whether they adopted a strategic approach to procurement, including which elements are outsourced or provided inhouse.

The guidance paper also indicated the Commission will look for evidence that all water businesses factored potential savings from shared services provision into their operating expenditure forecasts, and whether businesses looked for opportunities to implement shared services.

The Commission observed that all regional businesses have provided the information requested by the Commission about existing shared services and competitive procurement. Deloitte summarised this information in its final expenditure overview report.²⁴ Deloitte observed the majority of the businesses appear to be taking advantage of the efficiencies to be gained from these practices. Deloitte also noted some businesses extensively contract out operational activities. When businesses have engaged in some form of shared procurement for service delivery (such as electricity purchased under the Procurement Australia arrangements), Deloitte used the costs achieved by these businesses as a general benchmark against which to assess other businesses' operating expenditure.

The Commission encourages the businesses to pursue continuous improvements in their initiatives regarding shared services and competitive procurement in the next regulatory period.

²⁴ Deloitte 2013, *Essential Services Commission, expenditure review — Water Plan 3: final overview document*, February, s.1.4.

7 CAPITAL EXPENDITURE

7.1 INTRODUCTION

Capital expenditure is a key component of the regional water businesses' revenue requirements. They recover net capital expenditure from customers over time by adding it to the regulatory asset base (RAB). Prices reflect capital expenditure 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). This chapter sets out the Commission's analysis of regional water businesses' forecast capital expenditure for the next regulatory period against the requirements of the WIRO.

7.2 APPROACH TO ASSESSING CAPITAL EXPENDITURE

As discussed in chapter 6, the WIRO requires the Commission to be satisfied that proposals by the businesses provide them with a sustainable revenue stream that does not reflect monopoly rents or inefficient expenditure, and that allows the businesses 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 beyond the five-year regulatory period. Further, the WIRO requires approved prices, or the manner in which they are determined, to provide incentives for the businesses to pursue efficiency improvements over the regulatory period.

The Commission sought to identify and assess the key projects that represent a large proportion of each business's total capital expenditure forecast, rather than assess each business's entire forecast capital expenditure. As specified in the 2011 guidance paper, the Commission assessed whether each business's forecast capital expenditure would efficiently meet obligations imposed by government (including technical regulators) and customers' service expectations.²⁵ It also assessed whether:

- the businesses compared proposed trends in capital expenditure with historical trends, to identify the reasons for divergences from historical trends, together with any relevant factors
- the proposed new key capital works are consistent with efficient long term expenditure on infrastructure services (based on a best practice asset management framework that considers risk and system-wide needs)
- the timeframe for delivering the proposed new capital expenditure is reasonable, given the business's delivery of key projects in the past
- the risk sharing and incentive/penalty arrangements with contractors are based on a symmetrical sharing of risk for delivery or non-delivery of projects, and
- changes in operating costs are consistent with the timing of key capital projects.

The Commission has been more cautious of forecasts if the proposed expenditure is discretionary or broadly linked to government or policy objectives but the businesses have not specified projects or programs. Also, if proposed increases in capital expenditure are driven by customer preferences rather than regulatory obligations, then the Commission expected businesses to demonstrate appropriate consultation to establish whether customers need or prefer the proposed programs and are willing to pay for them.

²⁵ Essential Services Commission 2011, *2013 Water Price Review – Guidance on Water Plans*, October.

Businesses were asked to identify in their Water Plans those projects that are uncertain in scope or timing, or that require further studies, or for which government funding is uncertain. They were also asked to suggest potential mechanisms for dealing with that uncertainty. In its guidance paper, the Commission recognised the merit of introducing mechanisms to deal with uncertainty around capital projects. Chapter 18 discusses the Commission's approach to adjusting prices including how to account for capital projects with uncertain timing and costs.

The Commission engaged Deloitte Touche Tohmatsu (Deloitte) to review the prudence and efficiency of proposed capital expenditure. It engaged Cardno to assess the proposed expenditure of GWMWater and Lower Murray Water, which provide both rural and urban operations. This draft decision covers Cardno's assessment of Lower Murray Water's urban operations and GWMWater's urban and rural services.²⁶

The Commission provided specific instruction to Deloitte and Cardno on the matters of significance that they must consider in the review, including the WIRO. The Commission has also drawn to the consultants' attention the major areas of focus where there were relatively large movements in the expenditure trends during the second regulatory period. The consultants conducted their independent and professional assessment of the respective water businesses' expenditure forecasts in four months. This process involved them issuing a draft report to each water business, receiving further information and clarification from the businesses and providing a final report to the Commission for its deliberations for the draft decision.

The consultants undertook extensive information gathering and data analysis in preparing their final reports to the Commission. The Commission has confidence in the findings and recommendations of the expert consultants and has used their final reports as a basis for adjustments to expenditure that underpin the draft decision. Where the Commission has decided to not accept the expert consultant's recommendation, it has outlined the reason(s) for the decision.

For the consultants' review of capital expenditure, see Deloitte's and Cardno's expenditure reports, which are being released with this draft decision.

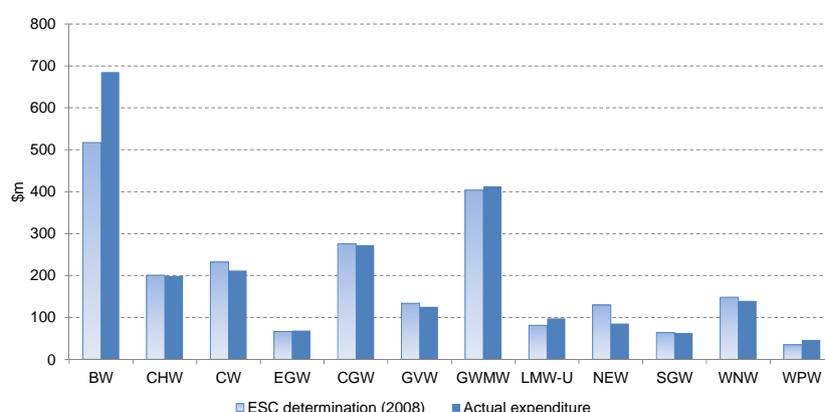
²⁶ GWMWater did not provide a breakdown of expenditure across its rural and urban services.

7.3 OVERVIEW OF BUSINESSES' PROPOSALS

Capital expenditure by the regional water businesses increased significantly in the second regulatory period (2008-2013), reflecting the impact of large, one-off projects aimed at augmenting water supply in response to the drought. Overall, the businesses spent \$123 million (5 per cent) higher than the Commission approved \$2.3 billion capital allowance in the second regulatory period.

Figure 7.1 compares the actual and Commission approved capital expenditure for the second regulatory period for each business.

FIGURE 7.1 TOTAL GROSS CAPITAL EXPENDITURE — 2008-09 TO 2012-13
Determination compared with actual^a \$m 2012-13



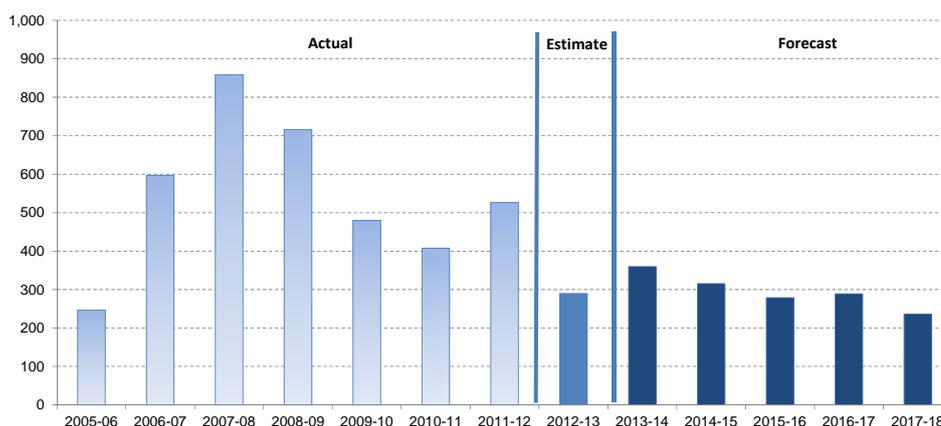
Note: Barwon Water's expenditure excludes Melbourne to Geelong Pipeline costs. ^a Actual for the period 2008–2012 and estimate for capital expenditure in 2012-13

Barwon Water's significant overspend was due to investment in capital projects that were not part of the business's 2008 price determination, and some capital cost over runs. The Commission assessed the prudence of Barwon Water's and Lower Murray Water's additional capital investments for the second regulatory period, as discussed in chapter 8.

The businesses' total gross capital expenditure is forecast to fall significantly for the next regulatory period, reflecting a reduced need for water supply augmentation. A number of major water supply augmentation projects were completed in the second regulatory period, including the Goldfields Superpipeline, the Gippsland Water Factory and the Melbourne to Geelong Pipeline.

Total forecast capital expenditure of \$1.5 billion is \$938 million (or 39 per cent) lower than the total expected capital expenditure in the second regulatory period. Table 7.1 and figure 7.2 set out the actual and forecast amounts, which include expenditure on projects that will receive government funding or through customer contributions. For comparison, figure 7.2 also includes actual capital expenditure in the first regulatory period.

FIGURE 7.2 TOTAL GROSS CAPITAL EXPENDITURE
Total actual compared with total proposed, \$m 2012-13



For the next regulatory period, average capital expenditure of \$296 million per year is forecast. This is significantly lower than the \$484 million actual average capital spent in the second regulatory period. Table 7.1 shows Goulburn Valley Water and South Gippsland Water are the only two regional businesses that proposed increases in capital expenditure for the next regulatory period. Goulburn Valley Water’s Water Plan noted its forecast reflects ‘increased expenditure for replacing ageing assets and continued expenditure to improve water quality, provide capacity for population growth and maintain existing service levels’.²⁷

²⁷ Goulburn Valley Water 2012, *Water Plan 2013 to 2018*, September, p.5.

TABLE 7.1 ANNUAL GROSS CAPITAL EXPENDITURE
Total actual compared with total proposed (\$m 2012-13)

	2008-09	2009-10	2010-11	2011-12	2012-13	Total WP2	2013-14	2014-15	2015-16	2016-17	2017-18	Total WP3	Difference from WP2 to WP3		
	<i>Actual</i>						<i>Estimate</i>							<i>\$m</i>	<i>per cent</i>
							<i>Forecast</i>								
Barwon Water	95.3	96.2	141.8	202.9	158.6	694.7	95.8	63.9	68.9	85.9	45.4	360.0	-334.7	-48.2	
Central Highlands Water	69.2	52.6	34.5	22.6	20.3	199.1	22.9	21.3	16.0	20.8	19.0	100.1	-99.0	-49.7	
Coliban Water	70.5	29.9	40.4	38.2	33.1	212.1	53.6	34.5	30.3	29.0	30.6	178.0	-34.1	-16.1	
East Gippsland Water	15.8	29.1	11.3	8.4	4.1	68.6	7.8	11.5	9.1	7.7	10.0	46.1	-22.6	-32.9	
Gippsland Water	94.5	36.4	50.6	40.0	51.0	272.5	41.6	54.9	38.1	34.7	33.6	202.9	-69.6	-25.5	
Goulburn Valley Water	31.8	33.3	20.0	25.0	15.4	125.5	35.9	33.5	32.7	33.3	31.3	166.8	41.3	32.9	
GWMWater	262.0	72.1	24.9	33.0	21.1	413.0	31.3	20.3	15.8	8.2	12.0	87.6	-325.4	-78.8	
Lower Murray Water	11.2	49.3	14.1	12.4	10.9	98.0	14.3	14.4	10.1	6.4	10.2	55.3	-42.6	-43.5	
North East Water	19.3	18.1	18.0	14.1	16.2	85.6	20.1	16.4	13.6	16.6	12.3	78.9	-6.6	-7.8	
South Gippsland Water	11.0	9.8	14.2	12.2	15.9	63.1	9.8	16.3	19.7	18.0	8.3	72.0	8.9	14.0	
Wannon Water	32.1	45.2	23.2	22.2	17.2	139.8	20.9	25.2	21.6	22.9	18.4	109.0	-30.8	-22.0	
Westernport Water	3.1	7.5	14.9	10.7	10.5	46.6	6.2	3.3	3.2	5.6	5.1	23.5	-23.2	-49.7	
TOTAL	715.8	479.4	407.7	441.6	374.2	2418.7	360.2	315.5	279.1	289.0	236.4	1 480.2	-938.5	-38.8	

The key drivers of proposed capital expenditure in the next regulatory period are:

- renewal of infrastructure to maintain or improve service
- compliance with government standards
- projects to meet forecast increases in demand
- the extension of water and sewerage networks into unserviced country towns.

Table 7.2 and volume II of this draft decision, details the key capital expenditure projects and programs for each water business as proposed in their Water Plans. For most businesses a small group of projects account for a significant proportion of their total capital expenditure. The Commission will continue to monitor the delivery of key projects through the next regulatory period via its annual water performance reporting.

TABLE 7.2 PROPOSED KEY CAPITAL PROJECTS
\$m 2012-13

Proposed project/program	Reason	Proposed expenditure <i>\$m</i>
Barwon Water		
Sewer mains replacement/rehabilitation	Renewals	27.6
Colac water source expansion	Growth	27.4
Water mains replacements	Renewals	18.9
Inverleigh low level feeder main	Growth	12.4
Black Rock water reclamation plant hydraulic capacity upgrade	Renewals/growth	11.8
Central Highlands Water		
Maryborough water quality improvement project	Compliance	10.2
Ballarat West urban growth zone	Growth	10.1
Reservoir and dam upgrade works	Compliance	10.1
Water and sewer main renewals	Renewals	10.0
Ballarat South wastewater treatment plant augmentation	Growth	9.6

Continued next page

TABLE 7.2 (CONTINUED)

Proposed project/program	Reason	Proposed expenditure <i>\$m</i>
Coliban Water		
Harcourt rural modernisation project	Improved service	27.1
Echuca and Cohuna water treatment plant upgrades	Compliance	13.2
Cohuna water reclamation plant refurbishment	Compliance	10.9
Rochester wastewater connection to Echuca	Compliance	7.7
Bridgewater and Laancoorie water treatment plant upgrades	Compliance	6.2
Heathcote backlog sewerage	Compliance	5.6
East Gippsland Water		
Bairnsdale wastewater treatment plant (WWTP) upgrade	Growth/renewals	5.2
Wastewater lagoon desludging	Compliance	2.9
Sarsfield clear water storage augmentation	Growth	2.5
Bairnsdale bridge SPS — new rising main	Compliance	2.3
Wy Yung clear water storage augmentation	Growth	2.1
Paynesville mains supply pipeline replacement	Growth/renewals	1.5
Gippsland Water		
Loch sport sewerage scheme	Compliance	32.3
Warragul–Moe water supply interconnect (stage 2)	Growth	8.9
Warragul–Hazel Creek trunk sewer (stage 3)	Growth	5.0
Sale water treatment plant upgrade	Renewals/ compliance	5.0
Gippsland Water Factory (GWF) — membrane replacement	Compliance	5.0
GWF — minor improvements	Compliance	5.0
Drouin wastewater treatment plan upgrade	Growth	3.6

Continued next page

TABLE 7.2 (CONTINUED)

Proposed project/program	Reason	Proposed expenditure <i>\$m</i>
Goulburn Valley Water		
Replacement of water mains, sewer mains and above ground assets	Renewals	32.1
Shepparton water treatment plant upgrade	Growth/renewals	17.2
New fluoride plants ²⁸	Compliance	9.9
Numurkah water treatment plant upgrade	Growth/renewals	8.9
Mansfield wastewater management facility — additional winter storage	Growth	5.7
Marysville new water treatment plant	Compliance	5.2
GWMWater		
Intelligent rural water networks back-to-base metering	Improved service	6.5
Irrigation network decommissioning	Compliance	4.7
Wimmera Mallee pipeline augmentation	Growth	4.6
Treated water supply — Donald	Improved service	3.9
Sewerage scheme — Rupanyup	Compliance	3.7
Upgrade WWTP and reuse system — Donald	Compliance	2.7
Lower Murray Water (Urban)		
Mildura water supply strategy	Growth	9.4
Water and sewerage main renewals	Renewals	9.0
Water treatment plants quality improvement	Improved service	6.6
Water treatment plants programmable logic controller replacements	Renewals	2.7
Red Cliffs water treatment plant upgrade	Renewals/growth	2.4

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²⁸ Subject to Department of Health funding.

TABLE 7.2 (CONTINUED)

Proposed project/program	Reason	Proposed expenditure <i>\$m</i>
North East Water		
Renewal of highest risk assets	Renewals	28.6
Bright off-stream storage	Growth	6.8
Upgrades to 10 water treatment facilities and distribution networks	Compliance	6.1
Upgrades to four wastewater treatment facilities	Compliance	4.8
Expanding reclaimed water infrastructure at Yackandandah	Compliance	4.0
Wangaratta wastewater treatment facility	Improved service	1.7
South Gippsland Water		
Poowong/Loch/Nyora sewerage scheme	Compliance	26.5
Northern towns supply connection works — Lance Creek to Korumburra	Growth	17.6
Northern towns supply connection works — Korumburra to Poowong	Growth	3.8
Leongatha wastewater treatment plant Improvements	Compliance	2.1
Wonthaggi sewerage system upgrades	Growth	1.3
Foster wastewater treatment plant improvements	Compliance	1.2

Continued next page

TABLE 7.2 (CONTINUED)

Proposed project/program	Reason	Proposed expenditure <i>\$m</i>
Wannon Water		
Heywood water reclamation plant irrigation works	Compliance	4.8
Hamilton water reclamation plant additional winter storage and irrigation area	Compliance	3.8
Casterton water treatment plant — install clarifier	Compliance	3.2
Curdie Vale — new bore	Improved service	3.0
Wyatt St Portland — new bore	Improved service	3.0
Wangoom Rd Warrnambool — new water tower and pump station	Growth	2.8
Westernport Water		
Cowes wastewater reticulation	Growth	6.0
Cowes wastewater treatment plant upgrade	Compliance	2.8
San Remo basin cover replacement	Renewals	1.5
Water purification plant tertiary treatment	Compliance	1.5
Candowie upgrade project completion	Growth	1.5
Cowes pumping station upgrade	Compliance	1.3

7.4 OVERVIEW OF DRAFT DECISION

The Commission formed its draft decision on capital expenditure forecast after considering the following:

- businesses' Water Plans
- additional information provided by the water businesses to support their forecasts
- consultation with the relevant regulatory agencies
- expenditure assessment reports prepared by Deloitte and Cardno

- water businesses' responses to the consultants' draft reports
- customer and stakeholder submissions.

Table 7.3 shows the Commission's draft decision on total forecast capital expenditure is \$120 million (or 8 per cent) lower than that proposed by the businesses.

Deloitte adopted the following approach to assessing the businesses' forecast capital expenditure:

- It broadly accepted efficient forecasts that will ensure environmental compliance. It closely reviewed, and in some cases rejected, proposals to upgrade assets or amend processes to exceed licence conditions or meet 'anticipated' requirements.
- It broadly accepted efficient expenditure that will address risks to the provision of safe drinking water and meet the requirements of the Safe Drinking Water Regulations. It closely reviewed, and in some cases rejected, proposed expenditure (whether operating or capital) to upgrade assets or amend processes to meet anticipated changes to the Regulations, which sunset in mid-2015.
- It considered renewals expenditure on a case-by-case basis, requiring a business to demonstrate a rigorous case for the level of expenditure sought. It generally rejected increased renewals expenditure based solely on theoretical needs.
- It considered proposals to augment water supplies on a case-by-case basis, requiring the businesses to meet their agreed level of service during the next regulatory period under the medium climate change scenario.
- It considered growth proposals on a case-by-case basis, closely reviewing growth forecasts, the timing of growth, the expected time until the asset will be fully used, and the consequences of planned growth areas changing.
- It considered proposed expenditure on small town water supply and sewerage schemes. If a proposed project has not been funded under the Country Towns Water Supply and Sewerage Program or the Small Towns Water Quality Fund, or otherwise mandated by the Victorian Government, then Deloitte closely reviewed the project's need, stakeholder support, level of expenditure sought, and timing. If a proposed project has been partly funded or mandated by the

Victorian Government, then Deloitte focused its review on the forecast expenditure and its timing.

- It considered carry over expenditure — that is, projects that are underway and carry over into the next regulatory period. It placed less emphasis on the need or justification for the projects, and more on the proposed timing and expenditure.

The Commission agrees with Deloitte’s approach to assessing capital expenditure proposals, particularly where obligations are not expressly defined (for example, anticipated changes to the Safe Drinking Water Regulations). Where businesses were unable to provide a clear justification for capital expenditure proposals, the forecasts have been adjusted to remove the proposed expenditure.

Table 7.3 sets out the Commission’s adjustments to the businesses’ forecast capital expenditure.

Our preliminary approved expenditures for Westernport Water, GWMWater and Central Highlands Water are higher than their proposals. In general, this is due to the Commission’s decision to treat some operating expenditure proposals as capital expenditure (discussed in detail in section 7.5.4), or where businesses have provided revised cost estimates.

TABLE 7.3 DRAFT DECISION FORECAST 2013-14 TO 2017-18
\$m 2012-13

	2013-14	2014-15	2015-16	2016-17	2017-18	Total draft decision	Total proposed by water businesses	Difference	
								<i>\$m</i>	<i>per cent</i>
Barwon Water	94.3	64.3	68.9	61.3	45.8	334.6	360.0	-25.5	-7.1
Central Highlands Water	26.3	16.3	22.6	13.0	25.1	103.3	100.1	3.2	3.2
Coliban Water	33.7	29.8	28.7	24.4	28.5	145.1	178.0	-32.9	-18.5
East Gippsland Water	7.3	13.1	8.6	7.1	8.7	44.8	46.1	-1.2	-2.7
Gippsland Water	41.2	54.7	38.0	26.0	33.5	193.5	202.9	-9.5	-4.7
Goulburn Valley Water	31.2	29.3	30.4	28.2	25.9	145.0	166.8	-21.8	-13.1
GWMWater	32.3	21.3	16.8	9.2	13.0	92.6	87.6	5.0	5.7
Lower Murray Water	15.9	12.5	10.2	6.5	8.9	53.9	55.3	-1.4	-2.5
North East Water	18.7	15.0	12.3	15.2	10.9	72.2	78.9	-6.7	-8.5
South Gippsland Water	9.5	7.4	8.9	9.6	9.8	45.3	72.0	-26.7	-37.0
Wannon Water	21.0	21.8	18.9	22.9	18.4	103.0	109.0	-6.0	-5.5
Westernport Water	7.1	3.5	4.1	6.2	6.0	26.9	23.5	3.4	14.5
TOTAL CAPITAL EXPENDITURE	338.6	289.1	268.4	229.6	234.5	1 360.2	1 480.2	-120.1	-8.1

7.5 ADJUSTMENTS TO CAPITAL EXPENDITURE FORECASTS

7.5.1 ADJUSTMENTS FOR TIMING OF KEY PROJECTS

A large proportion of proposed capital expenditure for each business is linked to around five or so key projects. A key issue is whether each business can deliver these key projects within the proposed timeframe, given they often require detailed planning and approvals before they can proceed. For this reason, the consultants were asked to assess whether each business could deliver its proposed capital expenditure program over the five-year regulatory period, accounting for:

- the business's performance against previous capital expenditure programs (noting several regional water businesses have a history of significantly underspending their capital works budgets) and its demonstrated capacity to deliver against capital budgets of the size of those proposed
- the current approval status of proposed projects
- the internal and external resources available to the business to deliver these projects
- the business's obligation to deliver projects in the next regulatory period
- the business's project management capability.

Overall, given the much smaller level of capital works intended for the next regulatory period compared with the second regulatory period, both Deloitte and Cardno considered all businesses have the capacity to deliver their proposed capital works as forecast. However, Deloitte also recommended adjusting, deferring or removing expenditure for some projects that it considered a business is unlikely to deliver against the target timelines. It based these recommendations on the current status of project planning and approval, or evidence that the project is not urgently required in the next regulatory period. Table 7.4 shows examples of expenditure adjustments that Deloitte recommended.

TABLE 7.4 ADJUSTMENTS FOR THE TIMING OF PROPOSED KEY PROJECTS

Project	Business	Consultant's recommendations
Colac water source expansion	Barwon Water	The works required and the cost estimates are too preliminary. Deloitte recommended deferring the majority (\$25 million) of capital expenditure for this project, but accepted the proposed expenditure for further options analysis and community consultations.
Maryborough water quality improvement project	Central Highlands Water	Options analysis is still at an early stage (no preferred option yet), costs are preliminary, and timing is unclear. Deloitte recommended part of the capital expenditure be removed (\$3.2 million), but allowed the proposed expenditure for investigative works, moved to 2016-17.
Warragul-Moe water supply interconnect (stage 2)	Gippsland Water	Considered Gippsland Water's submissions, but still considered that extending the current agreement with Melbourne's water retailers for contingency supply is likely to be the most efficient outcome for customers, rather than building this proposed project. Deloitte recommended removing the expenditure (\$8.94 million).
New fluoride plants	Goulburn Valley Water	Deloitte recommended removing the total expenditure (\$9.9 million) and corresponding government grants from the capital program for the next regulatory period, given the uncertainty of the funding for fluoridation works. The Commission has confirmed with DoH that there is currently no funding available, but may reinstate the project (and its associated operating expenditure) should government funding be confirmed before the Commission's final decision.
Cowes wastewater treatment plant upgrade	Westernport Water	Based on the evidence provided and current licence conditions, the proposed upgrade does not appear justified. Deloitte thus recommended deferring the expenditure (\$2.8 million) until augmentation requirements are more certain.

The Commission is satisfied with Deloitte's reasoning for each of its proposed adjustments to project timing in the table above and has adopted these adjustments as the basis for this draft decision.

Cardno considered GWMWater's and Lower Murray Water's (urban) forecast capital expenditures are prudent and deliverable over the next regulatory period,

and did not recommend any adjustments to timing of the businesses' forecasts. The Commission is satisfied with Cardno's assessment.

For further information about the Commission's proposed adjustments to the businesses' capital expenditure proposals, see volume II of this draft decision, Deloitte's (chapter 5) and Cardno's (chapter 5) expenditure reports for each business.

7.5.2 ADJUSTMENTS FOR LACK OF JUSTIFICATION OR INSUFFICIENT SUPPORTING DOCUMENTATION

Deloitte recommended not allowing some capital expenditure proposals in full because, while the project may be prudent, the business did not sufficiently consider alternatives or did not provide information to justify the cost estimates and works program. Table 7.5 shows examples of forecast expenditure that Deloitte and Cardno recommended be reduced.

TABLE 7.5 ADJUSTMENTS FOR LACK OF JUSTIFICATION OR INSUFFICIENT SUPPORTING DOCUMENTATION

Project	Business	Consultant's recommendations
Harcourt rural modernisation project	Coliban Water	Based on information received from Coliban Water, Deloitte did not consider a compelling case had been made for the project to proceed as planned. It therefore recommended that the project be removed from the expenditure forecast (\$27.06 million). Deloitte also recommended possibly re-including this project in the forecast if Coliban can provide evidence of customer willingness to pay for the reticulation system and the backbone component of the project.
Bridgewater and Laancoorie water treatment plant upgrades	Coliban Water	Deloitte recommended removing the allowance (\$4.5 million) proposed in anticipation of changes to the Safe Drinking Water Regulations in 2015, as no express government obligations have been identified at this stage.
Occupational, health and safety program	Coliban Water	Deloitte recommended reducing the forecast expenditure (by \$1.26 million) to the average annual spend in the second regulatory period, given uncertainty about the personal access upgrade projects and other minor works.
Regional outfall system (ROS) renewal program	Gippsland Water	Deloitte recommended spreading expenditure to replace the majority of the 90 kilometre ROS fence over the next regulatory period and WP4. This approach would reduce expenditure program for the next regulatory period by \$0.4 million.
Water main replacement program	Goulburn Valley Water	Deloitte recommended reducing expenditure (by \$6.1 million) to the historical level, with an additional allowance to replace high risk trunk mains, and cast iron and galvanised iron pipes. It considered contingencies are not appropriate for expenditure based on repeat items for which historical costs exist.
Water main replacement program	North East Water	Deloitte recommended reducing the proposed expenditure (by \$2.6 million) to the historical average, with an additional allowance to replace high risk trunk mains and galvanised iron pipes.
Sewer above ground asset replacements program	North East Water	Deloitte recommended reducing the proposed expenditure (by \$2.4 million) to the historical average, subject to receiving further information from North East Water about the criticality of assets identified for replacement.
Red Cliffs water treatment plant upgrade		Renewals/growth 2.4

Continued next page

TABLE 7.5 (CONTINUED)

Project	Business	Consultant's recommendations
Water quality improvement	North East Water	Deloitte recommended reducing the expenditure (by \$1.0 million) to reflect the removal of expenditure to deal with anticipated changes to the Safe Drinking Water Regulations in 2015.
Mildura water supply strategy	Lower Murray Water (urban)	Cardno recommended reducing expenditure by \$0.9 million, given the deferral of three projects until WP4.
Northern towns supply connection works — Lance Creek to Korumburra	South Gippsland Water	Deloitte recommended reducing expenditure (by \$0.2 million) to reflect the P50 cost estimates provided by South Gippsland Water.

A customer of Coliban Water provided a submission on the Harcourt rural modernisation project.²⁹ She noted that 'expenditure of nearly \$40 million dollars for 214 customers is possibly not the most efficient way of spending \$40 million'. She also noted this project was not mentioned during Coliban Water's community consultation in June and July 2012.

The Commission agrees with Deloitte's observation that Coliban Water had not provided adequate information in support of the Harcourt rural modernisation project. On this basis, the Commission has excluded from this draft decision the revenue sought in support of the Harcourt rural modernisation project. Coliban Water is required to provide the Commission with material clearly demonstrating the benefits of, and support for, this project prior to our final decision.

In its final report, Deloitte recommended a small cost adjustment for South Gippsland Water's proposed Poowong/Loch/Nyora sewerage scheme, and to delay the project by one year. Deloitte noted that South Gippsland Water had recently commenced a broader review of wastewater treatment and reclaimed water management options for the scheme, including consideration of regional wastewater treatment in conjunction with South East Water.

The Commission considers the proposed scheme to be costly (about \$40 000 per connection) and has received a submission expressing community concern at the proposal.³⁰ The Commission supports further examination of

²⁹ Birch, M, 2013, *Submission to the Water Price Review 2013-18*, January.

³⁰ Yannathan Road Development Group 2012, *Submission*, December.

potentially more cost-effective options for this sewerage scheme. Given that this review has only just commenced, the Commission proposes to not allow the capital expenditure for this project requested in South Gippsland Water's Water Plan, but will allow \$1.5 million in the first year to support feasibility work exploring further options. Should a project proceed during the period, efficient capital costs can be dealt with either via a pass through mechanism once completed or they can be rolled-in to the regulatory asset base with capitalised interest at the end of the regulatory period.

The Commission is satisfied with Deloitte's reasoning for each of the proposed adjustments outlined in the table and their reports where there was insufficient justification for the business's forecast expenditure, with the exception of the South Gippsland Water project described above. It is also satisfied with Cardno's reasoning and the recommended adjustment for Lower Murray Water.

For further information about the Commission's proposed adjustments to the businesses' capital expenditure proposals, see volume II of this draft decision, Deloitte's (chapter 5) and Cardno's (chapter 5) expenditure reports for each business.

7.5.3 ADJUSTMENTS FOR UNCERTAIN PROJECTS AND PROGRAMS

For the second regulatory period, the Commission approved a mechanism for managing uncertain or unforeseen events. Under the mechanism, the businesses could apply for a price adjustment to account for significant events that were uncertain or unforeseen at the time of the original determinations. The Commission intends to continue this mechanism (chapter 18) in the next regulatory period.

7.5.4 OTHER ADJUSTMENTS

Three proposed operating expenditure cost items are being treated as capital expenditure for this draft decision:

- Ballarat West aquifer storage and recovery project (Central Highlands Water). As discussed in chapter 6, Central Highlands Water recently provided the Commission with a forecast of \$0.5 million operating expenditure for the Living Victoria Living Ballarat (LVLB) program, which its Water Plan did not include. Central Highlands Water subsequently provided information about the Ballarat West aquifer storage and recovery project, which it proposed to implement

under the LVLB program. It submitted the project's stage 1 (proof of concept) will cost \$1.2 million, with Central Highlands Water and the City of Ballarat contributing \$0.3 million each, and the balance of \$0.6 million to come from a funding proposal to the Office of Living Victoria. Stage 2 is to develop an implementation plan, assuming the stage 1 recommendation is to proceed with the project.

The Commission is satisfied with Central Highlands Water's justification. The draft decision is to include an additional gross capital expenditure allowance of \$1.2 million: \$0.6 million (gross) in each of 2013-14 and 2014-15 (\$0.15 million net in each year) for funding commitments to stage 1 of the project. The Commission does not allow Central Highlands Water's proposed expenditure of \$0.2 million for stage 2, given that it depends on the outcome of stage 1 and is uncertain. The Commission expects Central Highlands Water will confirm the external funding for this project before the Commission makes its final decision.

- Operating expenditure for the relocation of a council road as part of the Candowie upgrade project (Westernport Water). Deloitte recommended increasing the capital expenditure for the Candowie upgrade project by \$0.6 million, to reflect the cost of relocating a council road, which Westernport Water originally proposed as part of its operating expenditure forecast. The Commission agrees that this cost should be capital expenditure and not operating expenditure.
- Decommissioning of urban and sewerage assets such as earthen storages and water towers (GWMWater). Cardno found this proposed \$1.0 million per year operating expenditure to be prudent. But it considered the expenditure should be treated as capital expenditure, consistent with GWMWater's allocation of the channel decommissioning for the Wimmera Mallee Pipeline as a capital expense. Further, Cardno noted this approach will provide a more even impact on water bills. The Commission agrees that these decommissioning costs should be capitalised to minimise the impact on pricing.

For further information about the Commission's proposed adjustments to capital expenditure proposals by Central Highlands Water, Westernport Water, and GWMWater, see volume II of this draft decision. Further information can be found in Deloitte's and Cardno's respective final expenditure reports for these businesses (chapter 5 for all reports).

7.6 OTHER CAPITAL EXPENDITURE ISSUES

7.6.1 ASSET MANAGEMENT

In its guidance paper, the Commission noted it expects businesses to plan for and manage effectively the renewal and maintenance of existing infrastructure assets. It also expects the augmentation of infrastructure to meet the future requirements of new and existing customers for water and sewage services. The WIRO requires the capital expenditure forecasts in the Water Plans to account for a planning horizon beyond the regulatory period.

Best practice asset management requires: the establishment of asset databases, the use of geographic information systems and SCADA systems, the establishment of condition assessment and internal performance monitoring, and the development of tools to evaluate whether to renew or rehabilitate assets. An audit of each business's asset management system was conducted in 2011.³¹ In its expenditure reports, Deloitte made the following observations about the businesses' asset management:

- Most of the businesses have adopted or are adopting the recommendations from the 2011 asset management audit.
- Asset management systems range from simply allocating historical expenditure for future renewals, to a blanket approach based on theoretical asset service life, to complex mature systems that allocate expenditure according to service performance, asset condition and risk of asset failure.
- The variety of approaches used generally reflects the size and resources available to the business.

Cardno noted that the asset management systems of GMMWater and Lower Murray Water (urban) are appropriate, given the size of the two businesses.

The Commission understands all the businesses are improving their asset management systems in response to the recommendations in the 2011 audit reports. On behalf of DSE, the Commission will continue to audit the asset management capability of all water businesses.

³¹ The annual asset management audit of the water businesses was a requirement under their respective Statement of Obligations. It is being administered by the Commission on behalf of the Department of Sustainability and Environment. The last audit was conducted in 2011.

7.6.2 PERFORMANCE AND IMPLEMENTATION OF KEY CAPITAL PROJECTS

The Commission will monitor the implementation of key capital projects against the schedule in the final determination, and will publish details in its annual performance reports of the businesses.

Also, given the major impact of a small number of projects on the total capital expenditure program of each business, the Commission will identify businesses that fail to deliver key capital projects against the timelines proposed in their Water Plans. Where necessary, it will seek an explanation. While the Commission acknowledges that priorities may change over five years, it is important that water businesses inform their customers of any material changes.

7.6.3 GOVERNMENT CONTRIBUTIONS

The Victorian Government is expected to contribute to a number of capital projects in the water sector (such as new town water and sewerage schemes and recycled water projects). The value of any contributions received from the government should be netted off the regulatory asset base, to ensure the business does not also recover the costs from customers through prices.

Between the draft and final decisions, the Commission will clarify with DSE whether there is any better information on known government contributions that the businesses will receive during the next regulatory period.

8 FINANCING CAPITAL INVESTMENTS

8.1 INTRODUCTION

The *Water Industry Regulatory Order* (WIRO) requires that prices 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 draft decision on the regional water businesses' financing of capital investments, namely the initial regulatory asset values, the rate of return on investments and methods for calculating regulatory depreciation.

8.2 ROLLING FORWARD THE REGULATORY ASSET BASE

Each business's regulatory asset base represents the value, as assessed by the Commission, of its capital investments. This is the value on which businesses can expect to earn a return (return on capital), and the value that is returned to the business over the economic life of the assets (as regulatory depreciation).

To calculate the opening RAB for each business at 1 July 2013 the following has been used:

$$\begin{aligned} \text{Opening RAB 1 July 2013} = & \text{Opening RAB at 1 July 2007} \\ & \text{plus Capital expenditure (net)}_{2007-08 \text{ to } 2011-12}^{32} \\ & \text{(minus) Regulatory depreciation}_{2007-08 \text{ to } 2011-12} \\ & \text{(minus) Proceeds from disposal of assets}_{2007-08 \text{ to } 2011-12} \\ & \text{plus Assumed capital expenditure (net)}_{2012-13}^{33} \\ & \text{(minus) Regulatory depreciation}_{2012-13} \\ & \text{(minus) Assumed proceeds from disposal of assets}_{2012-13} \end{aligned}$$

For subsequent years in the third regulatory period, the opening asset base for each year is calculated using annual forecasts for net capital expenditure, customer contributions, regulatory depreciation and disposals.

An adjustment will be made for any difference between assumed and actual net capital expenditure for 2012-13 when the opening RAB is calculated for the fourth regulatory period.

Below, we have separated our analysis of actual net capital expenditure for 2007-08 to 2011-12 and forecast net capital expenditure for 2012-13. This approach is consistent with the calculation for the opening RAB noted above.

8.2.1 ACTUAL NET CAPITAL EXPENDITURE — 2007-08 TO 2011-12

Some businesses proposed higher net capital expenditure than was allowed for the second regulatory period. Capital costs can be lumpy by nature (reflecting factors such as weather conditions), so businesses can go above or below the capital allowance approved for the second regulatory period, depending on their circumstances. The Commission focused on businesses that substantially exceeded the capital expenditure forecasts for the second regulatory period.

³² Capital expenditure (net) is equal to gross capital expenditure minus any customer or government contributions.

³³ Capital expenditure (net) is equal to gross capital expenditure minus any customer or government contributions.

The Commission proposes to roll forward the RAB for businesses that propose a roll forward that is less than 10 per cent above their 2008 forecast for net capital expenditure for the 2007-08 to 2011-12 period. This is on the basis that amounts up to this level are considered within reasonable bounds given the ability of capital expenditure to vary by large amounts. Where businesses have underspent the amount allowed in our 2008 Determination, the Commission proposes to roll forward only the actual amounts invested. This approach ensures customers are not paying for investments that did not occur.

Table 8.1 compares net capital expenditure approved for the second regulatory period and proposed actuals from water businesses.

TABLE 8.1 2007-08 TO 2011-12 NET CAPITAL EXPENDITURE
2008 Determination compared to business actual, \$m 2012-13³⁴

Water Business	2008 Determination	Business actual	Difference	
			\$m	per cent
Barwon Water ^a	438.3	545.2	106.9	24.4
Central Highlands Water	169.9	179.8	9.9	5.8
Coliban Water	268.0	249.2	-18.8	-7.0
East Gippsland Water	83.5	79.9	-3.6	-4.3
Gippsland Water	319.2	300.4	-18.8	-5.9
Goulburn Valley Water	135.1	130.3	-4.8	-3.5
GWMWater	245.2	221.8	-23.5	-9.6
Lower Murray Water	71.9	84.1	12.3	17.0
North East Water	127.3	81.8	-45.5	-35.7
South Gippsland Water	53.2	49.2	-4.0	-7.5
Wannon Water	145.6	144.6	-1.0	-0.7
Westernport Water	29.1	30.9	1.7	6.0

^a The Melbourne Geelong Pipeline is not included.

³⁴ The Commission updates forecasts from the 2008 Determination to actuals which covers the period 2007-08 to 2011-12. This does not align with the second regulatory period as 2007-08 capital expenditure was still not a full actual and needs to be updated similar to the 2012-13 year for this price review.

Barwon Water

Barwon Water recorded the greatest expenditure above forecast (\$106.9m) over the 2007-08 to 2011-12 period, mainly due to the following projects:

- Black Rock Recycled Water Plant
- Armstrong Creek Recycled Water Transfer and Distribution
- Colac Pipeline Future Stages
- Torquay Recycled Water Dual Pipe
- Meredith Water Supply Improvements.

The Commission requested more information on these capital projects, specifically about their prudence (that is, the project's rationale). Based on the information provided by Barwon Water, our draft decision is:

- to approve the total amount for the Colac Pipeline Future Stages (\$12.4 million) for inclusion in Barwon Water's RAB, given the operational and construction advantages of bringing forward the project
- to approve the total amount for the Meredith Water Supply Improvements project (\$7.6 million) for inclusion in Barwon Water's RAB, given the objective to provide reliable water supply to Meredith and eliminate tankering water costs. This approval is subject to Barwon Water providing additional cost-benefit analysis information prior to our final decision
- to approve the total amounts for the Black Rock Recycled Water Plant (\$42.0 million), Armstrong Creek Recycled Water Transfer (\$38.1 million) and Distribution, and Torquay Recycled Water Dual Pipe (\$11.1 million) for inclusion in Barwon Water's RAB as they provide long term benefits. This approval is subject to Barwon Water submitting additional information that demonstrates the costs for these projects will be borne by the beneficiaries. Specifically, the additional information provided to the Commission must include plans for:
 - recovering costs from new customer contributions
 - profiling depreciation to better align cost recovery with asset utilization
 - locational tariffs for the areas that benefit from the projects.

It is expected that Barwon Water will also provide all necessary justification and supporting financial information with their proposal.

Lower Murray Water

- Lower Murray Water's higher than forecast net capital expenditure largely reflected a 97 per cent increase in costs for the Koorlong Wastewater Treatment Plant Augmentation and Recycled Water project. Cardno's expenditure review highlights reasons for this were:³⁵
- the original budget was based on a business case prepared in 2006 which underwent major scope and design changes to upgrade the capacity of the plant to include trade waste and flows from decommissioning of the Red Cliffs Wastewater Treatment Plant.
- the cost of materials rose significantly in the project's early stages (for example, steel prices rose 34 per cent between March and May 2008), and
- the construction industry expected a high level of activity leading up to tendering, causing unanticipated increases in construction costs.

The Commission notes that expenditure for the project was allowed for in the 2008 Determination. Further, the increase in costs above forecast for the project was offset to some extent by reduced expenditure (relative to forecasts in 2008) on other capital projects. This suggests Lower Murray Water has sought to mitigate the price impacts of higher than forecast costs for Koorlong Wastewater Treatment Plant Augmentation and Recycled Water project.

For these reasons, the Commission proposes to roll the full actual amount (\$84.1 million) into Lower Murray's RAB.

8.2.2 FORECAST NET CAPITAL EXPENDITURE, 2012-13

In its guidance paper, the Commission stated it would use the forecasts for 2012-13 net capital expenditure approved for the second regulatory period to roll into the RAB.³⁶ The Commission considered adjustments where the business justified deferrals in capital works or special circumstances. In all other instances, estimated 2012-13 net capital expenditure was fixed at the 2008 Determination forecast.

³⁵ Cardno 2013, Review of water prices, *Assessment of expenditure forecasts for Lower Murray Water* February, p. 21.

³⁶ Essential Services Commission 2011, *2013 Water Price Review – Guidance on Water Plans*, October.

The reason 2012-13 net capital expenditure is fixed at the forecasts approved for the second regulatory period is to remove incentives for businesses to delay capital works until the last year of a regulatory period. Even if unintentional, delayed projects in the regulatory period provide an undue benefit to businesses, and customer prices for the period assumed a service will be provided when scheduled.

The amounts for 2012-13 rolled into the RAB for the third regulatory period are at this stage, only a forecast. Actual amounts for 2012-13 will be reviewed and updated prior to confirming their inclusion in the RAB prior to the fourth regulatory period.

Table 8.2 compares net capital expenditure forecasts for 2012-13 approved for the second regulatory period and proposals from water businesses.

TABLE 8.2 2012-13 NET CAPITAL EXPENDITURE
2008 Determination compared to business proposed actuals,
\$m 2012-13

Water Business	2008 Determination	Business proposed	Difference	Per cent
Barwon Water ^a	71.5	71.5	0.0	0.0
Central Highlands Water	18.5	18.5	0.0	0.0
Coliban Water	30.4	41.1	10.7	35.1
East Gippsland Water	4.1	3.7	-0.4	-9.3
Gippsland Water	46.3	57.9	11.6	25.0
Goulburn Valley Water	13.2	18.7	5.5	41.8
GWMWater	18.3	18.3	0.0	0.0
Lower Murray Water	9.3	9.3	0.0	0.0
North East Water	14.4	41.0	26.5	184.3
South Gippsland Water	15.4	15.6	0.2	1.1
Wannon Water	16.5	13.5	-3.1	-18.5
Westernport Water	9.9	10.7	0.8	8.1
TOTAL	267.9	319.7	51.9	19.4

^a Does not include the Melbourne Geelong Pipeline.

In terms of 2012-13 capital expenditure, six businesses used net capital expenditure forecasts approved for the second regulatory period, or lower amounts in their financial models: Barwon Water, Central Highlands Water, East Gippsland Water, Lower Murray Water, GWMWater and Wannon Water. Our draft decision is to approve the amounts proposed by these businesses for inclusion in their their RAB for the third regulatory period.

Other businesses proposed that higher than forecast net capital expenditure for 2012-13 be included in their RAB.

Coliban Water

According to Coliban Water, actual 2012 13 net capital expenditure will be significantly higher than its approved forecast for the second regulatory period because it reprioritised capital expenditure during the period, and it changed the timing of the Harcourt modernisation (partly driven by delayed approvals).

The Commission proposes to not approve Coliban Water's capital expenditure above forecast for 2012-13 for inclusion in its RAB, consistent with the approach outlined in the guidance paper which seeks to provide incentives for businesses to deliver projects to schedule. This amount will be reviewed and updated for inclusion in Coliban Water's RAB prior to the fourth regulatory period.

North East Water

North East Water reported the largest difference for 2012-13 net capital expenditure compared to the forecast approved for the second regulatory period. Some of the difference can be explained by factors such as reprioritising capital works. One of these is the small town sewerage works in Oxley, Milawa, Glenrowan and Tungamah. Table 8.3 contains the reported capital costs for this project.

TABLE 8.3 SMALL TOWN SEWERAGE SCHEME
\$m 2012-13

Town	2012-13	2013-14
Oxley	2.471	1.281
Milawa	1.953	0.609
Glenrowan	2.523	0.878
Tungamah	2.699	1.127
TOTAL	9.646	3.895

The Commission proposes to roll the costs of these projects (\$9.6 million) into the opening RAB. This is because the project was mandated by the Victorian Government and the Commission previously stated the capital expenditure would be rolled into the RAB when the capital works were completed. The Commission will not approve any other adjustments to 2012-13 capital expenditure.

Some other businesses have proposed 2012-13 net capital expenditure amounts above the 2008 forecast be included in their RAB — Gippsland Water, Goulburn Valley Water, South Gippsland Water, and Westernport Water. The Commission proposes not to approve capital expenditure for 2012-13 above the level approved in 2008 for inclusion in these businesses RAB.

All amounts we propose for 2012-13 for inclusion in each of the businesses' RAB will be reviewed and updated prior to our decision for the fourth regulatory period.

8.2.3 OTHER REGULATORY ASSET BASE ISSUES

Gippsland Water: Gippsland Water Factory

Gippsland Water noted the Gippsland Water Factory (GWF) project exceeded the Commission's allowance (\$219.9 million) in the business's RAB. Gippsland Water proposed to absorb the costs incurred above forecast (\$41.6 million) (table 8.4). As a result, the cost will not be passed on to customers.

TABLE 8.4 GIPPSLAND WATER FACTORY COSTS
ESC calculations on Gippsland Water Factory

Gippsland Water Factory

Commission approved capital expenditure for the second regulatory period, \$ January 2007	186.1
Indexed to \$ January 2013	219.9
Proposed actual spent, \$ January 2013	261.5
Above forecast	41.6

The Commission's draft decision is to approve an amount for Gippsland Water's RAB that excludes the cost above forecast of \$41.6 million. Gippsland Water's analysis is correct and the proposal ensures the cost overrun will not affect future tariffs.

Barwon Water: Melbourne-Geelong Pipeline

In December 2011 Barwon Water applied to increase its maximum water, sewerage and trade waste prices in 2012-13 to reflect costs associated with the Melbourne Geelong Pipeline (MGP).

In June 2012, the Commission approved adding \$63.7 million (\$2013) to Barwon Water's asset base on 1 July 2012 to reflect the efficient capital cost of the MGP.

The Commission has rolled the MGP net capital cost of \$63.7 million into the RAB. We have proposed adjustments to correct for minor errors in Barwon Water's calculation of the roll-forward of amounts relating to the MGP in 2012-13.

8.3 DRAFT DECISION

The Commission proposes to accept the regulatory asset base proposals submitted by Central Highlands Water, East Gippsland Water, GMMWater, Lower Murray Water and Wannon Water.

The Commission proposes not to approve the amounts proposed by Barwon Water, Coliban Water, Gippsland Water, Goulburn Valley Water, North East Water, South Gippsland Water and Westernport Water.

The amounts the Commission has proposed to approve for Barwon Water are subject to it providing additional information in relation to the Black Rock Recycled Water Plant, the Armstrong Creek Recycled Water Transfer and Distribution project, and Torquay Recycled Water Dual Pipe project that demonstrates the costs for these projects will be borne by the beneficiaries.

The Commission's proposed amounts for inclusion in the businesses' RAB are contained in table 8.5.

TABLE 8.5 DRAFT DECISION PROPOSED REGULATORY ASSET BASE ROLLFORWARD
 \$m 2012-13

	BW	CHW	CW	EGW	GW	GVW	GMMW	LMW-u	NEW	SGW	WNW	WPW	Total
Opening RAB as at 1 July 2007	536.7	146.5	80.2	69.0	249.5	155.8	103.0	69.8	121.8	70.2	127.3	68.8	1 798.7
Plus net capital expenditure 2007-08 to 2011-12 ^a	545.2	179.8	249.2	79.9	300.4	130.3	221.8	84.1	81.8	49.2	144.6	30.9	2 097.2
Less regulatory depreciation 2007-08 to 2011-12	106.9	32.9	34.5	22.0	53.0	37.1	26.8	18.3	29.4	15.4	26.2	10.0	412.5
Less proceeds from disposal of assets 2007-08 to 2011-12	6.6	4.8	0.2	3.4	2.7	3.8	9.0	2.5	2.5	2.6	6.8	0.6	45.4
Adjustments	9.3				-41.6								
RAB as at 1 July 2012	977.8	288.6	294.8	123.5	452.6	245.2	288.9	133.1	171.8	101.4	239.0	89.2	3 405.8
Plus net capital expenditure (forecasts approved for the second regulatory period) 2012-13	66.2	18.5	30.4	3.7	46.3	13.2	18.3	9.3	24.0	15.4	13.5	9.9	268.7
Less regulatory depreciation 2012-13	28.1	9.0	10.1	5.6	12.8	9.3	7.4	4.4	7.9	3.5	5.9	2.4	106.5
Less assumed proceeds from disposal of assets 2012-13	1.7	1.2	0.0	0.4	0.6	0.8	2.2	0.6	0.0	0.4	0.7	0.1	8.6
RAB as at 1 July 2013	1 014.3	296.8	315.0	121.2	485.5	248.2	297.6	137.4	187.9	113.0	245.9	96.6	3 559.5

^a includes an adjustment for new customer contributions.

8.4 RATE OF RETURN

Under clause 14(1) of the WIRO, the Commission must allow a water business to recover a rate of return on its assets and investments.

The Commission noted in its guidance paper it would calculate the rate of return using the same approach as for the 2008 and 2009 water price reviews. Specifically, the Commission used a weighted average cost of capital (WACC) approach to estimate an efficient rate of return. The WACC for a water business is the estimated cost of its various classes of capital (debt and equity), weighted to account for a benchmarked capital structure.

The WACC is expressed in real post-tax terms, because forecast tax payments are used to calculate each business' revenue requirement.³⁷ The Commission applies its WACC estimate (at a common rate) to each businesses' forecast RAB for each year of the third regulatory period to calculate an allowance for return on assets.

The WACC should reflect the efficient cost of capital for a 'benchmark utility'. In keeping with past practice, the Commission has estimated the WACC for the water businesses by referencing the cost of capital for sufficiently comparable market listed businesses (for example, businesses in a similar industry or businesses facing similar risks).

The formula for the WACC is:

$$WACC = R_e (E/V) + R_d (D/V)$$

where:

R_e is the required return on equity

R_d is the real cost of debt

E/V and D/V are the shares of equity and debt to the value of the regulatory asset base respectively.³⁸

³⁷ The Independent Pricing and Regulatory Tribunal recently shifted from a pre-tax to post-tax calculation for the (real) WACC, arguing the post-tax real WACC provides a superior estimate of the tax liability of a similar well-managed, privately owned business. See: Independent Pricing and Regulatory Tribunal of New South Wales 2012, *Review of prices for Sydney Water Corporation's water, sewerage, stormwater and other drainage services*, p 86.

³⁸ V is the value of regulatory assets, E is the value of regulatory assets financed through equity, D is the value of regulatory assets financed through debt and $E + D = V$.

The required return on equity and the cost of debt are calculated with reference to the underlying real risk free rate of return. The cost of debt (R_d) is the sum of the real risk free rate and the debt margin. The required return on equity (R_e) is calculated using the capital asset pricing model (CAPM). The CAPM estimates the required return for a project or asset as the sum of the return earned by risk free assets and a premium for risk. That is:

$$R_e = R_f + \beta_e (R_m - R_f)$$

where:

R_e is the real required after-tax return on equity

R_f is the real risk-free rate

β_e is the equity beta

$(R_m - R_f)$ is the market risk premium, and is the return in excess of the risk-free rate that investors would need to invest in a well-diversified portfolio of assets.

8.5 ANALYSIS OF WACC PARAMETERS

In determining an appropriate rate of return, the Commission has regard to current financial conditions. Financial conditions differ markedly from those prevailing at the time of the 2008 water price review (conducted during the global financial crisis).

Since 2008, the structure of lending rates has shifted significantly:

- **Risk free borrowing rates** are lower and remain very low by historic standards, supported by several cuts to the Reserve Bank of Australia's official cash rate over the past year (and as indicated by relatively low yields on long term government securities).
- **Debt premiums** are higher and remain high, largely reflecting the repricing of corporate debt following the global financial crisis, and ongoing uncertainty in the global economy.

The Commission recognises the risks water businesses face if borrowing rates increase (from historic lows) to long term average levels over the course of the third regulatory period. Therefore, the Commission derived a feasible range for the WACC by considering probable ranges for market based estimates for the risk free rate of return and the debt premium (the latter reflecting relatively thin bond markets, making it difficult to derive reliable estimates for bond yields).

Below, we set out our analysis and assumptions for the real risk-free rate, equity beta, market risk premium, debt margin, financing structure and franking credits.

Real risk free rate

The Commission indicated in its guidance paper that it would estimate a risk free rate of return based on average nominal yield on nominal Commonwealth Government Securities (CGS) over a 40 day trading period (we have used a 40 day trading period to 28 February 2013). In guidance paper, the term of the security was not specified, but the Commission has estimated a risk free rate based on a 10-year CGS. This is the approach used for the 2008 and 2009 water price reviews. Using this approach, the nominal rate is 3.448 per cent.

The Commission considers the nominal yield on 10-year CGS remains the most appropriate measure of the nominal risk free rate of return for the water businesses. It is also commonly adopted by other Australian regulators.

The main alternative is a CGS with a duration that matches the length of the regulatory period. This approach aligns the net present value of cash flows over a regulatory period, which is five years for the Victorian water businesses. The Commission uses the longer dated CGS because it is more consistent with the long term nature of the water assets.

The Commission has adjusted the estimate of the nominal risk free rate for forecast inflation. A forecast band was used due to uncertainty about inflation forecasts.

Deloitte Access Economics provided the Commission with inflation forecasts (based on the ABS all groups consumer price index, Australia) for the term of the next regulatory period. Deloitte Access Economics forecast 2.7 per cent average annual inflation over the third regulatory period (the forecast was current at 5 March 2013), which is close to the 2.75 per cent businesses used to develop Water Plans. For the purposes of estimating a range for the real risk free rate of return, we have adopted 2.75 per cent as our upper range for forecast annual inflation.

However, the Commission notes that some other market practitioners have forecast lower inflation, particularly in the near term, with some forecasts below the mid-point of the Reserve Bank of Australia's target band (of 2-3 per cent each year). The Department of Treasury and Finance forecasts inflation of 2.5 per cent for 2012-13. For the purposes of estimating a real risk free rate of return, the

Commission has adopted 2.4 per cent as the lower bound for forecast annual inflation.

The assumptions about the nominal risk free rate and inflation result in an estimated real risk free rate range of 0.679 per cent to 1.023 per cent. The Commission has used this range for its draft decision on the WACC for the third regulatory period. The estimates will be updated before the final decision on water prices.

Equity beta

As foreshadowed in the guidance paper, the Commission has used an equity beta of 0.65 to estimate the WACC for the third regulatory period. The Commission notes:

- it is generally accepted water businesses experience a level of non-diversifiable risk materially lower than the market portfolio
- the proposed equity beta is consistent with other recent regulatory decisions, including the Commission's in 2008 and 2009 water price reviews, and
- the proposed equity beta is the same as that applied in the second regulatory period, and the Commission considers the underlying non-diversifiable risk faced by the water industry has not changed.

Determining the equity beta is perhaps the largest issue in decisions on the WACC in Australian jurisdictions, because estimates are subject to a significant degree of judgement. Estimating an equity beta requires analysing returns for share market listed utilities in Australia, which typically have small sample sizes. The beta is also particularly significant for calculating the revenue allowance for return on assets (although perhaps less so for water than other sectors such as energy, where the return on assets typically comprises a larger proportion of the overall revenue allowance).

Further, there is ongoing work to test how a change to elements of the pricing framework (such as changes to the form of price control) affects systematic risk (the beta), including research conducted by the Queensland Competition Authority. The Commission considers this research has merit.

Market risk premium

As stated in the guidance paper, the Commission used a market risk premium (MRP) of 6 per cent to estimate the WACC for the third regulatory period. The Commission notes:

- Surveys of market practitioners found most financial analysts adopt a MRP of 6 per cent³⁹
- Australian regulators generally adopt a MRP of 6 per cent, or a band around 6 per cent and
- The Australian Competition and Consumer Commission's Water Charge (Infrastructure) Rules require a MRP of 6 per cent be applied for Victorian businesses operating in the Murray Darling Basin.

Debt margin

The Commission's guidance paper noted it would use the latest market evidence on the borrowing costs of an efficiently financed business to calculate a WACC for the third regulatory period — based on estimating a range for a debt margin for a 40 day measurement period.

This approach is consistent with the principles generally adopted in Australia. The cost of capital should be based on an industry benchmark rather than utility specific costs. Further, the cost of capital for a government owned utility is typically set on the same basis as a privately owned utility to ensure competitive neutrality and to recognise the underlying opportunity costs to society.

³⁹ Officer, R. and Bishop, S. 2008, *Market risk premium: a review paper*, August, p 17; ACIL Tasman 2009, *ARTC access undertaking Hunter Valley Rail Network: Response to ACCC's issues paper and ARTC and Synergies' submissions on WACC*, Prepared for the NDW Minerals Council, August, p. 22.

Given the continued difficulty in estimating debt margins from market data (reflecting relatively thin trading on bond markets), the Commission proposes to apply a range for the debt margin for the draft decision on the WACC. The range is based on the estimated additional cost of debt for a company with a BBB- to BBB+ rating, over the risk free rate. This band is wider than that used in the 2008 and 2009 water price reviews, reflecting the uncertainty about the reliability of debt margin estimates.

PricewaterhouseCoopers (PwC) provided estimates of average nominal debt margins on margins on these ratings over the 40 day trading period to 28 February 2013. Within this trading period, the average annual margin implied by this range of bonds was between 3.03 per cent (the low recorded over the 40 day trading period for BBB+ rated bonds) to 4.53 per cent (the high recorded over the trading period for BBB- rated bonds). The Commission adopted this range for the draft decision on the WACC. These estimates will be updated for the final decision.

The Department of Treasury and Finance is currently considering the Financial Accommodation Levy (FAL) it will apply to government owned entities from 1 July 2013. Before the final decision on water prices, the Commission will cross check market based estimates with the actual lending rates faced by the water businesses (which are influenced by the FAL).

Financing structure

The Commission's guidance paper assumed a benchmark financing structure of 60 per cent debt to regulatory assets to calculate the WACC for the third regulatory period. This is commonly known as the gearing ratio. The Commission uses a benchmark (rather than the actual financial structure of each water business) to ensure customers will not bear the costs associated with potentially inefficient financial structures. The Commission notes:

- This approach is consistent with the observed gearing of comparable listed utility businesses, which suggests 60 per cent debt to regulatory assets is the appropriate benchmark for an efficient private sector business.
- Other regulators assume the 60 per cent debt to regulatory assets for the financing structure.

Franking credits

As stated in the guidance paper, the Commission assumed a franking credit rate of 0.50. Under the Australian dividend imputation system, investors receive a franking

credit for the company tax paid before the dividend. This recognises companies already paid tax on profits from which the dividends are paid. This approach is consistent with other regulatory decisions.

8.6 DRAFT DECISION - WACC

Based on the analysis above, the Commission's feasible range for the WACC is 4.1 to 5.3 per cent (table 8.5). The Commission proposes to adopt a WACC in the middle of the range (4.7 per cent). In deciding to propose a WACC in the middle of the range, we have had particular regard for current borrowing costs which are near historic lows. Adopting a WACC at the lower end of the range could create undue risk that businesses would not be able to cover their borrowing costs in the third regulatory period, if borrowing costs increase.

TABLE 8.5 DRAFT DECISION – REAL POST TAX WACC

WACC parameter	Value
Risk free rate of return	0.679–1.023
Equity beta	0.65
Equity (market risk) premium	6.0
Debt margin	3.03–4.53
Financing structure (debt/assets)	60
Franking credits	0.5
Forecast inflation	2.40–2.75
Vanilla post tax WACC (real) range	4.1–5.3
Vanilla post tax WACC (real) point	4.7

The proposed WACC is lower than the rates adopted in the Commission's previous water price reviews, but it is within the range of recent decisions of other regulators. In its February 2013 draft decision, for example, the Essential Services Commission of South Australia proposed a WACC of 4.87 per cent for SA Water over the period from 2013-14 to 2015-16. In its March 2013 Draft Determination for Hunter Water, IPART adopted a WACC of 4.2 per cent.

DRAFT DECISION

The Commission proposes to adopt a real post-tax weighted average cost of capital of 4.7 per cent.

8.7 REGULATORY DEPRECIATION

Regulatory depreciation (the 'return of' capital expenditure) returns the value of capital invested to investors over the life of the relevant asset.

In their Water Plans, regional water businesses generally forecast regulatory depreciation based on a straight line approach for the third regulatory period. That means an equal amount of the asset is depreciated each year based on the expected useful life of the asset.

In the past, the Commission recognised regulatory depreciation from the first year expenditure is incurred. For projects that take several years to complete, this approach results in businesses receiving regulatory depreciation on projects before assets come into service. This has little effect on a business's revenue requirement for small projects and projects spread across one or two years. However, this approach can have a more substantial impact for projects with large capital costs.

The unprecedented levels of investment by metropolitan water businesses in the second regulatory period led the Commission to change its approach to regulatory depreciation in the 2009 water price review. The Commission now recognises the 'return of' capital expenditure from the year a significant asset was due to become operational. In the guidance paper, the Commission indicated it would adopt this same approach for the regional and rural water businesses for the third regulatory period.

Regional and rural water businesses were asked to separately identify key projects and their expected date for completion as part of their capital expenditure proposals. In general, they provided this information. We propose to accept the depreciation forecasts submitted by all businesses but for Barwon Water, Gippsland Water, Goulburn Valley Water and South Gippsland Water. These businesses did not provide a breakdown of expenditure and completion dates for

significant capital projects. These businesses are expected to provide this information in response to the draft decision.

DRAFT DECISION

The Commission proposes to approve the depreciation forecasts submitted by Central Highlands Water, Coliban Water, East Gippsland Water, GWMWater, Lower Murray Water, North East Water, Wannon Water and Gippsland Water.

The Commission proposes not to approve the depreciation forecasts submitted by Barwon Water, Gippsland Water, Goulburn Valley Water and South Gippsland Water.

8.8 REVENUE SHORTFALL

In their Water Plans, Coliban Water and Central Highlands Water included amounts in their revenue requirement to reflect a forecast 'shortfall' in revenue for the second regulatory period.

Coliban Water estimated its revenue shortfall is \$89.5 million, mainly due to lower than forecast demand. For financial viability reasons, Coliban Water proposed to include this amount in its RAB. This would enable it to recover the amount over a relatively long timeframe, extending beyond the third regulatory period (effectively over a period equivalent to the average age of assets that comprise its asset base).

Coliban Water acknowledged including the revenue shortfall in its RAB and tariffs would impose an additional cost on customers, but it sought to minimise the impact through a range of means including reductions to its capital works program.

Central Highlands Water estimated 'cash shortfall' of approximately \$22 million, mainly due to lower than forecast demand. In its Water Plan, Central Highlands Water noted while it implemented strategies to mitigate the impacts of lower than forecast demand, its financial stability required it to recover the amount by including it in its regulatory asset base.

Draft Decision

The Commission must assess the proposals for the recovery of revenue shortfalls against the principles of the WIRO. Relevant clauses in the WIRO include:

- 14 (1) (a) (i) – *Prices for a business must be approved to provide a sustainable revenue stream that does not reflect monopoly rents or inefficient expenditure.*
- 14 (1) (a) (v) – *Prices for a business must be approved to provide a business with incentives to pursue efficiency improvements*
- 14 (1) (b) – *In approving prices for a business, we must be satisfied that the expenditure forecasts in the Water Plan reflect the efficient delivery of proposed outcomes contained in the Water Plan, and*
- 14 (1) (c) – *Approved prices take into account the interests of customers, including low income and vulnerable customers.*

Effectively the requirements of the WIRO mean that we need to form a view on how to balance these objectives in deciding whether to approve the recovery of any revenue shortfalls.

Most of the regional businesses, including Coliban Water and Central Highlands Water, currently operate under a price cap form of control. Under a price cap, businesses have a maximum price that they can charge their customers over the regulatory period and any under or over recovery of revenue during the period is typically borne or held on to by the business. This is because the businesses have the flexibility to adopt strategies within the pricing framework to minimise exposure to demand risk, including through the structure of tariffs, and the form of price control. Moreover water businesses can seek a re-opening of the Commission's price decision if revenue shortfalls endanger financial viability.

We note that the submission from the Victorian Council of Social Service (VCOSS) states:

“One of the roles of water businesses is to carry a degree of risk on behalf of their customers and absorb some revenue – expenditure variance in order to give customers predictable prices and moderate price paths”⁴⁰

Typically the Commission assesses financial viability through reference to estimates of key financial indicators and in particular interest cover.⁴¹ We look to a business projecting interest cover ratios of between 1.5 and 3 on average as a measure of their financial viability.

The Commission is also mindful that businesses have a stronger incentive to seek a revenue adjustment when actual revenue is lower than forecast, rather than when actual revenue exceeds forecast. In approving the recovery of revenue shortfalls, there is a risk that the incentives for a business to manage their exposure to risk is diluted over time.

Coliban Water

The Commission proposes not to approve Coliban Water’s proposal to include \$89.5 million in its RAB to reflect a revenue shortfall. However, we acknowledge that there is a case to adjust Coliban Water’s revenue requirement on the grounds of financial viability.

Our draft decision has approved a revenue requirement for Coliban Water that will, on the information provided to us, ensure that the business can sustain a financial position that is consistent with the viability requirements of the WIRO (that is, an interest cover ratio averaging near 1.5). Chapter 2 summarises the price path we have approved for Coliban Water.

⁴⁰ Victorian Council of Social Services, 2013, *Submission to the Water Price Review 2013-18*, 26 February.

⁴¹ An interest cover ratio is a measure of how easily a company is able to pay interest on outstanding debt. For price regulation purposes, it is calculated by dividing the water businesses funds from operations by its interest expenses for the same period (on a cash accounting basis). An interest cover below 1.5 could indicate that the business’ ability to meet its interest expenses is questionable. An interest cover ratio below 1 indicates that a business is not generating sufficient revenues to meet its interest expenses.

However, the Commission will require Coliban Water to undergo a financial review between the draft and final decisions to assess its financial position independently, in order to provide assurance that an increase in its revenue requirement is justified on grounds of financial viability.

Central Highlands Water

The Commission is concerned that Central Highlands Water did not consult on their proposal to recover revenue shortfalls prior to lodgement of their final Water Plan.⁴² Therefore we have placed particular emphasis on the link between the recovery of any shortfall and financial viability (guided by clause 14(1)(a)(i)). The Commission notes that Central Highlands Water is already expected to be operating at a sufficient interest cover ratio (averaging around 2), without any adjustment to its regulatory asset base to reflect revenue shortfall in the current regulatory period.

DRAFT DECISION

The Commission proposes not to approve Coliban Water's proposal to include \$89.5 million in its RAB to reflect a revenue shortfall.

The Commission proposes to approve a revenue requirement for Coliban Water that will ensure that the business can sustain a financial position that is consistent with the viability requirements of the WIRO

The Commission proposes not to approve Central Highlands Water's proposal to include \$22 million in its RAB to reflect a revenue shortfall.

⁴² This was also noted in the submissions made by John Barnes and VCOSS.

8.9 REVIEW OF THE RATE OF RETURN METHODOLOGY

The Commission will apply the WACC for the third regulatory period, consistent with our guidance paper (and as in past water price reviews). Following our final determination we will review the rate of return methodology used for our last three price decisions. This review will include an assessment of alternative approaches. The Commission will involve all interested parties in the deliberations through broad public consultation.

This review will inform the Commission's approach to estimating the rate of return for water businesses for the fourth regulatory period.

Areas for further exploration include:

- critical review of the WACC methodology and the need for refinements
- the relative merits of the CAPM and possible alternatives
- the merits of applying a different WACC (as reflected in the equity beta) to different businesses, to account for changes in incentive structures and risk sharing (which, for example, may be influenced by the form of price control)
- possibly applying a different WACC for individual assets/investments by a regulated entity, and
- measurement issues, including time periods used to estimate WACC parameters calculated via reference to market data (such as the risk free rate of return).

Subject to the findings of this review, the Commission may also review broader aspects of the building block approach to calculating revenue requirements.

9 DEMAND

9.1 INTRODUCTION

The water businesses' demand forecasts directly affect the prices customers will pay during the third regulatory. Changes in customer numbers and consumption are important determinants of the capability of the water and sewerage infrastructure to provide services and of the need for expenditure on renewal and augmentation.

Key demand forecasts that influence prices charged by the regional water businesses include connections and volumes for:

- water
- sewerage
- trade waste
- recycled water

Generally, regional businesses generate more than half of their tariff revenue from fixed charges. Therefore, the most important demand factors influencing revenue are the number of water and sewerage connections.

9.2 APPROACH TO ASSESSING DEMAND

The Commission considered the following information when assessing businesses' proposed demand forecasts:

- businesses' Water Plans
- additional information provided by businesses provided to support forecasts
- a review by Frontier Economics
- information presented from stakeholders, including customers.

The Commission's guidance paper identified the key factors for assessing demand forecasts for the third regulatory period:

- the extent and timing of any bounce back in water demand after permanent water saving rules replaced restrictions in most areas
- how price changes affect demand (that is, the price elasticity of demand)
- consistency between demand forecasts and proposals about the extent and nature of operating and capital expenditure and revenue forecasts.

The Commission engaged Frontier Economics to undertake an independent review of water businesses demand forecasts following a rigorous selection process from a panel of specialist consultants who understand the businesses and have previously undertaken major demand reviews in the water sector.

Frontier Economics was chosen because of its extensive experience in reviewing the veracity of demand forecasts for water services in Victoria and other Australian states.

The Commission provided specific instructions to Frontier on matters of significance that the consultant must consider in their review. The Commission has directed Frontier Economics' to take a risk based approach to assessing the businesses' forecasts. Frontier Economics was then allowed to conduct its independent and professional assessment of the respective water businesses' demand forecasts over a four month period. This process involved an initial information request, issuing a draft report to each water business, receiving further information and clarification from the businesses and providing a final report to the Commission for its deliberations for the draft decision. Frontier Economics undertook extensive information gathering and data analysis in preparing its final report to the Commission.

Specifically, the review assessed whether demand forecasts:

- were based on appropriate forecasting methodologies or approaches, given the materiality of the forecasts for the businesses' revenue and resulting prices
- reflected reasonable assumptions about the influences on demand, including:
 - supply (including environmental conditions, inflows, restrictions and the effects of recent and upcoming supply augmentations)
 - population and demographic changes and
 - general and local conditions and future prospects for economic development

- used the best available information, demand trends and relevant water supply and demand strategies
- accounted for current demand and economic conditions
- were statistically unbiased and
- accounted for changed tariff structures and elasticities.⁴³

Frontier Economics considered businesses' Water Plans, additional information provided by the businesses, relevant Victorian Government policy and forecasts, and its own experience in preparing and assessing the veracity of demand forecasts for rural and urban water services in Victoria and other Australian states.

The Commission has confidence in the findings and recommendations of the expert consultant and has used its final report as a basis for adjustments to demand that underpin the draft decision. Where the Commission has decided to not accept the expert consultant's recommendation, it has outlined the reasons for the decision.

Frontier Economics' final report is available from the Commission's website.⁴⁴

⁴³ Essential Services Commission 2011, 2013 Water Price Review — Guidance on Water Plans, October.

⁴⁴ www.esc.vic.gov.au

9.3 OVERVIEW OF BUSINESSES' PROPOSALS

The key demand parameters that influence prices and revenue for the regional water businesses are the number of water and sewerage connections (which are primarily influenced by the new connection growth rate usually due to population growth) and the total volume of water sold.

Several businesses proposed customer growth rates diverging from *Victoria in Future* (VIF) growth rates.⁴⁵ These are the Victorian Government's official population forecasts for Victoria from 2011 to 2031. Generally, businesses' proposed forecasts of consumption per connection were conservative. However, some businesses forecast increased water consumption (for example Lower Murray Water). All water businesses forecast that Permanent Water Saving Rules will apply for the duration of the third regulatory period. No business forecast water supply restrictions. This reflects improved supply levels and the benefits of investment in supply augmentation over the last few years.

The forecasts provided in each businesses' Water Plan for customer connections and service volumes are contained in tables 9.1 and 9.2 respectively.

For their rural business, GMMWater forecast:

- no change to groundwater licence numbers and a slight increase in groundwater licence volumes for mining
- pipeline customer numbers and demand to remain at 2011-12 levels.

⁴⁵ Victorian Department of Planning and Community Development 2012, *Victoria in Future 2012: Population and Household Projections*, April. This publication can be viewed at: www.dpcd.vic.gov.au/victoriainfuture

TABLE 9.1 BUSINESSES' PROPOSED TOTAL RESIDENTIAL AND NON-RESIDENTIAL CUSTOMER CONNECTIONS (WATER AND SEWERAGE)

		2013-14	2014-15	2015-16	2016-17	2017-18	Average annual growth 2013-14 to 2017-18
		<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>per cent</i>
Barwon Water	Water	143 819	146 647	149 477	152 423	155 563	2.0
	Sewerage	129 305	131 847	134 391	137 040	139 863	2.0
Central Highlands Water	Water	65 884	66 888	67 909	68 946	70 001	1.5
	Sewerage	55 218	56 214	57 263	58 399	59 558	1.9
Coliban Water	Water	69 687	70 851	72 034	73 238	74 463	1.7
	Sewerage	60 959	61 981	63 021	64 078	65 153	1.7
East Gippsland Water	Water	22 061	22 348	22 661	22 978	23 300	1.4
	Sewerage	21 280	21 656	21 959	22 266	22 578	1.5
Gippsland Water	Water	66 053	67 149	68 245	69 341	70 437	1.6
	Sewerage	57 174	58 389	60 079	61 889	63 119	2.5
Goulburn Valley Water	Water	56 673	57 467	58 272	59 089	59 916	1.4
	Sewerage	48 878	49 562	50 255	50 959	51 673	1.4
GWMWater	Water	31 083	31 318	31 557	31 794	32 033	0.8
	Sewerage	24 474	24 917	25 125	25 335	25 543	1.1
Lower Murray Water	Water	34 494	34 828	35 161	35 497	35 836	1.0
	Sewerage	29 511	29 854	30 197	30 542	30 891	1.1
North East Water	Water	47 922	48 489	49 113	49 721	50 339	1.2
	Sewerage	43 126	44 237	44 886	45 515	46 161	1.7
South Gippsland Water	Water	20 626	20 916	21 213	21 511	21 810	1.4
	Sewerage	17 631	17 924	18 223	18 513	19 348	2.4
Wannon Water	Water	41 802	42 242	42 693	43 129	43 554	1.0
	Sewerage	35 246	35 621	36 000	36 370	36 731	1.0
Westernport Water	Water	15 862	16 166	16 478	16 797	17 121	1.9
	Sewerage	16 472	16 870	17 279	17 700	18 133	2.4

Note Water connections exclude vacant land, fire services and other stand alone fixed charges.

TABLE 9.2 BUSINESSES' PROPOSED TOTAL VOLUME OF WATER AND SEWAGE
(ML per year)

		2013-14	2014-15	2015-16	2016-17	2017-18	Average annual growth 2013-14 to 2017-18
		<i>ML</i>	<i>ML</i>	<i>ML</i>	<i>ML</i>	<i>ML</i>	<i>per cent</i>
Barwon Water	Water	30 191	30 876	31 542	32 082	32 704	2.0
	Sewage	2 883	2 948	3 012	3 063	3 123	2.0
Central Highlands Water	Water	10 850	11 098	11 340	11 578	11 815	2.2
	Sewage	434	460	488	517	548	6.0
Coliban Water	Water	16 732	16 891	17 057	17 238	17 427	1.0
	Sewage	937	952	967	983	998	1.6
East Gippsland Water	Water	4 173	4 228	4 284	4 337	4 392	1.3
	Sewage	na	na	na	na	na	na
Gippsland Water	Water	12 423	12 490	12 556	12 620	12 682	0.5
	Sewage	702	694	686	678	670	-1.2
Goulburn Valley Water	Water	22 500	22 700	22 800	23 000	23 200	0.8
	Sewage	1 162	1 162	1 162	1 162	1 162	0.0
GWMWater	Water	8 030	8 096	6 856	8 233	8 322	0.9
	Sewage	813	818	0	0	0	na
Lower Murray Water	Water	16 543	16 656	16 770	16 884	17 000	0.7
	Sewage	na	na	na	na	na	na
North East Water	Water	11 406	11 695	12 002	12 310	12 626	2.6
	Sewage	na	na	na	na	na	na
South Gippsland Water	Water	4 518	4 512	4 509	4 546	4 583	0.4
	Sewage	194	194	194	194	194	0.0
Wannon Water	Water	11 537	11 471	11 558	11 645	11 734	0.4
	Sewage	na	na	na	na	na	na
Westernport Water	Water	1 623	1 639	1 656	1 672	1 689	1.0
	Sewage	na	na	na	na	na	na

Note: Water volumes relate to residential and nonresidential services. Sewage volumes relate to nonresidential services for all businesses. Excludes contract volumes. na Not applicable – East Gippsland Water, Lower Murray Water, North East Water, Wannon Water, and Westernport Water do not charge for volumetric sewage.

9.4 COMMISSION'S ASSESSMENT

9.4.1 RESIDENTIAL AND NON-RESIDENTIAL CUSTOMER GROWTH

Residential

Some businesses used VIF dwelling forecasts to develop their forecasts of residential customer numbers. VIF dwelling forecasts form the basis for the Commission's preferred approach to forecasting connection, as identified in the guidance paper.⁴⁶ Other businesses either did not apply VIF growth rates or applied them incorrectly. Specifically, some businesses used outdated VIF forecasts (from 2008), some applied the population growth rates instead of dwelling growth rates and some used historical growth rates or council forecasts. Further, the VIF forecasts did not directly map onto the business's water supply area in most cases. These businesses used local council information or other data to convert the VIF forecasts into customer number forecasts for their water supply area.

Generally, Frontier Economics agreed with businesses' methodologies to convert VIF forecasts into customer number forecasts.⁴⁷ It accepted businesses using other growth rates if these rates were consistent with VIF 2012 rates.

However, Frontier Economics analysis recommended revised forecasts for the following businesses:

- Coliban Water resubmitted residential sewerage connection forecasts following a query from Frontier Economics. Frontier Economics adopted these revisions because they were consistent with historical growth rates.
- East Gippsland Water used a combination of VIF 2008, VIF 2012 and historical growth rates to forecast connections. Frontier Economics recommended using VIF 2012 dwelling growth rates. East Gippsland Water agreed with this revision.
- Lower Murray Water used VIF 2008 growth rates. Frontier Economics recommended using VIF 2012 growth rates and Lower Murray Water agreed with this revision.

⁴⁶ Essential Services Commission 2011, 2013 Water Price Review — Guidance on Water Plans, October.

⁴⁷ Frontier Economics 2013, *Water Price Review: Demand Forecasts*, February.

- Westernport Water used the VIF population growth rate to forecast connections growth. Frontier Economics recommended using the VIF 2012 dwelling rate to revise Westernport Water's forecast water and sewerage connections. This slightly higher rate accounts for changing trends in household formation. Westernport Water agreed with this revision.

In the cases above, the proposed adjustments reflect the best available information. On that basis the Commission agrees with Frontier Economics' recommendations and has adopted the revised growth rates for the purposes of this Draft Decision. The Commission proposes to approve the revised numbers from Coliban Water, East Gippsland Water, Lower Murray Water and Westernport Water.

As a result, the Commission proposes to:

- increase Coliban Water's forecast residential sewerage connections to correct an error in their submitted data
- increase East Gippsland Water's forecast residential water and sewerage connections to reflect VIF's household growth projections
- increase Lower Murray Water's forecast residential water and sewerage connections to reflect VIF's household growth projections
- increase Westernport Water's forecast residential water and sewerage connections to reflect VIF's household growth projections (see table 9.3)

TABLE 9.3 PROPOSED RESIDENTIAL WATER CONNECTION GROWTH RATES COMPARED TO DRAFT DECISION - AVERAGE ANNUAL GROWTH 2013-14 TO 2017-18 (per cent)

	Water		Sewerage	
	<i>Proposed</i>	<i>Draft decision</i>	<i>Proposed</i>	<i>Draft decision</i>
Barwon Water	2.0	2.0	2.0	2.0
Central Highlands Water	1.6	1.6	1.9	1.9
Coliban Water	1.7	1.7	1.7	1.7
East Gippsland Water	1.3	1.7	1.3	1.7
Gippsland Water	1.7	1.7	2.6	2.6
Goulburn Valley Water	1.6	1.6	1.4	1.4
GWMWater ^a	0.8	0.8	na	na
Lower Murray Water	1.0	1.1	1.1	1.2
North East Water	1.4	1.4	na	na
South Gippsland Water	1.6	1.6	2.4	2.4
Wannon Water	1.1	1.1	1.0	1.0
Westernport Water	1.9	2.2	2.0	2.3

^a GWMWater's growth figures includes residential ground water and pipeline customers. Na – not available

The Commission proposes to approve residential water and sewerage customer forecasts for Barwon Water, Central Highlands Water, Gippsland Water, Goulburn Valley Water, GWMWater, North East Water, South Gippsland Water and Wannon Water.

Non-residential

Generally, the businesses derived their forecasts of non-residential customer numbers from their residential customer number forecasts. The businesses used the historical relationship between residential and non-residential connection growth to forecast non-residential connections. Some businesses adjusted their forecasts derived using this approach to account for information from local businesses or other sources.

Generally, Frontier Economics recommended the Commission accept the non-residential customer connection forecasts provided by the regional water businesses.

However, Frontier Economics recommended revisions for some businesses:

- Coliban Water resubmitted non-residential sewerage connection forecasts. Frontier Economics adopted this resubmission because it was consistent with historical growth rates
- East Gippsland Water used a combination of VIF 2008, VIF 2012 and historical growth rates to forecast connections. Frontier Economics recommended using VIF 2012 growth rates and East Gippsland Water agreed with this revision.
- Lower Murray Water used VIF 2008 growth rates. Frontier Economics recommended using VIF 2012 growth rates and Lower Murray Water agreed with this revision.
- North East Water assumed non-residential connections would not grow over the third regulatory period. It also provided several incorrect sets of non-residential forecasts. Frontier Economics recommended revising growth rates to reflect residential growth rates.
- South Gippsland Water assumed historical growth rates for non-residential customers. However, Frontier Economics could not replicate South Gippsland Water's calculation of growth rates for the southern region and recommended revising growth rates to 1.7 per cent (the historical growth rate from 2005—06 to 2011—12). South Gippsland Water agreed with this revision.
- Frontier Economics identified an unexplained step decline in Westernport Water's non-residential connections. Westernport Water noted it mistakenly excluded 32mm and 50mm meter sizes in its non-residential connections forecast. Frontier Economics recommended revising the forecast to include these connections.

In the cases above, the proposed adjustments reflect the best available information. On that basis the Commission agrees with Frontier Economics' recommendations and has adopted the revised growth rates for the purposes of this Draft Decision. The Commission proposes to approve the revised figures from Coliban Water, East Gippsland Water, Lower Murray Water, South Gippsland Water and Westernport Water.

The Commission observes that North East Water resubmitted their forecasts on several occasions during the review process and submitted a final set of updated forecasts after Frontier Economics had submitted its final report. The Commission asked Frontier Economics to review the final resubmission, which resulted in Frontier Economics recommending several revisions. The Commission has adopted Frontier Economics' recommendation to revise North East Water's nonresidential connections as the Commission believes that the revised growth rates, though not seen by North East Water, represent a more accurate

connections forecast than what North East Water presented in their final Water Plan.

As a result, the Commission proposes to:

- increase Coliban Water's forecast non-residential sewerage connections to correct an error in their submitted data
- increase East Gippsland Water's forecast non-residential water and sewerage connections to reflect VIF's household growth projections
- increase Lower Murray Water's forecast non-residential water and sewerage connections to reflect VIF's household growth projections
- increase North East Water's forecast non-residential water connections to reflect residential growth rates
- increase South Gippsland Water's non-residential water connections to reflect accurate historical growth rates
- increase Westernport Water's forecast non-residential water connections to reflect resubmitted data

The Commission proposes to approve non-residential connections forecasts for Barwon Water, Central Highlands Water, Gippsland Water, Goulburn Valley Water, GWMWater and Wannon Water.

9.4.2 WATER CONSUMPTION

The Commission specified water businesses should consider the extent and timing of any bounce back in water demand following improving supply conditions and the removal of water restrictions.⁴⁸ A bounce back in water demand is an increase in water use following a period of reduced water demand. In this case water restrictions and wet weather conditions have affected demand over the current regulatory period.

Generally, regional businesses' forecasts of consumption per residential connection were conservative and based on average climate conditions.⁴⁹ Some businesses assumed wet weather conditions over 2010-11 will continue (reducing

⁴⁸ Essential Services Commission 2011, 2013 Water Price Review — guidance on Water Plans, October. www.esc.vic.gov.au/Water/Water-Price-Review-2013-18/Guidance-Paper-Water-Plan-guidance-for-water-price.

⁴⁹ The Commission considers this to be lower than reasonable because of improving supply conditions and the removal of water restrictions.

demand), while others observed the removal of restrictions in their area had not increased demand.

Frontier Economics assessed businesses' assumptions and recommended adjusting water demand forecasts with unexplained step declines or which were likely to underestimate demand over the period. Adjustments included:

- Increase Central Highlands Water's forecasts of consumption per residential connection. Central Highlands Water proposed a step decline from the last year of actual data (2011-12) to 2012-13. Frontier Economics recommended using 2011-12 as the base year and Central Highlands Water submitted revised forecasts in accordance.
- Increase East Gippsland Water's forecast consumption per residential connection to an average of the previous regulatory period. East Gippsland Water did not explain the significant step decline in per connection consumption. East Gippsland Water agreed with this revision.
- Increase Gippsland Water's consumption per residential connection to reflect the 2009-10 year. Gippsland Water based its forecasts on adjustments to the 2011-12 year with a 2 per cent annual decline extrapolated forward. Frontier Economics rejected this approach because it was not a sufficiently robust demand forecasting method.
- Increase Gippsland Water's non-residential volumes. Frontier Economics found that Gippsland Water did not use a robust forecasting methodology. Frontier Economics recommended adjusted volumes to reflect the 2009-10 year's consumption per connection.
- Increase GMMWater's forecast consumption per residential connection forecast in 2015-16. Frontier Economics disagreed with GMMWater's assumption of a 'wet' year in 2015-16 and recommended an average of the 2014-15 and the 2016-17 forecasts. GMMWater agreed with this revision.
- Increase South Gippsland Water's forecast consumption per residential connection. Frontier Economics was concerned South Gippsland Water assumed continuing wet weather conditions for the next regulatory period and recommended it select a year representing average conditions. South Gippsland Water chose 2009-10 as a representative year for average consumption.
- Adjust Westernport Water's forecast consumption per residential connection assumptions for new connections to maintain the current ratio of permanent to non-permanent residents. Westernport Water assumed all new connections would be non-permanent residents with a much lower consumption per connection. Frontier Economics rejected this assumption and recommended applying the business's current ratio of permanent and non-permanent customers. Westernport Water agreed with this revision.

- Adjust the businesses' forecast total volumes to account for revised connection numbers (East Gippsland Water, Lower Murray Water, South Gippsland Water and Westernport Water).

In the cases above, the proposed adjustments reflect more appropriate assumptions to forecast demand. On that basis the Commission agrees with Frontier Economics' recommendations and has adopted the revised growth rates for the purposes of this Draft Decision. The Commission proposes to approve the revised numbers from Central Highlands Water, East Gippsland Water, GWMWater, Lower Murray Water, South Gippsland Water, and Westernport Water.

Gippsland Water did not agree with Frontier Economics' recommendations in its draft report. The Commission has reviewed Gippsland Water's concerns with Frontier Economics' advice and the Commission agrees with Frontier Economics' assessment that Gippsland Water's modelling techniques were not sufficiently robust and its methodology and approach were beneath the standards of other businesses. The Commission has discussed Gippsland Water's concerns with Frontier Economics and it is satisfied that Frontier Economics has adequately assessed Gippsland Water's forecasts. The Commission can undertake independent demand modelling after the draft decision if concerns remain.

As a result, the Commission proposes to revise water demand forecasts for Gippsland Water.

The Commission proposes to approve water demand forecasts for Barwon Water, Coliban Water, Goulburn Valley Water, North East Water and Wannon Water.

Elasticity

The Commission asked businesses to consider the effect of price elasticity on water demand in their forecasts of water volumes. Water price elasticity is the affect that a change in price will have on the quantity of water used.

Frontier Economics commented several businesses applied elasticity factors to their volumetric forecasts for residential water customers, but if businesses did not apply elasticities, it adopted these assumptions:

Where a business has not explicitly identified that they have incorporated price elasticity impacts in their forecasts, we have assumed that this is because they believe that such impacts are not material. This is in line with applying a zero price elasticity measure.⁵⁰

The businesses' proposed elasticities (table 9.4) reflect the assumed per cent change in demand for a one per cent change in price. Given the limited price rises proposed by most regional businesses and the small elasticities proposed, price elasticity will have a limited impact on demand.

TABLE 9.4 ELASTICITIES

Water Business	Elasticity
Coliban Water	-0.1
Central Highlands Water	-0.03
East Gippsland Water	-0.07
Lower Murray Water	-0.05 (0–300kL) -0.10 (300–600kL) -0.15 (>600kL)
South Gippsland Water	-0.04

Source: Frontier Economics⁵¹

9.4.3 SEWAGE VOLUMES

No regional water businesses levy volumetric sewerage charges on residential customers.

A number of businesses do not levy volumetric sewage charges for small businesses and only levy volumetric trade waste charges for larger businesses. Seven businesses forecast sewage volumes (for non-residential customers only) — Barwon Water, Central Highlands Water, Coliban Water, Gippsland Water,

⁵⁰ Frontier Economics 2013, Water Price Review: Demand Forecasts, February, p. 32.

⁵¹ Frontier Economics 2013, Water Price Review: Demand Forecasts, February, p. 32.

Goulburn Valley Water, GWMWater (GWMWater is phasing out volumetric sewage charges by 2015-16), and North East Water. Other businesses do not intend to levy any volumetric charges and thus did not forecast sewage volumes.

Generally, sewage volume forecasts assumed the historical relationship between water distributed and sewage collected would continue into the future. Frontier Economics found most businesses' proposed sewage volume forecasts were reasonable. However, it recommended revising sewage volumes for several businesses:

- Coliban Water resubmitted non-residential sewage volume forecasts following a query from Frontier Economics. Frontier Economics adopted these revisions because they were consistent with historical growth rates.
- Frontier Economics recommended increasing Gippsland Water's total sewage volumes to reflect adjustments to non-residential volumes and a revision of the water volumes to wastewater.

In the cases above, the proposed adjustments reflect more appropriate assumptions to forecast demand. On this basis, the Commission agrees with Frontier Economics' recommendations.

As a result, the Commission proposes to accept Coliban Water's revised sewage volume forecasts and revise sewage volume forecasts for Gippsland Water.

The Commission proposes to approve sewage volume forecasts (for non-residential customers) for Barwon Water, Central Highlands Water, Goulburn Valley Water, GWMWater and North East Water.

9.4.4 TRADE WASTE VOLUMES AND CONNECTIONS

Most businesses levy trade waste charges on a per connection basis and only provide forecasts of trade waste connections in their Water Plans. However, some businesses only levy volumetric trade waste charges (for example, Barwon Water and North East Water). The businesses generally forecast trade waste customers to remain constant over the third regulatory period. Further, many businesses only designate major waste producers as trade waste customers, so their forecasts of trade waste connections remain fairly stable.

Generally, Frontier Economics adopted businesses' forecasts of trade waste volumes and connections, despite noting some issues. However, Frontier

Economics recommended revising trade waste customer numbers or trade waste volumes for the following businesses:

- Increasing Coliban Water's forecasts for phosphorus volumes to reflect historical trends. Frontier rejected Coliban Water's assumption forecast phosphorus volumes would remain stable.
- East Gippsland Water forecast no growth in trade waste customers over the third regulatory period. Frontier Economics found this inconsistent with historical growth and recommended revising East Gippsland Water's trade waste connections growth rate. East Gippsland Water agreed with this revision. Further, East Gippsland Water did not provide any forecast of trade waste loads. We request that East Gippsland Water provide this information in response to this draft decision.
- Frontier Economics rejected Gippsland Water's assumption forecast trade waste customer numbers would remain stable. Frontier Economics revised Gippsland Water's forecasts for trade waste customer numbers to reflect historical trends.
- Lower Murray Water made an error in their trade waste customer forecast for 2015-16 to 2016-17. Frontier Economics identified the error and increased the forecast customer numbers in consultation with Lower Murray Water.
- North East Water forecast an unexplained step decline in trade waste volumes for 2012-13. It also submitted several incorrect trade waste figures (actuals and forecast) to both the Commission and Frontier Economics. Frontier Economics recommended amending North East Water's forecasts to remove the decline and forecast growth to continue at the same growth rates forecast by North East Water.

In the cases above, the proposed adjustments reflect up-to-date information or more appropriate assumptions to forecast demand. On this basis, the Commission agrees with Frontier Economics' recommendations.

For the purposes of this draft decision the Commission proposes to approve the revised numbers from East Gippsland Water and Lower Murray Water, and revise the following:

- trade water customer numbers for Gippsland Water trade waste volumes for Coliban Water and North East Water.

The Commission proposes to approve forecasts of trade waste connections and volumes for Barwon Water, Central Highlands Water, Goulburn Valley Water, GWMWater, South Gippsland Water, Wannon Water and Westernport Water.

For a full explanation of trade waste refer to chapter 14 of this draft decision.

9.4.5 RECYCLED WATER VOLUMES

Most regional businesses providing recycled water supply it to large non-residential customers under contracts. However, Barwon Water, Coliban Water and Westernport Water provide recycled water to some residential customers.

Frontier Economics recommended accepting the businesses' recycled water forecasts.

The Commission proposes to adopt forecasts of recycled water volumes for Barwon Water, Coliban Water, and Westernport Water for the purposes of the Draft Decision on the basis that Frontier Economics' review and the Commission's findings indicate that the forecasts are reasonable.

East Gippsland Water did not clarify its recycled water revenue following a query from Frontier Economics. East Gippsland Water should clarify its position in response to this draft decision.

9.4.6 GMMWATER'S RURAL ASSESSMENT

Generally, GMMWater forecast minimal change from current conditions for their license numbers, water quantities and headworks charges. Frontier Economics found that GMMWater's forecasts were reasonable and recommended no revisions.

Therefore, the Commission proposes to accept GMMWater's rural demand forecasts.

9.5 DRAFT DECISION

Tables 9.5 to 9.8 summarises the Commission's draft decision on the regional urban water businesses' demand forecasts. The demand adjustments for each businesses are included in volume II.

TABLE 9.5 DRAFT DECISION — WATER CONNECTIONS
Residential and non-residential

	2013-14	2014-15	2015-16	2016-17	2017-18	Average annual growth 2013-14 to 2017-18
	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>per cent</i>
Barwon Water	143 819	146 647	149 477	152 423	155 563	2.0
Central Highlands Water	65 884	66 888	67 909	68 946	70 001	1.5
Coliban Water	69 653	70 817	72 000	73 204	74 428	1.7
East Gippsland Water	22 547	22 927	23 314	23 708	24 131	1.7
Gippsland Water	66 053	67 149	68 245	69 341	70 437	1.6
Goulburn Valley Water	56 673	57 467	58 272	59 089	59 916	1.4
GWMWater	31 083	31 318	31 557	31 794	32 033	0.8
Lower Murray Water	34 514	34 872	35 232	35 597	35 964	1.0
North East Water	47 920	48 589	49 268	49 956	50 653	1.4
South Gippsland Water	20 636	20 935	21 240	21 545	21 854	1.4
Wannon Water	41 802	42 242	42 693	43 129	43 554	1.0
Westernport Water	15 899	16 240	16 592	16 952	17 319	2.2

Note Excludes vacant land, fire services and other stand alone fixed charges.

TABLE 9.6 DRAFT DECISION — WATER CONSUMPTION
Residential and non-residential

	2013-14	2014-15	2015-16	2016-17	2017-18	Average annual growth 2013-14 to 2017-18
	<i>ML</i>	<i>ML</i>	<i>ML</i>	<i>ML</i>	<i>ML</i>	<i>per cent</i>
Barwon Water	30 191	30 876	31 542	32 082	32 704	2.0
Central Highlands Water	11 130	11 310	11 480	11 650	11 851	1.6
Coliban Water	16 305	16 464	16 630	16 811	17 000	1.0
East Gippsland Water	4 549	4 617	4 686	4 755	4 829	1.5
Gippsland Water	12 762	12 952	13 142	13 332	13 522	1.5
Goulburn Valley Water	22 500	22 700	22 800	23 000	23 200	0.8
GWMWater	8 030	8 096	8 131	8 233	8 322	0.9
Lower Murray Water	16 552	16 677	16 804	16 932	17 061	0.8
North East Water	11 405	11 717	12 035	12 362	12 697	2.7
South Gippsland Water	4 574	4 572	4 573	4 614	4 658	0.5
Wannon Water	11 537	11 471	11 558	11 645	11 734	0.4
Westernport Water	1 632	1 661	1 691	1 722	1 753	1.8

TABLE 9.7 DRAFT DECISION — SEWERAGE CONNECTIONS
Residential and non-residential

	2013-14	2014-15	2015-16	2016-17	2017-18	Average annual growth 2013-14 to 2017-18
	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>per cent</i>
Barwon Water	129 305	131 847	134 391	137 040	139 863	2.0
Central Highlands Water	55 218	56 214	57 263	58 399	59 558	1.9
Coliban Water	62 454	63 537	64 639	65 723	66 825	1.7
East Gippsland Water	21 667	22 036	22 410	22 791	23 201	1.7
Gippsland Water	57 174	58 389	60 079	61 889	63 119	2.5
Goulburn Valley Water	48 878	49 562	50 255	50 959	51 673	1.4
GWMWater	24 474	24 917	25 125	25 335	25 543	1.1
Lower Murray Water	29 540	29 907	30 277	30 651	31 028	1.2
North East Water	43 126	44 237	44 886	45 515	46 161	1.7
South Gippsland Water	17 631	17 924	18 223	18 513	19 348	2.4
Wannon Water	35 246	35 621	36 000	36 370	36 731	1.0
Westernport Water	16 692	17 128	17 578	18 042	18 519	2.6

Note Excludes vacant land and other stand alone fixed charges.

TABLE 9.8 DRAFT DECISION — SEWAGE VOLUME
Residential and non-residential

	2013-14	2014-15	2015-16	2016-17	2017-18	Average annual growth 2013-14 to 2017-18
	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>per cent</i>
Barwon Water	2 883	2 948	3 012	3 063	3 123	2.0
Central Highlands Water	434	460	488	517	548	6.0
Coliban Water	956	965	975	985	995	1.0
East Gippsland Water	na	na	na	na	na	na
Gippsland Water	1 175	1 178	1 181	1 183	1 186	0.3
Goulburn Valley Water	1 172	1 181	1 190	1 200	1 210	0.8
GWMWater	813	818	0	0	0	na
Lower Murray Water	na	na	na	na	na	na
North East Water	na	na	na	na	na	na
South Gippsland Water	194	194	194	194	194	0.0
Wannon Water	na	na	na	na	na	na
Westernport Water	na	na	na	na	na	na

Note Sewage volumes relate to non-residential services for all businesses. Excludes contract volumes.

The Commission proposes to approve all demand forecasts proposed by Barwon Water, Goulburn Valley Water and Wannon Water.

The Commission proposes to approve all demand forecasts proposed by GWMWater for its rural services.

The Commission proposes not to approve all demand forecasts proposed by Central Highlands Water, Coliban Water, East Gippsland Water, Gippsland Water, GWMWater (for its regional services), Lower Murray Water, North East Water, South Gippsland Water and Westernport Water.

Details of which demand forecasts the Commission proposes to approve and which it proposes not to approve can be found in Volume II of this decision for each business.

10 FORM OF PRICE CONTROL

10.1 INTRODUCTION

The *Water Industry Regulatory Order (WIRO)* provides water businesses with the flexibility to propose prices, or the manner in which prices are calculated or otherwise determined. Water businesses can propose pricing formulas, price caps or pricing principles, which are the different forms of price control. The various price controls have advantages and disadvantages in terms of risk sharing between businesses and their customers, price certainty for customers, and businesses' flexibility in adjusting prices to reflect changing circumstances. When considering an appropriate form of price control, businesses and the Commission must weigh up the nature and magnitude of any uncertainties, the potential impacts of unforeseen events on business revenues and financial viability, customer preferences and potential customer impacts, among other factors.

10.2 DIFFERENT FORMS OF PRICE CONTROL

The most common forms of price control used by regional water businesses in the past include tariff baskets, price caps, and revenue caps.

10.2.1 PRICE CAPS

Under price caps, maximum prices, based on an approved maximum allowed revenue, approved by the Commission at the start of the regulatory period to recover businesses' allowed revenues. They are fixed for the regulatory period (except for inflation and productivity adjustments), which provides certainty and stability to customers.

Individual price caps may be appropriate when a business's fixed costs are relatively low and its operating costs vary significantly with the quantity of water and other services provided. Under a price cap, revenues would increase when water sales increased which would enable a business to recover higher operating costs. When sales of water or other services are less than forecast, revenues would be lower than forecast.

When fixed costs comprise a significant part of a business's total costs, individual price caps may still be appropriate if customers place a high value on price certainty over the regulatory period. In such a situation businesses would bear the risk of revenue volatility (and potential impacts on financial viability) when actual demand or supply vary significantly from forecast levels.

10.2.2 WEIGHTED AVERAGE PRICE CAPS (OR TARIFF BASKET)

Under this form of price control, a weighted average price cap is applied to a basket of services. The weighted average price follows a predetermined price path escalated by inflation. The weights are usually derived from the quantities of the service sold. Businesses can adjust individual tariffs each year, so long as the overall weighted average price increase is within the price cap set for the basket of services. Customers thus face some risk of price variability from year to year because individual tariffs may change.

A tariff basket is often an appropriate form of price control for a business that has a clear strategy for restructuring its tariffs. An example is a business that intends to alter tariffs to change the proportion of variable or fixed charges in an average customer's bill. The Commission's view is that a business proposing a tariff basket should demonstrate it:

- clearly articulated in its Water Plan a well-defined tariff strategy consistent with the WIRO
- will set prices consistent with that tariff strategy
- will adequately consult with customers and consider their interests when proposing price changes during the regulatory period
- will ensure an approved rebalancing constraint specified in the business's Water Plan limits the impact of price adjustments to customer categories.

10.2.3 REVENUE CAP

Under a revenue cap, the maximum revenue that a business can earn is set at the start of a regulatory period. A business thus has guaranteed revenue regardless of sales volume. But a revenue cap can result in price volatility for water customers, because water businesses may change prices to maintain their approved revenues. Businesses may raise prices to offset lower than forecast sales of water services, for example. Conversely, when sales of water services are higher than expected, businesses may reduce prices to ensure revenues stay within the revenue cap.

A revenue cap is often an effective mechanism to help businesses deal with significant demand or supply uncertainty. It is more appropriate when most of a business' costs are fixed and do not vary significantly with the level of demand or supply. For this reason, revenue caps have been a more popular form of price control in rural businesses because these businesses often face highly variable demand and have largely fixed costs.

10.2.4 A COMBINED APPROACH

Businesses can use a hybrid approach, using different forms of price control for different services. A business may, for example, choose to implement a revenue cap on the majority of its services (particularly those that have high fixed costs), price caps on other services for which costs rise and fall according to demand (that is, with low fixed costs) and pricing principles for other services (such as miscellaneous services).

In the 2008 water price review, the Commission approved a hybrid form of price control for all regional urban businesses — price caps for the first year of the regulatory period, followed by price caps with the option to apply for a tariff basket. No businesses applied for the tariff basket during the regulatory period.

10.2.5 REBALANCING CONSTRAINTS

A rebalancing constraint is a limit on price rises or falls that can occur over a certain period. They are designed to reduce possible price volatility that water customers may face. A rebalancing constraint can be applied to a revenue cap and a tariff basket. A business with a revenue cap may have a rebalancing constraint under which individual tariffs must not rise or fall by more than 10 per cent, for

example, in any year of a regulatory period. The appropriate price range and time period of rebalancing constraints depend on the circumstances of the water business.

10.3 APPROACH TO REGULATING FORMS OF PRICE CONTROL

In its guidance paper,⁵² the Commission indicated that proposed forms of price control for all rural water businesses should:

- provide incentives to align price structures with underlying costs. That is, high cost services should have higher prices, while low cost services should have lower prices. Aligning costs and prices is important for efficient investment and efficient use of water services
- manage and allocate demand and supply risks efficiently. That is, the chosen form of price control should reflect demand and supply risks and how they affect revenue. Water businesses should consider aligning risky activities with the forms of price control that can allocate risk to the party best able to manage them
- minimise administrative complexity and cost. That is, administratively simple forms of price control are easy for customers to understand and result in lower costs for the water industry to administer.

The Commission also identified the following issues for water businesses to consider when proposing their forms of price control for the next regulatory period (1 July 2013 to 30 June 2018):

- *Risk management:* Water businesses must decide whether uncertainty about supply and demand forecasts has increased and how it affects future demand. Options for dealing with increased uncertainty include price control mechanisms or tariff designs that target risk. The Commission expects businesses to consider how climate change affects forecasting uncertainty.
- *Price path stability:* Price stability (that is, avoiding price shocks) is important within and between control periods. To promote price stability, businesses

⁵² Essential Services Commission 2011, *2013 Water Price Review – Guidance on Water Plans*, October.

must formulate expenditure plans that extend beyond single regulatory periods. This broader planning should improve investment decisions, given the large and ‘lumpy’ nature and long life of many water industry assets. The Commission expects businesses to explore options for managing the impact on customers of changes in costs, which could involve smoothing price changes over a reasonable period or developing transition plans.

- *Transition arrangements:* The Commission will consider the businesses’ arrangements for transferring from one form of price control to another, if applicable. It will focus on how water businesses intend to protect those disadvantaged by a change in the form of price control, and how the change affects price stability.

10.4 OVERVIEW OF BUSINESSES’ PROPOSALS

Table 10.1 sets out the regional water businesses’ past and proposed forms of price control. Most businesses proposed to maintain price caps, while four businesses proposed to change their forms of price control for the next regulatory period:

- Coliban Water proposed to change from a price cap to a demand adjusted revenue cap
- East Gippsland Water and Lower Murray Water urban proposed to change from price caps to tariff baskets and
- GWMWater proposed to change from price caps to a revenue cap.

These four businesses also proposed rebalancing constraints (table 10.2) on their ability to change prices in any given year.

TABLE 10.1 REGIONAL WATER BUSINESSES' PAST AND PROPOSED FORMS OF PRICE CONTROL

Water business	2008 final decision	2013 proposal
Barwon Water	Price caps	Price caps
Central Highlands Water	Price caps	Price caps
Coliban Water	Price caps	Demand adjusted revenue cap
East Gippsland Water	Price caps	Tariff basket
Gippsland Water	Price caps	Price caps
Goulburn Valley Water	Price caps	Price caps
GWMWater	Price caps	Revenue cap
Lower Murray Water	Price caps	Tariff basket
North East Water	Price caps	Price caps
South Gippsland Water	Price caps	Price caps
Wannon Water	Price caps	Price caps
Westernport Water	Price caps	Price caps

TABLE 10.2 PROPOSED REBALANCING CONSTRAINTS

Water business	Proposed maximum price change
Coliban Water	+3 per cent tariff basket
East Gippsland Water	±3 per cent
GWMWater	±10 per cent
Lower Murray Water	+10 per cent

10.4.1 COLIBAN WATER

Coliban Water proposed to use a demand adjusted revenue cap. This form of price control is similar to a revenue cap, but the business will multiply over-recoveries or under-recoveries of revenue by the ratio of the difference between price and cost. This adjustment brings the amount over-recovered or under-recovered closer to the costs incurred by the business when demand is higher or lower. Coliban Water proposed to include all tariffs in the mechanism. The proposal is explained in more detail in Coliban Water's Water Plan.⁵³

⁵³ Coliban Water 2012, *Water Plan 2013-2018: Pricing submission to the Essential Services Commission*, September, page 96.

Coliban Water described its proposal as better than the alternatives because the demand adjusted revenue cap would enable risk sharing between the business and its customers, with prices reflecting revenue over-recovery or under-recovery only to the extent that it reflects changes in demand.

Coliban Water also proposed a tariff basket form of rebalancing constraint. This constraint would ensure individual tariff movements within a water, sewerage and trade waste basket would not be more than 3 per cent higher than the average increase required in a given year.

10.4.2 EAST GIPPSLAND WATER

East Gippsland Water proposed a tariff basket form of price control. It proposed to rebalance its tariffs over the next regulatory period, to increase the relative weight of variable prices, and to reduce the weight of sewerage prices. To do so, the business argued it requires a form of price control that enables it to adjust prices over the regulatory period. East Gippsland Water also submitted this form of price control would help provide price certainty to its customers, because the business faces most of its revenue risk from changes in demand.

East Gippsland Water applied for a rebalancing constraint of a maximum of 3 per cent up or down each year, to provide it with some flexibility with prices.

10.4.3 LOWER MURRAY WATER URBAN

Lower Murray Water proposed to move from price caps to a tariff basket for the third regulatory period. In its Water Plan, it argued the tariff basket would allow it to respond to changing circumstances while limiting price variability for customers. The business also wanted to retain the flexibility to alter its tariffs to deal with the uncertainty of customers' responses to the ending of the drought. Further, it submitted that a tariff basket, by forcing the business to bear demand risk, provides an incentive to manage the business efficiently, and ensure (to the extent possible) costs move in line with the volume of water delivered to customers.

Lower Murray Water proposed an upper constraint of 10 per cent per year on changes in individual regulated tariffs.

10.4.4 GMMWATER

Following its submission of its Water Plan, GMMWater applied to the Commission for a revenue cap, because considerable uncertainty surrounds (a) the extent to which forecast growth water sales (new supplies from the Wimmera Mallee pipeline) will be realised in the next regulatory period and (b) any impact on GMMWater of the upcoming Wimmera Glenelg Bulk Water Entitlement Order review. GMMWater also submitted that it experienced difficulty in applying the hybrid price caps approved in the 2008 water price review.

GMMWater proposed a rebalancing constraint of ± 10 per cent per year for all tariffs, except groundwater and trade waste charges. For these services, the proposed price paths are outside the constraint and are intended to achieve full cost recovery.

10.5 COMMISSION'S ASSESSMENT

In its 2008 regional and rural price review, the Commission approved a hybrid form of price control for all regional water businesses. It consisted of price caps for the first year of the period with the option to apply to the Commission for a tariff basket during the regulatory period. The Commission considered that this approach balanced an appropriate degree of business flexibility with price certainty for customers, given the significant uncertainty about expected operating conditions for water businesses in the second regulatory period.

During the next regulatory period, we are allowing all regional water businesses that have applied for price caps to apply to transfer to a hybrid form of price control. This will assist these businesses to manage uncertainty by implementing any reasonable rebalancing of tariffs that can be justified during the regulatory period.

Under the hybrid form of price control, any approved price adjustments must be consistent with the tariff basket approach, including limiting average annual price increases across the range of tariffs to the average increase under a tariff basket. Businesses that apply to the Commission within the third regulatory period to adjust their tariff strategies will have to clearly articulate their new tariff strategy.

The Commission's view is that consultation with customers is important to ensure that the impact on customers of tariff changes is known in advance. The submission from the Victorian Council of Social Services (VCOSS) called for water businesses making significant changes to tariff structures to demonstrate their understanding of the impacts on different types of customers.⁵⁴ The submission also suggested that these businesses should also explain how they will mitigate the impacts and where necessary, help vulnerable customers to adapt. VCOSS argued that this would demonstrate the water businesses' commitment to proactively helping vulnerable customers.

To ensure that water businesses that propose tariff changes under this hybrid form of price control and the other forms of price control, undertake adequate customer consultation, the Commission proposes to require all regional water businesses to consult with customers before proposing a material tariff change. The determinations will require water businesses to provide evidence of customer consultation (including customer consultative committees) and a statement about customer impacts and how the business will address those impacts.

10.5.1 COLIBAN WATER

The Commission has two concerns about Coliban Water's proposed demand adjusted revenue cap and tariff basket form of price control:

- The additional complexity of the proposed form of price control may not contribute significantly to achieving Coliban Water's objective of risk sharing. Rather, the business may be able to achieve its objectives through a revenue cap with a rebalancing constraint, which would be both simpler and more transparent.
- The proposal and resulting changes in prices may be too complicated to communicate to customers. The Commission has emphasised the importance of customer understanding of tariffs, and it is concerned the proposed form of price control may lead to customer confusion.

The Commission sought additional information from Coliban Water on its proposed form of price control which was not available in time for consideration in this draft decision.

⁵⁴ Victorian Council of Social Services, *Submission to the Water Price Review 2013-18*, 26 February 2013.

The Commission's view is that a simpler form of revenue cap than prepared by Coliban Water may be an appropriate form of price control. The Commission is not satisfied, on the basis of the information received, of the additional benefits of the proposed demand adjusted revenue cap.

The Commission's view is that Coliban Water's proposed form of price control does not comply with the requirements of the WIRO because it does not enable customers or potential customers of Coliban Water to readily understand the prices charged by Coliban Water for prescribed services, or the manner in which prices are to be calculated.

The Commission proposes not to approve Coliban Water's application for a demand adjusted revenue cap. In response to this draft decision, Coliban Water is required to:

- explain how the additional complexity of the proposed form of price control contributes significantly to achieving the business' objective of risk sharing
- explain how it proposes to communicate this proposal to customers, or
- propose an alternative form of price control. If Coliban Water proposes a form of price control that enables price variations, then it must also propose a rebalancing constraint.

10.5.2 EAST GIPPSLAND WATER

According to its Water Plan, East Gippsland Water intends to rebalance its tariffs to increase the relative weight of variable prices. The business requires a flexible form of price control to achieve this rebalancing, and applied for a tariff basket with a rebalancing constraint of a maximum ± 3 per cent each year.

The Commission's view is that East Gippsland Water's proposed form of price control complies with the WIRO because it:

- provides East Gippsland Water with an incentive to restrain expenditure given the constraint on price rises in its proposed form of control and
- enables customers or potential customers to readily understand prices charged given the predictability and low price volatility caused by this form of price control and the rebalancing constraint.

On this basis, the Commission intends to approve East Gippsland Water's proposed form of price control.

10.5.3 LOWER MURRAY WATER

Lower Murray Water faces uncertainty in its demand and expenditure forecasts in the next regulatory period. A tariff basket appears appropriate, given the business may need to adjust tariffs to manage this uncertainty.

The Commission's view is that Lower Murray Water's proposed form of price control complies with the WIRO because it:

- provides Lower Murray Water with an incentive to restrain expenditure given the constraint on price rises in its proposed form of control and
- enables customers or potential customers to readily understand prices charged given the predictability and low price volatility caused by this form of price control and the rebalancing constraint.

For this reason, the Commission proposes to approve price caps for Lower Murray Water for the first year of the regulatory period, and the proposed tariff basket for the remainder of the regulatory period. The Commission proposes to approve Lower Murray Water's proposed rebalancing constraint of 10 per cent.

10.5.4 GMMWATER

GMMWater provides urban services such as water and sewerage services to households, and also provides rural services such as irrigation services. Given that its rural services expose GMMWater to many of the demand risks of rural businesses, the Commission considers GMMWater's proposed rebalancing constraint will provide an appropriate level of price certainty for GMMWater's rural customers.

The Commission's view is that a revenue cap is an appropriate form of price control for GMMWater given the revenue risks it faces on its rural assets.

The Commission proposes to approve GMMWater's application for a revenue cap and its proposed rebalancing constraint of ± 10 per cent.

10.6 DRAFT DECISION

The Commission proposes to approve a hybrid form of price control, whereby:

- it approves price caps for Barwon Water, Central Highlands Water, Gippsland Water, Goulburn Valley Water, North East Water, South Gippsland Water, Wannon Water and Westernport Water and
- these businesses may propose to move to a tariff basket at the time of the annual price review within the period.

Where a business proposes to transfer to a hybrid form of price control during the next regulatory period, and where that proposal results in a material tariff change, the Commission proposes to require the business to consult with customers. The determinations will require water businesses to provide evidence of customer consultation (including customer consultative committees) and a statement about customer impacts and how the business will address those impacts.

The Commission proposes to approve GWMWater's application for a revenue cap and proposed rebalancing constraint of ± 10 per cent.

The Commission proposes to approve price caps for East Gippsland Water for the first year of the regulatory period, and approve the business' proposal for a tariff basket for the remainder of the regulatory period. The Commission proposes to approve East Gippsland Water's proposed rebalancing constraint of ± 3 per cent.

Continued next page

The Commission proposes to approve price caps for Lower Murray Water for the first year of the regulatory period, and approve the business' proposal for a tariff basket for the remainder of the regulatory period. The Commission proposes to approve Lower Murray Water's proposed rebalancing constraint of 10 per cent.

The Commission proposes not to approve Coliban Water's application for a demand adjusted revenue cap. In response to this draft decision, Coliban Water is required to:

- explain how the additional complexity of the proposed form of price control contributes significantly to achieving Coliban Water's objective of risk sharing
- explain how it proposes to communicate this proposal to customers, or
- propose an alternative form of price control. If Coliban Water proposes a form of price control that enables price variations, it is also required to propose a rebalancing constraint.

11 RETAIL WATER SERVICE TARIFFS

11.1 INTRODUCTION

Retail water services are provided by twelve regional water businesses. The tariffs proposed by these businesses for the third regulatory period are broadly classified as two-part tariffs — tariffs comprising a fixed component that is independent of usage and a variable component reflecting metered water use.

Two part tariffs may include a single usage charge with a constant price per kilolitre of water for all customers or an inclining block structure, where prices increase as successively higher tiers of water are consumed.

11.2 APPROACH TO ASSESSING PROPOSED TARIFFS

The Commission assesses the proposed retail water tariffs for the third regulatory period against principles set out in the *Water Industry Regulatory Order* (WIRO) and elaborated in the Commission's 2011 guidance paper.⁵⁵

11.2.1 REGULATORY PRINCIPLES CONTAINED IN THE WIRO

The Commission must assess businesses' proposed prices or the manner in which prices are determined against WIRO regulatory principles, which state prices must (among other things):

⁵⁵ Essential Services Commission 2011, *2013 Water Price Review — guidance on Water Plans*, October.

- provide appropriate incentives and signals to customers or potential customers about:
 - the sustainable use of Victoria's water resources by reference to the costs of providing prescribed services to customers (either collectively or to an individual customer or class of customers), including costs associated with balancing supply and demand and
 - the costs associated with servicing a new development in a particular location
- enable customers or potential customers of the regulated entity to readily understand the prices charged by the regulated entity for prescribed services, or the manner in which such prices are to be calculated or otherwise determined
- where appropriate, facilitate choice and innovation in the prescribed services
- take into account the interests of customers of the regulated entity, including low income and vulnerable customers.

11.2.2 GUIDANCE PAPER

The Commission also outlined its own tariff assessment principles, which align with the WIRO. These include:

- Tariff structures should ensure a sustainable revenue stream.
- Tariff structures should be simple, understandable and cost reflective:
 - Retail water tariffs should be a two part tariff comprising a fixed charge and a variable component. Water businesses are required to provide justification if an alternative tariff is proposed.
- Businesses should demonstrate substantial customer consultation.
- Businesses proposing increased prices or changes to tariff structures must demonstrate they developed an accompanying transition strategy that anticipates and deals with customer impacts.

The Commission highlighted four main issues for retail water tariffs in its guidance paper: inclining block tariffs (IBTs), customer consultation, price signals and customer choice.

Inclining block tariffs

IBTs contain two or more variable prices for water use that customers are charged as their water use exceeds defined volumetric ‘tiers’. An IBT attempts to send price signals through charging relatively more when consumption exceeds certain levels (or tiers). IBTs may be used to balance supply and demand for water, particularly when the water supply is low and a price mechanism is needed to allocate water to its highest value use.

For the second regulatory period, water shortages were considered likely and the Commission approved IBTs for residential customers for five of the twelve regional water businesses. These businesses justified IBTs by arguing they send stronger water conservation signals to customers during drought conditions, compared with a single variable charge. Since the second regulatory period, water shortages are considered less likely due to significant augmentations to Victoria’s water supply. Further, the Commission indicated it would examine water businesses’ applications for IBTs in this context.

Any changes to businesses’ IBT structures may affect customers. As noted above, water businesses must develop a transition strategy that anticipates and deals with customer impacts and any indirect effects of proposed changes such as price shocks. The Commission expects water businesses’ tariff proposals to include evidence of substantial customer consultation and consideration of transition strategies.

Customer consultation

Water businesses were expected to undertake more in depth customer consultation than they had done so in the past on the content of their 2013 Water Plans. The focus of such customer consultation should be to explore and understand customers' expectations and priorities and what they value about water services for the third regulatory period and over the longer term.

The Commission requires that businesses demonstrate that they have considered customer feedback. The Commission may reject elements of a businesses' pricing proposal if the consultation is considered ineffective or inadequate. In the absence of meaningful consultation, it would be difficult for water businesses to demonstrate that they meet the WIRO principle of enabling customers to readily understand prices.

Price signals

Variable charges provide price signals to customers about the marginal cost of supplying water. A variable component that reflects the long run marginal cost of supply is consistent with the WIRO requirement that prices should signal the costs of providing services, including costs of augmenting future supply. Ideally, businesses should estimate long run marginal costs in designing their tariff structures. However, it is difficult to estimate long run marginal cost, so water businesses do not have to present estimates, but they must consider factors that would affect long run marginal cost in justifying alternative tariff structures.

Customer choice

The WIRO was amended during the second regulatory period to require the Commission to consider, where appropriate, whether proposed charges facilitate choice and innovation in services and prices offered to customers.

The Commission supports water businesses exploring increased tariff choice with customers. This could potentially involve a higher variable component for water bills. The Commission's view is that water businesses should be fully responsible for managing all risks associated with offering customers tariff choice.

11.3 OVERVIEW OF BUSINESSES' PROPOSALS

11.3.1 RESIDENTIAL RETAIL WATER TARIFFS

All regional water businesses proposed two part tariffs, comprising a fixed service charge and a variable charge (based on the volume of water used) for residential customers for the third regulatory period.

Generally, the regional water businesses proposed to maintain a two part tariff and move away from a three tier IBT structure:

- Barwon Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, GWMWater, North East Water and South Gippsland proposed to continue with a two part tariff with a single variable charge.
- Central Highlands Water proposed to move from a three tier variable tariff to a two tier variable charge.
- Coliban Water and Westernport Water proposed to move from a three tier variable tariff to a single variable charge.
- Lower Murray Water and Wannon Water proposed to maintain a fixed charge and a three tier IBT variable charge.

As set out in table 11.1, water businesses have not proposed significant changes to their retail water structures:

- Central Highlands Water, Coliban Water and Wannon Water proposed to maintain locational pricing (see section 11.3.3).
- Most businesses have not proposed significant changes to the structure of fixed charges, which are levied per property or by meter size (whereby a larger connection or meter attracts a larger charge).
- Barwon Water, Central Highlands Water, South Gippsland Water and Westernport Water are the only businesses that levy fixed charges on a per property basis rather than by meter size.
- Most businesses also proposed to levy fixed charges on un-connected or vacant land.

TABLE 11.1 PROPOSED RETAIL WATER TARIFF STRUCTURES FOR RESIDENTIAL CUSTOMERS

	Variable charge			Fixed charge		
	Single	Inclining block	Locational Pricing	Per property	Vacant land charge	Meter based charge
Barwon Water	✓			✓		
Central Highlands Water		✓ ^a	✓	✓	✓	
Coliban Water	✓		✓			✓
East Gippsland Water	✓				✓	✓
Gippsland Water	✓				✓	✓
Goulburn Valley Water	✓				✓	✓
GWMWater	✓					✓ ^d
Lower Murray Water		✓ ^{bc}				✓
North East Water	✓					✓ ^e
South Gippsland Water	✓			✓	✓ ^e	
Wannon Water		✓ ^b	✓			✓ ^e
Westernport Water	✓			✓	✓	

^a Two tier inclining block tariff. ^b Three tier inclining block tariff. ^c Inclining block structures vary on a seasonal basis. ^d The fixed charge is differentiated by level of service. ^e Tariffs vary by geographic area.

Maintaining inclining block tariffs

Lower Murray Water and Wannon Water proposed to maintain the three tier IBT structure for residential customers.

Lower Murray Water proposed to continue to apply a seasonal three tier IBT. It argued in its Water Plan an IBT structure is appropriate because its circumstances are different from other water businesses for the following reasons:

- it has a flatter and wider tariff structure than other regional water businesses

- its customer base is 'polarised', with both wealthy residents and socially disadvantaged residents and
- its supply arrangements were not augmented during the drought.

Wannon Water stated in its Water Plan it consulted customers about water tariff structures and noted there was 'good support' for retaining its three-tiered structure.

Transitioning away from inclining block tariffs

Central Highlands Water, Coliban Water and Westernport Water proposed to simplify their three tier variable charges.

Central Highlands Water proposed to move from a three tier IBT structure to a two tier IBT structure for residential customers. Currently the (annual) usage thresholds for the tiers are:

- first tier: usage up to 150 kilolitres
- second tier: above 151 kilolitres up to 300 kilolitres
- third tier: all usage above 300 kilolitres.

Central Highlands Water proposed to simplify the tiers to:

- first tier: usage up to 175 kilolitres
- second tier: all usage above 175 kilolitres.

Central Highlands Water stated this will benefit customers by abolishing the highest level tier and that customers have a higher threshold of water usage before they move into the higher price of tier two.

Coliban Water and Westernport Water proposed to move from a three tier variable charge to a single variable charge.

Coliban Water argued in its Water Plan that IBTs penalise some water users by subsidising others and they do not represent the business's actual cost structures. Coliban Water argued the single tier variable tariff would provide more appropriate signals to customers about the cost of providing water services. Further, removing IBTs brings the variable rate of water closer to long run marginal cost.

According to Coliban Water, survey results from residential customers indicated over 50 per cent of respondents preferred a single variable tariff.

Westernport Water reported its IBT did not encourage customers to use water more efficiently. It found changes in customer attitudes and behaviour about efficient use of drinking water affected consumption patterns, not customers' sensitivity to prices.

Westernport Water conducted a customer survey which showed 39 per cent of respondents favoured a single tariff, 40 per cent were not in favour and 21 per cent were undecided. Westernport Water decided, based on the commentary provided by undecided voters, to seek to move to a single variable charge.

Westernport Water proposed to advise customers of the change via direct mail and include information on the change in all accounts issued after 1 July 2013.

11.3.2 NON-RESIDENTIAL RETAIL WATER TARIFFS

For non-residential customers, all businesses proposed a two part tariff comprising a fixed service charge and a single variable charge. The proposed tariff structures are set out in table 11.2 which shows that most businesses did not propose significant changes to the structure of fixed charges, which are levied per property or by meter size.

The following businesses proposed some changes:

- Barwon Water, Central Highlands Water and South Gippsland Water proposed to continue with a fixed charge per property.
- GWMWater proposed to introduce a recreational water contribution charge for all customers to cover the costs of providing recreational water services. This charge is considered in chapter 17, GWMWater rural tariffs.

TABLE 11.2 PROPOSED RETAIL WATER TARIFF STRUCTURES FOR NON-RESIDENTIAL CUSTOMERS

	Variable charge		Fixed charge	
	Single	Inclining block	Per property	Meter based charge
Barwon Water	✓		✓	
Central Highlands Water	✓		✓	
Coliban Water	✓ ^a			✓
East Gippsland Water	✓			✓
Gippsland Water	✓			✓
Goulburn Valley Water	✓			✓
GWMWater	✓ ^a			✓ ^{ab}
Lower Murray Water	✓			✓
North East Water	✓ ^c			✓ ^a
South Gippsland Water	✓ ^a		✓ ^a	
Wannon Water	✓ ^a			✓ ^a
Westernport Water	✓			✓

^a Tariffs vary by geographic area. ^b The fixed charge is differentiated by level of service.

^c Very large industrial customers with a major trade waste agreement are charged a separate volumetric tariff.

11.3.3 LOCATIONAL PRICING

Several regional water businesses proposed to consolidate pricing zones, while one business proposed introducing locational pricing.

Consolidation of locational pricing zones

Coliban Water and South Gippsland Water proposed to reduce the number of pricing zones. Wannon Water proposed to reduce the price differences between its existing zones with the view to consolidating zones in future regulatory periods.

Coliban Water proposed to combine its two pricing zones (central and northern) for variable water tariffs over seven years, beginning in 2013-14. Currently, variable water charges in the northern pricing zone are approximately half the charges in the central pricing zone.

Coliban Water justified consolidating the two zones because the costs of providing water in the two zones is now similar.

Unifying the pricing zones raises prices for northern zone customers. The first tier water price for northern zone customers was \$0.95 in 2012-13; it is proposed to be \$1.82 by 2017-18. By the end of the third regulatory period (30 June 2018), Coliban Water noted the northern zone variable charge would be nearly 80 per cent of those in the central zone.

South Gippsland Water's current water fixed tariff structure has two districts — east/west and southern. The service charges for these two districts reflect historical differences in water treatment infrastructure assets. South Gippsland Water proposed to align the fixed water prices in the two districts by 1 July 2016. According to South Gippsland Water, there was strong customer support for aligning these districts' fixed charges.

Although Wannon Water maintains five geographic groups, it aims to move towards making prices more consistent across regions.

Introduction of locational pricing

North East Water proposed to move away from uniform pricing to three water pricing zones by the end of the third regulatory period. The proposed locational zones were based on cost recovery.

North East Water consulted customers about this proposed change via its Water Plan 3 reference group and community forums. To reduce customer impacts during the transition, North East Water proposed to phase in these changes commencing from the third regulatory period.

11.3.4 CUSTOMER CHOICE

No regional water business proposed tariff choice for the third regulatory period. However, a few businesses indicated they would consider customer choice for future regulatory periods:

- East Gippsland Water and Wannon Water said they would monitor the outcome of schemes offered by other water businesses.
- Central Highlands Water stated it would investigate a range of tariff options with its customers during the third regulatory period.
- Coliban Water indicated it may consider tariff choice in the future once it consolidated its tariffs.

Barwon Water and South Gippsland Water consulted with customers and concluded there was minimal support for tariff choice. South Gippsland Water noted that its tariff billing system could not handle multiple tariff options.

Goulburn Valley Water, GWMWater, North East Water, Lower Murray Water and Westernport Water did not consider tariff choice in their Water Plans.

In its Water Plan, Gippsland Water noted it did not seek customer input on tariff choice because it consulted with customers on IBTs and introducing a variable sewerage tariff for the second regulatory period and neither issue was well received. Gippsland Water stated consumer opinion has not changed since 2007.

Variable and fixed charges

In the 2008 water price review, the Commission considered there was some merit in increasing the relative weight attached to revenue collected through variable tariffs. This structure gives customers greater control over their bills and better signals the cost of using water.

The following businesses proposed to increase the variable water component of customer bills relative to the fixed water charge:

- Coliban Water, East Gippsland Water and Lower Murray Water proposed tariff changes that will mean their variable charges account for 60 per cent of total water revenue by the end of the third regulatory period and
- South Gippsland Water proposed to increase gradually the variable water component of water bills.

11.4 COMMISSION'S ASSESSMENT

The Commission notes that Barwon Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water and GMMWater have maintained retail water tariff structures previously approved by the Commission and that adhere to the principles developed by the Commission. Against this background, the Commission engaged with each of these businesses to satisfy itself that the procedural requirements of the WIRO have been complied with and the necessary consultation with customers and other stakeholders has been effective.

The Commission is satisfied that these businesses's consultation on Water Plans has demonstrated support for proposed tariff structures.

Further, the Commission released a summary paper inviting customers to make written submissions on any issues of concern. On that basis and absent of other concerns about compliance with WIRO requirements and principles, the Commission proposes to approve the following water businesses' retail water tariff structure proposals — Barwon Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water and GMMWater.

The Commission also considered water businesses' proposals for IBTs, locational pricing, and customer choice.

11.4.1 INCLINING BLOCK TARIFFS

It may not be appropriate to expect consistent tariff structures across water businesses because tariff structures reflect that businesses typically serve different customer groups with different needs, willingness to pay and service costs.

An IBT structure is consistent with providing appropriate incentives for the sustainable use of water because users pay a higher per kilolitre charge as they use more water.

Lower Murray Water and Wannon Water proposed to maintain their IBT structures for business-specific reasons. These businesses did not undertake significant supply augmentations in the second regulatory period, and rely heavily on drawing water directly from rivers. On balance, maintaining the IBT tariff structure appears appropriate for these businesses given the level of customer support for their tariff proposals.

For these reasons, the Commission proposes to approve the retail water tariffs proposed by Lower Murray Water and Wannon Water because they are consistent with the WIRO principle of providing appropriate signals for sustainable water use.

Transitioning from three tiers to two tiers

The Commission proposes to approve Central Highlands Water's proposal for a two tier IBT for residential water tariffs.

The Commission notes that fewer tiers is likely to assist customers' understanding of a proposed tariff. The greater the number of tiers, the more difficult it is for customers to know which consumption tier they are in and to make appropriate water use decisions in response.

The proposed move to two tiers better reflects the cost of providing water services and minimises the complexity of the tariff structure. Central Highlands Water also indicated that its proposal benefits customers.

A customer submission supported Central Highlands Water's IBT.⁵⁶ It stated a single variable tariff allows wealthier households to purchase water at reduced rates. The submission also stated that Central Highlands Water did not provide modelling demonstrating the winners and losers from the proposed reduction in tiers.

Central Highlands Water noted customer feedback from its general customer survey did not return any negative responses to removing the three tier IBT.

Transitioning from three tiers to a single tier

The Commission proposes to approve Coliban Water's and Westernport Water's proposals for a single variable water tariff. Although the businesses proposed to move to a single variable charge without a transition, the Commission notes that the businesses had engaged in adequate customer consultation and considered customer impacts.

Coliban Water noted, given the composition of customer consumption, moving to a single variable charge for water in the first year of the third regulatory period will effectively lower the marginal price of water for the majority of customers.

⁵⁶ Barnes, J, 2013, *Submission to the Water Price Review 2013-18*, 23 January.

Westernport Water presented customer views and undertook impact analysis to justify implementing a single variable tariff from the beginning of the third period. The business also stated that the transition back to a single variable charge will be readily understood by customers because it was the same method of charging for volumetric usage prior to Water Plan 2.

Both Coliban Water and Westernport Water found customers supported a single variable tariff.

The Commission considers Coliban Water's and Westernport Water's proposals to simplify their variable tariffs provide appropriate incentives for the sustainable use of Victoria's water resources.

11.4.2 LOCATIONAL PRICING

Consolidation of locational pricing zones

The Commission proposes to approve Coliban Water's and South Gippsland Water's proposals to consolidate locational tariffs.

The Commission notes Coliban Water's proposal to transition to a single pricing zone will increase variable water prices for customers in its northern district but it will improve cost reflectivity. Coliban Water argued that it cannot identify cost differences between its current zones. The business consulted customers and plans to phase this change over seven years.

One confidential submission supported Coliban Water's proposal and noted central zone customers should not subsidise northern zone customers.⁵⁷ Another submission noted people living in Sebastian and Raywood (in Coliban Water's central zone) should be treated differently to other locations because there is no secure water supply in these areas.⁵⁸

The Commission proposes to approve Coliban Water's proposal to transition to a single pricing zone for residential and non-residential variable water tariffs because it is consistent with the principle of cost reflectivity suggested in clause 14(v)(A) of the WIRO.

⁵⁷ Name withheld, 2013, *Submission to the Water Price Review 2013-18*, 17 January.

⁵⁸ Cox, P, 2013, *Submission to the Water Price Review 2013-18*, 21 January.

Similarly, South Gippsland Water consulted customers about consolidating locational tariff structures over five years. The Commission considers the proposal better reflects costs. The transition period seems reasonable and South Gippsland consulted customers adequately.

The Commission proposes to approve South Gippsland Water's proposal to implement a single pricing zone for residential and non-residential retail fixed water tariffs.

The Commission also proposes to approve Wannon Water's proposal to make prices consistent across its five geographic locations. The business notes that it received customer support for merging tariff groups to simplify tariff structures.

Introduction of locational pricing

North East Water proposed to introduce locational pricing for its water fixed charge. The business submitted that there are major cost differences between its zones. It consulted extensively with customers and based its locational pricing zones on appropriate cost recovery analysis. North East Water proposed a transition strategy to implement approximately half the price changes in the third regulatory period.

The Commission proposes to approve North East Water's proposal to introduce locational pricing.

11.4.3 CUSTOMER CHOICE

The Commission acknowledges that for a small water business implementing customer choice options may increase costs and these may outweigh any potential benefits.

The Commission will consult with all water businesses throughout the next regulatory period regarding opportunities or options to introduce customer choice.

11.5 DRAFT DECISION

The Commission proposes to approve the two part tariff structures proposed by the following water businesses: Barwon Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water and GWMWater.

The Commission proposes to approve the two part tariff structure with an inclining block tariff for Lower Murray Water and Wannon Water.

The Commission proposes to approve Central Highland Water's proposal to simplify its inclining block tariff from three tiers to two tiers.

The Commission proposes to approve Coliban Water's and Westernport Water's proposals to simplify their inclining block tariff structures from three tiers to a single tier.

The Commission proposes to approve Coliban Water's proposal to implement a single pricing zone for residential and non-residential variable water tariffs.

The Commission proposes to approve South Gippsland Water's proposal to implement a single pricing zone for residential and non-residential retail fixed water tariffs.

The Commission proposes to approve North East Water's proposal to introduce locational pricing for fixed water tariffs.

12 RECYCLED WATER

12.1 INTRODUCTION

Recycled water is wastewater that is treated to the quality required for its intended reuse. For example, recycled water may be used for non-residential purposes, including watering of golf courses and recreational parks and for residential purposes including toilet and outdoor use.

For regional water businesses, recycled water is more commonly provided to non-residential customers. In some cases, it is also provided to residential customers through a dual reticulation (or “third pipe”) system.

12.2 APPROACH TO ASSESSING PROPOSED TARIFFS

The *Water Industry Regulatory Order (WIRO)* requires the Commission to approve the prices or the manner in which prices are determined for retail recycled water services. The Commission adopts two approaches for approving recycled water prices:

- Annual approval of prices — under this approach businesses propose the prices to apply at the start of each year and these are approved by the Commission. Services that are generic in nature and are provided to the majority of customers may be regulated under this approach.
- Pricing principles — under this approach prices are set by the business in accordance with guidelines provided by the Commission. Pricing principles are a light-handed form of regulation suitable for services required by a small number of specific customers. This could include sporting clubs (golf clubs, bowling clubs and other sporting clubs), schools, local governments and agricultural users.

In the 2008 water price decision, the Commission developed recycled water pricing principles which were included in the water businesses determinations. Businesses must comply with the principles in their determinations. These pricing principles require recycled water prices are set so as to:

- have regard to the price of any substitutes and customers' willingness to pay
- cover the full cost of providing the service (with the exception of services related to specified obligations or maintaining balance of supply and demand)
- include a variable component.

Where a water business does not propose to recover recycled water costs fully it must demonstrate:

- it has assessed the costs and benefits of pursuing the recycled water project
- it has clearly identified the basis on which any revenue shortfall is to be recovered
- if the revenue shortfall is to be recovered from non-recycled water customers, either that the project is required by 'specific obligations' or that there has been consultation with the affected customers about their willingness to pay for the benefits of increased recycling.

In our 2011 guidance paper, we proposed that these recycled water pricing principles continue to be adopted by water businesses during the third regulatory period.⁵⁹

Further, since 2005 water businesses have been able to compel residential customers to use recycled water services through third pipe systems. Since the provision of recycled water through third pipe systems is generic in nature and is provided to a number of residential customers, the inclusion of recycled water services in the tariff schedule is the most appropriate form of regulation.

In setting recycled water prices provided through third pipe systems, water businesses are required to take into account the recycled water pricing principles and ensure prices comply with the regulatory principles set out in the WIRO.

⁵⁹ Essential Services Commission 2011, *2013 Water Price Review – Guidance on Water Plans*, October, p.96.

Generally, water businesses have regard to prices of recycled water substitutes, such as potable water, which is a similar but not identical product.⁶⁰

12.3 OVERVIEW OF PROPOSED TARIFFS

Table 12.1 sets out the regional water businesses' proposed recycled water pricing approaches for different customer groups and shows:

- all regional water businesses provide recycled water services to non-residential customers. The water businesses proposed to continue to apply the recycled water pricing principles set out in their 2008 price determinations and in section 12.2 and
- only Barwon Water, Coliban Water and Westernport Water proposed recycled water tariffs for residential customers in third pipe estates. These businesses proposed a tariff based on a percentage discount applied to the potable water variable tariff price.

The regional market for third pipe recycled water is relatively new and small. For example, Barwon Water forecast around 1200 recycled water customers in 2013-14, increasing to around 3000 by 2017-18. Westernport Water projected around 700 recycled water customers in 2013-14 increasing to around 1000 by 2017-18. Coliban Water forecast about 200 recycled water customers in 2013-14 increasing to around 450 by the end of the regulatory period.

⁶⁰ In the past, businesses with multiple tiered potable water prices, set a price as a percentage of the first tier potable water price.

TABLE 12.1 RECYCLED WATER — PROPOSED PROVISION AND PRICING

	Customer group		Pricing approach	
	Residential	Non-residential ^a	Link to potable water	Pricing Principles
Barwon Water	✓	✓	✓	✓
Central Highlands Water		✓		✓
Coliban Water	✓	✓	✓	✓
East Gippsland Water		✓		✓
Gippsland Water		✓		✓
Goulburn Valley Water		✓		✓
GWMWater		✓		✓
Lower Murray Water		✓		✓
North East Water		✓		✓
South Gippsland Water		✓		✓
Wannon Water		✓		✓
Westernport Water	✓	✓	✓	✓

^a Includes large or unique (one-off) customers.

12.3.1 RESIDENTIAL RECYCLED WATER TARIFFS

Barwon Water, Coliban Water and Westernport Water proposed to supply recycled water to residential customers through third pipe schemes.

Barwon Water proposed to set its residential recycled water variable tariff at 80 per cent of the potable water variable price and proposed no fixed charge for recycled water. The business noted that recycled water should not only be evaluated on a least cost option but also on environmental and social evaluation and the avoided environmental and financial costs from the potable system. Therefore Barwon Water proposed to set recycled water as a proportion of the price of the variable component of potable water.

Coliban Water proposed a fixed charge at 50 per cent of the potable water fixed charge and a variable charge at 75 per cent of its central zone water variable price.

The rate is discounted based on Coliban Water's view that recycled water is not of drinking water quality.

Westernport Water introduced a third pipe scheme in the second regulatory period. The business proposed to maintain its charging structure in the third regulatory period with the fixed and variable charges for recycled water set at 56 per cent of the residential potable water price. It argued the price for recycled water should be lower than the price for potable water because recycled water is not of drinking quality.

12.3.2 NON-RESIDENTIAL RECYCLED WATER TARIFFS

The twelve regional water businesses proposed to continue using the Commission's pricing principles approved for the second regulatory period for non-residential recycled water tariffs.

Coliban Water and Westernport Water also proposed additional scheduled charges for non-residential class A recycled water:⁶¹

- Coliban Water proposed a fixed charge at 50 per cent of the potable water fixed charge and a variable charge at 75 per cent of its central zone variable tariff. Coliban Water noted that variable price takes into account the marginal cost of supply whilst being set to reflect the customer's willingness to pay and
- Westernport Water proposed a fixed charge and a single variable charge set at 40 per cent of the potable water price. The usage charge applies for orders of more than 5 megalitres per year.

12.4 COMMISSION'S ASSESSMENT

The Commission requires regional water businesses to propose pricing principles that are consistent with the WIRO and the Commission's pricing principles.

⁶¹ Class A recycled water contains extremely low levels of potential pathogens. It is suitable for garden/lawn watering and toilet flushing. Class A recycled water is not currently permitted for uses such as human drinking water or bathing.

12.4.1 RESIDENTIAL RECYCLED WATER TARIFFS

Barwon Water, Coliban Water and Westernport Water proposed specific prices for recycled water calculated as a percentage of the price of an alternative water source (potable water).

Since the prices proposed by businesses include a variable charge to provide incentives for efficient and sustainable use of recycled water, and the level of prices is related to the price of substitutes, the Commission considers that they are consistent with the recycled water pricing principles and WIRO. For this reason, the Commission proposes to approve Barwon Water's, Coliban Water's and Westernport Water's proposed residential recycled water tariffs.

For developments completed during the third regulatory period, water businesses must apply pricing principles to determine the prices charged for recycled water. These prices must be added to the tariff schedule and become subject to the annual tariff approval process.

12.4.2 NON-RESIDENTIAL RECYCLED WATER TARIFFS

The Commission proposes that prices for recycled water services provided to large non-residential or unique one-off customers under contract should be set according to the same pricing principles as apply to other recycled water customers. When contracts come up for renewal during the third regulatory period, all water businesses should review recycled water contracts to ensure they remain consistent with pricing principles or adjust the contracts where necessary.

Coliban Water and Westernport Water proposed specific prices for some non-residential customers and noted that their charges are consistent with the pricing principles. The Commission notes that the proposed tariffs have a variable component.

The Commission proposes to approve the pricing principles proposed by all twelve regional water businesses applying to non-residential recycled water customers because they are consistent with the WIRO and the Commission's pricing principles. During the regulatory period, the Commission is obliged to ensure that businesses comply with the pricing principles and investigate any reports of potential non-compliance. In addition, the Commission will monitor businesses' compliance with the recycled water pricing principles as part of its annual audit process.

12.5 DRAFT DECISION

The Commission proposes to approve Barwon Water's, Coliban Water's and Westernport Water's proposed residential recycled water tariffs.

The Commission proposes to approve Coliban Water's and Westernport Water's proposed scheduled charges for non-residential recycled water services.

The Commission proposes to approve the recycled water pricing principles proposed by all 12 regional water businesses.

For residential developments completed during the third regulatory period which incorporate third pipe supply, the water business must apply pricing principles to determine the recycled water price. The price must be added to the tariff schedule and become subject to the annual price approval process.

13 RETAIL SEWERAGE SERVICE TARIFFS

13.1 INTRODUCTION

All the regional water businesses provide retail reticulated sewerage services. These services include collecting and treating water borne waste from households and businesses. Sewerage services require large expenditure on transportation networks, pumping stations and sewerage treatment plants.

All regional water businesses levy only a fixed charge and no usage charge for sewerage services for residential customers. For non-residential customers, most regional water businesses levy a two part tariff comprising fixed and usage charges.

13.2 APPROACH TO ASSESSING PROPOSED SEWERAGE TARIFFS

Retail sewerage services are a prescribed service under the *Water Industry Regulatory Order (WIRO)* and are subject to price regulation by the Commission. The Commission elaborated on the regulatory principles of the WIRO in its 2011 guidance paper.⁶²

During the 2008 water price review, the Commission concluded that regional water businesses' sewerage tariff structures for residential customers comply with the WIRO principles despite the absence of a variable component.

⁶² Essential Services Commission 2011, *2013 water price review — guidance on Water Plans*, October, p. 96.

In its guidance paper, the Commission noted it would accept a fixed tariff only for residential sewerage customers. Metering sewage discharge is difficult and the capacity for water businesses to design and implement cost reflective sewerage charges is limited. For residential customers, the marginal cost of sewage treatment is likely to be very low and may not adequately reflect costs, nor is the sewerage service tariff easy for customers to understand. The Commission also noted if a business proposed a change to its sewerage tariff structure, it must develop an accompanying transition strategy that anticipates and deals with any adverse customer impacts.

For non-residential customers, the Commission supports variable sewerage charges for larger users. Variable charges may better reflect costs associated with individual sewerage treatment. These costs can vary substantially across the non-residential customer base depending on the type of non-residential business. For example, sewerage treatment costs vary substantially between a milk bar and a large commercial office block.

13.3 OVERVIEW OF PROPOSED TARIFFS

13.3.1 RESIDENTIAL SEWERAGE TARIFFS

Table 13.1 shows that for residential customers, all regional water businesses proposed to levy a fixed charge only for sewerage services. The majority of businesses levy fixed charges for sewerage services for vacant or undeveloped land where the property has the ability to connect to the sewerage service but has not done so. The ability to levy such charges comes from the *Water Act* (1989). Water businesses generally levy this charge at a reduced rate.

TABLE 13.1 PROPOSED RETAIL TARIFF STRUCTURES FOR RESIDENTIAL SEWERAGE SERVICES

	Fixed	Vacant land
Barwon Water	✓	
Central Highlands Water	✓	✓
Coliban Water	✓	
East Gippsland Water	✓ ^a	✓ ^a
Gippsland Water	✓	✓
Goulburn Valley Water	✓	✓
GWMWater	✓	✓
Lower Murray Water	✓	
North East Water	✓ ^b	
South Gippsland Water	✓	✓
Wannon Water	✓ ^b	✓ ^b
Westernport Water	✓	✓

^a Fixed fee based on an equivalent tenement. ^b Tariffs vary by geographic area.

13.3.2 NON-RESIDENTIAL SEWERAGE TARIFFS

Table 13.2 shows that for non-residential sewerage customers, most regional water businesses proposed to maintain a two part tariff structure with a fixed and variable component, with the following exceptions:

- Lower Murray Water, North East Water and Westernport Water proposed to maintain fixed charges only
- GWMWater proposed to phase out its non-residential variable charge during the next regulatory period, maintaining only a fixed charge and
- South Gippsland Water and Westernport Water proposed to continue to vary sewerage charges for non-residential customers based on the number of cisterns (toilets).

Some businesses also proposed to levy fixed access charges for non-residential sewerage services for vacant or undeveloped land, although at a reduced rate.

TABLE 13.2 PROPOSED TARIFF STRUCTURES FOR NON-RESIDENTIAL SEWERAGE SERVICES

	Fixed	Usage	Cistern	Vacant land
Barwon Water	✓	✓		
Central Highlands Water	✓	✓		✓
Coliban Water	✓	✓ ^a		
East Gippsland Water	✓ ^b	✓		✓
Gippsland Water	✓	✓ ^c		✓
Goulburn Valley Water	✓	✓ ^d		✓
GWMWater	✓			
Lower Murray Water	✓			
North East Water	✓ ^e			
South Gippsland Water	✓	✓	✓	✓
Wannon Water	✓	✓ ^{ef}		✓
Westernport Water	✓		✓ ^g	✓

^a Only applicable for each kL of sewer discharge over 230 kilolitres. ^b Fixed fee based on an equivalent tenement method (EQT). Non-residential properties may be charged more than one EQT. ^c Usage charge applies for discharge greater than 100 kilolitres in any four month period. ^d An allowance of 180 kL is deducted from this calculated volume. ^e Based on geographic area. ^f Usage charge applies for discharge greater than 520 kL per year. ^g Charges apply for more than two cisterns.

Proposed modifications to non-residential sewerage charges

Coliban Water and North East Water proposed to amend the basis on which their fixed sewerage charges are calculated:

- Coliban Water proposed to change its current non-residential fixed sewerage charge based on water meter size and business type to a single fixed charge. It noted this approach eliminates the need for a minimum access fee and the multiplication of the sewer charge by the discharge factor of the customer. Further, the business stated that average fixed charges for non-residential customers will decrease by approximately 4 per cent.
- North East Water proposed to remove cistern based charges for non-residential customers, maintaining only fixed sewerage charges.

13.3.3 CONSOLIDATION OF LOCATIONAL PRICING

Coliban Water, North East Water and Wannon Water proposed to reduce the number of geographic zones for sewerage charges.

Coliban Water proposed that by the end of the third regulatory period, 1 July 2017, an identical fixed sewerage charge will apply to residential and non-residential customers. Currently, Coliban Water has three pricing zones — General, Enviro 1 and Enviro 2 — for residential and non-residential fixed sewerage tariffs. These zones have legacy prices from small town sewer schemes built in the 1990s and 2000s. Coliban Water proposed to combine the three residential zones into one zone in 2013-14. It noted the tariffs for two of the zones are close in value — differing by less than 1 per cent — whereas tariffs in the other zone are about 10 per cent lower. According to Coliban Water, combining the residential zones would result in a 5 per cent price increase for customers in the General and Enviro 1 zones, and a 13 per cent price increase for customers in the Enviro 2 zone but will only contribute approximately 3 per cent or 6 per cent increase to total bills.

For non-residential fixed sewerage charges, Coliban Water proposed a three year transition strategy to combine the three zones, by 2015-16, to minimise price impacts. Coliban Water stated that it does not expect a large impact on non-residential customers because these customers with small water meters will have price increases capped at a maximum of 20 per cent each year to smooth the transition. The increase only applies to customers paying the minimum charge which will be less than the fixed price faced by residential customers.

North East Water proposed to reduce the number of its geographic zones from 10 to four for both residential and non-residential fixed sewerage tariffs, transitioning the charges over the five year regulatory period. It aims to simplify tariffs by reducing the number of geographic zones.

Wannon Water proposed to reduce the number of geographic zones from five to three for residential and non-residential fixed sewerage tariffs in the first year of the regulatory period. The business states that these zones have similar operating costs. The business submitted that a transition plan is not needed for reducing the number of residential sewerage tariff zones because the proposal will result in insignificant price changes.

13.4 COMMISSION'S ASSESSMENT

The Commission notes that Barwon Water, Coliban Water, Central Highlands Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, GWMWater, Lower Murray Water, North East Water, South Gippsland, Wannon Water and Westernport Water have maintained sewerage structures previously approved by the Commission. The Commission further sought to satisfy itself that the procedural requirements of the WIRO have been complied with and the necessary consultation with, namely customers and other stakeholders has been effective.

As already noted, given the difficulty of metering of sewage discharge, the businesses have limited capacity to design and implement cost reflective sewerage charges. For this reason, the Commission largely assessed businesses' sewerage tariff proposals based on the customer impacts of any proposed changes. It expects the impact of any significant proposed tariff restructuring will be spread over an acceptable timeframe, to allow customers to absorb price increases and adjust their behaviour in response, if necessary.

The Commission is satisfied that formal consultation on Water Plans has demonstrated stakeholder support for proposed tariff structures. This support is not contradicted by customer concerns expressed in written submissions to the Commission or at the public forums relevant to each business.

The Commission proposes to approve the following water businesses' retail water tariff proposals — Coliban Water, Central Highlands Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, GWMWater, Lower Murray Water, North East Water, South Gippsland, Wannon Water and Westernport Water.

Proposed modifications to non-residential sewerage charges

Coliban Water proposed to simplify its fixed sewerage charge for non-residential customers. The Commission proposes to approve Coliban Water's sewerage tariff structure because according to the business the result of this restructure is an average decrease in tariffs for non-residential customers. Further, providing customers with a readily understandable price is consistent with the WIRO.

North East Water proposed to remove cistern based charges for non-residential customers. In previous price reviews, a number of businesses moved away from cistern charges. Cistern charges are not directly related to sewage discharge and therefore do not provide appropriate signals to sewerage system users. The

Commission proposes to approve North East Water’s proposal to remove cistern based charges for non-residential customers.

Consolidation of locational pricing

Coliban Water proposed to consolidate its residential and non-residential sewerage pricing zones. North East Water and Wannon Water proposed to reduce the number of pricing zones for residential and non-residential sewerage tariffs.

The Commission proposes to approve Coliban Water’s, North East Water’s and Wannon Water’s sewerage pricing zone structures. The businesses’ proposals are consistent with the Commission’s guidance that tariff restructuring is spread over an adequate time frame. Simplifying the sewerage charge also aligns with the WIRO principle of providing customers with readily understandable prices.

13.5 DRAFT DECISION

The Commission proposes to approve all regional businesses’ proposals to maintain existing tariff structures for residential and non-residential sewerage services.

The Commission proposes to approve Coliban Water’s proposed fixed sewerage tariff for non-residential customers.

The Commission proposes to approve North East Water’s proposed removal of cistern based charges for non-residential customers.

The Commission proposes to approve Coliban Water’s, North East Water’s and Wannon Water’s proposals to consolidate their residential and non-residential geographic pricing zones for fixed sewerage tariffs.

14 TRADE WASTE

14.1 INTRODUCTION

Trade waste involves the discharge of waste other than normal domestic sewage into the sewerage system. Customers seeking to discharge trade waste into the sewerage system must first obtain the consent of the relevant water business. The water businesses establish acceptance limits for trade waste, which partly depend on the businesses' treatment plant capabilities. Waste that does not fall within acceptance limits — for example, waste due to high concentrations of contaminants (such as heavy metals or toxic substances) — must be pre-treated by customers before they discharge it into the sewer.

The Commission regulates tariffs for trade waste according to the *Water Industry Regulatory Order* (WIRO). In 2010, the Minister for Water expanded the Commission's regulatory role of tariff approval, to include regulating trade waste management services. In response, the Commission developed the Trade Waste Customer Service Code, which commenced on 1 January 2012.⁶³ The code requires water businesses to define customer categories and the charges that they will face, to improve transparency and customer certainty.

In addition to the Commission's responsibilities for trade waste:

- businesses are obliged under their Statements of Obligations to develop trade waste policies to protect their sewerage systems, safeguard their workers' health and safety, minimise negative environmental impacts, and improve the quality of trade waste entering sewerage systems and
- EPA Victoria is responsible for licensing sewerage treatment discharges, so has an impact on the cost of treating and disposing of trade waste.

⁶³ Essential Services Commission, 2011, *Trade Waste Customer Service Code*, October.

Trade waste is subject to charges separate from normal sewerage charges. In addition to fixed and variable charges, trade waste charges include other parameters that measure the level of contaminants such as biochemical oxygen demand and suspended solids. The parameters adopted by water businesses differ depending on their trade waste customers. Charges and discharge conditions for trade waste customers with particularly large or unique loads are sometimes determined on a case-by-case basis.

Trade waste charges typically comprise:

- fixed one-off and annual fees, such as application and agreement fees based on customer risk classes and discharge volumes and
- variable charges based on the volume and strength of trade waste discharge, with the latter typically applying to only major customer categories (table 14.1).

In the 2008 water price review, the Commission generally supported the inclusion of trade waste services in pricing schedules. However, it noted a water business, when providing trade waste services that are unique (in discharge strength or volume, for example), may need to set prices on a case-by-case basis, referring to the pricing principles in its pricing determination.

TABLE 14.1 APPROACH TO TRADE WASTE CHARGES
Regional urban businesses

Charging components									
Pollution load based charges									
	Annual fixed	Volume	BOD/ COD	SS	N/TKN	TOS	TDS	P	Other
Barwon Water	✓	✓	✓	✓	✓	✓		✓	
Central Highlands Water	✓	✓	✓	✓					Heavy metals
Coliban Water	✓	✓	✓	✓	✓		✓	✓	
East Gippsland Water	✓	✓	✓	✓					
Gippsland Water	✓	✓	✓	✓					
Goulburn Valley Water	✓ ^a	✓	✓		✓		✓ ^{so}	✓	
GWM Water	✓ ^a								
Lower Murray Water	✓	✓	✓	✓					
North East Water		✓	✓	✓	✓	✓	✓ ^s	✓	Ammonia, oil and grease, pH
South Gippsland Water	✓	✓	✓	✓	✓	✓	✓ ^{so}	✓	Oil and grease
Wannon Water	✓	✓	✓	✓					Ammonia
Westernport Water		✓							

Note: Most businesses charge an initial application fee. **BOD** Biochemical oxygen demand. **COD** Chemical oxygen demand. **SS** Suspended solids. **N** Nitrogen. **TKN** Total Nitrogen. **TOS** Total oxidised sulphur. **TDS** Total dissolved solids (salt). **P** Phosphorous. ^a Fixed charges apply to minor trade waste customers. ^{so} Sodium only. ^s TDS and sodium.

14.2 APPROACH TO ASSESSING PROPOSED TARIFFS

The WIRO prescribes trade waste services, which means the Commission has the power to regulate prices. In the 2008 water price review, the Commission stated trade waste prices must provide appropriate signals to trade waste customers

about the merits of discharging into the sewerage system compared with alternatives such as waste minimisation and on-site treatment. The Commission considers cost reflective pricing will provide a strong signal for efficient and sustainable water use and waste discharge. It also considers such pricing will provide appropriate incentives for investment in changing production methods or extending onsite treatment to reduce trade waste to efficient and sustainable levels.

In its guidance paper, the Commission supports the use of load and risk-based assessments to price trade waste.⁶⁴ This methodology is currently used by most businesses. Retail water businesses must also consider the consistency of their charges for bulk services and retail services.

14.2.1 PRICING PRINCIPLES

For clarity and transparency in trade waste charging arrangements, the Commission prefers all trade waste customers to be charged according to scheduled trade waste prices. This allows existing and new customers to calculate their potential charges and respond appropriately to price signals. However, the Commission recognises trade waste charges can sometimes be set more appropriately on a case-by-case basis, such as when:

- a customer's trade waste discharge falls outside normal acceptance parameters
- a customer's trade waste discharge has characteristics that impact on treatment processes and costs, and
- a very large trade waste customer in a small town has a disproportionate impact on a treatment plant.

The Commission considers each business should publish, as part of its tariff schedule for the regulatory period, clear pricing principles to determine trade waste charges when scheduled prices do not apply. This will improve transparency and limit the scope for uncertainty and disputes between the business and existing or potential customers.

⁶⁴ Essential Services Commission 2011, *2013 Water Price Review —Guidance on Water Plans*, October.

For trade waste customers that are not covered by scheduled pricing — for example, customers on negotiated contracts — the Commission developed pricing principles which businesses must include in their tariff schedules. The principles in the tariff schedules should provide, at a minimum, that:

- volumetric and load based prices should, as far as is practical, 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 avoided from ceasing to serve that customer, and (subject to meeting the avoidable cost) less than the standalone cost of providing the service to the customer in the most efficient manner
- the method used to allocate common and fixed costs to that customer should be clearly articulated and consistent with any guidance by the Commission
- prices should reflect reasonable assumptions about the volume and strength of trade waste produced by a customer
- depreciation rates and rates of return used to determine prices should be consistent with those adopted by the Commission
- customers should be provided with full details of how prices are calculated and
- if applying these principles would result in significant changes to prices or tariff structures, the business may consider phasing in the changes. In this case, any transitional arrangements should be articulated.

14.2.2 SCHEDULED PRICES

Water businesses are required to specify their trade waste charges in their tariff schedules. They generally have a fixed service fee, a variable charge based on volume, and specified charges for the contamination levels of the trade waste discharged. The contamination levels can include the level of biochemical oxygen demand, suspended solids, nitrogen, total oxidised sulphur and/or total dissolved solids. However, each water business may have different contaminants based on the discharge of their specific trade waste customers.

14.3 OVERVIEW OF BUSINESSES' PROPOSALS

14.3.1 TRADE WASTE TARIFF STRUCTURES

All businesses' Water Plans included schedules of proposed trade waste charges and fees for the next regulatory period. Most businesses generally proposed to maintain their current trade waste charges from the last regulatory period.

Barwon Water, Central Highlands Water, East Gippsland Water, Lower Murray Water and Westernport Water proposed to keep their trade waste charges fixed in real terms. Coliban Water, Gippsland Water, Goulburn Valley Water, GWMWater, North East Water, South Gippsland Water and Wannon Water proposed to increase their trade waste charges, generally in line with proposed price increases for their water and/or sewerage services.

The water business proposed the following additional changes:

- Coliban Water reviewed trade waste tariff structures when preparing its Water Plan. It proposed to combine six trade waste pricing zones into a single zone and introduce a single fixed charge for all customers.
- East Gippsland Water proposed to remove its variable tariff for trade waste, because it would incorporate that tariff in the equivalent tenement (EQT)⁶⁵ method (which measures volume) and the Modgen formula⁶⁶ (which measures strength) that it proposed to calculate trade waste charges.
- Goulburn Valley Water proposed to transition from four trade waste customer categories to three categories.
- GWMWater proposed to increase its minor trade waste charge to offset the removal of the non-residential volumetric charge.
- North East Water proposed a new classification, to rate a customer based on the risk that their discharge poses to the sewerage system.

⁶⁵ The EQT method is a unit measurement that reflects the amount of wastewater collected, discharged and treated by an average domestic household. More than one EQT May be charged to a property if its wastewater is assessed as greater than a typical domestic house.

⁶⁶ The Mogden formula brings together quality parameters to calculate the cost of treating a customer's trade waste. The waste stream quality information from the customer and the entry point of the waste treatment facility are compared to generate a ratio, which is used to calculate a charge to the customer. The quality of the waste stream from the customer is based on sampling of the waste every six months.

- Wannon Water proposed to halve the minor trade waste charge for businesses not required to have pre-treatment facilities. It also proposed to reduce the volume threshold for the sewerage charge from 750 kilolitres to 520 kilolitres per year. Wannon Water also proposed a fee for deemed trade waste customers.

14.3.2 TRADE WASTE REVENUE

Table 14.2 shows forecast trade waste revenue for the regional urban water businesses. Most businesses did not expect significant increases in trade waste revenue, and Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water and North East Water expected a decline in their trade waste revenues.

Central Highlands Water, East Gippsland Water, GWMWater, Lower Murray Water and Westernport Water forecast low revenues from trade waste operations over the next regulatory period, because they have small trade waste customer bases and their customers are relatively low producers of trade waste.

A reclassification of Westernport Water's non-residential sewerage customers as trade waste customers resulted in Westernport Water having one major trade waste customer, approximately 50 minor trade waste customers and many deemed trade waste customers. However, Westernport Water forecast its revenue from trade waste will be less than the reporting threshold of \$10 000 and therefore has been reported as zero.

Table 14.2 shows the forecast combined revenue from the water businesses' trade waste tariffs and negotiated trade waste contracts. These two trade waste income streams have the following features:

- Coliban Water, East Gippsland Water, GWMWater, Lower Murray Water and Wannon Water will obtain similar trade waste revenues from tariffs and negotiated contracts.
- Barwon Water, Central Highlands Water and North East Water will obtain most of their trade waste revenue from tariffs and little from contracts.
- Gippsland Water, Goulburn Valley Water, South Gippsland Water and Wannon Water will obtain most of their total trade waste revenue from negotiated contracts rather than tariffs.

Goulburn Valley Water and Gippsland Water forecast the highest increase in revenue from their trade waste charges over the next regulatory period, with an increase of \$1.49 million and \$1.02 million respectively (table 14.2). The Commission expects water businesses with large percentages of revenue from trade waste charges to adopt more sophisticated and well established trade waste policies and charges.

TABLE14.2 FORECAST REVENUE FOR TRADE WASTE SERVICES
\$m 2012-13

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Total	Total increase, 2012-13 to 2017-18
Barwon Water	6.1	6.1	5.9	5.8	5.6	5.5	35.1	-0.6
Central Highlands Water	1.0	0.9	1.0	1.0	1.0	1.0	5.8	0.0
Coliban Water	7.1	4.6	4.9	5.1	5.4	5.7	32.9	-1.4
East Gippsland Water ^a	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.0
Gippsland Water	8.5	9.6	9.5	9.5	9.5	9.5	56.2	1.0
Goulburn Valley Water	4.7	5.0	5.2	5.5	5.9	6.2	32.5	1.5
GWMWater	0.3	0.2	0.2	0.3	0.3	0.3	1.6	-0.1
Lower Murray Water	0.7	0.6	0.7	0.7	0.7	0.7	4.1	0.0
North East Water	2.8	3.0	3.0	3.0	3.0	2.9	17.6	0.1
South Gippsland Water	2.2	2.3	2.3	2.3	2.3	2.3	13.5	0.1
Wannon Water	3.0	3.5	3.5	3.6	3.7	3.8	21.1	0.8
Westernport Water ^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

^a Does not include revenue from pollution load based charges. ^b Westernport Water has only one large trade waste customer that produces revenue below the reporting threshold.

14.4 COMMISSION'S ASSESSMENT

14.4.1 PRICING PRINCIPLES

All regional water businesses confirmed — in their Water Plans or correspondence — they adopted the Commission's pricing principles (or developed their own consistent with the Commission's pricing principles) when setting trade waste tariffs for the third regulatory period. The Commission proposes to approve the regional water businesses' proposed pricing principles for trade waste charges.

The Commission considers that its regulatory principles, and those developed consistent with these principles, will lead to more cost reflective pricing and therefore comply with the WIRO principles of providing a strong signal for efficient and sustainable water use and waste discharge.

Businesses are required to continue to include the Commission's pricing principles in their proposed tariff schedules in response to this draft decision.

14.4.2 SCHEDULED PRICES

Regional water businesses proposed only minor changes to their trade waste tariff schedules for the next regulatory period. The Commission proposes to approve the trade waste tariffs of the businesses that proposed to continue their current tariff structures — Barwon Water, Central Highlands Water, Gippsland Water, Lower Murray Water, South Gippsland Water and Westernport Water.

The Commission's view is that the scheduled prices comply with the WIRO principle of providing for a sustainable revenue stream to the regulated entity that does not reflect monopoly rents or inefficient expenditure and also enables customers to readily understand the prices charged by the regulated entity for prescribed services, or the manner in which such prices are to be calculated or otherwise determined.

Classification of trade waste customers

Water businesses with multiple trade waste categories must have a clearly defined method and customer categories for allocating trade waste costs. Potential customers must be able to determine how they would be classified and the associated costs if they were to become a trade waste customer. While most businesses propose no changes to their trade waste classification structures, Goulburn Valley Water, North East Water and Coliban Water proposed changes.

Goulburn Valley Water

Goulburn Valley Water proposed to reduce the number of trade waste customer categories. The Commission proposes to approve this reduction in trade waste categories because it is consistent with the Trade Waste Customer Service Code and complies with the WIRO's principles because it simplifies its tariff categories. The Commission requires Goulburn Valley Water to include a clearly defined classification structure in its pricing schedules.

North East Water

North East Water proposed a new classification to rate a customer based on the risk that its discharge poses to the sewerage system. The Commission proposes to approve risk-based classification because it is consistent with the Commission's guidance paper and the WIRO's principles because the new classification system more reflective of the costs that discharge poses to the sewerage system and the risk-based classification provides appropriate incentives. The Commission requires North East Water to include a clearly defined classification structure in its pricing schedules.

Coliban Water

Coliban Water reviewed trade waste tariff structures when preparing its Water Plan. It proposed to combine six trade waste zones into a single zone, introduce a fixed charge for all customers, and have a standardised tariff schedule across the zone.

The Commission requested additional information from Coliban Water on how consolidation would impact larger trade waste customers, some of which could be charged more under the new arrangements. In response, Coliban Water stated the two customers that would be affected have previously been undercharged for numerous parameters relative to other customers, and would face the same

charges as other customers after the proposed change. It also stated it will endeavour to keep major trade waste customers on site specific contracts rather than having them pay the scheduled charges.

Submissions to the Commission from Hardwick Meat Works and a confidential party stated their trade waste charges would greatly increase under Coliban Water's proposed changes, and questioned the basis of Coliban Water's pricing philosophy.⁶⁷

The Commission thus requires Coliban Water, upon request by a trade waste customer on a negotiated contract, to demonstrate the cost for the customer large users under the proposed scheduled prices would be no greater than the standalone cost for the service. Large trade waste customers must have the right to assess their charges against the actual cost to the business of providing trade waste services, to ensure they are not being overcharged. Coliban Water is required to include the trade waste pricing principles in its pricing schedule.

Coliban Water also proposed a scheduled charge for total dissolved solids (salt). Consistent with past water price review decisions, Coliban Water can apply a total dissolved solids charge only at sewerage treatment plants that can remove or reduce salt loads.⁶⁸

The Commission proposes to approve Coliban Water's trade waste tariff structure because it is consistent with Commission's trade waste pricing principles. The proposed changes also meet the requirements of the WIRO because by simplifying tariff categories, customers more readily understand the prices.

East Gippsland Water

To calculate charges for trade waste customers, East Gippsland Water proposed to replace its variable charge for trade waste with the EQT method and the Modgen formula, which incorporate a volumetric charge. Given most of the business's trade waste customers are minor customers and would not benefit from individual contracts, the proposed method is appropriate. The Commission proposes to approve East Gippsland Water's method for calculating trade waste tariffs given that it has simplified its tariff system which better enables customers or potential

⁶⁷ Hardwick Meat Works, 2013, Submission to the Water Price Review 2013-18, 25 January.

⁶⁸ Essential Services Commission 2009, *Metropolitan Melbourne Water Price Review 2008-09* — Draft Decision, Vol. I, April, p. 127.

customers to readily understand the prices or the manner in which such prices are to be calculated.

GMMWater

The Commission asked GMMWater for a list of its trade waste tariffs. The information given in response showed the business has greatly simplified its trade waste tariffs, including removing its non-residential volumetric charge. To offset the removal of this charge, GMMWater proposed to increase the minor trade waste charge. This change would lead to a tariff structure similar to that of other water businesses. The Commission proposes to approve this change, because it is consistent with the Commission's pricing principles and the WIRO given that the simplification of its tariff system and its alignment with the tariffs of other businesses, better enables customers or potential customers to readily understand the prices or the manner in which such prices are to be calculated.

Wannon Water

Wannon Water proposed to halve its fixed minor trade waste charge for businesses not required to have pre-treatment facilities, and to reduce the volume threshold for minor trade waste customers. In response to the Commission's request for more information, the business noted:

- minor trade waste customers contribute a smaller portion of sewerage system costs than do residential customers, on a per kilolitre basis and
- lowering the threshold would give minor trade waste customers a greater incentive to reduce the volume of their trade waste discharged to the sewerage system, leading to lower overall community costs.

Wannon Water argued its proposed change would not affect major trade waste customers because customers pay on a discharge volume and quality basis. However, the reduced threshold would affect minor trade waste customers:

- approximately 109 non-residential properties would be drawn into the group paying the sewage volume charge.

The existing 313 properties paying the sewage volume charge would pay a fee equal to an additional 230 kilolitres multiplied by the individual trade waste volume discharge factors. The Commission proposes to approve Wannon Water's proposal to halve the minor trade waste charge for businesses not required to have pre-treatment facilities. It also proposes to approve Wannon Water's proposal to

reduce the volume threshold for the sewerage charge from 750 kilolitres to 520 kilolitres per year, because the new threshold complies with the WIRO's principles. By making tariffs provide greater incentives to minor trade waste customers to reduce the volume of their trade waste discharged (where the cost of discharging is greater than pre-treatment or other options) proposed tariff changes provide appropriate incentives and signals to customers about the sustainable use of Victoria's water resources by reference to the costs of providing services to customers.

Wannon Water also proposed to introduce a fixed annual fee for deemed trade waste customers. However, in discussions with the Commission, the business mistakenly used the term 'minor trade waste (deemed agreement)' when it was actually proposing to introduce a fixed annual fee for minor trade waste customers with no pre-treatment. In addition, where they have used the term 'minor trade waste (agreement)' it means 'minor trade waste (pre-treatment)'. The Commission proposes to approve the introduction of this fixed annual fee.

14.5 DRAFT DECISION

The Commission proposes to approve the trade waste tariffs proposed by Barwon Water, Central Highlands Water, East Gippsland Water, Gippsland Water, GMMWater, Lower Murray Water, South Gippsland Water, Wannon Water and Westernport Water.

The Commission requires all regional water businesses to continue to include the Commission's trade waste pricing principles in their tariff schedules. All regional water businesses are required to use the pricing principles when determining trade waste charges for customers to whom scheduled prices do not apply.

The Commission proposes to approve Coliban Water's, Goulburn Valley Water's and North East Water's trade waste tariffs, subject to them including a clearly defined classification structure in their pricing schedules (given these businesses proposed to change their trade waste categories).

The Commission proposes to approve the trade waste tariffs proposed by Coliban Water subject to Coliban Water:

- including its pricing principles in its price schedule and
- not charging trade waste customers a total dissolved solids charge if their treatment plant does not remove or reduce salt from the customer's waste.

15 NEW CUSTOMER CONTRIBUTIONS

15.1 INTRODUCTION

New Customer Contributions (NCC) (also known as developer charges) are an upfront payment that may be levied by a water business when a customer builds or develops a property and connects to that water business's water, sewerage or recycled water network.

As part of its role in regulating water prices, the Commission has in the past approved the charges to be paid by developers and property owners for new customer contributions.

A key economic issue with the prevailing NCC regime is that statewide uniform NCC do not necessarily reflect the costs of connection. Generally NCC encapsulates a judgment on the sharing of the benefits of new connections between existing and new customers and between different developers.

Ahead of the 2013 price review, the Commission has been working with the industry to develop a new and enduring framework for NCC that meets the regulatory objectives of sending appropriate incentives and signals to customers or potential customers about the sustainable use of Victoria's water resources and the costs associated with servicing new developments. These are express requirements of the *Water Act (1989)* and WIRO.⁶⁹

⁶⁹ *Water Industry Regulatory Order* Clause 14,

As part of their 2013 Water Plans, the water businesses submitted NCC pricing proposals in line with the new principles based NCC framework. The Commission has now assessed these proposals and this chapter sets out the Commission's findings. Given that there a number of important and specific actions to be undertaken by regional water businesses, the Commission proposes to only approve the manner in which the NCC charges are calculated subject to the water businesses amending their proposals. To the extent that the NCC charges vary following those amendments, the Commission also require that the water businesses consult with their customers prior to re-submission for the final decision.

15.2 BACKGROUND

15.2.1 EXISTING NCC FRAMEWORK

Under the existing NCC framework a scheduled charge may be levied when a connection is made to the water businesses water, sewerage and recycled water networks. The charge is based on lot size. A uniform charge (for each of the three lot sizes) is levied across all connections in Victoria (see table 15.1).

TABLE 15.1 SCHEDULED CHARGES (AS OF 1 JULY 2012)

Water (per lot) without recycled water	
Category one charge — Lot size < 450 sq m	\$608.64
Category two charge — Lot size 450 – 1 350 sq m	\$1 217.30
Category three charge — Lot size > 1 350 sq m	\$2 434.63
Sewer (per lot)	
Category one charge — Lot size < 450 sq m	\$608.64
Category two charge — Lot size 450 – 1 350 sq m	\$1 217.30
Category three charge — Lot size > 1 350 sq m	\$2 434.63
Dual Pipe Recycled Water Developments or Subdivisions	
Recycled Water (per lot)	
Category one charge — Lot size < 450 sq m	\$608.64
Category two charge — Lot size 450 – 1 350 sq m	\$1 217.30
Category three charge — Lot size > 1 350 sq m	\$2 434.63
Water (per lot) with recycled water	
Category one charge — Lot size < 450 sq m	\$304.31
Category two charge — Lot size 450 – 1 350 sq m	\$608.64
Category three charge — Lot size > 1 350 sq m	\$1 217.30

Where applicable developers are also required to:

- provide reticulation assets to connect their development to the local water business network
- pay financing costs to bring forward shared assets sooner than planned, or
- provide and maintain temporary assets (such as pumps and pipelines that are required before the permanent assets are installed)

These charges are individually administered by the water businesses.

15.2.2 KEY ISSUES WITH EXISTING REGIME

Over the past two regulatory periods stakeholders have raised a number of issues about the existing NCC regime. Most of these relate to:

- uniform charges diminishing locational cost signals

- lack of clarity about which assets are recovered by NCC
- varying interpretations of definitions relating to assets and bring forward charges that are difficult to explain and implement which in turn promote gaming
- “pioneer” developers providing assets that later developers can connect to later free of charge
- lack of clarity about the dispute resolution process, and
- lack of clarity about the roles and responsibilities of key stakeholders — water businesses, developers, the Commission and VCAT.

Many of these issues have resulted in disputes that were referred to the Commission for resolution.

Some water businesses have also been concerned that the lack of cost reflectivity of the existing regime may result in existing customers subsidising growth. This is more likely when businesses with relatively small customer bases face significant network expansion pressures to service growth, or the costs of adding new capacity are significantly higher than the average cost of the existing network.

Consultation with stakeholders highlighted that the key economic issues with the existing framework are that charges levied under the state wide uniform approach do not necessarily reflect the costs of connection or allocate costs between connecting parties reasonably.

The Commission has responded by working closely with the water and development industries to develop a principles based NCC framework commencing in the third regulatory period. This framework will address the problems identified above in a way that is consistent with the relevant regulatory and legislative framework.

In August 2012, the Commission issued the New Customer Contributions – guidance paper (the 2012 NCC guidance paper).⁷⁰ The paper sets out the Commission’s expectations in relation to the water business’s NCC proposals for the third regulatory period.

⁷⁰ Essential Services Commission 2012, *Guidance paper – new customer contributions*, August 2012

15.2.3 A PRINCIPLES BASED NEW CUSTOMER CONTRIBUTIONS FRAMEWORK

Legislative and regulatory framework

The setting of NCC is governed by the *Water Act* (1989) and the WIRO. Water businesses have broad powers to charge property owners (including developers where applicable) for their infrastructure, services and customer usage.

Under clause 268 in Division 6 of Part 13 of the *Water Act*, a water business may require payment when it provides services that benefit a property.

Specifically:

- *(1) An Authority that intends to provide services which will benefit a property may, by notice in writing, require the owner of the property to meet or contribute to the present day cost of any works that are used or will be able to be used directly or indirectly for the provision of those services, and any fireplugs attached to those works.*
- *(3) The amount of payment required from an owner must be assessed by the Authority to be fair and reasonable, taking into account the benefit to that property relative to the benefit to other properties.*

Section 271 of the *Water Act* provides that disputes between property owners and water businesses are heard by the Victorian Civil and Administrative Tribunal (VCAT).

Under the WIRO, the Commission has the power to regulate the prices, standards and conditions of the service to which NCC relate. In particular, the WIRO requires that NCC be calculated to provide appropriate incentives and signals to customers or potential customers about sustainable use of Victoria's water resources and the costs associated with the servicing a new development in a particular location.

15.2.4 KEY FEATURES OF THE NEW NCC FRAMEWORK

Consistent with the *Water Act* the new NCC framework is based on the flexible negotiate and arbitrate model. Key elements of the framework include:

- NCC based on the incremental costs imposed on the water businesses by growth. Incremental costs provide the strongest locational signals to developers about the costs of growth

- roles and responsibilities of key stakeholders are identified
- the NCC service and the types of costs that can be recovered are clearly defined
- NCC can be negotiated in accordance with the protocols set out in a negotiating framework
- NCC will be calculated in accordance with pricing principles approved by the Commission
- costs and benefits between new and existing customers will be shared fairly
- standard NCC can apply in situations where a water business has a reasonable knowledge of the growth forecasts and expenditure required to service a particular location or catchment — for example a defined urban growth area. This should give developers some certainty about expected charges. Standard NCC must be defined by clear eligibility criteria. These criteria describe the geographic boundaries that apply around standard NCC or the thresholds (above or under) which a standard NCC will apply and
- NCC will be able to be negotiated for developments that either have unique cost drivers or were unplanned (negotiated NCC).

During the transition period, in the interests of minimising formal disputes before VCAT, the Commission could (upon request from a water business or developer) provide an opinion about whether the proposed NCC charge is consistent with the approved pricing principles. This informal role will be reviewed by the Commission before to the end of the next regulatory period.

BOX 15.1 NCC SERVICE DEFINITION

The NCC service is defined as:

- infrastructure and associated activities to connect an un-serviced property to the water services networks
- or
- infrastructure and associated activities required to increase services to a serviced property.

BOX 15.2 CORE NCC PRICING PRINCIPLES

Standard and negotiated NCC charges will:

- have regard to the incremental infrastructure and associated costs in one or more of the statutory cost categories attributable to a given connection
- have regard to the incremental future revenues that will be earned from customers at that connection
- be greater than the avoidable cost of that connection and less than the standalone cost of that connection.

Purpose of the core pricing principles

These core NCC pricing principles represent the minimum requirements that the Commission would expect to see an NCC comply with in order to confirm that the charge was fair and reasonable as required by the *Water Act*.

Feedback to the Commission suggests that VCAT decisions have focussed on what constitutes fair and reasonable. This has included that charges:

- are sufficiently explained or justified by the business, being based on sound corporate policy, having regard to broader context of potential future infrastructure demands and reflecting proper cost apportionment

- are fair and reasonable in all circumstances and assess each connection on its merits.

The Commission agrees that an important part of the fair and reasonable test is the explanation of how costs and benefits have been attributed to a given connection. The requirement to have an approved negotiating framework (see section 15.2.6) and the information provision requirements within that framework will support this aspect of the fair and reasonable test and improve transparency within the connections charging framework.

A second aspect of the fair and reasonable test relates to having due regard to the costs and benefits of a given connection. The Commission considers its core pricing principles serve this purpose by requiring that any costs attributed to a connection reflect the additional costs a water business has incurred or will incur to service that connection. However, the Commission considers that it would be unreasonable to ignore the benefits associated with connection.

By specifying the use of “net incremental cost of connection”, the core pricing principles support fairness between new and existing customers, and between connection applicants in different locations and at different dates of connection.

The incremental cost and revenue pricing principles ensure that connections are charged for the net incremental cost that they impose on the water businesses. That is, new customers only incur costs that cannot be offset by other benefits accruing to the water business (such as the additional revenues from new customers paying their water bills).

The pricing principle that charges must be greater than the avoidable cost of that connection and less than standalone cost of that connection will ensure existing customers are not subsidising connections at inefficient levels, and that connection applicants are not charged more than it would cost to build the assets they require.

The following sections discuss in greater detail the key elements of the core pricing principles.

Additional pricing principles

A water business may propose additional pricing principles. These pricing principles cannot either expressly or implicitly override the effects of the core pricing principles.

Incremental costs

Incremental costs are costs that would not have been incurred to serve the existing customer base, or not incurred to the same scale. Incremental costs may include capital, operating, financing and tax costs attributable to the connection. The Commission's view is that, consistent with the heads of power under the WIRO and sections 268, 269 and 270 of the *Water Act (1989)*, developer charges (NCC) for the present day cost of any works can encompass the above cost types.

Incremental cost should be calculated over a period that aligns with the business's growth planning or asset utilisation horizons, and for operating costs this should be the same as the revenue assessment period.

Avoidable cost represents the cost that would be avoided if the water business did not provide services to that customer or group of customers.

The Commission notes that incremental cost, as defined here for the purposes of NCC calculation, can be expected to be higher than avoidable cost. This is because avoidable cost is forward looking only, whereas under the above definition, incremental cost can include an allocation of historical costs of assets that the business had prudently built in expectation of future growth.

Incremental benefits

Incremental benefits are those benefits that accrue to the water business as a result of the connection. At a minimum, they will include the additional revenue that the water business will earn from the relevant new services being provided (water, sewerage or recycled water) by virtue of that new connection.

Additional benefits may arise from deferred system augmentation where a given connection facilitates the deferral of previously planned works. For example connection to recycled water services may defer augmentation in potable water infrastructure.

Efficient pricing bounds

The pricing principle that charges must be greater than avoidable cost of that connection and less than standalone cost of that connection will ensure existing customers are not subsidising connections at inefficient levels, and that connection applicants are not charged more than it would cost to build the assets they require themselves.

Further, standalone cost represents the least cost technically efficient servicing solution (optimised cost). Standalone cost will be the cheaper option out of:

- working out the share of existing assets and new connection assets required to service just that connection or group of connections, and
- estimating an entirely new servicing solution that is independent of the existing network (if this is lower cost).

15.2.5 INTERACTION WITH THE REGULATORY ASSET BASE

Water businesses will continue to add gross capital to the regulatory asset base (RAB) and net any contributions off the RAB. NCC costs and revenue will be assessed as part of total Water Plan proposal on a forecast basis with actuals used in RAB roll-forward at the next water plan.

Initially, water businesses may add an amount of net growth capital to the RAB. However, over time, this amount will be reduced by NCC revenue associated with this capital. This means that over the life of the growth asset existing customers will not be worse-off as a result of growth.

To the extent material error in the forecasting of standard NCC transpires, and the water business cannot use case-by-case NCC to recover its required costs, then the business may consider relying upon the unforeseen event provisions to apply to the Commission to re-open its determination.

While the NCC pricing principles mean NCC costs and revenues should move in line with each other during Water Plan 3, to the extent any over recovery of NCC revenues does occur, the RAB roll forward will lower the remaining RAB, at the end of regulatory period.

The Commission notes that, because in total businesses only recover their efficient costs and any over and under recovery is adjusted as part of the “building blocks” calculation, this has the effect of mitigating or correcting over time any short term fluctuations in capital expenditure and NCC revenues.

15.2.6 A NEGOTIATING FRAMEWORK

The negotiating framework is the primary form of guidance to support the implementation of the NCC framework. The purpose of the negotiating framework is to facilitate efficient and timely connection of new customers on a fair and reasonable basis, taking into account the benefit to the new customer relative to benefits realised by other customers. It requires water business and any connection applicant to negotiate in good faith to agree the price, standards and conditions of services to be provided. It also provides for transparent information to enable the connection applicant to understand the reasons for decisions made by the water business.

The minimum requirements for a negotiating framework, includes information to explain:

- the role and rights of water businesses and developers
- the role of VCAT and the Commission
- the legal and regulatory framework as it applies to connection negotiations and determination of charges and terms and conditions
- the process for negotiation and arbitration (including minimum information provision and arrangements for managing confidential information)
- approved NCC pricing principles (i.e. core NCC pricing principles plus any additional principles proposed by the business), and
- the eligibility/threshold for any standard NCC, if these have been proposed by a water business and approved by the Commission.

The negotiating framework should incorporate the statutory requirements in section 268(4) of the *Water Act* which stipulates that where a water business requires payment or contribution for services that will benefit a property, it must issue the owner of the property a notice which specifies:

- the amount of the payment required
- the reason why the payment is required
- any works or services that have been or will be provided
- the property in relation to which payment is required
- if payments are required in relation to a group of properties, the amounts required in relation to each property

- the right of the owner to object and apply for a review under section 271 and
- in the case of a notice under subsection 268(1) that details of the proposed services and the costs are available for inspection, free of charge, at the Authority's office during normal business hours.

In addition, the approved negotiating framework should include information that may support the allowable grounds for review by VCAT that is, information that enables the connection applicant to determine whether:

- the amount is excessive
- where there are several properties that will benefit:
 - that the owner should not be required to make payment
 - that another owner should also be required to contribute or
 - the distribution of the cost between the properties is unreasonable
- that the payment was not set in accordance with a WIRO or the *Essential Services Commission Act 2001*
- for section 269, that the use of the services has not, or will not, increase
- for a charge under section 268, that the property will not benefit from the services or
- for a charge under s 268(1), any other grounds apply (section 271).

The water businesses must submit a NCC negotiating framework that is consistent with the sample framework contained in the *New Customer Contributions Guidance Paper* — August 2012. Key matters that must be covered are:

- application and purpose of negotiating framework
- timeframes for negotiation
- provision of information by connection applicant
- provision of information by water business
- pricing principles
- standard NCC and eligibility criteria for these charges — where a given business has elected to propose any standard NCC in its Water Plan
- consultation with affected parties
- payment of water business's costs
- termination of negotiations

- dispute resolution
- contacts for notices and
- terms & abbreviations.

For a more comprehensive discussion on the development and application of the NCC framework, please see the following papers:

- Essential Services Commission 2011, *New Customer Contributions — staff issues*, December
- Essential Services Commission 2012, *New Customer Contributions — staff framework and approach paper*, May
- Essential Services Commission 2012, *New Customer Contributions — guidance paper*, August.

All papers are available on the Commissions website:

<http://www.esc.vic.gov.au/Home>

15.3 APPROACH TO ASSESSING NCC PROPOSALS

The key focus is on whether the NCC proposals from the regional urban water businesses address the express requirements of the *Water Act (1989)* and the WIRO.

The Commission has undertaken its assessment based on the following:

- 1 Have the water businesses submitted the key elements of the framework (namely, negotiation framework and eligibility criteria for standard NCC) and do they at least meet the minimum requirements in the guidance paper?
- 2 Have the water businesses proposed any standard NCC and location specific charges and are they in line with the pricing principles and the cost reflective principle in the WIRO?
- 3 Have the water businesses included any NCC charges in their proposals that will be negotiated and are they in line with the pricing principles and the cost reflective principle in the WIRO?
- 4 If the proposed NCC charges are much higher than current NCC charges, is there a transitional plan and have customers or potential customers been consulted?

5 Have key stakeholders been consulted in developing the NCC proposals?

The next section provides an overview of the regional urban water businesses proposals, followed by the Commission’s assessment and findings.

15.4 OVERVIEW OF BUSINESSES’ PROPOSALS

Table 15.2 provides a summary of the standard new customer contributions proposed by the regional urban water businesses and indicates whether a negotiating framework has been received.

TABLE 15.2 SUMMARY OF PROPOSALS

Water Business	Water		Sewerage		Recycled Water		Negotiating framework received
	Standard NCC (\$)	Charge Basis	Standard NCC (\$)	Charge Basis	Standard NCC (\$)	Charge Basis	
Barwon Water	3 340 ^a	Per lot	1 100	Per lot			Yes
Central Highlands Water	being recalculated		being recalculated				Yes
Coliban Water	1 198	Per lot	1 198	Per lot	599	Per lot	Yes
East Gippsland Water	550	EQT ^b	350	Per EQT ^b			Yes
Gippsland Water	being recalculated		being recalculated				Yes
Goulburn Valley Water	2 323	Per new connection	0	Per new connection			Yes
GWMWater	Case-by-case basis		Case-by-case basis				Yes
Lower Murray Water	2 820 ^c	Per lot	2 622 ^c	Per lot			Yes
	1 410 ^d		1 311 ^d				
North East Water	2 500	Per lot	1 900	Per lot			Yes
South Gippsland Water	2 020 ^e	Per lot	5 000 ^f	Per lot			Yes
Wannon Water	4 000 Group A ^g	Per lot	1 500 Group A ^g				
	1 000 Group B ^h		1 000 Group B ^h				
	2 000 Group C ⁱ		750 Group C ⁱ				
	500 Group D ^j		500 Group D ^j				
Westernport Water	2 500 ^a	Per lot	850	Per lot			Yes

^a a combined water and recycled water charge. ^b Equivalent tenement. ^c Lots > 750 sqm. ^d Lots 0 – 750sqm. ^e combined water and sewerage charge. ^f Poowong, Loch, Nyora. ^g Warrnambool, Allansford, Koroit, Portland, Hamilton and Port Fairy (>=450 sqm). ^h All other areas (>=450 sqm). ⁱ Warrnambool, Allansford, Koroit, Portland, Hamilton and Port Fairy (<450 sqm). ^j All other areas (<450 sqm)

A number of high level observations about the proposals are summarised below.

- all water businesses except GWMWater proposed standard NCC for the third regulatory period. GWMWater proposes to calculate NCC on a case-by-case basis in accordance with the NCC pricing principles.
- all water businesses except Wannon Water and South Gippsland Water propose to levy uniform NCC for each service across their region. Wannon Water and South Gippsland Water have proposed to divide their regions into two areas for purpose of levying NCC.
- proposed NCC for water infrastructure ranges from \$550 to \$4000 per lot. NCC for sewerage infrastructure ranges from \$0 per lot to \$2622 per lot.
- Wannon Water proposed the highest NCC for water infrastructure — \$4000 per lot for lots of greater than 450 square metres in the major towns (Warrnambool, Allansford, Koroit, Portland, Hamilton and Port Fairy). Lower Murray Water has proposed the highest NCC for sewerage infrastructure — \$2622 per lot.
- Barwon Water and Westernport Water have proposed a combined NCC for water and recycled water. This is because of the interdependencies between the provision and use of water and recycled water infrastructure.

Typically, NCC would be higher in areas where new infrastructure needs to be (or has recently been) constructed to service growth.

Conversely, NCC would be lower if there are minimal new infrastructure costs to service growth.

All regional urban water businesses submitted a negotiating framework.

15.5 ASSESSMENT

15.5.1 HAVE THE WATER BUSINESSES SUBMITTED THE KEY ELEMENTS OF THE FRAMEWORK?

Negotiating framework

All of the regional urban water businesses have submitted negotiating frameworks that are broadly consistent with the requirements of the sample framework contained in the 2012 NCC guidance paper.

However, there is room for greater consistency across all water businesses negotiating frameworks on the minimum information requirements, process and pricing principles. The Commission requires the regional urban water businesses to consult amongst themselves to develop a best practice negotiating framework.

The Commission has also received a submission that asked under what circumstances would Central Highlands Water's negotiating framework apply.⁷¹

The NCC negotiating framework applies in all situations where an application is made to connect to water business's water, sewerage and recycled water networks.

The Commission's view is that all businesses including Central Highlands Water should clarify with all stakeholders the situations where the negotiating framework applies.

Eligibility Criteria

Eligibility criteria define the boundaries around the areas (or towns) within which standard NCC apply or any threshold that must be met in order for an NCC to be levied.

The Commission's review showed:

- Barwon Water and Westernport Water provided maps showing the areas within their regions where standard NCC apply

⁷¹ Barnes, J, 2013, *Submission to the Water Price Review 2013-18*, 23 January

- South Gippsland Water and Wannon Water named the towns where the highest level standard NCC apply
- Goulburn Valley Water explained that standard NCC apply to all towns within its region
- East Gippsland Water stated that standard NCC apply where applications to connect properties do not require unplanned growth assets
- Central Highlands Water explained that standard NCC for water and sewer would be set at \$0 per lot. But added that an NCC may be applicable in certain instances where significant additional expenditure is required and
- Coliban Water, Gippsland Water , Lower Murray Water and North East Water did not describe where or when standard NCC would apply.

The Commission's view is that Barwon Water and Westernport Water have provided sufficient detail to show where standard NCC applies. Both proposals contain detailed maps showing the town boundaries within which standard NCC apply.

The Commission received a submission about the operation of Central Highlands Water's NCC framework. The submission raised a query about what the eligibility criteria are in relation to a \$0 NCC.⁷²

The Commission's agrees that the eligibility criteria proposed by Central Highlands Water is unclear in two respects. The areas where \$0 NCC applies are not defined nor is the phrase "significant additional expenditure". Central Highlands Water must define the areas where the standard per lot NCC applies and define the threshold above which a negotiated NCC will be levied.

In addition the Commission requires that Coliban Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, North East Water, South Gippsland Water and Wannon Water improve the transparency of their NCC proposals by providing maps showing the boundaries around the areas (or towns) within which standard NCC apply. The Commission requires all regional urban water businesses to make these maps publically available.

⁷² Barnes, J, 2013, *Submission to the Water Price Review 2013-18*, 23 January

15.5.2 HAVE THE WATER BUSINESSES PROPOSED ANY STANDARD NCC AND LOCATION SPECIFIC CHARGES AND ARE THEY IN LINE WITH THE PRICING PRINCIPLES AND THE COST REFLECTIVE PRINCIPLE IN THE WIRO?

Standard NCC

The NCC proposals submitted by the water businesses expose differences in the actual costs of connecting new customers in different locations across the state. By contrast some developers who made submissions value simple, standard NCC ahead of cost reflectivity and location signals.⁷³

Initial proposals from Central Highlands Water and Gippsland Water calculated NCC charges with a zero value when using the pricing principles. The Commission understands that these businesses are revising their calculations. It will reassess their proposals following submission.

Standard NCC should be calculated in line with the core pricing principles. Section 15.2.4 describes the core pricing principles and definitions of incremental costs and revenues.

To assess whether proposed NCC were calculated in a way that is consistent with those principles the Commission examined whether:

- incremental costs and incremental revenues are properly and reasonably identified
 - the modelling has any obvious errors and/or
 - selected businesses used reasonable expenditure forecasts to calculate NCC
- The Commission engaged Sinclair Knight Merz (SKM) to undertake this task.

⁷³ This will be discussed fully in the April 2013 Draft Decision - Metropolitan Water Businesses in response to the submission by the Urban Development Institute of Australia and the Property Council of Australia.

Desktop review

The Commission undertook a desktop review of the NCC proposals and found Goulburn Valley Water, Wannon Water and Westernport Water refer to the use of average costs in the calculation of the businesses respective NCC. It is unclear whether these businesses have used average costs (all costs divided by all customers) or have estimated that the costs to connect new customers are approximately the same as the “average” cost to service existing customers. If it is the latter, then these costs could be considered incremental and satisfy the pricing principles.

The Commission received a submission from Rodger Construction of Warrnambool who, claimed Wannon Water had incorrectly used average operating costs to calculate NCC.

The Commission engaged SKM to review the reasonableness of Wannon Water’s estimate of incremental operating costs. SKM’s review found that Wannon Water had adopted a simplistic approach to estimate incremental operating costs. Under this approach:

- Incremental cost is equal to current operating costs divided by total number of megalitres supplied and or treated. This average cost is then assumed to be the incremental cost per additional megalitre treated and/or supplied – for the next planning period. SKM assessed this approach to estimating incremental costs reasonable under the new regime.

Given the timeframes the Commission requires all regional urban water businesses to confirm they calculated NCC in accordance the pricing principles. The Commission will consider conducting an audit to verify that the methodology has been applied correctly by the water businesses during the third regulatory period.

Review of models

The Commission reviewed the spread sheet models used by the water businesses to calculate standard NCC. The review showed all the regional urban water businesses except North East Water calculated standard NCC by accounting for incremental costs and revenues.

North East Water did not appear to have taken incremental revenues into account when calculating NCC. The Commission thus requires North East Water to revise its model and re-submit its proposal if its revised NCC are different.

The Commission also reviewed the basis of the revenue estimates used in the businesses' standard NCC calculations, to determine whether they are consistent with the 2012 NCC guidance paper and based on the businesses' current tariffs.

The review showed each business had based its revenue estimates on the prevailing tariff for the service — no material deviations were found. The businesses' approach is thus consistent with the 2012 NCC guidance paper.

The review indicated other modelling issues some that are generic across most businesses and others that are business specific. Section 15.6 and volume II describe these issues.

The Commission received a submission from Rodger Constructions on general modelling issues and an issue specific to Wannon Water's proposal. Rodger Construction claimed Wannon Water incorrectly:

- accounted for tax effects. The business should set its tax rate to zero in the model, because it does not pay tax and is not likely to do so for a significant period of time and
- included depreciation in its calculation of NCC.

The Commission considers the water businesses should include a tax rate in the model only for the years it expects to pay tax. For this reason, it does not propose to accept Wannon Water's position with regard to tax effects. It requires Wannon Water to forecast the year it expects to pay tax and adjust the tax rates in the model to reflect that timing.

Further, the Commission considers costs included in the calculation should be cash costs. So, it does not propose to accept Wannon Water's proposed use of depreciation in its NCC calculation. It requires Wannon Water to remove depreciation amounts from its NCC calculation.

In its 2012 NCC guidance paper, the Commission required water businesses to calculate standard NCC over a 30 year period. If a shorter period was chosen, the business was required to also submit a version of the equivalent charge based on a 30 year period. The Commission's review showed all the businesses (except Coliban Water) calculated standard NCC based on measuring operating costs and revenues over a 30 year period. Coliban Water based its submission on measuring these costs and revenues over a 20 year period. It did not provide a comparative NCC with operating costs and revenues measured over 30 years.

The Commission requires Coliban Water to submit a version of the model measuring operating costs and revenues over a 30 year period as soon as possible.

The Commission's review showed all regional urban businesses considered longer term horizons when planning the capital and associated operating expenditures required to service growth.

However, individual regional urban water businesses used varying timeframes to estimate capital costs.

The Commission requires them to consult amongst themselves to propose a common water industry timeframe over which to estimate capital costs.

Prudent and efficient costs

The Commission must be satisfied that the expenditure forecasts contained within the businesses' NCC proposals are prudent and efficient.

In general, its review focused on the appropriateness of the planning systems and cost apportionment method that the businesses use to estimate prudent and efficient capital and operating expenditure forecasts to be included in the NCC model. A few businesses were selected and assessed rather than examining in detail each individual business.

The Commission engaged SKM to undertake the review on Barwon Water's, Gippsland Water's, Goulburn Valley Water's and Wannon Water's expenditure forecasts. These businesses were chosen because they represent a range of NCC. Wannon Water and Gippsland Water are at either ends of the range in terms of the NCC value, and Goulburn Valley Water is around the mid-point while Barwon Water proposed uniform charges to apply across a multi catchment network.

The consultant's review of selected businesses indicated that those businesses have systems to plan for efficient growth. As to the prudence and efficiency of proposed costs, SKM's findings on the selected businesses are as follows.

SKM's findings on Barwon Water

- The growth forecasts that underpin the business's growth capital expenditure program are reasonable.
- The sizing and sequencing of infrastructure appears reasonable.

- The basis of apportioning the unutilised capacity of capital constructed during Water Plan 2 to future periods appears reasonable.
- Incremental operating cost estimates appear reasonable.
- There appears to be alignment between the capital expenditure indicated in the NCC models and that indicated in the capital plan.
- Estimates of gifted assets appear reasonable.

SKM's findings on Gippsland Water

- The growth forecasts that underpin the business's growth capital expenditure program are reasonable.
- The sizing and sequencing of infrastructure appears reasonable.
- Based on the analysis of sample growth areas, the apportionment of capital expenditure to growth appears reasonable.
- The NCC model included full project costs of Water Plan 2 capital projects which is unreasonable. Project costs should be reduced to take into account NCC that have already been received from connections to these assets in Water Plan 2. Or the project costs should be reduced by the extent to which capacity in these assets is used up to the beginning of the third regulatory period.
- It would be reasonable to include some proportion of the variable operating costs associated with the Gippsland Water Factory.

SKM findings on Goulburn Valley Water

- The growth forecasts that underpin the business's growth capital expenditure program are reasonable
- Based on the analysis of sample town or growth areas, the apportionment of capital expenditure to growth appears reasonable
- The business has reasonably included Water Plan 2 capital expenditure in its calculation of standard NCC and
- Incremental operating cost estimates appear reasonable

SKM findings on Wannon Water

- The quantum of capital expenditure allocated to growth seems reasonable. Except in the case of the North East Growth Corridor cost estimate. A

significant risk of underestimation exists for the new water pipeline cost elements, which are a major component of the forecast capital expenditure.

- The sizing and sequencing of growth shared infrastructure appears reasonable.
- The operating costs per mega litre appear reasonable.

The Commission has reviewed SKM's approach and analysis for each of the above businesses and considers it reasonable. Therefore, the Commission requires the following actions to be undertaken:

- Gippsland Water — to re-submit its standard NCC proposal after accounting for SKM's findings on the apportionment of Water Plan 2 capital costs and the variable operating costs associated with the Gippsland Water Factory.
- Wannon Water — review its estimation of North East Growth Corridor costs and if they differ re-submit its NCC proposal.

Cost reflectivity

A key WIRO requirement is that NCC charges should provide appropriate incentives and signals to customers and potential customers about costs of servicing a new development in a particular location — in other words, cost reflective pricing to provide strong locational signals for new developments. The Commission considers the water businesses' proposals should contain separate NCC for each service when the underlying costs to service different catchments are materially different.

The Commission's review showed the following:

- All businesses except South Gippsland Water and Wannon Water have proposed a single NCC for each service which will apply across their region.
- Wannon Water proposed a uniform NCC for each service in major towns and another uniform NCC for each service to apply in all other areas.
- South Gippsland Water proposed a NCC for sewerage services in Poowong/Loch/Nyora and another NCC for sewerage services in other areas.
- Barwon Water proposed a NCC based on combined water and recycled water costs.
- Westernport Water have proposed to combine the water and recycled water NCC.

The water businesses thus generally adopted an approach that favours simplicity over cost reflectivity.

The Commission requires Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, Lower Murray Water, North East Water, South Gippsland Water, Wannon Water and Westernport to assess how they can improve the cost reflectivity of their NCC proposals. These water businesses are required to present options for offering more location specific NCC. If the option is a uniform NCC then the water business must demonstrate that there is little material difference between NCC calculated for specific locations.

15.5.3 HAVE THE WATER BUSINESSES PROPOSED ANY NEGOTIATED NCC AND ARE THEY IN LINE WITH THE PRICING PRINCIPLES AND THE COST REFLECTIVE PRINCIPLE IN THE WIRO?

Barwon Water and GWMWater propose to negotiate NCC in certain circumstances. The Commission requires these businesses to confirm they will apply the core pricing principles and describe the circumstances (eligibility criteria) in which NCC will be negotiated.

15.5.4 TRANSITION PLAN

Transition plans will help mitigate any immediate price effects of moving from the existing regime with uniform statewide NCC to NCC that reflect the costs of developing in different locations. Accordingly, the Commission encouraged businesses to consider such plans and propose these where warranted.

The Commission's review showed Lower Murray Water was the only regional urban water business to propose phasing the price increase of the NCC over two years. All other water businesses proposed to levy NCC at the full amount from the beginning of the third regulatory period. A number of businesses' Water Plans did not propose transition arrangements because standard NCC are similar to or less than NCC levied under the existing framework.

The Commission's analysis showed that Barwon Water, North East Water, South Gippsland Water and Wannon Water proposed to levy higher NCC under the new NCC framework than the NCC that would have been levied under the existing framework (see table 15.4).

The Commission requires these businesses to consult with their stakeholders to assess the need for a transition plan. Where transition arrangements are required, they are required to be submitted to the Commission before its final decision.

TABLE 15.4 COMPARISON BETWEEN PROPOSED NCC AND EXISTING NCC
(\$ per lot)

Water business	Total proposed NCC	Total NCC under existing framework
Barwon Water ^a	4 440	3 651.90
Barwon Water ^b	4 440	2 436.60
Lower Murray Water ^b	5 442	2 436.60
North East Water ^b	4 400	2 436.60
South Gippsland Water ^c	5 000	1 217.30
Wannon Water ^d	5 500	2 436.60

^a comparison with lots that received water, recycled water and sewerage under existing framework. ^b comparison with lots that received water and sewerage under existing framework ^c NCC for sewerage in Poowong, Loch and Nyora. ^d Warrnambool, Allansford, Koroit, Portland, Hamilton and Port Fairy (>=450 sqm) comparison with lots that received water and sewerage under existing framework

15.5.5 STAKEHOLDER CONSULTATION

Most regional urban water businesses have commenced consultation with stakeholders on their NCC proposals. The Commission expects that all businesses will continue to consult further following the draft decision. It must be satisfied of stakeholder consultation for NCC proposals, particularly if:

- Proposed NCC charges are materially higher than they would have been under the existing framework
- A transition plan is needed to moderate short term price impacts
- Proposed NCC are a single uniform charge across each water business' region and
- Proposed NCC are for combined services (water, sewerage and recycled water).

The Commission received a submission that asked for the reasons underpinning Central Highlands Water's zero NCC.⁷⁴

The Commission's 2012 NCC guidance paper required all water businesses to consult on standard NCC. This consultation should include providing an overview of the cost drivers in the NCC calculation and describing the eligibility criteria that relate to that charge.

Central Highlands Water is required to confirm its NCC proposal and explain to stakeholders the reasons for a zero NCC or any amended NCC.

Generally, the businesses made significant efforts to improve the transparency around how they determine and manage NCC. The businesses have begun to consult with stakeholders and prepared negotiating frameworks that explain the processes necessary to administer NCC in a transparent way.

15.6 MODELLING ADJUSTMENTS

The Commission expects each regional urban water business to undertake the following general modelling adjustments before resubmitting their final NCC proposals:

- Update calculations of standard NCC with any expenditure adjustments arising from the draft decision
- Update calculations of standard NCC with any demand adjustments arising from the draft decision
- Review NCC calculations and only include tax rates in the model only for the years the business expects to pay tax
- Update calculations of standard NCC with the Commission's draft decision on the Weighted Average Cost of Capital (WACC) and
- Re-submit a forecast of NCC revenue for each service for each year of the third regulatory period, following changes made in accordance with the above.

⁷⁴ Barnes, J, 2013, *Submission to the Water Price Review 2013-18*, 23 January

If any of these adjustments result in NCC that are materially higher than those that would have been proposed, the water business must further consult with stakeholders and assess the need for a transition plan.

15.7 DRAFT DECISION

Subject to all regional urban water businesses amending their NCC proposals consistent with the specific actions required by the Commission described below (and detailed for each businesses in volume II) the Commission proposes to approve the manner in which all regional urban water businesses' NCC charges are determined.

The Commission requires all regional urban water businesses to:

- Assess how they can improve the cost reflectivity of their NCC proposal and to present options on offering more location specific NCC. If the option is a uniform or combined NCC then the water business must demonstrate that there is little material difference between NCC calculated for specific locations or services.
- Confirm that all NCC charges have been calculated in accordance with the core pricing principles.
- Improve the transparency of their NCC proposal by providing maps to show the boundaries around the areas (or towns) within which standard NCC apply. Or define any threshold that must be met in order for an NCC to be levied.
- Clearly describe the circumstances (i.e. eligibility criteria) under which NCC will be negotiated and confirm that it will apply the core pricing principles when such NCC are negotiated.
- Consult with other water businesses to develop a best practice negotiating framework.
- Consult with other regional urban water businesses to propose a common water industry timeframe to estimate capital costs.

Continued next page

- Consult with stakeholders following the draft decision
- Make other modelling adjustments:
 - Update calculations of standard NCC with any relevant expenditure adjustments arising from the draft decision
 - Update calculations of standard NCC with any relevant demand adjustments arising from the draft decision
 - Review NCC calculations and only include tax rates in the model only for the years the business expects to pay tax
 - Update calculations of standard NCC with the Commission's draft decision on the Weighted Average Cost of Capital (WACC).
- Re-submit a forecast of NCC revenue for each service for each year of the third regulatory period, following changes made in accordance with the above.

16 MISCELLANEOUS CHARGES

16.1 INTRODUCTION

In addition to providing water, sewerage and other primary services, regional water businesses provide a range of miscellaneous services. These miscellaneous services may include new connections, special meter reads and meter testing, the provision of property information statements and review of applications to build over easements. Miscellaneous services are part of the range of prescribed services under the *Water Industry Regulatory Order (WIRO)* and subject to price regulation by the Commission.

16.2 APPROACH TO REGULATING MISCELLANEOUS SERVICES

Under the Commission's approach, each business must identify a core set of miscellaneous services. This core set should generate a significant proportion of total miscellaneous services' revenue of the water business. It should also be included in the businesses' price schedules and form part of the Commission's approved price determinations. Core miscellaneous services should be priced according to pricing principles that are compliant with the WIRO. In the 2008 price determination, the Commission approved pricing principles for miscellaneous services for each of the businesses.

To improve customer understanding of miscellaneous services, the approved price schedule should define each core miscellaneous service. These definitions should provide sufficient detail for customers to understand the nature of the service and when the charge will apply. The level of service provided for the fee should also be clearly defined as different water businesses may include different levels of service for the same miscellaneous service charge. Table 16.1 explains the difference between core and noncore miscellaneous services.

TABLE 16.1 CORE AND NONCORE MISCELLANEOUS SERVICES

Service	Outline	Requirements to the Commission
Core miscellaneous service	Make up a majority of revenue from miscellaneous services, 'top 10' ^a miscellaneous services, most common miscellaneous services.	<ul style="list-style-type: none"> • definitions • scheduled prices • confirmation prices are set using pricing principles.
Non-core miscellaneous service	All other miscellaneous services.	<ul style="list-style-type: none"> • confirmation that prices are based on pricing principles • can have scheduled prices or be priced 'at cost' • no definitions required.^b

^a can be less than 10 services if they make up a majority of revenue. ^b Definitions required if the miscellaneous service is related to developer charges (see section 16.4.5).

In its guidance paper, the Commission reaffirmed the principles set out in the 2008 water price review.⁷⁵ That is, prices for miscellaneous services must be set according to actual costs, based on the sum of:

- direct third party or contractor invoice cost
- direct marginal internal costs (including labour, materials and transport costs) and
- a fair contribution to overheads.

The Commission asked all water businesses to confirm they used these pricing principles when setting their miscellaneous service fees and charges.

When charging for noncore miscellaneous services, water businesses can either set a standard price for a service based on the pricing principles and listed on its pricing schedule, or apply actual cost on a case-by-case basis. For many services (for example, a meter accuracy test), businesses could set a standard price and review it annually to ensure it still represents actual cost. In other cases, especially for services provided infrequently (such as larger meter installations), businesses

⁷⁵ Essential Services Commission 2011, *2013 Water Price Review—Guidance on Water Plans*, October.

could apply actual cost on a case-by-case basis. The Commission considers businesses are best placed to make this decision.

16.3 OVERVIEW OF BUSINESSES' PROPOSALS

In their Water Plans, most businesses proposed prices for their core set of miscellaneous services and included those prices in their proposed tariff schedules. However, only East Gippsland Water and South Gippsland Water provided definitions of their core miscellaneous services in their Water Plans.

GMMWater provided a list of core miscellaneous charges that covered both their urban and rural operations. For this chapter, discussions and decisions on GMMWater's miscellaneous charges will apply for both their urban and rural operations.

16.3.1 IDENTIFICATION OF CORE MISCELLANEOUS SERVICES

Businesses generally selected key miscellaneous services from their current price schedules for inclusion in their core set of charges. In addition to their current miscellaneous services, East Gippsland Water and South Gippsland Water also proposed miscellaneous service charges relating to water connection fees and administration developer fees. Appendix D sets out the businesses' proposed core miscellaneous services, definitions and charges.

16.3.2 BUSINESSES' USE OF PRICING PRINCIPLES

All businesses confirmed — either in their Water Plans or on request — that they set miscellaneous service charges using the Commission's pricing principles.

16.3.3 ADJUSTMENT OF CORE MISCELLANEOUS SERVICES

Barwon Water and Goulburn Valley Water proposed no changes to the individual core miscellaneous services from their last price determination. Most of the other businesses proposed only minor changes to their current core miscellaneous services.

16.3.4 PRICING OF CORE MISCELLANEOUS SERVICES

Most businesses proposed to keep prices for miscellaneous services constant in real terms over the next regulatory period:

- Barwon Water, Central Highlands Water, East Gippsland Water, Gippsland Water, GWMWater, Lower Murray Water, North East Water, South Gippsland Water, Wannon Water and Westernport Water proposed to increase their miscellaneous charges only by the consumer price index (CPI).
- Goulburn Valley Water proposed to increase most of its miscellaneous fees by CPI, but to increase the remainder in line with its proposed water and sewerage tariff increases.
- Coliban Water proposed to increase miscellaneous charges by 3 per cent above CPI in each year of the next regulatory period from 2014-15.

16.3.5 PRICING OF NONCORE MISCELLANEOUS SERVICES

Most businesses stated they charge their noncore miscellaneous services at actual cost. These businesses are Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, GWMWater, Lower Murray Water, North East Water, South Gippsland Water, Wannon Water and Westernport Water. In addition to charging some noncore miscellaneous services at actual cost, Goulburn Valley Water also publishes prices for some of its noncore miscellaneous services.

16.4 COMMISSION'S ASSESSMENT

Barwon Water, Central Highlands Water, Coliban Water, Gippsland Water, Goulburn Valley Water, GWMWater, Lower Murray Water, North East Water, Wannon Water and Westernport Water did not provide enough information on their core miscellaneous services in their Water Plan. The Commission sought further information from these businesses, including that they:

- define each core miscellaneous service and
- confirm they used the Commission's pricing principles when determining their miscellaneous services charges.

The Commission has reviewed the overall reasonableness of the miscellaneous charges across the water businesses. All businesses submitted additional information and the Commission’s assessments are outlined below.

16.4.1 DEFINITION OF CORE MISCELLANEOUS SERVICES

All regional water businesses provided definitions of their core miscellaneous services in response to the Commission’s request.

The Commission proposes to approve the definitions of core miscellaneous services for all the regional water businesses except Central Highlands Water. The definitions provided by Central Highlands Water are too brief and general to identify clearly the service that will be provided. The Commission thus requires Central Highlands Water to submit more detailed definitions of its core miscellaneous services in response to this draft decision.

While the Commission has approved the definitions for core miscellaneous services the businesses will have an opportunity to revise their definitions if they consider they can improve them. These revised definitions should be submitted in response to this draft decision. The Commission will review any proposed revisions before making its final decision.

16.4.2 BUSINESSES’ USE OF PRICING PRINCIPLES

All businesses confirmed — either in their Water Plans or on request — that they set their miscellaneous service charges using the Commission’s pricing principles. The Commission approves the regional water businesses’ miscellaneous services tariffs. The Commission may monitor the pricing of miscellaneous services in a more general review of compliance with pricing principles as part of the annual audit process.

16.4.3 ADJUSTMENT OF CORE MISCELLANEOUS SERVICES

The Commission proposes to approve the choice of core miscellaneous services proposed by Barwon Water and Goulburn Valley Water because these services meet the Commission’s requirements that they make up a majority of revenue from miscellaneous services.

The Commission proposes to approve the minor adjustments to the core miscellaneous services proposed by Central Highlands Water, Coliban Water, East Gippsland Water, Gippsland Water, GWMWater, Lower Murray Water, North East Water, South Gippsland Water, Wannon Water and Westernport Water.

16.4.4 COMMON SERVICES

Each water business should list and define the miscellaneous services that all businesses commonly apply, such as connection fees. This approach will ensure customers are clear about the service for which they are paying, and the level of that service. The Commission thus requires all businesses to submit definitions and charges for connection fees, information statement fees and meter reading fees, if these are not already included in the business's core set of miscellaneous services.

16.4.5 DEVELOPER ADMINISTRATION CHARGES

East Gippsland Water and South Gippsland Water proposed new core miscellaneous charges related to administration fees for development. Given the newly established New Customer Contributions (NCC) framework, all regional water businesses need to define and specify any fees relating to developers. The aim is to prevent a transfer of costs from NCC related charges to miscellaneous charges.

Although businesses are only required to provide definitions for their core set of miscellaneous services and not for all miscellaneous services, the Commission now requires in response to this draft decision — for all businesses that have miscellaneous charges relating to developers to:

- name all charges relating to developers
- explain how these charges relate to NCCs and
- define the services that will be provided for these charges.

The Commission requires this information in order to assess whether these proposed miscellaneous services are already covered under the NCC framework. If they should be covered under the framework, the Commission would propose not to approve them as miscellaneous services.

16.4.6 PRICING OF CORE MISCELLANEOUS SERVICES

The Commission proposes to approve all proposals to maintain core miscellaneous charges constant in real terms over the regulatory period — namely, the proposals from Barwon Water, Central Highlands Water, East Gippsland Water, Gippsland Water, GWMWater, Lower Murray Water, North East Water, South Gippsland Water, Wannon Water and Westernport Water.

The Commission proposes to approve Goulburn Valley Water's proposed price increase because it is less than the average price increase proposed for other services and meets WIRO requirements.

The Commission is not satisfied that Coliban Water's proposed increases in miscellaneous service charges reflect increases in the cost of providing those services. The proposed increases are uniform across all types of miscellaneous services and higher than those of the other regional water businesses. While Coliban Water confirmed it used the Commission's pricing principles, the Commission sought additional information on the business's reasons for proposing increases. The business has not yet adequately responded. Until Coliban Water provides an adequate response, the Commission proposes to not approve its proposed miscellaneous service charges.

16.4.7 PRICING OF NONCORE MISCELLANEOUS SERVICES

The Commission proposes to approve the proposals of all regional businesses that base noncore miscellaneous service charges on actual cost. These businesses are Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Gippsland Water, GWMWater, Lower Murray Water, North East Water, South Gippsland Water, Wannon Water and Westernport Water.

The Commission proposes to approve charges for Goulburn Valley Water's noncore miscellaneous services, of which some are charged at cost and some have prescribed prices. The Commission is satisfied that these charges comply with the pricing principles and meet WIRO requirements.

Appendix D lists in detail all the businesses' proposed core miscellaneous services, definitions and charges.

16.5 DRAFT DECISION

The Commission proposes to approve the miscellaneous service fees and charges proposed by each of Barwon Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, GWMWater, Lower Murray Water, North East Water, South Gippsland Water, Wannon Water and Westernport Water, subject to the following:

- the relevant business submitting definitions and proposed charges for connection fees, information fees and meter reading fees, if these are not already included in its core set of miscellaneous services, and
- all businesses that proposed miscellaneous charges for developers (including East Gippsland Water and South Gippsland Water) are required to:
 - name all charges relating to developers
 - explain how these charges relate to NCCs and
 - define the services that will be provided for these charges.

The Commission proposes to approve the miscellaneous service fees and charges proposed by Central Highlands Water, subject to the business submitting more detailed definitions of its core miscellaneous services.

The Commission proposes to not approve the miscellaneous services charges proposed by Coliban Water because it is not satisfied that the extent of the proposed increases are justified. Coliban Water is required to provide information on the reasons for its proposed increases in response to this draft decision.

17 GMMWATER OTHER TARIFFS

17.1 INTRODUCTION

GMMWater provides both urban and rural services to its customers. To provide clarity, this chapter on GMMWater's rural tariffs is presented as part of the regional businesses' draft decision to ensure that all decisions on GMMWater's proposals are part of the one decision. It also recognises the integrated nature of their operational and supply arrangements.

17.2 OVERVIEW OF GMMWATER'S PROPOSALS

GMMWater proposed several changes to its rural tariff structure:

- introducing a recreation contribution charge
- unbundling the headworks component of its irrigation charge
- increasing the excess charge for pipeline supplied water
- increasing license fees in all districts.

GMMWater's existing tariff structures cover charges for its rural pipeline, domestic and stock channels, diversions, groundwater, and headworks:

- Rural pipeline — these tariffs are associated with the rural pipeline for domestic and stock. They include a capacity charge, a usage charge and an excess charge (all charged per kilolitre), with a fixed minimum charge per customer. There are two off season charges: an off peak commercial capacity charge and a usage charge (both calculated per kilolitre). There are also fixed meter charges per customer.

- Diversions — there are three categories of diversion charges: storages and weirs, and streams and lakes, both of which require a 12 month licence (fixed charge per customer differentiated by dwelling type), and a third, which is for diversions in the Wimmera where all diversion charges are calculated per megalitre and all incur a minimum charge.
- Headworks — This comprises a capacity charge and a usage charge, both calculated per kilolitre.

17.2.1 GMMWATER PIPELINE TARIFF APPROVED FOR THE SECOND REGULATORY PERIOD

During the second regulatory period, GMMWater applied to the Commission to change its tariffs following the completion of the Wimmera Mallee pipeline. The Commission approved the business's proposed tariffs for the last two years of the second regulatory period. The new tariffs and an associated water allowance enabled water trading using GMMWater's rural pipeline (which began operating on 3 July 2011). The Commission approved the following arrangements:

- Customers received an allocation of water calculated by property size, with each hectare corresponding to 2.5 kilolitres of standard water allocation a year.
- GMMWater amended its hardship policy to account for those disadvantaged by the capacity provision.
- GMMWater replaced the originally proposed three tiered usage charge with a flat charge levied on each kilolitre up to 100 per cent of allocation plus allowance.
- GMMWater introduced an excess charge of \$3.40 per kilolitre for volume supplied above the allocation plus allowance to provide an incentive for customers to purchase water from water markets.
- Customers can purchase growth water to increase the size of their allocation/allowance and avoid incurring higher usage charges.
- GMMWater transferred urban water customers to a pipeline tariff.

17.2.2 GMMWATER'S PROPOSED CHANGES FOR THE THIRD REGULATORY PERIOD

In its Water Plan GMMWater proposed several changes to its tariff structures:

- It proposed to introduce a recreation contribution charge to reflect that supplying water to recreation lakes was a specific deliverable of the Wimmera Mallee Pipeline.
- It proposed to unbundle the headworks component of its irrigation charge to remove distribution infrastructure costs. This would enable GMMWater to propose a price to charge the Commonwealth Government for storing its water.
- It proposed to increase the excess charge for pipeline supplied water by 2.5 per cent in the first year of the regulatory period and 1.5 per cent each year thereafter (or 8.8 per cent over the regulatory period).
- It proposed to rebalance its groundwater tariffs to remove geographic distinctions and to remove under-recovery of costs in some areas.

Recreation contribution charge

GMMWater proposed to introduce a recreation contribution charge to cover the costs of providing services for recreational water uses. These costs can include supplying water storages, maintaining facilities around these storages, and discounting water used by sporting associations. Rural and urban customers would pay \$16 per year, or \$8 per year if they are health care card holders.

According to GMMWater, the charge would allow it to lower the cost of supplying recreational lakes (from \$48 to \$20 per megalitre) and to offer discounts of between 25-40 per cent to eligible sporting clubs.

The business said it had consulted extensively over a long period of time and reported strong support from its customers.

Irrigation charge (ex headworks)

As part of the Murray-Darling Basin reforms, the Commonwealth Government is acquiring water entitlements to return more water to the environment. The Wimmera Irrigators Association, with the support of GMMWater, sold 28 gigalitre irrigation entitlements (23 gigalitre average annual volume) to the Commonwealth Government. However, the distribution component of the irrigation charge is

redundant because the Commonwealth Government will only incur a storage charge.

To accommodate this, GMMWater proposed to unbundle the irrigation charge to remove distribution infrastructure costs. The charge has a fixed component (\$6 in 2012-13) and a variable component (\$12 in 2012-13). Further, GMMWater proposed to increase the variable component by 2.5 per cent in the first year, and 2.4 per cent each year thereafter.

Groundwater

GMMWater proposed to retain its two part tariff for groundwater charges, which includes:

- a fixed fee common to GMMWater's three groundwater pricing regions
- a variable charge for groundwater use that varies with the three geographic regions — Murrayville's variable charge is approximately double the charges for West Wimmera and Other Areas.

GMMWater reviewed the cost of providing groundwater services and found it under recovered these costs. GMMWater proposed to rebalance its groundwater tariffs to remove the existing geographic distinctions and to remove under recovery of costs in some areas.

GMMWater's review found no rationale for maintaining differential pricing in different groundwater supply zones: different prices in different groundwater areas reflect historical differences in management costs of the areas which no longer apply; and shared infrastructure and resource costs mean that the cost structures of the areas are similar. In its Water Plan GMMWater proposed lifting prices by approximately 68 per cent over a three year period for groundwater customers paying the lowest tariff, and lowering tariffs in the Murrayville area; groundwater tariffs would reflect full cost recovery by the end of the third year. GMMWater also proposed increasing groundwater tariffs by 1.5 per cent per year for the remainder of the regulatory period. Table 17.1 presents the proposed price increases for the three supply zones.

TABLE 17.1 GMMWATER'S PROPOSED GROUNDWATER CHARGES, 2012-13 TO 2017-18
 \$2012-13

	2012-13 <i>\$ per ML</i>	2013-14 <i>per cent</i>	2014-15 <i>per cent</i>	2015-16 <i>per cent</i>	2016-17 <i>per cent</i>	2017-18 <i>per cent</i>	2017-18 <i>\$ per ML</i>
Murrayville Water Supply Protection Area	9.48	-9.8	-9.8	-9.9	1.5	1.5	7.15
West Wimmera Groundwater Management Area	4.08	19.4	19.4	19.4	1.5	1.5	7.15
Other areas	4.08	19.4	19.4	19.4	1.5	1.5	7.15
All (licence fee)	105.60	14.7	14.7	14.7	1.5	1.5	164.16

17.2.3 CONSULTATION BY GMMWATER

Generally, it appears GMMWater consulted customers when developing its Water Plans. Consultation is important to avoid price shocks and to ensure customers understand tariffs. Table 17.2 summarises how the business consulted with customers. Further details are available in GMMWater’s Water Plan.

TABLE 17.2 CONSULTATION UNDERTAKEN BY GMMWATER

Retail Customers	Water Services Committee	Online	Other
Newsletters	Presentations Consultation with customer committee meetings	Discussion papers	Press releases Public information sessions Radio interviews Presentations to community groups, and local government

17.3 COMMISSION'S ASSESSMENT

The Commission has engaged with GMMWater to satisfy itself that the procedural requirements of the WIRO have been complied with and that the necessary consultation with customers and other stakeholders has been effective.

Specifically, the Commission tested that businesses’ consultations on Water Plans demonstrated support for proposed tariff structures and that support was not contradicted by customer concerns expressed at public forums held by the Commission in October and November 2012.

Customers have a further opportunity to convey a concern or issue by written submission to the Commission about the draft decision or through oral commentary at a public forum on the draft decision. Information on how to pursue either course is set out in the *How to respond to the draft decision* section of this draft decision.

Recreation contribution charge

Regarding the proposed recreation contribution charge, the Commission acknowledges GMMWater's statement that water supply to recreation lakes was a specific deliverable under the Wimmera Mallee Pipeline Project Delivery Agreement, formalised in the Bulk Entitlement Order which includes a separate line for recreation water. The Victorian Government also confirmed its objective in funding the pipeline was that water supply to recreation lakes and water created for the environment be treated the same.

The Commission assessed whether customers had been adequately consulted on the proposed charge. The Commission observed strong support for the recreation contribution charge at a public forum in Horsham (28 November 2012), although some participants were concerned some lakes would not receive services paid for by the charge).

The Commission received several written submissions on the recreation contribution charge including from the Horsham Rural City Council⁷⁶ and the Water for Natimuk Lake Committee.⁷⁷ These submissions supported the proposed levy if GMMWater ensured supply to some additional recreational lakes.

The Commission also received a supplementary submission from GMMWater⁷⁸ responding to these submissions which stated:

- The recreation contribution charge had unanimous support through the customer committee structure.
- In Horsham, the future role of Green Lake and Toolondo must be clarified as part of the upcoming review of the Wimmera Glenelg Bulk Entitlement Order.
- Natimuk Lake was never part of the regulated water system.
- GMMWater would further develop a model for recreation lakes, in consultation with local government, that better reflected the differential sources of water.
- Only 25 per cent of funds raised would support discount water for recreation lakes; 75 per cent of funds would support discount water for recreational sporting grounds.

⁷⁶ Horsham City Council, 2012, *Submission to Price Review*, 21 December.

⁷⁷ Water for Natimuk Lake Committee, 2013, *Submission to Price Review*, 19 January.

⁷⁸ GMMWater, 2013, *Submission to Price Review*, 31 January.

The Commission considers GMMWater consulted adequately with customers on the proposed recreation contribution charge and there is strong community support for the charge. The Commission notes a discount is available on the charge for holders of health care cards and the charge would be a relatively small proportion of customers' bills.

The Commission proposes to approve GMMWater's proposed recreation contribution charge.

Unbundled irrigation tariff (ex headworks)

Given that the Commonwealth will store its water entitlements in GMMWater's headwork assets, GMMWater proposed an irrigation tariff that unbundles the headworks and distribution charges in order to determine a charge for the Commonwealth.

The Commission did not receive a submission from the Commonwealth. However, the Commission understands GMMWater consulted the Commonwealth on this matter.

The Commission proposes to approve GMMWater's proposed irrigation tariff (ex headworks).

Pipeline related tariffs

GMMWater proposed to maintain tariff structures for pipeline services. However, it proposed to increase its charge for excess water use that is — that is, water use over and above the customers' water allocations.

The excess charge is set at a high level to provide an incentive for customers to purchase additional water through water markets. The incentive power of the excess charge is unlikely to be diminished by increases in standard water usage charges. The gap between the excess charge in 2012-13 and the usage charge in 2017-18 appears sufficient to generate an incentive. Therefore there does not appear to be a reason to increase this charge.

The Commission proposes not to approve GMMWater's proposed increase in the excess water charge.

Groundwater

The Commission notes GMMWater's explanation for altering tariffs to rectify cost under-recovery and to unify charges across regions to better reflect common costs. The Commission's guidance paper emphasised cost reflectivity and simplifying tariffs where appropriate.

The Commission proposes to approve GMMWater's groundwater tariffs, because:

- the proposed rises in groundwater tariffs provide customers with pricing signals that reflect the costs of providing those services
- GMMWater's proposal to unify prices across its pricing regions simplifies its tariffs and makes them more understandable to customers.

17.3.2 CONSULTATION DURING ANNUAL PRICE ADJUSTMENTS

The Commission emphasised customer consultation is important to avoid price shocks which could adversely affect customers. To ensure water businesses adequately consult with customers on tariffs for the third regulatory period, the Commission proposes to include in determinations a requirement that businesses consult with customers before proposing a material tariff change at annual tariff reviews.

The Commission also proposes to require businesses that propose revenue caps and tariff basket forms of price control to propose a rebalancing constraint to further reduce the possibility of price shocks. See chapter 10 for more detail.

17.4 DRAFT DECISION

The Commission proposes to approve GMMWater's proposed rural tariff structures except for the its proposed increase in its excess water use charge.

18 ADJUSTING PRICES

18.1 INTRODUCTION

In the water industry, the source of uncertainty often relates to the unknown accuracy of water businesses' forecasts pertaining to such matters as demand for their services (for example, water sales) and the cost of delivering those services. Despite this uncertainty, these forecasts are essential elements in determining each business's revenue requirements and price paths. The regulatory framework that governs these determinations, as demonstrated by the analysis described in the preceding chapters of this draft decision, is predicated on the proposition that, in most instances, the water businesses are better placed to manage this uncertainty than their customers. Indeed, one of the major roles of the businesses is to manage this uncertainty on behalf of their customers in the event that an adverse demand or expenditure (or other) outcomes materialise during the regulatory period. Of course, water businesses can also potentially benefit from assuming this role when circumstances are more favourable than forecast (for example, input costs are lower than expected).

Typically, regulators do not allow price adjustments within a regulatory period to reflect differences between the actual and forecast costs of service provision, demand or revenue. This is true irrespective of whether these differences are to the detriment or the benefit of the water business. This approach ensures that customers can have confidence in the predictability of the prices to be charged throughout the regulatory period.

The Commission's regulatory framework provides flexibility for businesses to plan for and manage their exposure to the uncertainty associated with forecasts. This includes through:

- approving an overall revenue allowance for a regulatory period for each business, with the expectation that businesses will re-prioritise their expenditure as circumstances change (in consultation with customers)

- allowing for different forms of price control that allows a water business to mitigate the impacts of risks associated with forecasts, particularly in relation to demand
- allowing for changes to tariff structures such as through changing the mix of fixed and variable charges.

Customers do not have similar opportunities to manage or mitigate changing circumstances. The regulatory framework administered by the Commission therefore seeks to provide the water businesses appropriate incentives to operate efficiently in managing uncertainty. Moreover, this flexibility ensures that the regulator need not intervene in operational decisions that best lie with the water businesses and that the cost of regulation is not increased necessarily.

There are circumstances, however, that lie beyond the scope of the water business to manage within the prices approved at the start of a regulatory period. In circumstances where the fluctuations and financial impacts of an event are large and businesses are unable to manage those risks without jeopardising their service delivery obligations, then the Commission provides two mechanisms that allow its five-year price determination to be revisited.

The first mechanism arises where the likelihood of an event is reasonably well known, but the costs associated with responding to that event are not confidently identifiable at the time of the Commission's price decision. In such circumstances, the Commission can provide a pre-agreed 'pass through' (in the form of higher customer prices) of the efficient costs of dealing with that event once they become known. Three water businesses proposed an automatic pass through of certain uncertain costs. These are discussed in section 18.2 along with the Commission's assessment of those proposals.

The second mechanism involves providing a mechanism for any party with a direct interest in one of the Commission price determinations, to seek Commission approval to re-open that decision. To avoid the regulatory process itself becoming the source of uncertainty, a material burden of proof must be satisfied in order for the Commission to agree that a reopening is warranted. Agreeing to re-open an earlier determination and the eventual outcome of that re-opening are two independent decisions by the Commission. The Commission's proposed approach to re-opening standing price determinations is discussed in section 18.3.

18.2 PROPOSED PASS-THROUGHS FOR THE THIRD REGULATORY PERIOD

Three businesses proposed that the Commission approve the automatic pass through of uncertain costs into their approved prices, should those costs eventuate.

Gippsland Water proposed to pass through any unanticipated increase in the price of chemicals and other goods and services caused by the carbon tax.

Barwon Water proposed a pass through for any unforeseen requirement for water from the Melbourne pool via the Melbourne-Geelong Pipeline. Barwon Water argued this is an unlikely scenario because it would only result from an unforeseeable climatic event. It also proposed a pass through for changes in license fees, the expenditure impact of changes in legislation or regulation (up to an expenditure limit of 1.5 per cent of revenue), and for other (not specified) uncertain events.

Coliban Water proposed to pass through costs associated with expenditure variations arising from changes to the following forecasts:

- Goulburn-Murray Water's 2017 pricing determination.
- financial accommodation levy variations.
- environmental contribution (2017 and onwards) variation.
- greenfields capital expenditure it cannot recoup from developers or new customers.
- new taxes.
- significant changes in legislative obligations or licence fees.
- water demand.

18.2.1 COMMISSION'S ASSESSMENT

The Commission believes that an automatic (or pre-approved) pass-through of costs related to uncertain events should only apply in instances where the event is predictable and unique to a particular business. Uncertainties that potentially have sector wide-consequences, have been assessed throughout this draft decision and duly addressed. On this basis, the Commission proposes not to approve Gippsland Water's proposal to pass through costs of chemicals and other goods and services affected by the carbon tax. Moreover, in making this decision, the Commission

notes that the impacts of the carbon tax have already largely filtered through to input costs and customer prices.

The Commission proposes to approve Barwon Water's proposal to pass through any unforeseen requirement for water from the Melbourne supply system via the Melbourne Geelong Pipeline. Although the costs of doing so will be well known, such a scenario is considered unlikely (it would only result from an unforeseeable climatic event). Delivery of water through the Melbourne Geelong Pipeline is a readily observable event with immediately identifiable costs. The Commission agrees with Barwon Water that it is most efficient to pass those costs on to customers only in the event that water is ordered (the Commission notes that Deloitte in their expenditure review also recommended that Central Highlands Water propose a similar approach for any water taken from the Goldfields Superpipe).⁷⁹

This approval is subject to Barwon Water providing the Commission with principles that will guide the pass through. This should include a proposal relating to which prices would be affected (for example, fixed or variable) and how the adjustment mechanism would work. The Commission propose to reject Barwon Water's proposals relating to a pass through for changes in license fees, the expenditure impact of changes in legislation or regulation. These matters are not unique to Barwon Water.

The Commission proposes not to approve Coliban Water's pass throughs proposed for:

- Goulburn-Murray Water's 2017 pricing determination — on the basis that any material impacts can be addressed under the uncertain and unforeseen events mechanism described below.
- Financial accommodation levy variations — on the basis that the Commission allows for the cost of debt facing the water businesses in our calculation of the weighted average cost of capital.
- Environmental contribution (2017 and onwards) variation — on the basis that any material impacts can be addressed under the uncertain and unforeseen events mechanism described below.
- Greenfields capital expenditure it cannot recoup from developers or new customers – on the basis that the Commission expects that these would be

⁷⁹ Deloitte, Assessment of expenditure forecasts for regional urban businesses: Central Highlands Water: Final Report, February 2013, p 12.

recouped through the new customer contributions framework, or through tariffs to customers that benefit from the services.

- Water demand — on the basis that any material impacts can be addressed under the uncertain and unforeseen events mechanism described below.

In most cases, the Commission believes the mid-period reopening provisions outlined in the next section should allow for consideration of the matters not approved for an automatic pass through of costs.

18.3 REOPENING PRICE DETERMINATIONS IN RESPONSE TO UNCERTAIN AND UNFORSEEN EVENTS IN THE THIRD REGULATORY PERIOD

In the final decision on the 2008 water price review, the Commission approved an uncertain and unforeseen events mechanism (at clause 4 of each of the businesses' Determinations) that set out a process for a business or the Commission to initiate a reopening of price determinations.

The reason for introducing the mechanism was to provide for increased flexibility for the Commission to consider whether to allow a mid-period adjustment to prices in response to events that could not have been foreseen at the time that prices were originally approved. This general re-opening provision was subject to a range of criteria being met (section 18.3.2)

As stated in the 2011 guidance paper, the Commission will adopt the uncertain and unforeseen events mechanism in its current form for the third regulatory period.

However, the Commission will also enhance the mechanism to increase its flexibility to consider reopening a determination in response to specific events that are material, and for which the impacts can be isolated from other factors impacting on business costs and revenues.

Therefore, in certain cases — only for those where the impact of an uncertain and unforeseen event is material, and the effects of which on a business's costs and revenues can be isolated from broader operational considerations — the Commission proposes to adopt a discretion to limit the scope of any reopening to a single event, rather than the full suite of factors influencing business costs and revenues. That is, any adjustment to prices will only reflect the reason for the reopening of prices. This differs from the general re-opening provision which takes

into account all relevant up-to-date information regarding the affected water businesses' operations. Examples of more targeted re-opening might include price adjustments for unexpected and new statutory obligations, or delayed or cancelled projects.

This enhancement will help to ensure that the Commission can reopen determinations and, if justified, adjust prices in a more timely way. The Commission believes this flexibility will result in outcomes that are in the best interests of businesses and customers, and is consistent with the principle that customers should only pay for the services they receive.

During the second regulatory period, price changes arising from a re-opener have been limited to taking effect from 1 July of the relevant year. This has proven too limiting. Therefore, the Commission proposes to allow for price changes arising from the reopening of a price determination to take at any time within the regulatory period. This allowance will apply for any application under the uncertain and unforeseen events mechanism. (It should be noted that a change in prices may be affected by the timing of its implementation. For example, if an increase in prices is found to be warranted, its later implementation is likely to result in a higher increase in order to recover the required revenue.)

These changes will not limit the consultation obligations the Commission has under the WIRO and the *Essential Services Commission Act (2001)*, but will provide more flexibility for the Commission to adjust prices within a regulatory period, subject to certain criteria being met.

The Commission would require any application by a water business to re-open its prices to be informed by broad consultation with its customers.

18.3.1 MAIN FEATURES OF THE UNCERTAIN AND UNFORSEEN EVENTS MECHANISM

The uncertain and unforeseen events mechanism will continue to account for events that were uncertain or unforeseen at the time of the price review, such as:

- unsustainable or unwarranted differences between actual and forecast demand levels
- changes in legislative and other government imposed obligations

- catastrophic events (such as fire, earthquake or act of terrorism).

As with the final decision on the 2008 water price review, the Commission proposes to only consider applications for events listed above that the businesses cannot control or efficiently manage without undermining its delivery of services to customers. Other key features are:

- a water business (by application to the Commission) or the Commission may initiate a reopening.
- prices can either be raised or reduced as a result of an uncertain or unforeseen event.
- an adjustment to prices may be implemented by the Commission at any time within a regulatory period (and not only on 1 July in any year), or at the end of the regulatory period.
- there will be no nominal thresholds for applications (based on differences between forecast and actual outcomes for expenditure, revenue and demand). However in applying to reopen a decision, the water business will need to demonstrate it does not have the financial resources or operational capacity to manage its exposure.
- in certain cases — only for those where the impact of an uncertain and unforeseen event on business costs or revenues is material, and the effects of which can be isolated with certainty — the Commission proposes to have discretion to limit the reopening of a determination to a single event, rather than the full suite of factors influencing business costs and revenues.

18.3.2 MAIN FACTORS DETERMINING WHETHER TO APPROVE A MID-PERIOD PRICE ADJUSTMENT

The Commission will agree to reopen its final price determination for review only when it is fully satisfied:

- the event is clearly outside the business's control and not predictable with any confidence
- the business has exhausted all opportunities within its control to mitigate against the circumstances in which it finds itself, including demonstrable reprioritisation of its operating and capital expenditure programs
- customers are not unduly exposed to risk or price fluctuations
- the impact of the event is material, clearly observable and verifiable

- the net impact on costs or revenue of all changes that occurred during the period being considered is significant (except in cases where the Commission identifies a material event for which the effects can be isolated).

A key threshold in deciding whether to approve a mid-period adjustment to prices is whether the business has the ability to absorb the impacts of any event that impacts on costs or revenues. The Commission places particular emphasis on financial viability ratios in assessing the appropriateness of a mid-period price adjustment. The Commission also expects the businesses to demonstrate they have exercised appropriate risk management processes to mitigate and plan for such events, wherever possible.

18.4 DRAFT DECISION

The Commission proposes to approve the pass through event proposed by Barwon Water relating to any unforeseen requirement for water from the Melbourne pool via the Melbourne Geelong Pipeline. This approval is subject to Barwon Water providing further detail regarding the implementation of this pass through mechanism should it be triggered. The Commission proposes not to approve other pass throughs proposed by Barwon Water.

The Commission proposes to not approve the pass through events proposed by Gippsland Water and Coliban Water.

The Commission proposes to approve an uncertain and unforeseen events mechanism that sets out a process for businesses or the Commission to reopen price determinations to account for events that were uncertain or unforeseen at the time of the price review.

The mechanism will include new provisions that in certain cases — only for those where an uncertain and unforeseen event is material, and the effects of which on a business's costs and revenues can be isolated from broader operational considerations — the Commission proposes to adopt the discretion to limit a reopening of determinations to the single event, rather than the full suite of factors influencing business costs and revenues (as applies under the general re-opener provision).

The Commission proposes to allow for price changes arising from the reopening of a price determination to take effect at any time within the regulatory period.

