

# YARRA VALLEY FUTURE WATER



**WATER PLAN 2013/14 to 2017/18**  
October 2012





# CONTENTS

<b>Overview</b>	<b>7</b>
The big picture	7
What do customers get?	9
Where does my dollar go?	9
<b>1. About Yarra Valley Water</b>	<b>10</b>
At your service	10
<b>2. Context and key issues</b>	<b>11</b>
Emerging from drought and the Victorian Desalination Plant	11
Efficiency	11
Growth and innovation	11
Customer expectations	12
<b>3. The voice of the customer</b>	<b>13</b>
Introduction	13
Our approach	13
What issues did we discuss and test?	15
Here's what customers told us	15
Some final feedback	31
<b>4. Prices and bills</b>	<b>32</b>
Price paths	32
Bill increase	32
<b>5. Our long-term plan</b>	<b>34</b>
Water quality	34
Water security	34
Water supply reliability (water supply interruptions)	35
Sewer system reliability (sewer blockages)	36
Sewerage system capacity	36
Sewage treatment plant performance	37
Modern sewerage systems for households with septic tanks	37
Providing infrastructure to new suburbs	38

# CONTENTS

<b>6. Planned outcomes for 2013/14 to 2017/18</b>	<b>39</b>
Service levels	39
Guaranteed service levels	41
Our hardship scheme	41
Water efficiency	42
Other outcomes	43
<b>7. Operating costs</b>	<b>44</b>
<b>8. Infrastructure investment</b>	<b>46</b>
<b>9. Victorian Desalination Plant water orders</b>	<b>49</b>
<b>10. Form of the price control – revenue cap</b>	<b>50</b>
Operation of a revenue cap	51
Proposal	51
<b>11. Demand forecasts</b>	<b>52</b>
Growth in customers	52
Growth in water use	53
<b>12. Tariffs and prices</b>	<b>55</b>
Introduction	55
Tariff strategy	55
Residential tariffs	56
Water step volume tariff	57
Changes to Sewage Disposal Charge	59
Connection-based charges	59
Recycled water services	61
Non-residential tariffs	62
Connection-based charges	62
Trade waste tariffs	63
Annual contract fees	64
Optional tariffs	65
New customer contributions	66

# CONTENTS

Backlog customer contributions _____	68
Additional products and services _____	68

## Appendices

1. Our community engagement process _____	69
2. Our on-line portal for customer engagement _____	70
3. Our building blocks _____	71
4. Residential customer bills _____	72
5. Service levels _____	73
6. Sewerage system capacity _____	77
7. Modern sewerage systems for households currently using septic tanks _____	78
8. Guaranteed service levels _____	81
9. Top 10 capital projects/programs _____	83
10. Miscellaneous products and chargess _____	85



# Overview

This document sets out Yarra Valley Water's proposed services, investments and prices for the period July 2013 to June 2018 for review by the Essential Services Commission (ESC), the independent water industry regulator. The ESC will assess our proposals and determine water and sewerage prices for the period. The ESC is expected to make a final decision on future prices by May 2013.

## The big picture

Melbourne has recently emerged from a period of severe drought. A combination of water restrictions and customers' efforts to save water resulted in a 40% reduction in water use – enabling Melbourne to make it through one of the worst droughts on record. During this period, decisions were made to invest in developing new water supplies, in particular the commitment to construct the Victorian Desalination Plant to service the metropolitan area and surrounding regions.

The cost of the Victorian Desalination Plant is significant. Payments in relation to the plant comprise two elements:

- an annual security payment (to cover the costs of designing, constructing and financing the project); and
- an annual usage payment (associated with the actual amount of water ordered from the plant).

These payments are made by the State of Victoria – with the costs to be recovered via an increase in water prices. Delays in the construction of the plant mean money previously collected for desalination payments is not yet needed and is being returned to customers initially through a 12-month price freeze, therefore a scheduled price increase from 1 July 2012 of 9.71% was not implemented. The full cost of the desalination plant is therefore reflected in the proposed prices for this Water Plan.

In developing this Water Plan, Yarra Valley Water has considered the impact of price increases in the context of our role as custodians of community assets essential to the health and well-being of our customers. We take a long-term view in our planning, accounting for risk and building in resilience to ensure the continued effectiveness of our water and sanitation services for the next 50 years. This plan, therefore, aims to strike the right balance between a number of outcomes including the prices that customers pay, the long-term level of water security and the service levels delivered by our vast water and sewerage networks.

Achieving this balance requires smart planning, aggressive pursuit of efficiency, and delivering service excellence on a daily basis. This Water Plan lays down our roadmap for achieving this for the benefit of current and future generations.

In drafting this plan, we have conducted extensive market research<sup>1</sup> and stakeholder consultation. Our research has confirmed that our customers rank the quality of drinking water they receive as their highest priority. They also want their water and sanitation services to be reliable, and expect responsive, effective resolution when things go wrong. Our customers want to see evidence of long-term planning, and more innovation involving re-use of stormwater and recycled water.

While water and sanitation services are not top-of-mind for most customers, their consciousness of the importance of these services is quickly elevated when access is compromised (for instance, through water restrictions, a water main burst or a sewer blockage). This is why we will continue to ensure our service responsiveness is world class, as our research confirms this is highly valued by our customers.

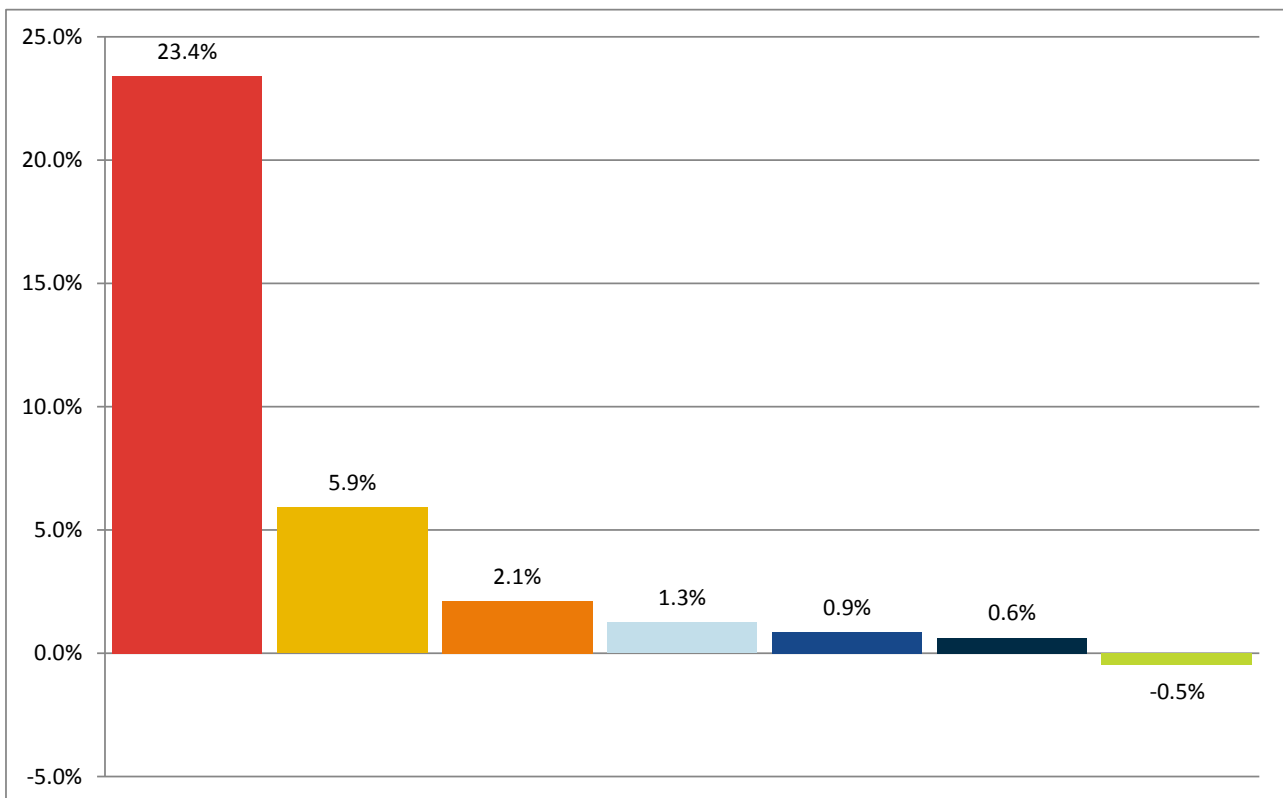
The proposed increase in the average residential quarterly bill in 2013/14 is \$78, or 85 cents per day, equating to an average bill increase of 33.7% plus inflation. The bulk of this increase is associated with the desalination plant. The major portion of this increase will be in water charges, reflecting where the key cost increases are occurring. Following this initial increase (which is the final increase associated with funding new water supplies), prices will be adjusted annually for inflation only. This increase results in the average annual residential bill for water and sewerage services (based on a typical customer using 147 kilotres per year) being \$1,232 plus inflation over the 2013/14 to 2017/18 period.

Finally, customers and stakeholders are concerned with affordability and equity. We know that price increases place more strain on household budgets. That is why we are committed to retaining our status as one of Australia's lowest cost water utilities and why we are implementing more productivity improvements. We will continue to treat customers in financial difficulty with sensitivity and empathy and ensure that a genuine inability to pay does not compromise access to essential water and sanitation services.

---

<sup>1</sup> Conducted by GA Research, Melbourne. Research was conducted in compliance with AS ISO 20252: 2007 guidelines.

## 2013/14 bill increase (33.7%) composition



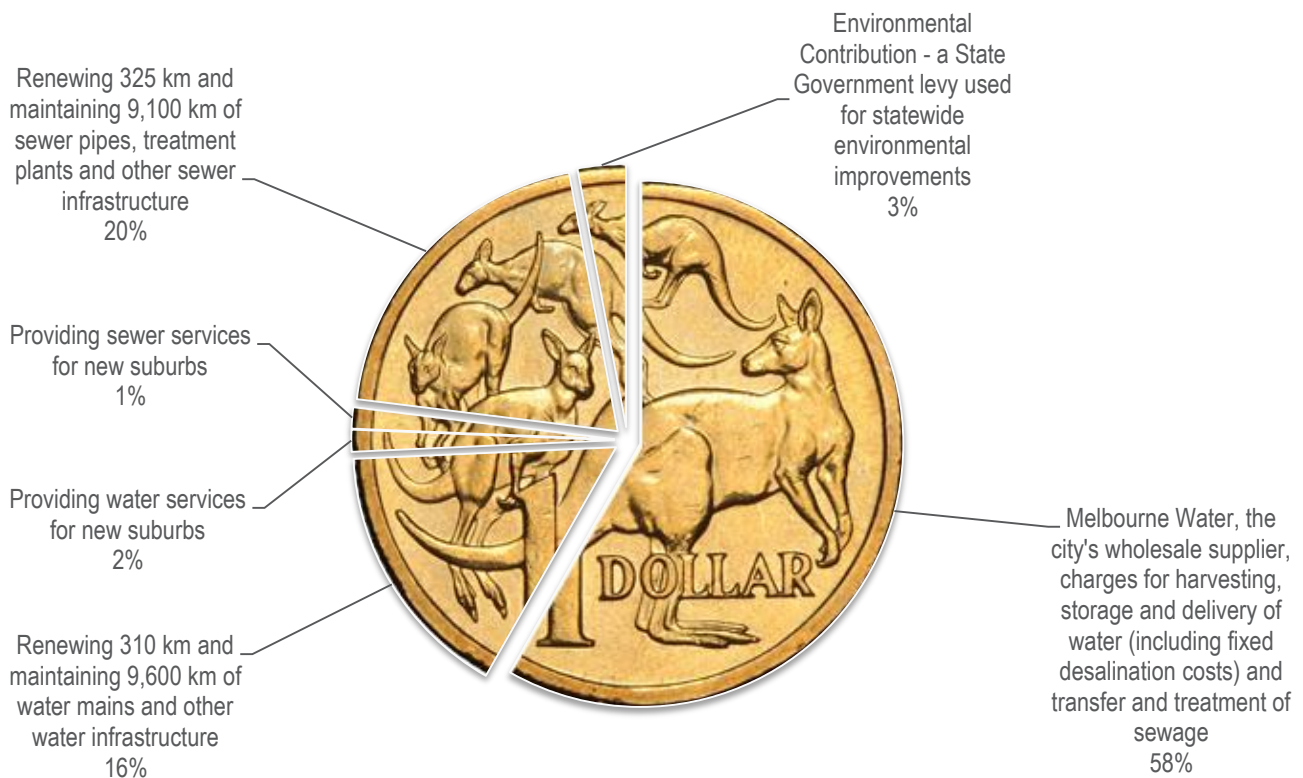
	<p><b>Increased Melbourne Water charges for water and sewerage including desalination water costs</b> Paying additional costs of the annual desalination plant security payment, maintaining critical water and sewerage assets (e.g. pipelines and treatment plants) and complying with environmental standards.</p>
	<p><b>Replacing old infrastructure and maintaining environmental standards</b> Renewing infrastructure to maintain customer service levels, maintaining environmental compliance and depreciation of existing assets.</p>
	<p><b>Increased environmental contribution and increased tax liability</b> Increased payment to State Government for addressing adverse water-related environmental impacts and increased tax equivalent liability.</p>
	<p><b>Providing services for new suburbs</b> Extending water, sewerage and recycled water networks to provide services for new customers in expanding and new suburbs.</p>
	<p><b>Operating costs to service customers</b> Costs of servicing customers, including operating new water and sewerage assets in new suburbs, energy costs and compliance.</p>
	<p><b>Adjustment to revenue to ensure all regulatory costs are funded</b> Currently our 2012/13 regulatory costs exceed our regulatory revenue. This adjustment, in 2013/14, is to ensure our regulatory revenues match our regulatory costs.</p>
	<p><b>Net adjustment for tariff changes</b> Adjustment due to the introduction of connection-based service charges and the way we calculate the volume of sewage disposed from a property.</p>



## What do customers get?

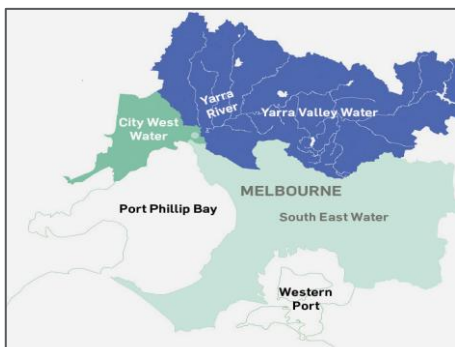
- Continued provision of safe, high quality drinking water.
- A more secure water supply, with a much lower chance of water restrictions in the foreseeable future.
- Sustained levels of reliability in water and sanitation services through the replacement of 635 kilometres of ageing and poor performing infrastructure across our 18,700 kilometres of pipe networks.
- A water supply system that has the lowest level of leakage in Australia.
- Innovations in sewage treatment to convert waste to energy, lowering costs and producing green energy.
- Replacement of poorly performing septic tank systems that harm local waterways for 5,110 households with innovative solutions that achieve better environmental outcomes at a lower cost than traditional sewerage servicing options.
- Provision of water and sewerage infrastructure to around 51,000 properties in new and existing suburbs, with a much higher utilisation of stormwater and recycled water.
- Achievement of environmental standards set by the Environment Protection Authority.
- Continuation of water efficiency advice to customers to optimise their use of water and lower their water bills.
- Enhanced customer service experience, with more online options and improved responsiveness for customer billing activities.
- Ongoing productivity improvements to save around \$26 million over the course of the plan and maintain Yarra Valley Water's position as one of Australia's lowest operating cost water utilities.

## Where does my dollar go?



# 1. About Yarra Valley Water

Yarra Valley Water works to deliver sustainable, innovative and forward-thinking urban water solutions.



Our strategic intent is to lead the global water industry in **servicing both the customer and the environment**, by cultivating a **high-performing culture** and by continuously improving our **efficiency**.

We are the largest of Melbourne’s three retail metropolitan water utilities, providing water and sewerage services to more than 1.7 million people and 52,000 businesses in the northern and eastern suburbs. We are owned by the Victorian Government and governed by an independent board of directors.



As a water retailer and distributor, we buy our water from Melbourne Water. It is mostly harvested from protected mountain catchments. We are also responsible for taking sewage away for treatment. Our nine sewage treatment plants treat wastewater and discharge the treated wastewater back into the environment under licences issued by the Environment Protection Authority. In addition, they play a valuable role in the tertiary treatment of wastewater to provide recycled water for use by industry, residential customers in designated areas and for the irrigation of public open spaces. Six of our treatment plants produced recycled water this year, with two treating the resource to the highest Class A standard for recycling in residential properties.

## At your service

Our commitment to our customers has been nationally and internationally recognised.

CUSTOMERS	ASSETS
1.7 million population served	3.6 billion dollars of infrastructure and assets
647,000 residential customers	9,490 kilometres of water supply mains
52,000 business customers	80 water pumping stations
18,000 new customers in 2010/11	55 water supply tanks
	130 water pressure reducing stations
	9,004 kilometres of sewer mains
PEOPLE	93 sewage pumping stations
502 full time employees (equivalent)	9 sewage treatment plants

We own and manage assets valued at more than \$3.6 billion and our licence area covers about 4,000 square kilometres – from as far north as Wallan and extending to Warburton in the east.

## 2. Context and key issues

### Emerging from drought and the Victorian Desalination Plant

Melbourne has recently emerged from a severe and extended drought with rainfall and water storages only recovering in the past two years. The drought resulted in the need for prolonged water restrictions and ultimately led to decisions to invest in developing new water supplies, in particular the Victorian Desalination Plant. The community embraced the call to save water, with extensive behavioural change occurring and increased take-up of water efficient appliances – this resulted in a 40% reduction in water use, enabling Melbourne to manage its water supplies during the drought.

Melbourne Water will pay the costs of the desalination plant to the State Government. Melbourne Water has therefore proposed increases in its bulk water supply charges to the metropolitan water retailers with a flow on effect to customers' water charges. The latest information is that the Victorian Desalination Plant will be completed by the end of December 2012, and Melbourne Water thereafter is required to pay monthly contractual payments for the plant, amounting to costs in the order of approximately \$650 million per year. Costs associated with the desalination plant account for the bulk of Yarra Valley Water's proposed price increase for the 2013/14 to 2017/18 period.

### Efficiency

As one of the lowest operating cost water utilities in Australia<sup>2</sup> and the lowest in Victoria, we have a sound track record in pursuing efficiency. A recent independent review by McKinsey and Company found our asset management practices ranked highly in terms of efficiency and service outcomes on an international basis. Nevertheless, some opportunities for further improvement were identified and we have implemented initiatives to address these.

This Water Plan reflects a commitment to continue to improve our productivity and, at a minimum, meet the ESC productivity efficiency targets. Our prices reflect around \$26 million in productivity savings to be generated over the course of this plan. We have profiled our capital expenditure to ensure the level of investment is optimal, with expenditure on areas where the greatest customer benefit is derived at least cost – an example of this is our proposal for capital investment to reduce the number of customers that are affected by a sewer blockage. This is supported by a positive business case that lowers long-term operating costs and improves services for a large number of customers.

### Growth and innovation

In recent years, significant growth has occurred in our service area, particularly in the northern suburbs covering the cities of Whittlesea and Hume and the Shire of Mitchell. This new growth and urban redevelopment has afforded opportunities to provide our services in a different way, particularly through integrated water management. We have developed a master plan to provide water and sanitation services to the rapidly expanding northern suburbs, including the provision of recycled water to approximately 100,000 homes. We are also progressing our major stormwater re-use project at Kalkallo and the delivery of recycled water to service significant urban redevelopment at Doncaster Hill.

This Water Plan will see the completion of a project to demonstrate an alternative approach to providing sewerage services at Kinglake West, with the use of urine separating toilets and greywater re-use systems being tested as an alternative solution to traditional sewerage infrastructure. This project plans to use urine as a replacement for expensive imported fertiliser in agriculture, finding a use for what has typically been deemed waste.

---

<sup>2</sup> National Water Commission, 2012, *National Performance Report 2010–11: Urban water utilities*, Page 62, April, Canberra.

## Customer expectations

Over the past 18 months, we have conducted extensive research with customers and stakeholders to help us align our plans with our customers' priorities. A constant theme in this is customers' expectations that we continue to provide high quality drinking water and reliable water and sanitation services at a fair price.

Customer satisfaction levels remain relatively strong. While we have experienced high volumes of water main bursts and sewer blockages due to the expansive clays in our service area and aggressive tree roots (particularly during the drought), our market research indicates our service response is highly regarded by customers. We continue to invest in renewals of ageing or poor performing water and sewerage pipes to maintain current performance associated with bursts and blockages.

Customers are also looking to see more evidence of long-term planning from the water industry and they are enthusiastic about the increasing use of alternative water sources such as stormwater and recycled water. Our planning for the future growth of Melbourne contains a substantial commitment to alternative water sources.

There is growing concern among the community regarding increasing household costs. When it comes to water and sanitation services, the community has a strong sense of fairness and equity, and are worried about the impacts of price rises on vulnerable households. This plan contains details of our commitment to ensure that access to essential water and sanitation services is not compromised by a genuine inability to pay for these services.

In preparing this Water Plan, we carried out a significant amount of consultation and research – the results of which are contained in the next section: The voice of the customer.

# 3. The voice of the customer

## Introduction

Yarra Valley Water is fundamentally a customer service organisation – our purpose is to provide exemplary water and sanitation services that contribute to the health and well-being of current and future generations.

In developing our Water Plan for the period 2013 – 2018 (Water Plan 3), we undertook an ambitious program of research and engagement to gather insights from our customers to guide the direction of our plan. We believe the strategic insights that emerged from this work provide a solid foundation for our proposed services and investments for the five-year water plan period.

When it comes to water and sanitation services, most people have fairly consistent expectations of us. They tell us every day in the interactions we have. It's not complicated. Based on everything we've learned about what is important to customers, we've developed a basic Customer Value Proposition that essentially guides our decision-making and service efforts:

I can rely on Yarra Valley Water to provide great drinking water. They safeguard community health by effectively removing wastewater and running their operations in a way that looks after the environment. They are highly responsive when I need them and they help customers experiencing difficulty paying for essential water and sewerage services. I'm confident they will meet my needs now and in the future.

So the Water Plan we have proposed is built upon delivering the above. Having said that, there are a number of issues we've had to explore further into in order to finalise our proposals – these include customer views on future prices, tariff structures, continued investment in water efficiency, support for customers in financial difficulty, and future levels of service.

With over 1.7 million people living in our service area, finding out what customer perspectives are on these more detailed issues isn't simply a matter of organising a 'town hall' meeting. Our challenge was to ensure our research and engagement provided sufficient insight to be truly representative of what our customers think.

## Our approach

Our insights have been garnered through a broad combination of research and engagement utilising extensive market research (both qualitative and quantitative), key stakeholder briefings and ongoing review and input from our Customer Advisory Group.

This approach adheres to the Community Engagement Spectrum developed by the International Association for Public Participation commonly known as IAP2. The Spectrum defines five levels of engagement: inform, consult, involve, collaborate and empower (refer **Appendix 1**).

Key features of this effort include:

- Two focus groups held on 6 March to refine the proposals within the draft Water Plan prior to it being released for public consultation.
- A three-hour qualitative focus group session held on 7 June to test the key materials to be used in a deliberative forum, allowing for refinement of the materials to help maximise research effectiveness.

- On Saturday 16 June, a six-hour deliberative forum held with 39 residential customers (comprising a cross-section of different customer segments). We presented our proposed service levels for the five-year Water Plan and proposed prices. This forum occurred three days after the desalination overpayment became an issue of public concern – so, in part, we were able to utilise the forum to outline what had occurred and the implications for the Water Plan.

A deliberative forum was chosen as the methodology on the basis that there was a wide range of topics to be considered, and some fairly complex concepts. The longer time frame allowed for a mix of different techniques including individual voting, open forum and table-based discussions.



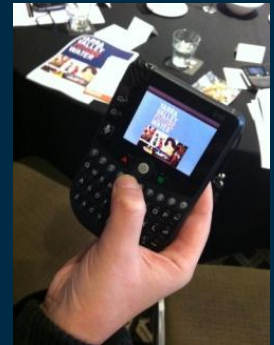
The forum was chaired and facilitated by GA Research, with round-table facilitators also provided by GA Research.



Senior executives from Yarra Valley Water (including the Managing Director) presented key elements of the draft Water Plan and answered questions in open forums. These presentations allowed for a more informed discussion to take place. Participants were divided into five tables where moderators facilitated round table discussions about key information and proposals contained in the draft Water Plan.

Handheld audience response devices (enabling anonymous responses) were used throughout the forum to gather individual responses to quantitative questions.

Some of the quantitative questions were asked at the beginning of the session and repeated at the end to establish any changes in awareness, attitudes and satisfaction that had occurred throughout the day.



- A two-hour 'roundtable' forum with over 100 business customers held on 3 July – a high level overview of the Water Plan was provided with an emphasis on key issues for business customers. As part of the process, attendees provided feedback on the plan by completing a written survey and these results were tabulated.
- An on-line quantitative survey conducted with 800 customers, representing a cross-section of our customer base and providing a statistically valid representation of all customers' views regarding our Water Plan. The survey mirrored the content of the deliberative forum and ran during late August and early September.
- Two focus groups conducted on 5 September to assess future price path options. These addressed the impact on future prices as a result of the desalination plant and return of desalination payments to customers in 2012/13.
- An on-line quantitative survey conducted jointly with City West Water and South East Water to gauge customer preferences regarding tariff structures across Melbourne.

- A workshop held on 21 August 2012 with the metropolitan water authorities, consumer peak bodies and social service organisations. The purpose was to understand emerging issues and trends in the community to impacts from utility price increases and determine the next steps for developing a way forward for managing the impact of increasing prices on our customers.
- Throughout the consultation period, an on-line portal was provided for customers to access all relevant information, ask questions and provide feedback on our proposals (refer **Appendix 2**). This website is capable of facilitating participatory information sharing so that community members can provide their opinion in a user friendly manner that is moderated continuously. We are increasingly finding that online engagement is helping us consult more closely with our customers on specific projects, particularly in the planning stages. For example, it was quite successful when discussing sewerage servicing solutions with customers in Warrandyte still relying on septic tanks.

## What issues did we discuss and test?

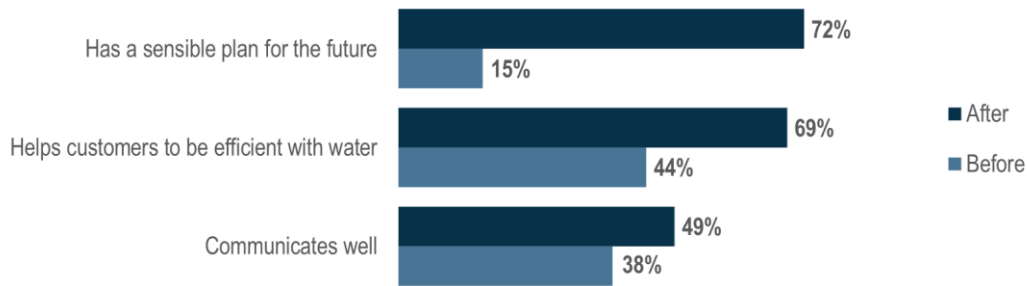
To provide context for customers, we provided a basic overview of the water industry in Melbourne and Yarra Valley Water's services. We explored:

- Proposed investments in relation to service levels for the Water Plan period, for example, the amount of old water main pipes to be replaced in order to maintain current service levels.
- Proposed investments to comply with environmental regulations.
- Plans to provide water and sewerage services to new suburbs.
- Standard tariff structures for water and sewerage services and customer perspectives on optional tariffs.
- The effect of the Victorian Desalination Plant on prices.
- The idea of having annual adjustments to prices to reflect the volume of water ordered from the desalination plant and the level of water used by customers.
- Options for different pricing paths over the five-year Water Plan period.
- Our plans to reduce costs and deliver ongoing efficiencies in the way we run our operations.
- Whether customers support ongoing investment in water efficiency (now the drought is over), and proposals to provide further support to customers experiencing financial difficulty.

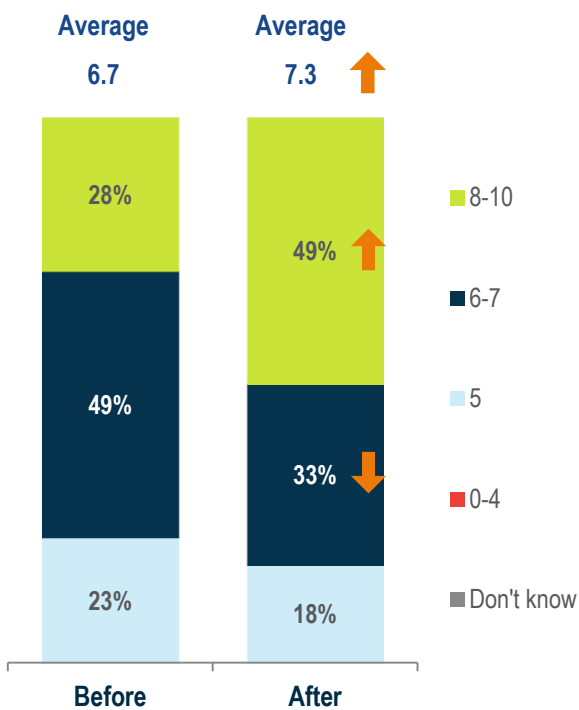
## Here's what customers told us

1. First of all, in virtually all of the qualitative research, **customer perspectives altered** as a result of the information presented and ensuing discussions. The shift in perspectives was towards a more favourable assessment of Yarra Valley Water and its plans. For example, the following charts outline the change in attitudes from the beginning of the deliberative community forum compared to those at the completion of the forum:

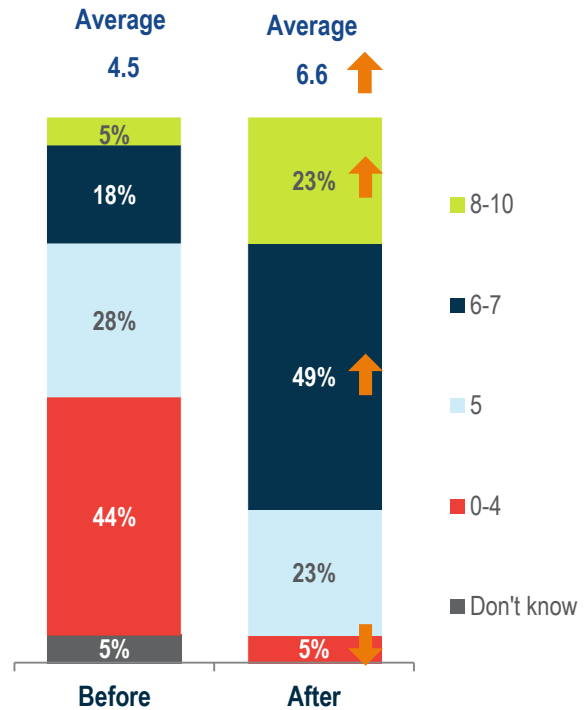
**Attitudes about Yarra Valley Water  
(% agree somewhat / agree strongly)**



**Satisfaction with the services provided by Yarra Valley Water**



**Value for money of the services provided by Yarra Valley Water**



Base: All forum participants (n=39).  
Q: How satisfied are you with the services provided by Yarra Valley Water? 0 = totally dissatisfied / 10 = totally satisfied.

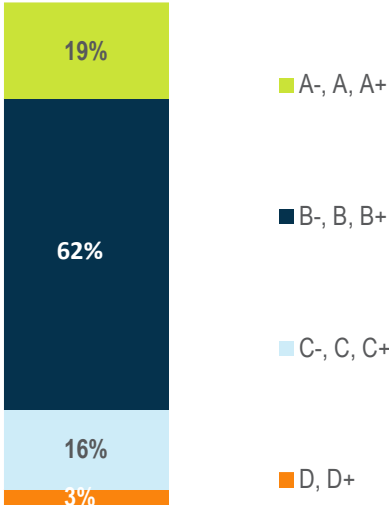
Base: All forum participants (n=39).  
Q: How would you rate the value for money of the services provided by Yarra Valley Water? 0 = very poor / 10 = excellent

Similar changes in perspective occurred across a range of issues.



### Grade for the Draft Water Plan

(Average: B)



At the deliberative forum, we asked customers for their overall assessment of our Water Plan...

Base: All forum participants who answered (n=37).  
 Q: If you had to give Yarra Valley Water a grade for its thinking and approach in the development of this Water Plan, considering everything covered today, what mark would you give? ? 0 = D / 10 = A+

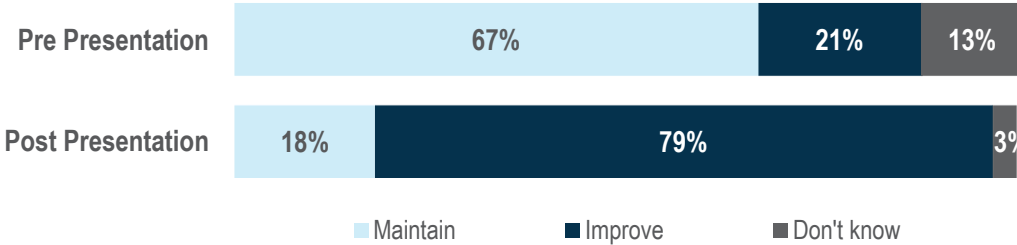
### CONCLUSION

The services received from water utilities are generally not top of mind for most customers. When customers are able to explore the extent of services provided, perceptions of value increased markedly.

- 2. In terms of **service levels**, at the deliberative residential forum and at the business forum, there was a propensity to support a small level of additional investment (\$2.30 per quarter on the average bill) to improve service levels (e.g. improved aesthetic water quality and reduced service interruptions):

Residential...

### Preference for Yarra Valley Water’s Service Levels

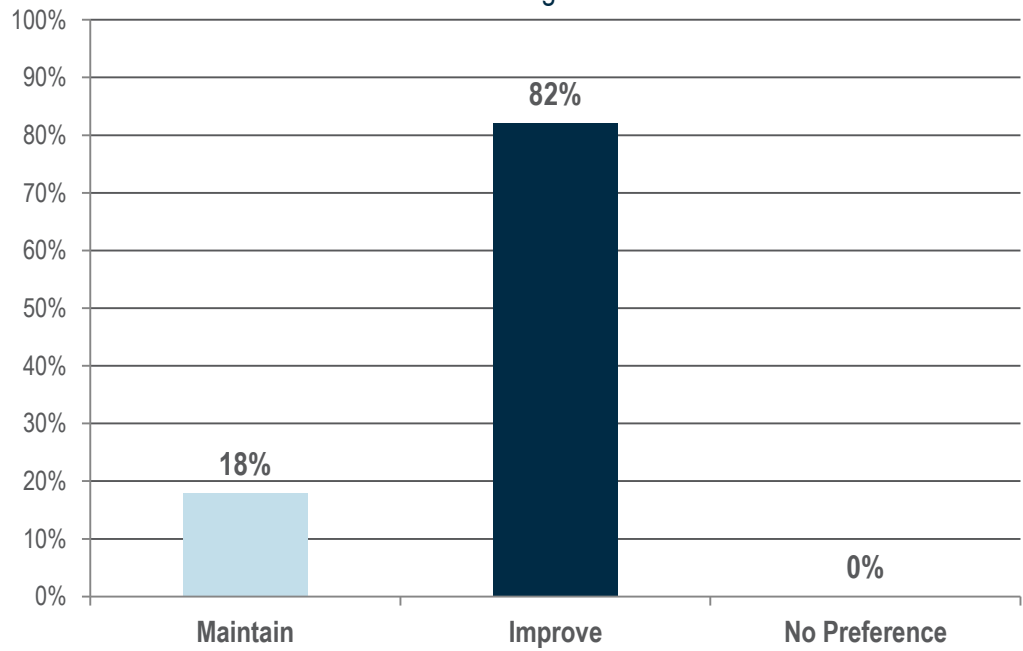


Base: All forum participants (n=39).  
 Q: Thinking about your experiences and understanding of Yarra Valley Water’s recent service levels, what would you prefer the company to do: (1) **Maintain** the overall service standards achieved over the last five years? (2) **Pre: Improve** service standards, even though this would cost more and result in higher water bills? **Post: Improve** service standards, to the levels just discussed, which would cost an extra \$2.30 per quarterly bill? (3) Really don't know

**Based on your experience and understanding of Yarra Valley Water's recent service levels, would you prefer Yarra Valley Water to**

Business...

- Maintain overall service standards achieved over last 5 years  
*or*
- Improve service standards, even though this would cost more and result in higher water bills

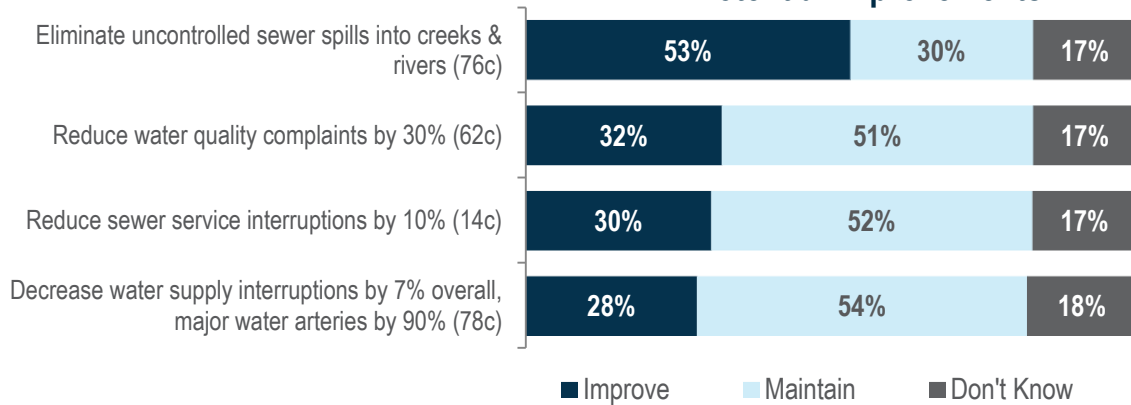


However, in the quantitative survey, residential customers were more inclined to support maintaining rather than improving service levels:

## Preferences for Overall Service Standards



### Potential Improvements



Base: All online survey respondents (n=802).

Q12. Considering your experiences and understanding of Yarra Valley Water's recent service levels, for the period from 1 July 2013 to 30 June 2018, do you think Yarra Valley Water should...?

Q13. In recent focus groups, some customers indicated a willingness to pay for some service improvements. Thinking further about Yarra Valley Water's service level proposals, some options to improve services are outlined below, with the associated costs. For each option, please indicate whether you would be prepared to pay for the proposed improvement.

In part, we believe the difference in perspectives between the qualitative result and the quantitative result is due to the different level of interaction that occurs with these research methods. With qualitative research, people are able to probe more deeply on issues to inform their view, whereas a quantitative survey limits this ability. Another issue we expect caused the difference was the timing of the surveys, whereby at the time the quantitative survey occurred we were able to confirm the effect on future prices resulting from the return of desalination funds in 2012/13 – resulting in a higher initial price rise in 2013/14 than would otherwise have been the case if the 2012/13 price freeze had not occurred.

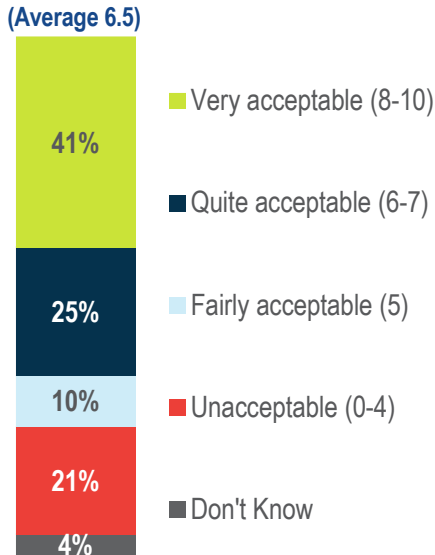
## CONCLUSION

While there is support for modest service level improvements, particularly from those customers exposed to detailed plans, given the large forecast price increase we do not propose to put any further pressure on prices by proposing increases in service levels for 2013-2018. We will explore the possibility of improving service levels in Water Plan 4.

- Support for continued investment in **water efficiency** was strong. Investment in water efficiency was seen as important, even in times of plenty. Most customers did not think a reduced focus on water efficiency compared with during the drought was acceptable, and many were concerned that if there was no further focus on efficiency, people in Melbourne would go back to their 'old ways'. However, there were some customers (around one-fifth) who were not supportive of continued investment in water efficiency, as they felt it was an additional burden among many other price rises e.g. energy.

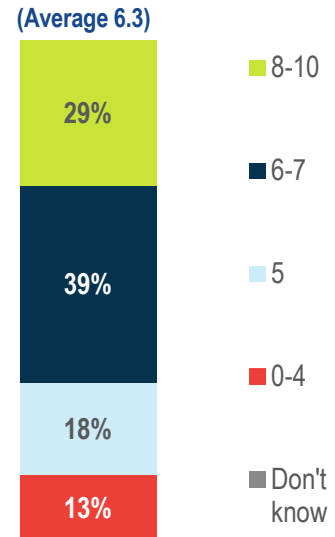
The specific issue we explored was whether customers were prepared to spend around 80 cents per quarter (on the average quarterly bill) to fund water efficiency programs that had a focus on maintaining the current water conservation ethos. We provided examples of the types of programs we would fund with this money (e.g. exchanges for water efficient showerheads, community engagement and education, programs to assist business customers save water etc.). We informed customers that the programs would be tailored depending on the level of water use and to ensure we got the greatest return on investment.

### Acceptability of continued investment in water efficiency programs



The quantitative survey (left) indicated 66% support for continued investment in water efficiency, with similar levels of support in the qualitative survey (right)

### Acceptability of continued investment in water efficiency programs

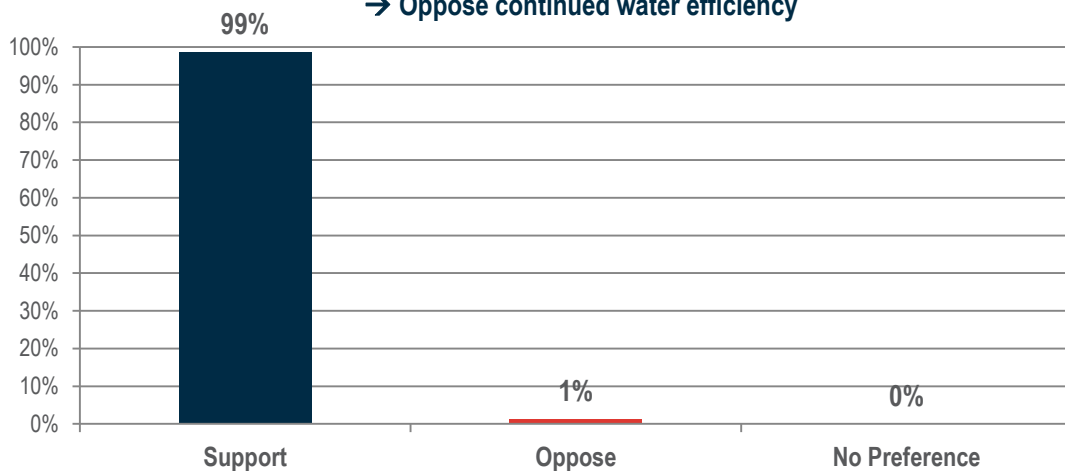


Base: All forum participants (n=38).  
 Q: Yarra Valley Water is proposing to continue to invest in water efficiency programs. How acceptable is this to you?  
 0 = not at all / 10 = completely acceptable.

Business customers were even more supportive for an ongoing investment in water efficiency...

### Do you support or oppose Yarra Valley Water continuing to invest in water efficiency programs?

- Support continued water efficiency
- or
- Oppose continued water efficiency



#### CONCLUSION

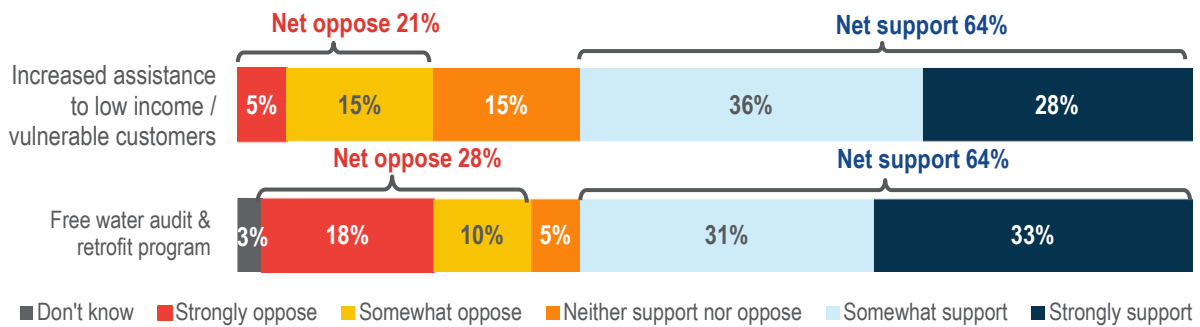
With strong customer support and willingness to pay, we propose to continue a level of investment in water efficiency, with the primary aim of locking in behaviour change that occurred during the course of the drought in respect of water use.

4. Yarra Valley Water has developed extensive programs to support customers experiencing **financial difficulty**. This includes innovative reward programs, one-on-one support through case management and access to free financial counselling. We are committed to ensuring that access to essential water and sanitation services is not compromised by a customers' capacity to pay.



For Water Plan 3, we have proposed a small additional investment of five cents per quarter on the average customer bill to fund an initiative to provide eligible low income households with a water audit and water efficient appliance retrofit. Approximately two-thirds of customers indicated support at the deliberative community forum:

### Support for increased assistance to low income and vulnerable customers

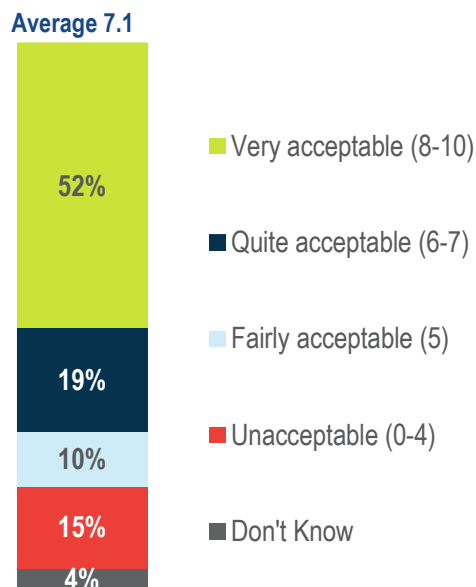


Base: All forum participants (n=39).

**Pre:** Q: Yarra Valley Water proposes to increase its assistance to low income and vulnerable customers, which would equate to 5c more on the avg. quarterly bill. Do you support or oppose this? **Post:** Q: Do you support or oppose Yarra Valley Water offering a free water audit and retrofit program for low income households and vulnerable customers, which would equate to 5c more on the average quarterly bill?

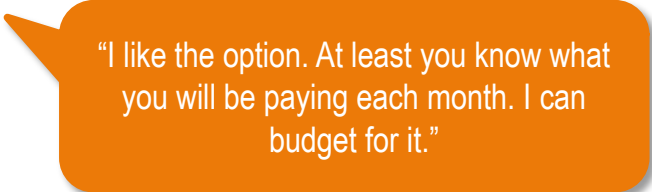
### Acceptability of free water audit and retrofit program for eligible customers

...while over 70% of customers judged the proposal to be acceptable in the online quantitative survey.



An additional issue that emerged in discussions with stakeholders and customers in terms of customers' capacity to absorb the proposed price increases related to the timing of bills and the need for flexible payment options. Our default billing arrangement is for customers to be billed on a quarterly basis, with the bill based on their quarterly meter read. Receiving and having to pay for a three-month bill can put extra pressure on some household budgets. In response, we are implementing a new 'SmoothPay' billing option to help ease the burden, with the following key features:

- Customers can average out their payment over 12 months on a fortnightly or monthly basis, based on an agreed estimate.
- At the end of each arrangement period, any over or under payment will be spread out over the next 12 months along with the estimated charges for the same timeframe.
- A quarterly bill will be issued enabling customers to review their balance and monitor their water consumption.
- Customers receiving Centrelink benefits can arrange for SmoothPay payments to be made directly by Centrelink.



"I like the option. At least you know what you will be paying each month. I can budget for it."

## CONCLUSION

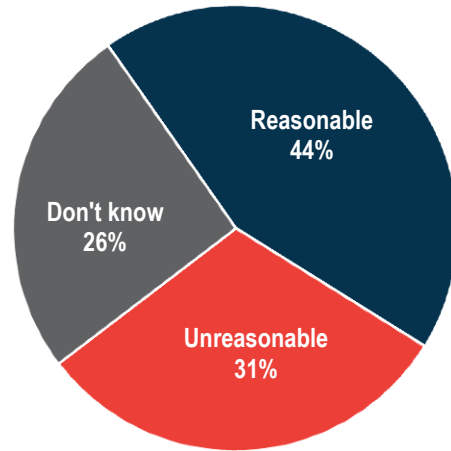
With strong willingness to pay support (at a cost of five cents per average bill), we propose to enhance our financial hardship assistance program by offering an audit and retrofit assistance package to customers experiencing financial difficulty. We will also implement a flexible payment plan option ('SmoothPay') to provide households with more control over the timing of their payments for water and sanitation services.

5. Due to the impact of the desalination plant, the **costs associated with providing water services** are increasing at a higher rate than the costs of providing sewerage services.

## Proposal to Not Average the Price

In terms of the effect on prices, we tested the notion with customers that the water price should therefore increase at a higher rate than sewerage, to more accurately reflect the cost of the service. (In the past price increases have often been averaged between water and sewerage services.)

Residential customers had mixed views regarding this.



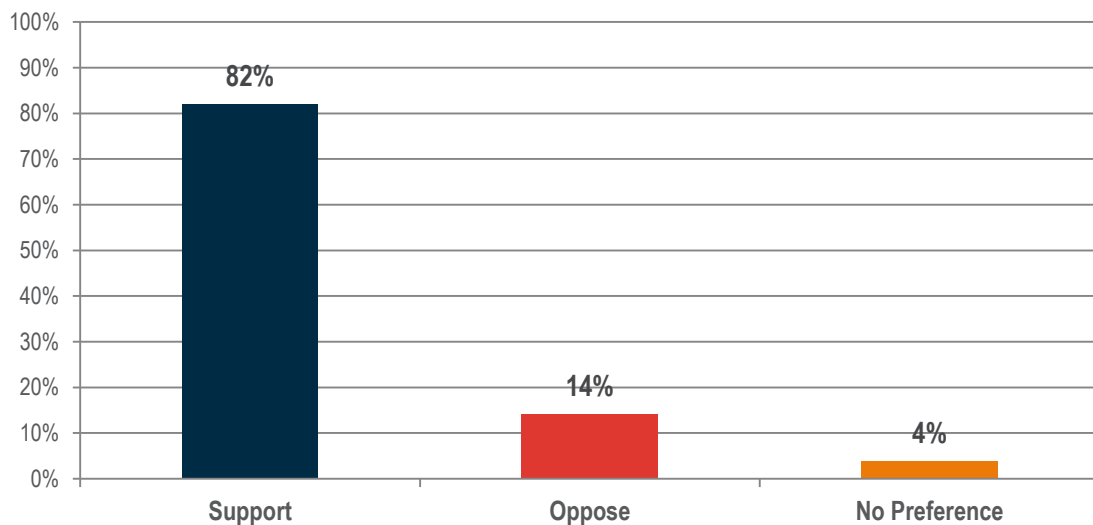
Base: All forum participants (n=39).

Q: Price increases have previously been 'averaged' across both water and sewerage services. Yarra Valley Water is proposing that 2013-18 price increases are not averaged – meaning water prices would go up more than sewerage due to desalination plant costs. This won't change the average bill for most customers, just the split between water and sewerage components. Note: Some customers don't get sewerage, just water – so they'll get a higher increase. Does the proposal to not average the price sound reasonable or unreasonable to you?

However, at the business customer forum, there was overwhelming support for cost reflective pricing...

### Do you support or oppose the principle of applying differential price increases across our services?

- Support differential price increases
- or
- Oppose differential price increases



## CONCLUSION

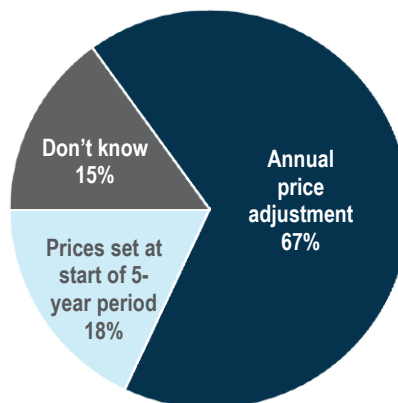
Even though support was only moderate from residential customers, on balance, we believe it is appropriate to commence a transition to prices being more reflective of costs. This will give a more accurate price against which customers can make decisions to invest in alternative supplies like rainwater tanks.

- The concept of a 'Revenue Cap' was explored both in the deliberative residential forum, the business forum and in the quantitative survey. The form of Revenue Cap that we proposed was a type of **price control** whereby annual adjustments are made to prices to reflect actual demand and changes in the cost of bulk water, rather than leaving prices for the five-year period based on a long range forecast of demand. We explained the difference between a Revenue Cap and a Price Cap (the more traditional form of price control). Essentially, the Revenue Cap approach would decrease any potential for Yarra Valley Water to make more or less revenue than it actually needs. We also outlined the other feature of our proposal which is to limit any annual increase to 2%, but to have an unlimited price decrease in the event we received excess revenue due to higher water sales.

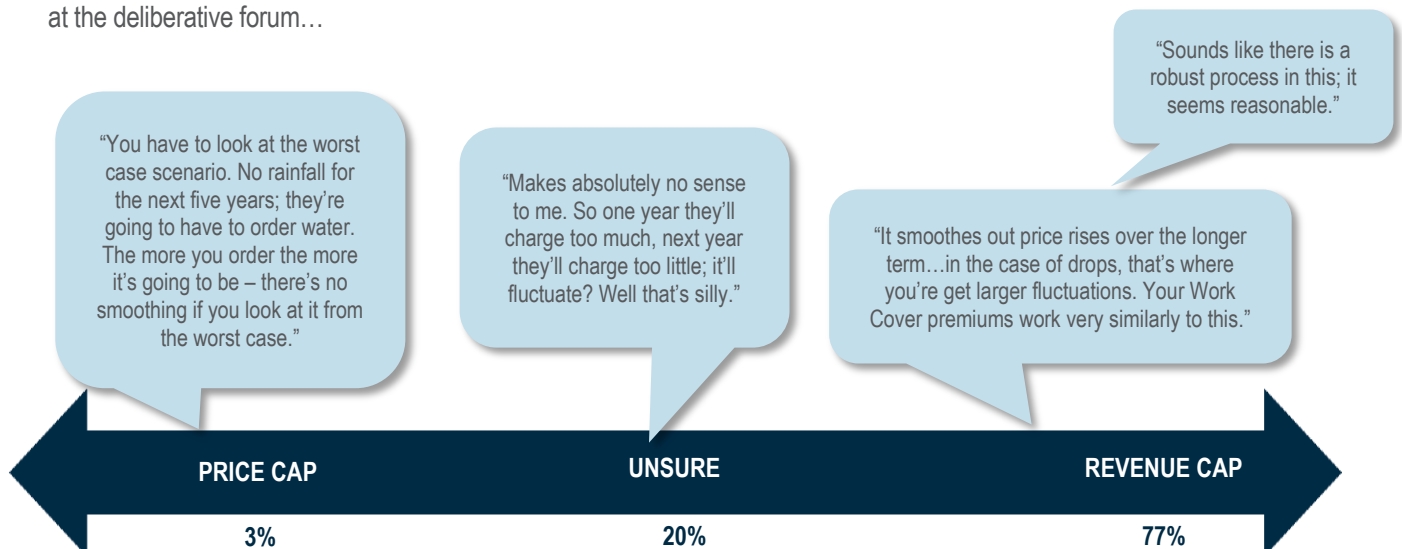
There was substantial support for this concept throughout all our market research initiatives:

### Pricing Setting Preference

Online...



at the deliberative forum...

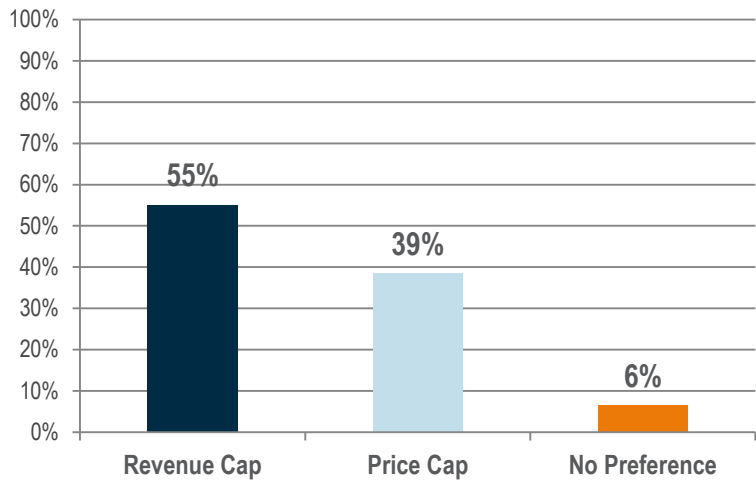




### Which approach to setting prices do you prefer?

→ Revenue cap  
or  
→ Price cap

and at the business forum...some business customers prefer certainty around pricing to enable more accurate budgeting.

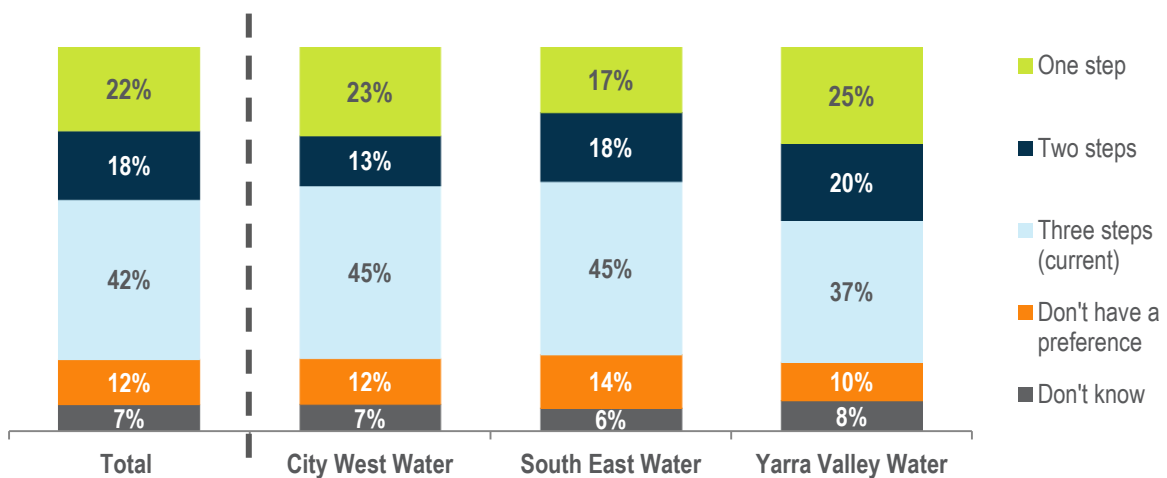


### CONCLUSION

We believe a Revenue Cap form of price control is the most appropriate mechanism for managing the uncertainty associated with demand, as it ensures the water utility has sufficient revenue to cover its costs but also safeguards customers against the water utility making excess revenue.

- In conjunction with City West Water and South East Water, we explored customer preferences regarding the **basic tariff structure** for water and sewerage services for the Melbourne metropolitan area.

The first issue we covered was customers' views in relation to the existing inclining step tariff system in place for water usage charges. Our initial view was that customers may prefer a simpler tariff structure (for example, a single volumetric charge), but opinion was divided with a solid commitment to the existing three-step structure:

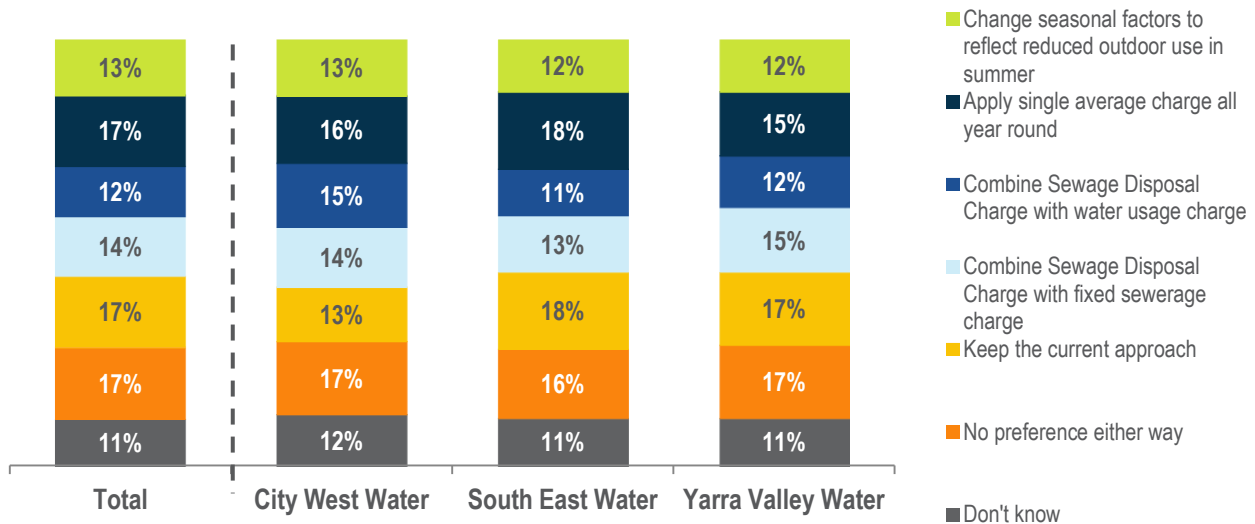


Base: All respondents (n=1,200).

Q7. What are your views on the step tariffs? Would you prefer to keep the three steps or would you prefer two steps or one?

People who supported retaining the existing three steps cited the need to encourage water conservation and reward low users, while those who advocated a single step did so for reasons of fairness and simplicity.

We then examined preferences and options regarding the Sewage Disposal Charge, whereby the volume of sewage discharged from a property is estimated – again, opinions were divided:



Base: All respondents (n=1,200).

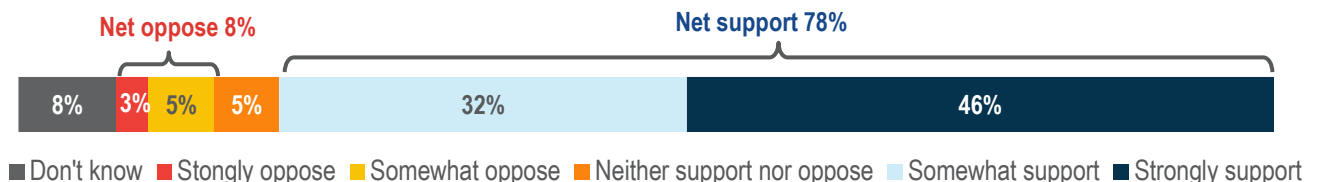
Q9. Assuming that these won't affect the overall water bill amount, which of the following options for calculating the Sewage Disposal Charge would you prefer, so that the charge is simpler and easier to understand?

A common theme contributing to people's preferences was a desire for simplicity, but there was no clear winner in terms of the options considered that fully addressed this preference.

The third tariff issue we examined related to the basis for service charges, whereby we have proposed a shift away from charges being based on a property title basis to charges being based on a connection basis. Basically, we believe it is fairer that all customers that have a separate connection be charged a service charge, rather than whether or not the property has a separate title – this was generally supported in all forums:

Yarra Valley Water's residential deliberative forum generated strong support...

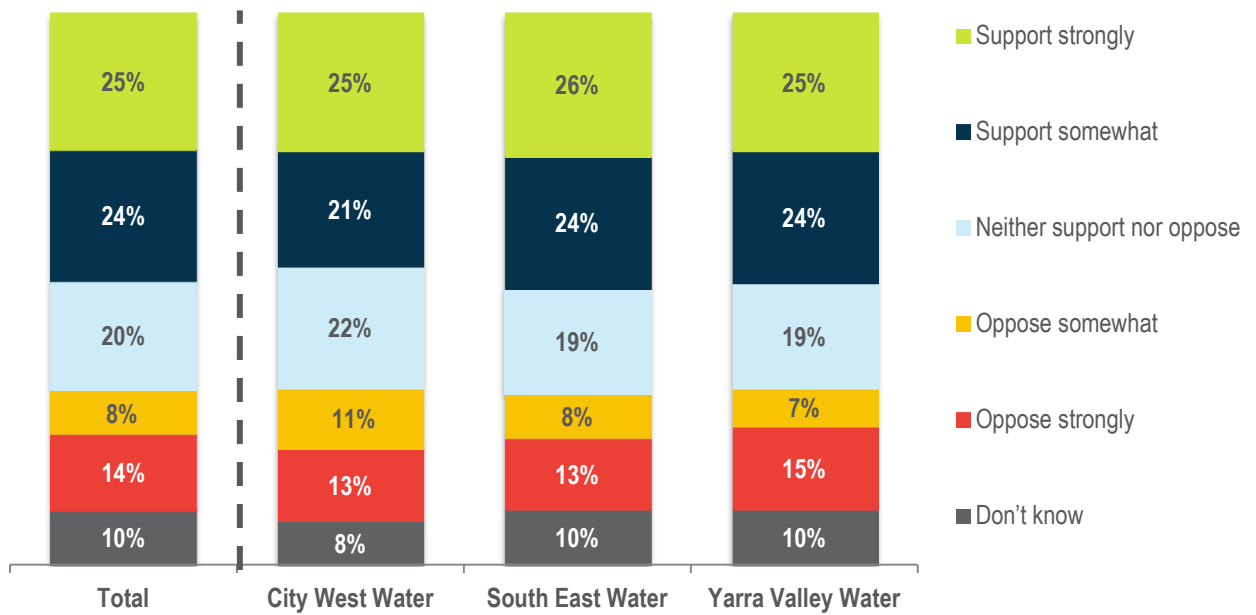
### Support for Fixed Service Charges for all Properties



Base: All forum participants (n=37).

Q: Do you support or oppose the principle of introducing fixed service charges for all properties, and not just those with a

...although the joint survey indicated moderate support with a number of customers ambivalent.



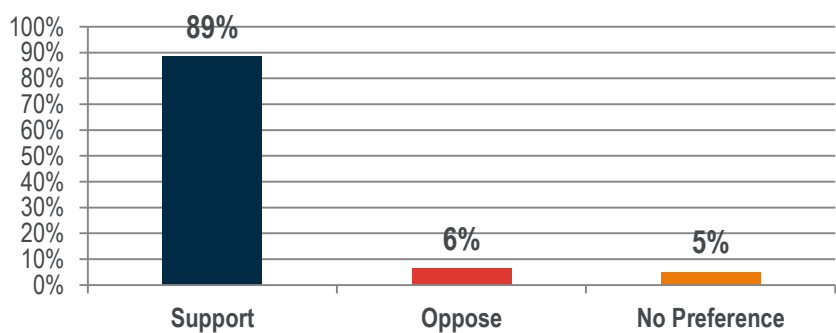
Base: All respondents (n=1,200).

Q11. Do you support or oppose the idea of [RETAILER] introducing the fixed service charges of [CWW] \$499 [SEW] \$545 [YVW] \$562 per year for the [CWW] approximately 4% [SEW] approximately 3% [YVW] approximately 5% of dwellings that are not being charged this amount? Note that this will only affect the small proportion of property owners who are not currently being charged for this, and not tenants.

### Do you support or oppose the principle of introducing fixed charges for all properties, and not just those with a separate title?

- Support move to connection-based charging
- or
- Oppose move to connection-based charging

...while the business forum indicated overwhelming support

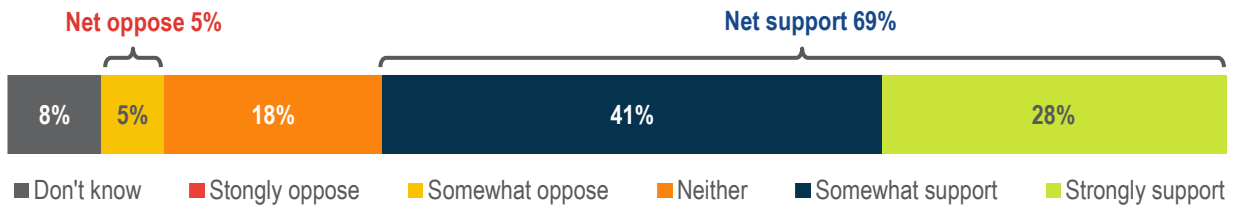


As part of testing this proposal, we suggested that the transition to connection-based charges be phased in rather than immediately implemented in full, in order to alleviate the impact on customers receiving a service charge for the first time. This notion was supported in the research.

In addition to the above, Yarra Valley Water sought customer views in relation to the possibility of offering an optional 100% variable tariff (i.e. no fixed charges). Yarra Valley Water flagged this idea some time ago, as a means of improving customer

satisfaction in response to the concern experienced by some customers over the weighting of fixed charges compared to variable charges in their bill, and the feeling of a lack of control over their bill as a consequence.

### Support for 100% Variable Tariff Trial

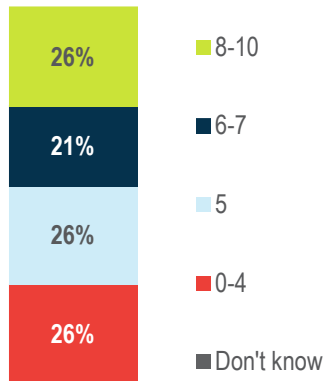


Base: All forum participants (n=39).

Q: Do you support or oppose Yarra Valley Water trialling the 100% variable tariff with a small number of customers?

### Interest in Taking up 100% Variable Option

(Average 5.4)



The idea of offering a choice was well received, even though some customers were less inclined to take it up.

Other customers were enthusiastic at the prospect of having more control over their bill...

"This is where incentives come into play, we start to get a bit more control."

Base: All forum participants (n=34).

Q: How interested would you be in taking up this option if you were eligible? 0 = not at all / 10 = extremely.

## CONCLUSION

Based on customer feedback, we propose the following in relation to tariffs:

- Retaining the three-step inclining tariff for water usage as this is the most favoured option by customers.
- Retaining the existing approach for calculating the Sewage Disposal Charge given the lack of a strong alternative preference from customers.
- Transitioning the basis for service charges to a connection basis, with no change in 2013/14 (due to the anticipated price increase we believe shifting to connection-based charges at the same time will potentially confuse customers), 50% of the charge applying in 2014/15 and full implementation in 2015/16.
- Conducting an 'opt-in' trial comprising approximately 1,000 eligible customers of a 100% variable tariff in 2013/14.

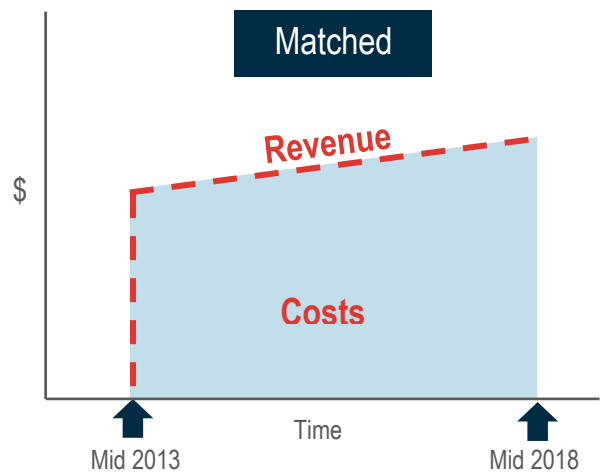
8. The final key issue tested was in some respects the most complex and the most controversial. Whatever the **final price** ends up being for 2013 to 2018, it is unavoidably high. At both the deliberative forum and through the other research interactions, while concerned about price increases, the majority of participants understood the causes, and were more accepting of the increases as a result of having more information.

"It's been a real luxury for us to see this information and if they present this to customers, they will be so much better off. Providing that context, instead of feeling outraged that the price is going up, and Yarra Valley Water doesn't have much choice."

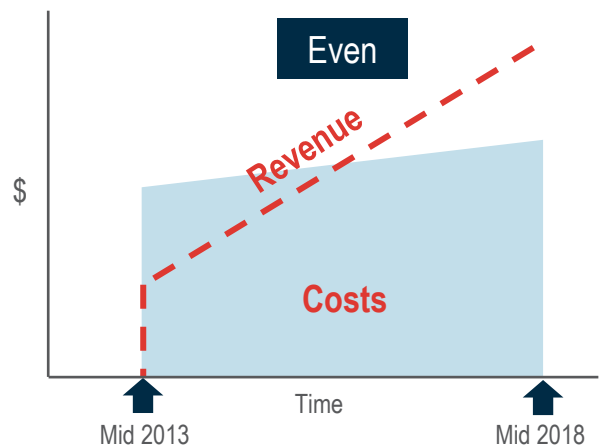
With the price setting process, the general practice is to align price increases with cost increases. For Water Plan 3, this would mean a high initial increase of around 34% in 2013 (primarily to fund the desalination costs), with low or even zero increases for 2014 to 2018 (referred to as the "matched" option because revenues generated match the costs). However, given the extent of the proposed increase, we tested with customers their view in relation to an alternative price path, whereby the price increase is applied across the five-year Water Plan period in even amounts of around 10% per annum (referred to as the 'Even' option) – refer Figure 1 for a diagram from our Draft Water Plan Addendum (August 2012). Each of these has pros and cons; the dramatic price increase of the Matched option is its obvious drawback, while the Even option results in additional water utility costs to fund borrowings and results in a higher bill at the end of the five year period.

Figure 1: Diagram from our Draft 2013-18 Water Plan Addendum (August 2012)

This option 'matches' prices with forecast costs in each year of the five year period. In this case the average residential price in mid 2013 will rise by 34.2% plus inflation. Over the period 2014-18 prices will rise by whatever inflation occurs over that time.



This option 'evens' out the price rise over the five-year period. In the early years we do not recover enough revenue to cover our costs and this will require us to borrow more to cover this shortfall. This option also produces very high bills in later years with the average annual bill in 2017-18 being \$1,487. Note also that this is much higher than the \$1,248 forecast in the following year.



In conducting qualitative research (see below results in Table 1), we found that most customers believed the disadvantages of the Even option were sufficient to favour the Matched option. Some of those customers expressed a desire to “get the pain out of the way” and that it suited their own personal circumstances to pay for the higher bill now – rather than incur an even higher bill later when their economic circumstances are more uncertain.

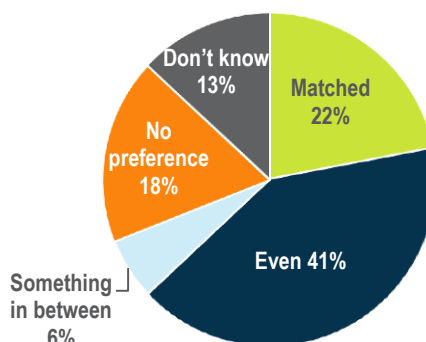
*Table 1: Qualitative research results – ‘Matched’ versus ‘Even’*

GROUP 1 (N=8)	MATCHED	EVEN	DON'T KNOW	NO PREFERENCE
1 <sup>st</sup> time asked	6	2	0	0
2nd time asked	4	2	0	2
<b>Final Preference</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>2</b>
GROUP 2 (N=9)	MATCHED	EVEN	DON'T KNOW	NO PREFERENCE
1 <sup>st</sup> time asked	6	1	2	0
2nd time asked	8	0	1	0
<b>Final Preference</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>0</b>
TOTAL (N=17)	MATCHED	EVEN	DON'T KNOW	NO PREFERENCE
1 <sup>st</sup> time asked	12	3	2	0
2nd time asked	12	2	1	2
<b>Final Preference</b>	<b>12</b>	<b>2</b>	<b>1</b>	<b>2</b>

“We’ve had the luxury of seeing Matched and Even and the third option, that 1.7 million customers won’t have, it will be a very concise ‘suck it up, here’s the increase’, that’s how that sort of thing is always communicated. I’m still with Matched. I don’t believe it will ever come down with the Even.”

In the on-line quantitative survey, where there was no opportunity for discussion or for customers to probe further to obtain a better understanding of the issue, a different response ensued...

### Pricing Path Preference



Base: All online survey respondents (n=802).  
Q19. Which of the price paths would you prefer?

### CONCLUSION

Given the direct feedback we received in the qualitative research, our default proposal is for the Matched price path. However, we are open to the alternatives and can envisage a price path something between a Matched and an Even price path that might have some appeal and ease the initial burden on customers.

### Some final feedback

At the conclusion of our deliberative community forum, we asked what people thought about our plans and consultation process. Participants were asked to reflect upon everything they had seen or heard throughout the day and the things that really stuck in their head. They were also asked how they thought the Water Plan should be communicated to customers. Below are their likes and dislikes:

#### Likes Summary

- Yarra Valley Water is **interested in customers' opinions**
- Yarra Valley Water is **being open and honest about price increases**
- Yarra Valley Water is **proactively planning for the future**
- Yarra Valley Water is **supporting customers experiencing hardship**
- **Any proposals to reduce bills**
- **100% variable tariff**

#### Dislikes Summary

- Water **bills are increasing**
- The increases come at a time when **money is increasingly tight**
- Customers **not consulted** about the decision to build a desalination plant
- Customers **have to pay for the desal plant**, even when it's not finished and unlikely to be used
- Customers will **pay more regardless** of how much water they save
- Too much information is overwhelming

## 4. Prices and bills

### Price paths

The prices we are proposing for our services are calculated using the ESC's 'building blocks' methodology. The methodology provides for our aggregate prices to recover the sum of efficient operating expenditure, a return on capital investment, depreciation of assets, and tax paid - **Appendix 3** contains an overview of our building blocks for the 2013/14 to 2017/18 Water Plan period.

As outlined in Chapter 3, all price path options have downsides from a customer perspective with a significant increase in price. Given the direct feedback we received in the qualitative research, our default proposal is for the 'Matched' price path. However, we are open to the alternatives and can envisage that a 'Hybrid' price path (something between a 'Matched' and an 'Even' price path) might have some appeal and ease the initial burden on customers of the price increase.

### Bill increase

Our forecast bill increase based on our default price path is 33.7% plus inflation in July 2013, the first year of the 2013/14 to 2017/18 regulatory period, followed by inflation only increases for the period from 2014/15 to 2017/18. As indicated in Chapter 3, we believe it is appropriate to commence a transition to prices being more reflective of costs. With the introduction of desalination costs, the economics of water investments will reflect a more accurate picture.

Therefore, while 33.7% is the average bill increase across water and sewerage services in 2013/14, we are proposing to apply the increases to water and sewerage services based on where investment is occurring. The proposed increases are:

- **Water:** 50% plus inflation in 2013/14 followed by inflation only from 2014/15 to 2017/18
- **Sewerage:** 22.6% plus inflation in 2013/14 followed by inflation only from 2014/15 to 2017/18.

### Average residential bills

*Table 2: Typical customer bill based on our proposed price path  
(based on 'nil' desalination water order with amounts in January 2013 dollars)*

	BASE YEAR 2012/13	FIRST YEAR 2013/14	NEXT FOUR YEARS
Increase in average water and sewerage bill		33.7% plus inflation	0% plus inflation
Average residential bill*	\$922	\$1,232	\$1,232
Average quarterly residential bill*	\$230	\$308	\$308
Average daily residential bill*	\$2.53	\$3.38	\$3.38

\* 147 kilolitres per year



The average residential customer who receives both water and sewerage services will see their bill increase by \$78 (33.7%) per quarterly bill in 2013/14. The average residential customer who receives a water service only will see their bill increase by \$48 (50.0%) per quarterly bill in 2013/14.

Examples of bill increases for a range of typical residential customers are contained in **Appendix 4**.

## 5. Our long-term plan

We build and maintain assets that provide services to multiple generations of Melburnians. Our plans for the next 10 years stem from our achievements over the past eight years under Water Plans 1 and 2 (2005/06 to 2012/13). A long-term view for each of our core areas of service and investment is provided below showing our progress to date, our proposals for Water Plan 3 and our future direction.

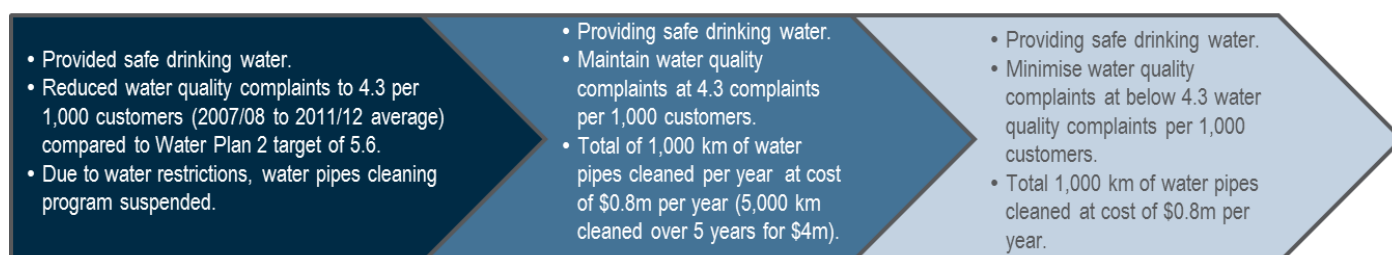
### Water quality

Nothing is more important than providing safe drinking water. We have, and always will, focus on ensuring that the water we provide is safe to drink. Pleasant drinking water (colour, smell and taste) is obviously also important to customers and Melburnians are rightly proud of the great drinking water we have. Most of our drinking water is sourced from protected catchments to Melbourne's east and requires very little treatment. As Yarra Valley Water's service area is close to the catchments, sometimes we can experience naturally occurring sediments in our pipes. While the water is totally safe, this can cause cloudy water from time to time. Now that the drought has ended and given that our customers say that drinking water quality is most important, we are planning to recommence our routine water mains cleaning program (suspended in November 2006 with the introduction of Stage 3 water restrictions). This is forecast to cost an additional \$0.8 million per year. If we don't do this, water quality is expected to deteriorate as water velocities in the pipes increase with rising water consumption and pipe sediments are stirred up. Over the longer term, we expect our current level of water complaints will not increase.

*Water Plans 1 and 2  
2005/06 to 2012/13  
Achieved*

*Water Plan 3  
2013/14 to 2017/18  
Proposed*

*Water Plan 4  
2018/19 to 2022/23  
Future directions*



### Water security

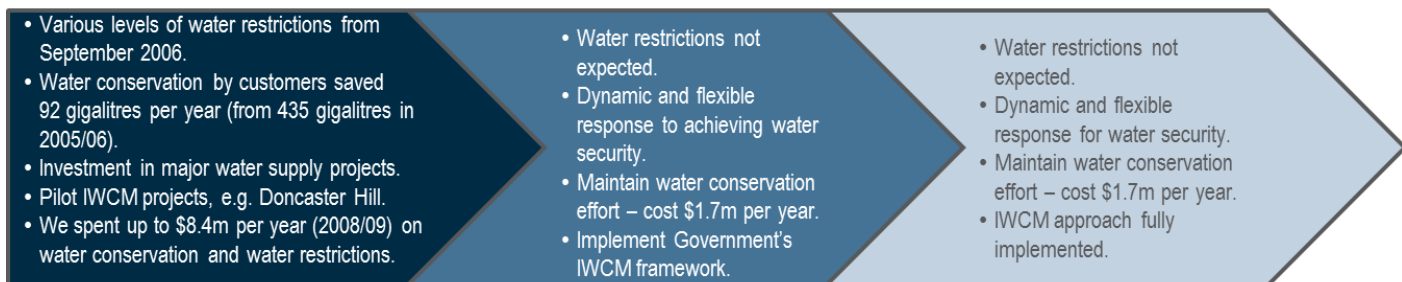
During Water Plans 1 and 2, a combination of water restrictions and customers' efforts to save water resulted in a 40% reduction in water use. In addition, major investments in Melbourne's water supplies occurred during Water Plan 2. The metropolitan water utilities have been working to develop a long-term water strategy comprising a 50-year plan to secure Melbourne's water supplies. The plan proposes that water utilities maintain continued support for water conservation as it produces lower long-term water prices. The State Government's *Living Melbourne, Living Victoria* initiative<sup>3</sup> will drive improvements in Melbourne's liveability through integrated water cycle management (IWCM) and use of alternative water supplies in new suburbs and infill developments. We are well positioned to contribute to this vision through undertaking IWCM projects at Kalkallo, Doncaster Hill, Coburg and Kinglake West.

<sup>3</sup> Refer <http://www.water.vic.gov.au/initiatives/livingvictoria> for details.

*Water Plans 1 and 2  
2005/06 to 2012/13  
Achieved*

*Water Plan 3  
2013/14 to 2017/18  
Proposed*

*Water Plan 4  
2018/19 to 2022/23  
Future directions*



## Water supply reliability (water supply interruptions)

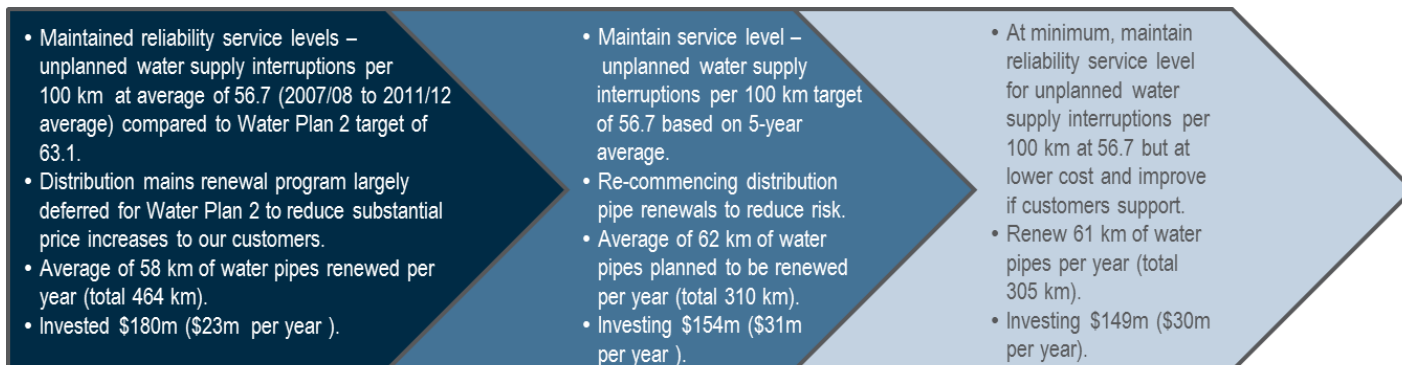
Our investment in renewing ageing water pipes has been stable in recent years, with the aim of maintaining current service levels. We are renewing approximately one per cent of our water supply pipe network on an annual basis.

For Water Plan 3, we propose to continue this approach. In the longer term, we expect at least to maintain this level of renewals, and subject to future price pressures and customer support, look to increase the level of renewals to further improve service reliability.

*Water Plans 1 and 2  
2005/06 to 2012/13  
Achieved*

*Water Plan 3  
2013/14 to 2017/18  
Proposed*

*Water Plan 4  
2018/19 to 2022/23  
Future directions*



## Sewerage system reliability (sewer blockages)

Our investment in lining ageing sewers and replacing house connection branches (HCBs) has been stable in recent years, with the aim of maintaining current service levels. Our focus has been on reducing sewer service interruptions caused by blockages. For Water Plan 3, we are proposing to continue this approach. In the longer term, we expect to at least maintain this level of renewals, and subject to future price pressures and customer support, look to increase the level of investment to further improve service reliability.

Water Plans 1 and 2 2005/06 to 2012/13 Achieved	Water Plan 3 2013/14 to 2017/18 Proposed	Water Plan 4 2018/19 to 2022/23 Future directions
<ul style="list-style-type: none"> <li>• Generally maintained reliability service levels – sewer blockages per 100 km average of 41.2 (2007/08 to 2011/12 average ) compared to Water Plan 2 target of 45.3.</li> <li>• Average of 60 km of sewer pipes relined per year (total 480 km) and 2,000 house connection branches (HCBs) renewed per year (total 16,000).</li> <li>• Pump station, sewer rising main renewals and siphon upgrades.</li> <li>• Invested \$198m (\$25m per year ).</li> </ul>	<ul style="list-style-type: none"> <li>• At least maintain service levels – sewer blockages per 100 km target of 41.2 based on 5-year average.</li> <li>• Average of 65 km of sewer pipes relined per year (total 325 km) and 2,000 HCBs renewed per year (total 10,000).</li> <li>• Pump station, sewer rising main renewals and siphon upgrades.</li> <li>• Investing \$197m (\$39m per year).</li> </ul>	<ul style="list-style-type: none"> <li>• At minimum, maintain service levels – sewer blockages per 100 km of 41.2.</li> <li>• Renew at least 37 km of sewer pipes and 2,000 HCBs per year.</li> <li>• Continue pump station and sewer rising main renewals.</li> <li>• Investing \$193m (\$39m per year).</li> </ul>

## Sewerage system capacity

We have been investing in upgrading the capacity of our sewerage system for over 10 years to comply with State environment protection policies (SEPPs). To date, this investment has focused on ensuring our sewerage system can contain sewage up to a 1 in 5 year rainfall event – stormwater enters the system during rainfall events and during significant rainfall events spills at controlled points (called emergency relief structures) into waterways and drains (this sewage is heavily diluted by stormwater). In Water Plan 2, the most significant investment was our \$159 million investment in the \$650 million Northern Sewerage Project (joint project with Melbourne Water).

In Water Plan 3, we propose to investigate the source of stormwater entry into the sewerage system and implement reduction measures and infrastructure upgrades to contain the flows associated with a 1 in 5 year rainfall event to achieve compliance with the SEPPs and halve the number of spills at uncontrolled points within our sewerage system. By the end of Water Plan 4, we plan to have no spills from our sewerage system due to a 1 in 5 year rainfall event.

Water Plans 1 and 2 2005/06 to 2012/13 Achieved	Water Plan 3 2013/14 to 2017/18 Proposed	Water Plan 4 2018/19 to 2022/23 Future directions
<ul style="list-style-type: none"> <li>• Major investment in sewer servicing for northern suburbs and reducing sewage spills into streams (i.e. Northern Sewerage Project – also part growth project).</li> <li>• Extended completion date to comply with State environment protection policies from 2011 to 2018 to reduce substantial price increases in Water Plan 2.</li> <li>• Maintained local sewerage capacity.</li> <li>• Total investment by us in Northern Sewerage Project of \$159m.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan to improve sewer capacity to comply with State environment protection policies and reduce uncontrolled spills.</li> <li>• Total investment of \$109m (\$22m per year).</li> </ul>	<ul style="list-style-type: none"> <li>• No sewage spills from sewerage system up to 1 in 5 year rainfall event standard.</li> <li>• Total investment of \$38m (\$8m per year).</li> </ul>

## Sewage treatment plant performance

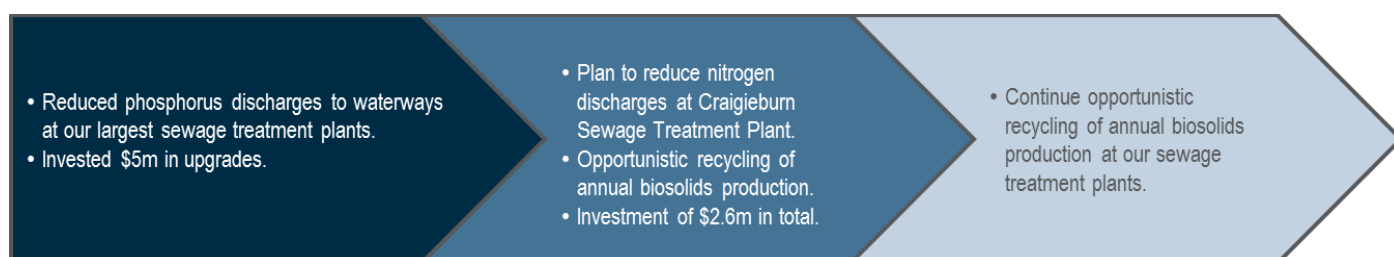
We are progressively upgrading our nine sewage treatment plants to minimise the impact of effluent discharges to streams and to enable productive use of our biosolids (by-product of the sewage treatment process that has potential beneficial uses; e.g. nutrients for agricultural use) and other waste products. Also some of our sewage treatment plants (STPs) are used for production of recycled water. In Water Plan 2, our focus was on reducing phosphorus discharges to streams from our largest STPs.

In Water Plan 3, we propose to reduce nitrogen discharges into the Merri Creek at our Craigieburn Sewage Treatment Plant and also begin productive use of our annual biosolids production. In Water Plan 4, we propose to begin the disposal of our biosolids stockpiles at our STPs.

*Water Plans 1 and 2*  
2005/06 to 2012/13  
*Achieved*

*Water Plan 3*  
2013/14 to 2017/18  
*Proposed*

*Water Plan 4*  
2018/19 to 2022/23  
*Future directions*



## Modern sewerage systems for households with septic tanks

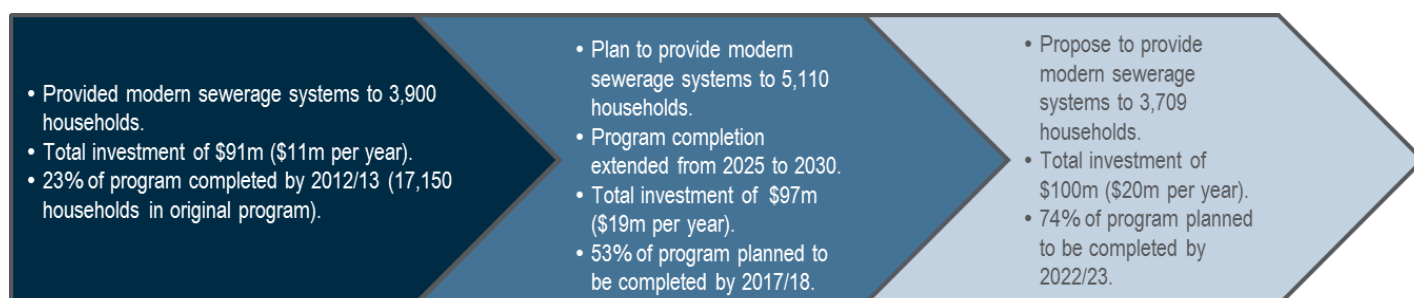
Yarra Valley Water's region has around 14,000 properties remaining that do not have access to our sewerage system. These unsewered properties rely on septic tank systems to dispose of their sewage onsite. If the area available within the property for dispersal of the sewage is unsuitable or the systems are inadequately maintained, seepage of sewage into groundwater and run-off into waterways can occur resulting in poor amenity, environmental and health problems. Since 1995, we have progressively been providing sewerage systems to these households. Councils originally identified a total of 17,150 properties with septic tank systems incapable of properly treating and disposing of sewage onsite.

In Water Plans 1 and 2, we are providing 3,900 households with modern sewerage systems – this is substantially complete with one year (2012/13) remaining – and propose to provide sewerage systems to a further 5,110 households in Water Plan 3 and 3,709 households in Water Plan 4. Our aim is to complete this program by 2030.

*Water Plans 1 and 2*  
2005/06 to 2012/13  
*Achieved*

*Water Plan 3*  
2013/14 to 2017/18  
*Proposed*

*Water Plan 4*  
2018/19 to 2022/23  
*Future directions*



## Providing infrastructure to new suburbs



Our service area includes the growing northern suburbs. In Water Plan 2, we developed a servicing strategy for more than 100,000 properties in the area, in consultation with Melbourne Water and the relevant councils. This servicing strategy involves the provision of recycled water to all new homes. This represented the lowest community cost and the most sustainable solution, taking into account a complete Integrated Water Cycle Management (IWCM) approach. For Water Plans 3 and 4, we plan to continue to implement our northern suburbs servicing strategy – most of the significant infrastructure to service this new growth will have been constructed by the end of this period.

We have also done a great deal of work on developing unique strategies for the major infill development areas which are scattered throughout our service area. Several examples of our innovative approach have included proposed wastewater recycling and re-use within the Doncaster Hill activity centre, and stormwater harvesting and reuse with the central Coburg activity centre. We will continue to seek new ways of providing water using alternative sources.

*Water Plans 1 and 2  
2005/06 to 2012/13  
Achieved*

*Water Plan 3  
2013/14 to 2017/18  
Proposed*

*Water Plan 4  
2018/19 to 2022/23  
Future directions*



## 6. Planned outcomes for 2013/14 to 2017/18

### Service levels

As indicated in Chapter 3, we do not propose to put any further pressure on prices by proposing increases in service levels for the 2013/14 to 2017/18 period given the large price increase and results of our customer research. We will explore the possibility of improving service levels in Water Plan 4 (2018/19 to 2022/23).

Our proposed customer service targets for the core and approved ESC service standards for the 2013/14 to 2017/18 Water Plan maintain our current service levels and are described in some detail in **Appendix 5**.



Table 3 provides a summary of our proposed service outcomes for the 2013/14 to 2017/18 period.

*Table 3: Proposed service outcomes and alternative outcomes considered*

AREA OF SERVICE	PROPOSED OUTCOMES	
	OUTCOMES	INITIATIVES
Water quality	<ul style="list-style-type: none"> <li>Meet all safe drinking water standards overseen by Department of Health.</li> <li>Maintain water quality complaints at 4.3 per 1,000 customers.</li> <li>Manage compliance and cross-connection risk associated with recycled water.</li> </ul>	<ul style="list-style-type: none"> <li>Resume routine water mains cleaning program at a cost of \$0.8 million per year to control microbial activity.</li> <li>Included in average bill – cost equates to 25 cents in an average quarterly bill in 2013/14.</li> </ul>

AREA OF SERVICE	PROPOSED OUTCOMES	
	OUTCOMES	INITIATIVES
Reticulation water reliability (bursts and leaks)	<ul style="list-style-type: none"> <li>Maintain current performance of 56.7 unplanned water supply interruptions per 100 kilometres of water pipe.</li> <li>Maintain current performance of 0.24 unplanned water supply interruptions per 1,000 customers.</li> </ul>	<ul style="list-style-type: none"> <li>Investing \$19.7 million per year to renew 58 kilometres of water pipes per year.</li> <li>Included in average bill – cost equates to 39 cents in an average quarterly bill in 2013/14.</li> </ul>
Distribution water pipe reliability	<ul style="list-style-type: none"> <li>Reduce the length of ‘at risk’ critical distribution water pipes from 37.2 kilometres to 29 kilometres (22% reduction), thereby reducing the risk of large water outages that affect a large number of customers or cause community impacts (e.g. traffic disruption).</li> </ul>	<ul style="list-style-type: none"> <li>Investing \$55.7 million (\$11.1 million per year on average) to renew 18 kilometres of ageing distribution water pipes.</li> <li>Included in average bill – cost equates to 22 cents in an average quarterly bill in 2013/14.</li> </ul>
Sewer blockages	<ul style="list-style-type: none"> <li>Maintain the number of sewer blockages at 41.2 per 100 kilometres of sewer over 2013/14 to 2017/18.</li> <li>Reduce number of service interruptions due to the house connection branch (the junction pipe between our pipes and property pipes) by 10%.</li> </ul>	<ul style="list-style-type: none"> <li>Investing an average of \$26.9 million per year (total \$134.5 million) to renew on average 61.5 kilometres of sewer per year (total 307.4 km).</li> <li>Investing \$8.6 million per year to replace 2,000 house connection branches per year.</li> <li>New approach results in improved outcomes compared to the traditional approach for no extra cost.</li> <li>Total investment is \$35.5 million per year.</li> <li>Included in average bill – cost equates to 70 cents in an average quarterly bill in 2013/14.</li> </ul>
Responsiveness to water pipe bursts and leaks	<ul style="list-style-type: none"> <li>Maintain current performance of 32.8 minutes to attend a priority 1 water pipe burst or leak<sup>4,5</sup>.</li> <li>Maintain current performance of 44.7 minutes to attend a priority 2 water pipe burst or leak.</li> </ul>	<ul style="list-style-type: none"> <li>Increased resources to cater for network growth and meet current performance target.</li> </ul>
Responsiveness to sewer blockages	<ul style="list-style-type: none"> <li>Maintain current performance of 52.8 minutes to attend sewer spills and blockages<sup>5</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>Increased resources to cater for network growth and meet current performance target.</li> </ul>
Sewerage system capacity (refer <b>Appendix 6</b> for details )	<ul style="list-style-type: none"> <li>Improve local sewer capacity to comply with State environment protection policies.</li> <li>Improve the capacity of the sewerage system by halving number of uncontrolled spills with a 1 in 5 year rainfall event.</li> </ul>	<ul style="list-style-type: none"> <li>Invest \$109 million (\$22 million per year) to upgrade 25 emergency relief structures and halve number of uncontrolled spills.</li> <li>Included in average bill – cost equates to \$1.04 in an average quarterly bill in 2013/14.</li> </ul>
Modern sewerage systems to households with septic tanks (refer <b>Appendix 7</b> for details )	<ul style="list-style-type: none"> <li>Provide modern sewerage systems to 5,110 households on septic tanks (out of a total of 17,150 households) with target completion date of program being 2030.</li> </ul>	<ul style="list-style-type: none"> <li>Invest \$97 million from 2013/14 to 2017/18 to provide sewerage systems to properties in Clematis, Emerald, Donvale, Park Orchards, Ringwood North, Warrandyte North, Mitcham, Kallista, Menzies Creek, Monbulk and The Patch.</li> <li>Included in average bill – cost equates to 92 cents in an average quarterly bill in 2013/14.</li> </ul>

<sup>4</sup> An unplanned event in which water is lost which is attributable to failure of a pipe, hydrant, valve, fitting or joint material (being the mains and trunk infrastructure, excluding the mains to meter connections) regardless of cause. The three priorities relating to the potential consequences are:

- Priority 1 means a burst or leak which causes, or has the potential to cause, substantial damage or harm to customers, water quality, flow rate, property or the environment;
- Priority 2 means a burst or leak which causes, or has the potential to cause, minor damage or harm to customers, water quality, flow rate, property or the environment; and
- Priority 3 means a burst or leak which is causing no discernible impacts on customers, property or the environment.

A burst or leak may not necessarily result in loss of supply.

<sup>5</sup> Average of last three years (2009/10 to 2011/12) to reflect current traffic conditions.



## Guaranteed service levels

In 1996, we were the first water utility in Australia to introduce a Guaranteed Service Level (GSL) Scheme. Under this scheme, payments are made to residential customers where designated performance levels are not met by us. The Guaranteed Service Level Scheme forms an important part of our customer service offering and is automated so that customers do not need to apply. In particular, the scheme provides customers with a guarantee as to the minimum level of service we will deliver; e.g. customers will not be without water for more than four hours.

This scheme has provided us with an incentive to improve our services to a small number of our customers. In the scheme's first year of operation (1996/97), Yarra Valley Water paid out \$700,000 (\$1,040,000 in today's dollars) to our customers and this amount has substantially reduced over the years as many customer service issues have been rectified.

We are planning to continue this scheme for the 2013/14 to 2017/18 Water Plan period and increase the payments for 'no more than 3 sewerage interruptions within any 12-month period' and 'sewerage interruption restored within 4 hours' from \$50 to \$100, based on market research and following consultation with our Community Advisory Group – refer **Appendix 8** for details.

## Our hardship scheme

We will continue with our acclaimed hardship scheme during the 2013/14 to 2017/18 Water Plan period.



We recognise that some residential customers may from time to time experience either temporary or permanent financial difficulty. We have processes in place to assist these customers to self-identify early in the collection cycle and ensure they continue to have access to water services regardless of their financial circumstances and capacity to pay. Our Hardship Policy and associated programs are based on a focus of shared responsibility and delivered in a model that supports self-determination.

We believe these customers, given the opportunity, have an intention to pay and will do so if supported appropriately. We work with our customers to ensure they feel listened to and understood, with payment arrangements established that are realistic and affordable based on their individual financial situation. We have developed an holistic approach when working with customers in financial difficulty, providing information on internal support programs as well as referrals to external agencies, where appropriate.

The programs we have in place are cost-effective in that proactive intervention reduces long-term unnecessary costs in debt follow-up and bad debts.

As indicated in Chapter 3, there was strong willingness to pay support (at a cost of five cents per average bill) to enhance our financial hardship assistance program by offering an audit and retrofit assistance package to customers experiencing financial difficulty. We are planning to provide this new program to our low income and vulnerable customers. The program aims to reduce customers' water usage and therefore increase the ability of these customers to pay their water bills – that is, assist customers in financial hardship to manage their water bills within their capacity to pay and to eventually no longer require hardship support.

We will also implement a flexible payment plan option ('SmoothPay') to provide households with more control over the timing of their payments for water and sanitation services.



## Water efficiency

The metropolitan water utilities have been working to develop a long-term water strategy comprising a 50-year plan to secure Melbourne's water supplies. The plan proposes that water utilities maintain a continued effort on water conservation as it produces lower long-term water prices. The ongoing investment in water conservation helps delay the long-term need to increase Melbourne's water supplies (e.g. build new dams or desalination plants). Our baseline Water Plan scenario is for Melbourne's water use to be unrestricted during the 2013/14 to 2017/18 Water Plan period and assumes our storages will remain at a high level.

With strong customer support and willingness to pay shown through our customer consultation, (refer Chapter 3), we plan to continue a level of investment in water efficiency, with the primary aim of locking in behaviour change that occurred during the course of the drought in respect of water use. We are planning on spending around \$1.7 million per year

on water efficiency programs. This means it costs each property around 53 cents per quarterly bill to fund this program<sup>6</sup>.

The program will be at a lower level than during the drought, unless conditions arise that require an increased focus on water efficiency. For example, if water consumption increased significantly or rainfall decreased substantially, then more active programs could be implemented.

### Water efficiency programs

Examples of existing and proposed water efficiency programs are:

- **Showerhead Exchange Program** – replacing old, inefficient showerheads with new, water efficient models.
- **Toilet Replacement Program** – exchanging inefficient toilets with new, efficient dual flush models at a substantially reduced cost to the customer.
- **Water management action plans (waterMAPs)** for business customers to help them in identifying water savings.
- **Working with councils** on efficient irrigation for sports grounds and public open spaces.
- **Partnering with organisations** that promote and develop water efficient products and services.
- **Sponsoring research** into water efficient practices and products.

In addition, we will be continuing to undertake our **Water Learn It! Live It! schools education program working with primary school children** – covering where water comes from, how the water cycle works, environmental and community water needs, and how to use water wisely at home. We believe that it is important to educate the next generation of water users on the importance of saving water. This also is consistent with the requirement on our Statement of Obligations.

---

<sup>6</sup> As outlined in Chapter 3, we tested with customers a water efficiency program costing \$2.5 million per year (80 cents per quarterly bill). Our Water Plan proposal is for a \$1.7 million per year water efficiency program at a cost of around 53 cents per quarterly bill.

## Other outcomes

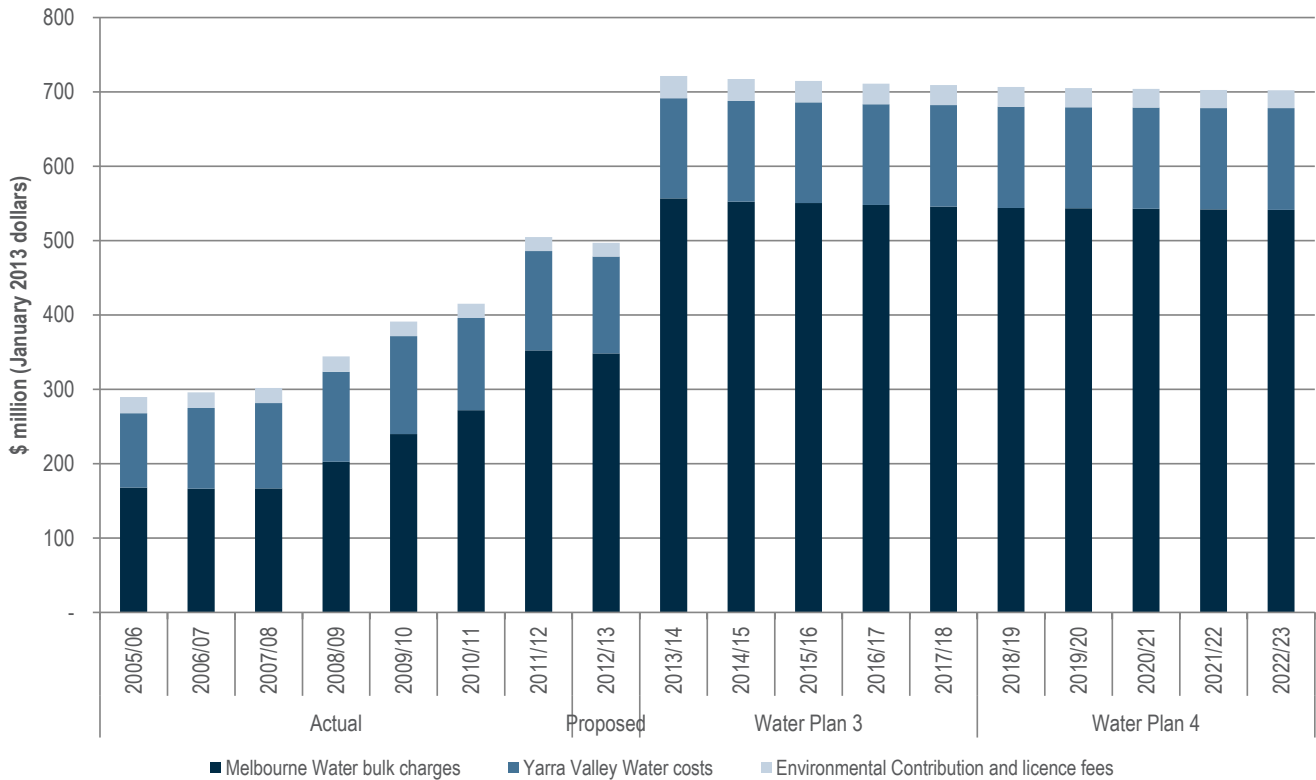
Other outcomes planned to be achieved during the 2013/14 to 2017/18 Water Plan are:

- Paying a levy of \$29.1 million per year to the State Government which will be used by government to promote sustainable management of water and address adverse water-related environmental impacts across Victoria. Refer to Department of Sustainability and Environment's website <http://www.water.vic.gov.au/home> further details.
- Meeting all requirements in our customer charters approved by the Essential Services Commission (ESC).
- Meeting all environmental standards imposed by the Environment Protection Authority (EPA) and in State environment protection policies including:
  - Reducing the volume of discharges of nutrients to streams from our Craigieburn Sewage Treatment Plant.
  - Reducing the risk of cross-connection between potable and recycled water supplies.
  - Making compliant 25 emergency relief structures in our sewerage system.
- Meeting our obligations in our Statements of Obligations issued by the Minister for Water including:
  - Undertaking schools education.
  - Developing a metropolitan integrated water cycle strategy by March 2017.
- Meeting trade waste regulations under the *Water Act 1989* including:
  - Implementation of metropolitan integrated sewage quality management system.
- Continuing to provide timely water and sewerage services to service new suburbs and existing urban areas including providing recycled water for a large number of new residential developments in the northern suburbs.

# 7. Operating costs

Our forecast operating costs, including Melbourne Water’s bulk charges, increase substantially from \$505 million in the baseline year of 2011/12 to \$721 million in 2013/14 and then decline slightly to \$709 million in 2017/18 and \$702 million in 2022/23 as shown in Figure 2. This substantial increase from 2011/12 to 2013/14 is associated with Melbourne Water’s bulk charges, which includes the full annual cost of the Victorian Desalination Plant from 2013/14.

Figure 2: Yarra Valley’s Water’s operating cost profile 2005/06 to 2022/23

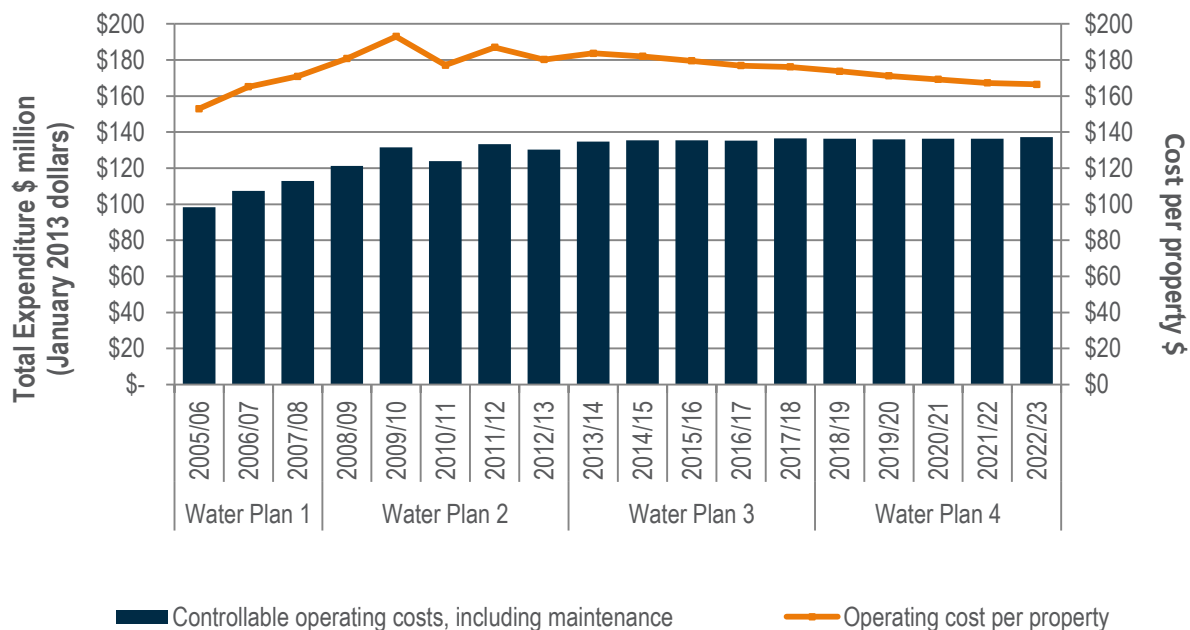


Our controllable operating costs (excluding Melbourne Water’s bulk charges, environmental contribution and licence fees) is forecast to be relatively flat with a 2011/12 baseline expenditure of \$133 million rising to \$135 million in 2013/14 to \$136 million in 2017/18 and \$137 million in 2022/23. We will exceed the ESC’s efficiency threshold in all years and absorb the significant increases in our operating costs due to new infrastructure, increased energy costs and increased costs associated with customer growth (customers are forecast to grow by 1.3% per year).

Over the course of Water Plan 3, our controllable operating costs per property will continue to decrease. We have historically had one of the lowest operating costs per property in Melbourne and amongst the lowest nationally. We will continue to pursue efficient delivery of services. We plan to achieve compounding productivity improvements of one per cent per year on our controllable operating costs, amounting to approximately \$26 million over the course of the Water Plan.

Figure 3 shows the trend with our controllable operating costs for the 2013/14 to 2017/18 Water Plan.

Figure 3: Yarra Valley Water's controllable operating costs and operating cost per property (in January 2013 dollars)

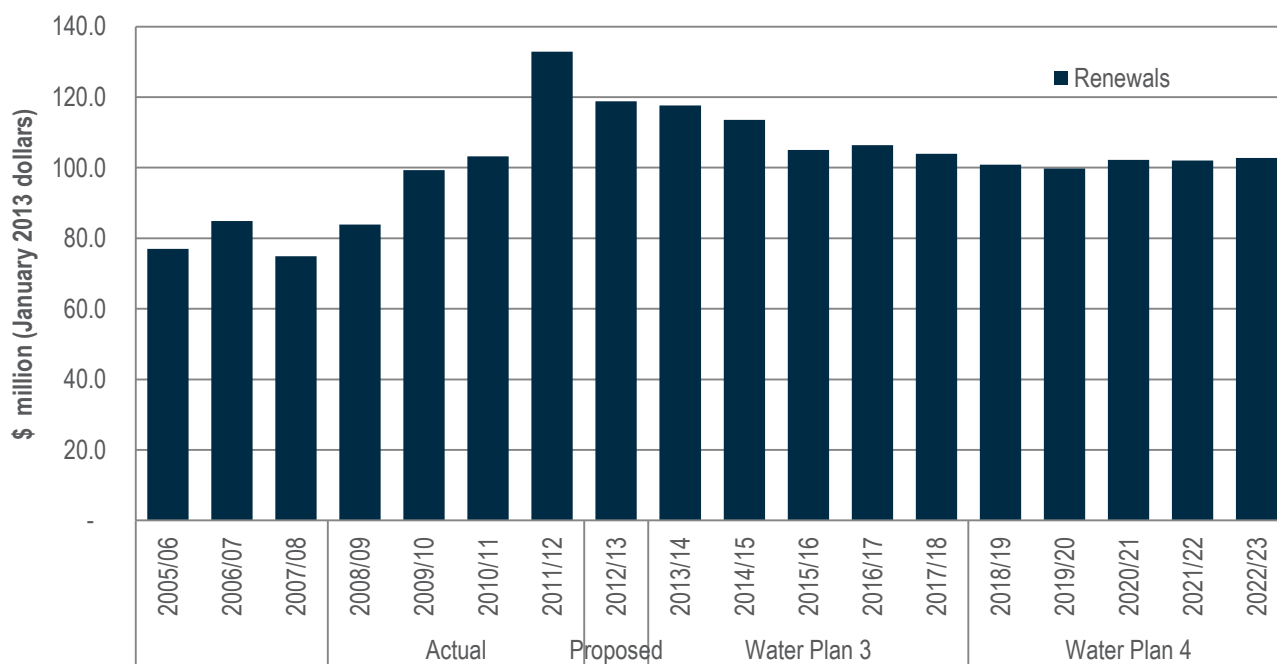


## 8. Infrastructure investment

Our planned capital expenditure is \$1,147 million for the 2013/14 to 2017/18 Water Plan period. The three principal drivers for our forecast capital program are water and sewer renewals to maintain customer service levels, growth works to provide infrastructure for new suburbs and compliance works to meet environmental obligations.

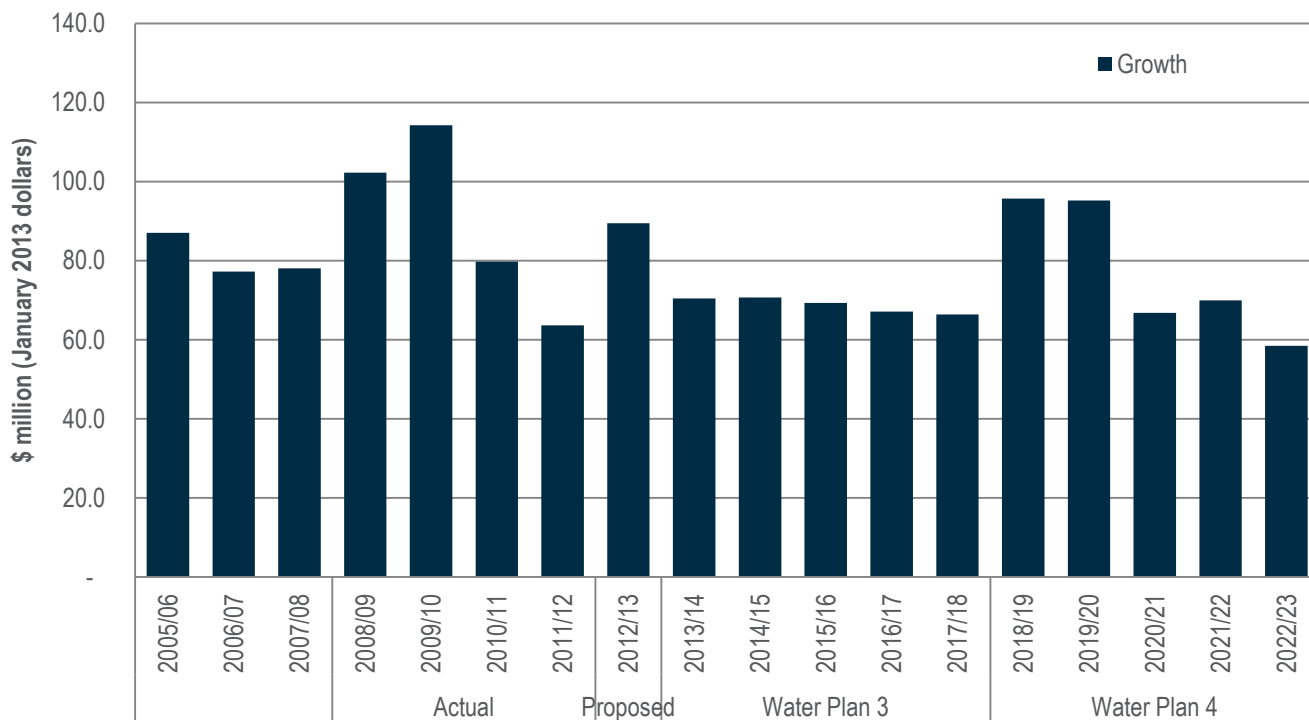
Figure 4 shows our forecast renewals capital expenditure. We are planning to maintain our service levels for Water Plan 3 with our renewals expenditure forecast to reduce progressively over the 2013/14 to 2017/18 period and then remain relatively constant for Water Plan 4.

Figure 4: Yarra Valley's Water's renewals capital expenditure profile 2005/06 to 2022/23



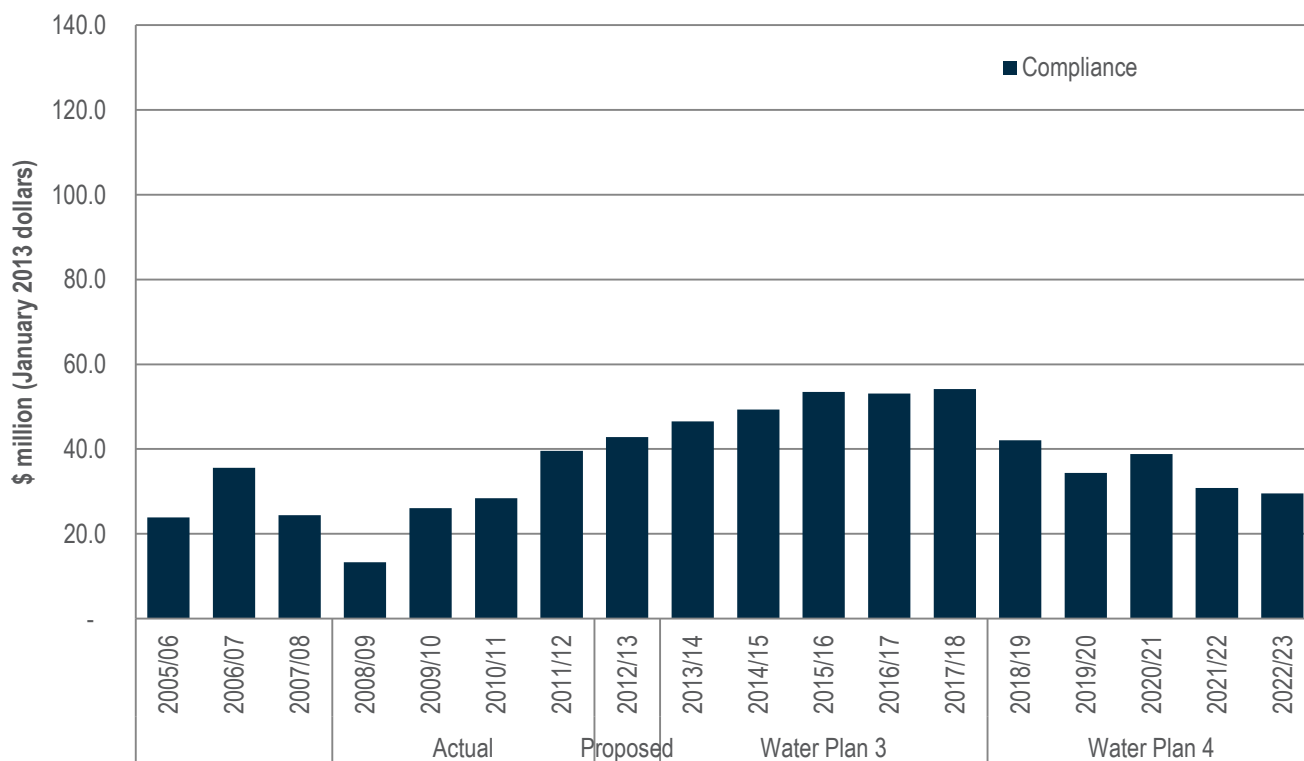
Our forecast growth capital expenditure is shown in Figure 5 and is based on our best information on the likely timing of growth projects – however, this expenditure can experience significant fluctuations from year to year due to economic and other factors. Our forecast is that capital expenditure will be relatively constant for the 2013/14 to 2022/23 period, except for 2018/19 and 2019/20 when the Epping Branch Sewer Tunnel project (\$61.8 million) is planned to be constructed.

Figure 5: Yarra Valley’s Water’s growth capital expenditure profile 2005/06 to 2022/23



Our forecast compliance capital expenditure is shown in Figure 6 and is driven by the *State environment protection policy (Waters of Victoria)* and comprises two main programs – backlog sewerage and hydraulic improvement (sewage spills) programs. We plan to complete the provision of sewerage services to the remaining 14,000 properties on our backlog program by 2030. Our hydraulic improvement program is driven by the requirement to have no controlled sewage spills from our sewerage system for 1 in 5 year rainfall events at our emergency relief structures and to reduce the number of uncontrolled spills onto properties. During the 2013/14 to 2017/18 period, we plan to complete upgrades to 25 emergency relief structures to complete this element of the program which has been in progress since 2001.

Figure 6: Yarra Valley's Water's compliance capital expenditure profile 2005/06 to 2022/23



Details on our top 10 investment programs/projects for the 2013/14 to 2017/18 Water Plan period are contained in **Appendix 9**.



## 9. Victorian Desalination Plant water orders

In late December 2012, the Victorian Desalination Plant is expected to become fully operational. This means that water from this facility will be available during the 2013/14 to 2017/18 Water Plan period and the annual water order, placed on 1 April each year, will determine how much water is used from the plant. The cost of this annual water order varies with the amount of water ordered and is around \$110 million if the full capacity of the plant is used and 150 gigalitres<sup>7</sup> of water is delivered in a year.

For our price projections, we are assuming no water will be taken from the desalination plant. However, desalinated water may need to be ordered if there are very dry times during the period.

We are proposing that the cost of purchasing desalinated water be passed through to customers so that water prices will reflect the actual cost of the order. This means that we do not ask customers to fund costs that may not eventuate and customers only pay if a desalinated water order is placed. Table 4 shows estimates<sup>8</sup> of the impact of the various desalination plant orders on customer bills.

*Table 4: Victorian Desalination Plant water orders and residential bill impacts*

ANNUAL DESALINATED WATER ORDER (GIGALITRES)	INDICATIVE INCREASE IN RESIDENTIAL CUSTOMER BILLS FROM HAVING A ZERO GIGALITRES DESALINATED WATER ORDER IN PREVIOUS YEAR	
	ANNUAL	QUARTERLY BILL
0	\$0	\$0
50	\$9.44	\$2.36
75	\$15.72	\$3.93
100	\$24.12	\$6.03
125	\$33.56	\$8.39
150	\$44.56	\$11.14

Under this proposal, customers will pay no more or less than the actual cost of desalinated water and it is planned to incorporate the cost of the order in the water usage component of our water tariff structure.

<sup>7</sup> One gigalitre (GL) equals one billion litres.

<sup>8</sup> The actual cost of the annual desalinated water order will vary based on a range of factors including the year the order is made and the previous year's order volume provided by Melbourne Water.

## 10. Form of the price control – revenue cap

Our prices to customers are currently controlled by a mechanism known as a ‘price cap’ which limit the prices charged to customers for a five-year period. The ‘price cap’ is set to recover the forecast cost of providing services to customers, assuming a certain level of forecast water usage. There are drawbacks to this mechanism. For example, an increase in water usage above the forecast would lead to greater revenue than we need to cover the cost of providing our services. On the other hand, a fall in water usage leads to a drop in our revenue and we may not be able to cover our costs.

An alternative arrangement is a mechanism called a ‘revenue cap’. This mechanism adjusts prices for water and sewerage services on an annual basis due to changes in actual water usage.

As indicated in Chapter 3, we believe a ‘revenue cap’ form of price control is the most appropriate mechanism for managing the uncertainty associated with demand, as it ensures the water utility has sufficient revenue to cover its costs but also safeguards against the water utility making excess revenue. Our customer research showed consistent high levels of support for a revenue cap.

Table 5 outlines the differences between the ‘price cap’ and ‘revenue cap’ forms of price control.

*Table 5: Price caps and revenue caps approaches*

WHAT YARRA VALLEY WATER DOES NOW... (PRICE CAP):	WHAT IS BEING PROPOSED... (REVENUE CAP):
<ul style="list-style-type: none"> <li>The current price setting process results in prices being set for a five-year period. The prices are based on forecast demands and costs.</li> <li>For the proposed Water Plan, the annual price increases would be set at the start of the five-year regulatory period (in 2012/13) and not adjusted again until the next regulatory period (in 2017/18), regardless of actual demand and costs.</li> <li>This approach provides a strong degree of certainty to the customer about prices for that period, but may result in over- or under-recovery of the actual costs, which can cause major price fluctuations in our next Water Plan period.</li> </ul>	<ul style="list-style-type: none"> <li>A price setting process that results in prices being set for one year.</li> <li>Prices would be adjusted each year for the over- or under-recovery of revenue in the previous year.</li> <li>This approach would ensure customers do not over- or under-pay for those services. If usage is greater than what we forecast, prices would go down and if usage is less than what we forecast, prices would go up.</li> </ul>

It is certain that water usage will be different, and it is possible that it could be significantly different from the forecast. A large difference would lead to large over- or under-recovery of revenue. Under a revenue cap, this could lead to a large adjustment in prices. We do not believe this would be acceptable to customers so we intend to limit the price movement in any one year. Our revenue cap proposal will limit the price increase to 2% but price decreases would not be capped. We believe any over-payment should be returned to customers at the first opportunity – refer below for an example of how this would operate in practice.

## Operation of a revenue cap

- **Water usage drops** – if prices in year two were to increase by 4% to compensate for lower water usage in the previous year, the price increase would be capped at 2%. The remaining 2% would be recovered in the following year. If at the end of the Water Plan period, we had an overall under-recovery of revenue, this would be rolled into the next regulatory period.
- **Water usage rises** – no proposed cap to price decreases; i.e. the full amount of any over-recovery will be returned to customers.

The proposal outlined moderates the price impact of differences between actual and forecast water usage. We regard this proposal as providing an appropriate balance between achieving price certainty for customers and cost recovery for Yarra Valley Water.

## Proposal

We propose that prices for the Water Plan period are set under a revenue cap. Any adjustment to prices to recover revenue will be capped at 2% in any year. Adjustments to return revenue to customers will be uncapped.

The revenue cap will exclude the adjustment made for the cost of an annual order of water from the desalination plant (see Chapter 9).

# 11. Demand forecasts

Demand forecasts are a key factor in computing prices. For example, a reduction in demand by 5% can increase prices by around 1.7%<sup>9</sup>.

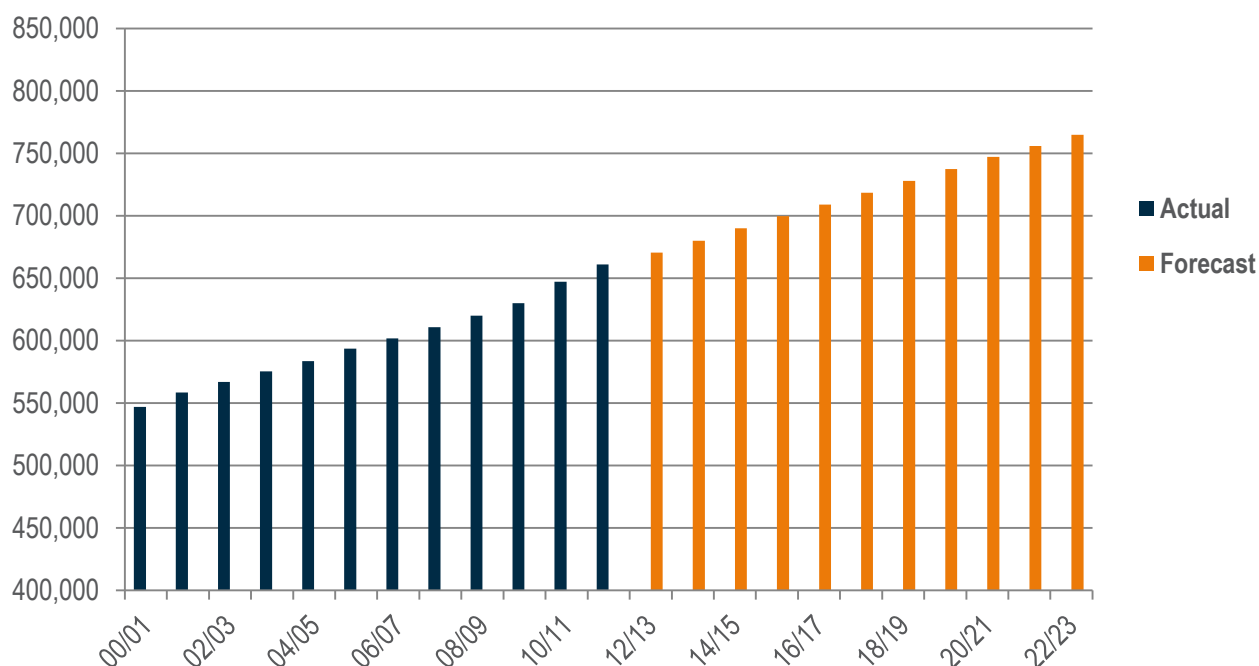
The two key demand forecasts relate to water usage and the number of customers. Water usage forecasts determine our water usage and sewage disposal charges. Customer numbers determine the amount of our service charges. A further factor influencing demand is the impact of the significant price increase proposed for 2013/14.

We are forecasting that no water restrictions occur over the next two Water Plan periods (2013/14 to 2022/23). The extent of any reversion to pre-drought usage levels is expected to be largely counterbalanced by ongoing efficiency gains in clothes washers, showers and toilets as well as limited by permanent behavioural change, substantial take up of rainwater tanks and significantly higher prices than pre-restrictions levels.

## Growth in customers

We are forecasting for residential customer numbers to grow at the household rate of growth forecast by the Department of Planning and Community Development in its 'Victoria in Future 2012' with population and household projections of 1.3% per year. This is shown in Figure 7. Non-residential customers are forecast to grow at a slightly lower annual rate of 1.2% per year.

Figure 7: Number of residential water customers with service agreements

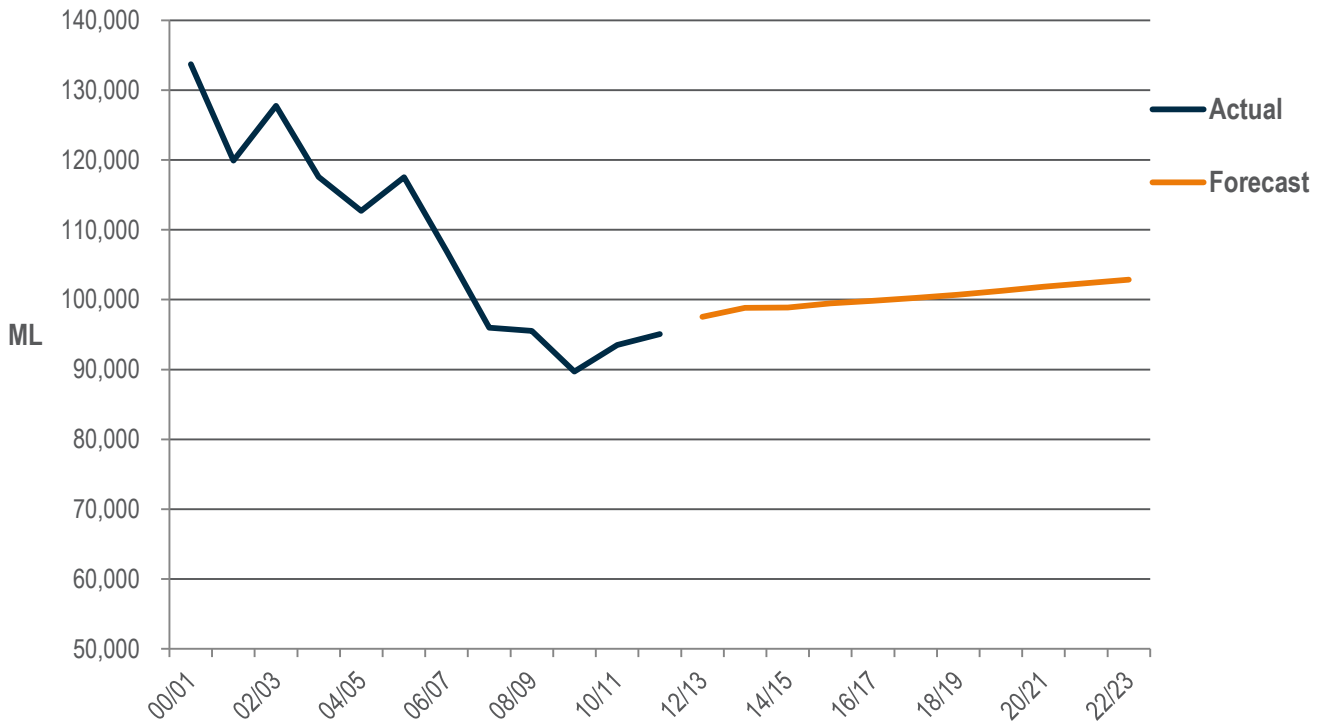


<sup>9</sup> Assuming an average residential customer using 147 kilolitres of water and discharging a calculated 118 kilolitres of sewage a year. If our residential customers reduce their usage by 5% to 140 kilolitres, then the price in 2013/14 would increase by an additional 1.7%.

## Growth in water use

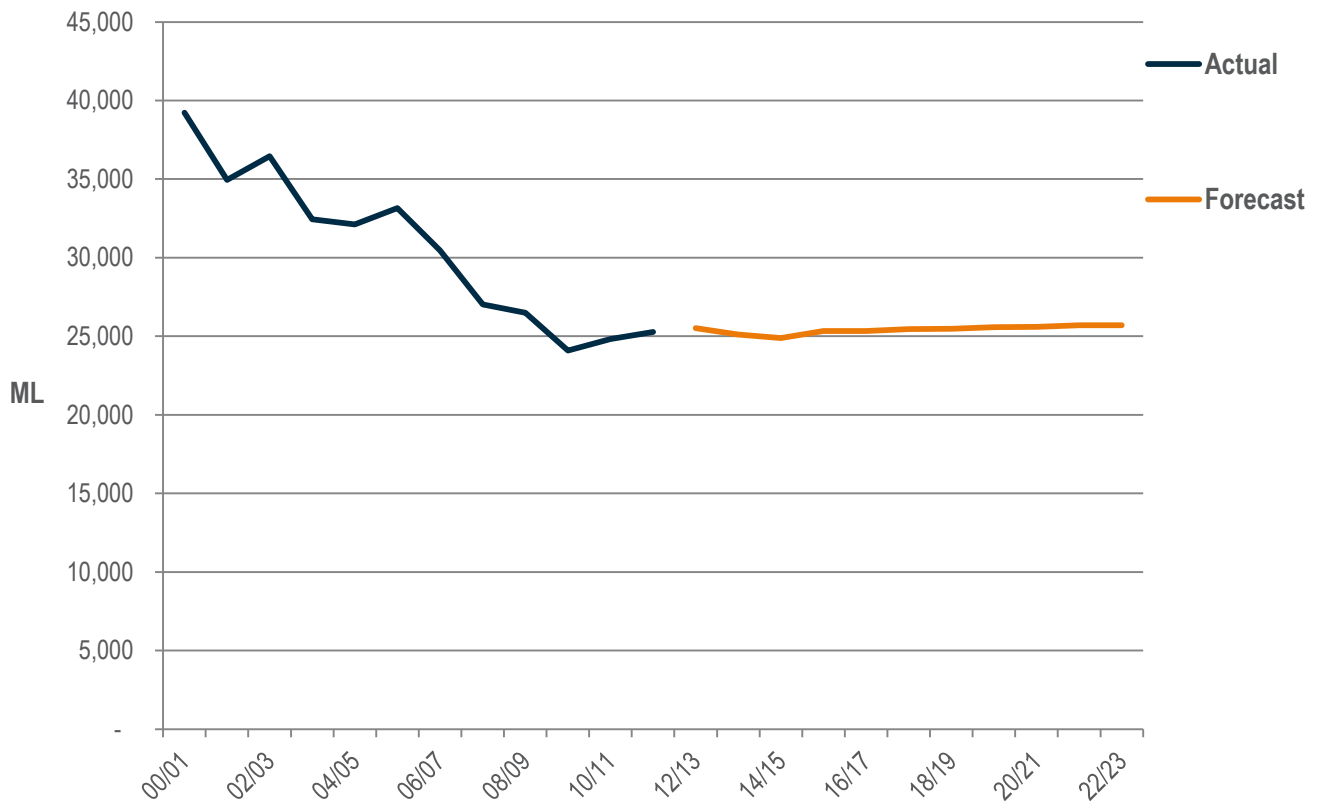
As shown in Figure 8, residential billed water usage decreased by 30% between 2000/01 and 2010/11 before increasing by 1.6% in 2011/12. Only a slight further increase in demand is forecast from the 2011/12 level with this lower than historical level of demand expected to be maintained as a result of the substantially higher price of water during the Water Plan period together with the ongoing uptake of more efficient appliances.

Figure 8: Residential billed water consumption



Non-residential demand has also decreased substantially over the last decade as shown in Figure 9 – billed non-residential usage decreased by 37% from 2000/01 to 2009/10 before increasing 0.3% in 2010/11 and a further 1.9% in 2011/12. Forecast demand is not expected to change much from the 2011/12 level because the reduced usage by large manufacturers is expected to be permanent as is council usage due to their substantial investment in alternative water sources and warm season grasses on their sporting fields. Additionally the expected price increase in 2013/14 is expected to further reduce demand.

Figure 9: Non-residential billed water consumption



# 12. Tariffs and prices

## Introduction

Attitudes to water have changed and a much higher value is now placed on what many people believe to be our most precious natural resource. With improved recent rainfall and commissioning of water supply augmentations, customers are now faced with changing circumstances. We need to review tariffs to reflect these changing circumstances. Giving appropriate signals about the value of water and sewerage services is still critical, but we must also recognise the effect that tariffs have on customer satisfaction and perceptions of value.

Based on customer feedback (refer to Chapter 3), we propose the following in relation to tariffs:

- Retaining the three-step inclining tariff for water usage as this is the most favoured option by customers.
- Retaining the existing approach for calculating the Sewage Disposal Charge given the lack of a strong alternative preference from customers.
- Transitioning the basis for service charges to a connection basis, with no change in 2013/14 (due to the anticipated price increase we believe shifting to connection-based charges at the same time will potentially confuse customers), 50% of the charge applying in 2014/15 and full implementation in 2015/16.
- Conducting an 'opt-in' trial comprising approximately 1,000 eligible customers of a 100% variable tariff in 2013/14.

Further details on these tariff proposed are outlined below.

## Tariff strategy

When developing tariffs, we look to follow best practice. Independent experts at the Public Utility Research Centre (University of Florida) set out the widely recognised and accepted principles as detailed below<sup>10</sup>.

### Water pricing principles

- Send price signals that encourage efficient use of services.
- Be simple to understand, facilitate convenience of payment and collection, and be acceptable to customers.
- Be free from controversy as to proper interpretation.
- Allow stable and predictable rates.
- Provide adequate revenue for investment and quality services.
- Allow stable and predictable revenues.
- Recognise positive and negative externalities (such as environmental impacts like nutrient discharges to streams).

---

<sup>10</sup> Berg, Sanford V. 1998. "The basics of rate design - pricing principles and self-selecting two-part tariffs," in *Infrastructure regulation and market reform: Principles and practice Selected papers prepared for the Utility Regulation Training Program held in November 1997 in Melbourne by the Australian Competition and Consumer Commission and the Public Utility Research Centre, University of Florida, May 1998*. (ACCC) Australian Competition and Consumer Commission ed, pp. 74-90

- Fairly apportion the total cost of service.
- Avoid undue discrimination.
- Encourage innovation and respond to changes in supply and demand patterns.

Implied in these principles and a key objective of our tariff proposal is to increase customer satisfaction. Our customer research shows that customers see aspects of the current system of charging as complex and difficult to understand. The fixed charge component of the bill is seen to be too high. This has led to some customers complaining about a lack of control over their bills. Customers have stated a very clear preference for increasing the variable component of their bill.

Our customer research shows that customers trust and respect their water utilities, which are seen to be more community oriented than other utilities. However, some customers question why their water utility does not offer a greater range of options like other utilities do. They want the ability to make informed choices about their own usage through the provision of more information and charges that make it easier to control water bills. They want choice but not too much. A corollary of choice is that there must be a default tariff for customers who do not wish to exercise choice. They should not be disadvantaged by staying on the default tariff.

Tariff changes benefit some customers and disadvantage others. Some customers have expressed concerns about the unknown effects of significant changes to tariff structures. Firstly, because of the unknown impact changes have on their total bill and, secondly, because it makes it harder for them to compare their current bills with their historic bills. In proposing tariff changes, we take into account which customers are affected and to what extent. We do not want to add to the impact of price increases by changing tariffs at the same time. If the bill impacts are too great but customers support proposed changes, we will phase the changes over a number of years.

## Residential tariffs

As indicated above, we are planning few changes to our existing residential tariff structures. The current residential tariffs are:

- Fixed charge for the water service.
- Fixed charge for the sewerage service.
- Three-step volume charge for water where the price of each step increases as higher usage thresholds are crossed.
- Volume charge for sewage known as the Sewage Disposal Charge.

The water volume charges are applied to the metered volume of water used by the customer. Residential sewage is all the water that goes down the kitchen, laundry and bathroom sinks, showers and toilets. It is technically difficult and expensive to have a meter installed in each household to record the volume of sewage discharged. The volume of sewage is estimated using a calculation that makes assumptions about the volume of water used for purposes that do not involve it being discharged to the sewer.



Table 6: 2012/13 residential tariffs

TARIFF	UNIT	RATE
Water fixed	per year	\$120.26
Sewerage fixed	per year	\$321.50
Water volume	<b>Step 1:</b> 0 – 440 litres (low usage) per day	\$1.78
	<b>Step 2:</b> 441 – 880 litres (moderate usage) per day	\$2.08
	<b>Step 3:</b> 880+ litres (high usage) per day	\$3.08
Sewage Disposal Charge	per kilolitre	\$1.95

Our plans for charges for water and sewerage residential services are outlined below.

### Water step volume tariff

We introduced step pricing in October 2004 to provide a strong incentive for water conservation at a time when the available supply was falling. The tariff has three price levels where the price of water increases in 'steps' as a customer's consumption increases. Although this tariff change contributed towards the water conservation objective, there are reservations about its validity and impact on some customers.

The Productivity Commission has stated that the water sector should move away from stepped tariffs<sup>11</sup>. This is consistent with the view of the ESC and the National Water Commission that step pricing does not provide a cost reflective price signal to customers. The cost of supplying a customer with a kilolitre of water does not vary whether it is the twentieth or two-hundredth kilolitre that the customer buys.

There is also concern that the stepped approach favours smaller households over larger families. It is unlikely that a single person household will use enough water to pay at the higher step prices. However, a six-person household may use enough water in total to incur the higher price, even though each person uses no more than the person in the single person household. There are a number of views on how inclining step tariffs impact on large families – see below.

### Impact on large families

- **Water usage basis** – As household size increases water usage per person drops because of joint use of appliances like dishwashers and washing machines. When you take into account the fixed service charges, large water users are advantaged over smaller households. A typical two-person household that may use 140 kilolitres per year pays an average cost of \$6.42 per kilolitre of water consumed whereas a typical large six-person household that may use 250 kilolitres per year pays an average cost of \$5.13 per kilolitre of water consumed.

<sup>11</sup> Productivity Commission, 2011, *Australia's Urban Water Sector, Report No.55, Final Inquiry Report*, Chapter 6, Canberra.

- **Total water bill basis** – A large six-person household using 250 kilolitres of water pays \$1,283 in water and sewerage charges with perhaps 40% of water use in the higher steps 2 and 3 range even though all water is efficiently used. In contrast, a typical two-person household using 140 kilolitres per year in an efficient manner pays \$898 in water and sewerage charges with all water usage paid in Step 1 range.

There are, however, counter views. Many customers see water conservation as more important and have grown used to the current three-step tariff. The stepped price signal provides them with a focus on efficient water use and the opportunity to change family attitudes to water.

A continuing emphasis on water conservation, as provided by a stepped tariff, is more likely to lower consumption over the long term which will produce lower prices for everyone as it will delay the need to construct expensive new water supplies.

### Customer research

If we were to move away from three steps, the possible changes to the volume tariff are to move to two steps or a single step. We carried out customer research in association with the other Melbourne water retailers to test customer preferences<sup>12</sup>. The aggregate response showed that a three-step pricing structure was the most preferred option (42% of all respondents). Others were fairly evenly divided between a two-step (18%) or a one-step option (22%). Just over one in ten respondents didn't have a preference either way (12%) and 7% were unsure. Notably, these results suggest some openness to shifting away from the three-step tariff.

Of the three retailers, Yarra Valley Water customers were the least keen to retain the three-step tariff (37% of customers wished to retain the three-step tariff compared with 45% of customers in both other retail areas), but ultimately this was still the most preferred option among our customers. The results are shown in Chapter 3.

### Proposal

We propose to retain three steps in light of customers not giving strong support to a move to fewer steps at this time.

*Table 7: Proposed prices (January 2013 dollars)*

EXAMPLE USAGE PER DAY	STEPS	2012/13 PRICE \$/KILOLITRE	2013/14 TO 2017/18 PRICE \$/KILOLITRE
300 litres	<b>Step 1:</b> 0 – 440 litres (low usage) per day	\$1.78	\$2.66
550 litres	<b>Step 2:</b> 441 – 880 litres (moderate usage) per day	\$2.08	\$3.12
1,000 litres	<b>Step 3:</b> 880+ litres (high usage) per day	\$3.08	\$4.62

<sup>12</sup> Yarra Valley Water's Draft Water Plan 2013-18 Customer Research Report, GA Research, Melbourne, August 2012

## Changes to Sewage Disposal Charge

Residential sewage is all the water that goes down the kitchen, laundry and bathroom sinks, showers and toilets. The residential Sewage Disposal Charge is applied to an estimated volume of sewage that is discharged into the sewerage system from inside the home. It is technically difficult and expensive to have a meter installed in each household to record the volume of sewage discharged. Yarra Valley Water estimates the volume based on the amount of water supplied to a property (as measured by the existing water meter) minus a percentage of water that we estimate is used outdoors.

The estimate of outdoor use is expressed as discharge factors. These vary according to season and volume of water used. In the past there were significant variations between the volumes of water returned as sewage, depending on the amount used for outdoor purposes. However, customers have changed the way they use water; for example, over 30% of properties in our service area are estimated to have a rainwater tank with the result less potable water is used for outdoor purposes and a greater proportion is discharged to the sewers.

As indicated in Chapter 3, we are planning to retain the existing approach for calculating the Sewage Disposal Charge given the lack of a strong alternative preference from customers. However, we are proposing to update our discharge factors to reflect the greater proportion of metered water being discharged to our sewers.

Some customers have expressed dissatisfaction with the method of calculating sewage disposal charges. They find the formula complex. An alternative solution is to use a simple, averaged discharge factor that is a straight percentage of the metered water volume.

### Customer research

From our joint work with the other Melbourne retailers, customers were shown a list of alternative options for calculating the Sewage Disposal Charge and were asked to indicate which option they would prefer, so that the charge was simpler and easier to understand.

There was no clear outcome in terms of the preferred Sewage Disposal Charge option and responses were fairly evenly divided across the five valid options. Marginally, the options with the highest proportion of responses were to 'apply a single average charge all year round', or 'keep the current approach' or (both at 17%). However, around a quarter (26%) of respondents preferred an option that combined the charge into either the water usage (12%) or fixed sewerage (14%) charges. Almost three in ten had either no preference (17%) or didn't know (11%). Notably, a small majority (56%) indicated an openness to change, by selecting one of the new options. The results are shown in Chapter 3.

### Proposal

With no clear preference for a particular method of charging, we propose minimal changes to the Sewage Disposal Charge. We will retain the basic discharge factor of 90% of measured water returning to the sewer<sup>13</sup>. This will be supplemented by a seasonal adjustment that assumes a greater proportion of water is used outdoors during summer and not returned to the sewer. The current assumption is around 70% of measured water (discharge factor and seasonal adjustment together) is returned to the sewer.

However, we currently observe that over 80% of water is returned to the sewer. This is a result of greater efficiency by customers in the use of water for outdoor purposes. During the Water Plan 3 period, we expect some movement back to increased outdoor use as restrictions on water use are eased but with customers continuing to exhibit efficient behaviours. Therefore, we are assuming that 75% of measured water will return to the sewer from a house over a 12-month period.

## Connection-based charges

The current basis for levying fixed charges is an historical legacy that is out of step with modern pricing principles. There are a number of properties connected to water and sewerage services that currently do not incur a service charge, merely because they do not have a separate land title. We believe this is inequitable because they receive the same service as other customers but do not pay. The net result is that other customers cover the shortfall through their bills. This change is also proposed by City West Water and South East Water and will bring the metropolitan water utilities into line with how fixed charges are levied by all the regional urban water utilities in Victoria.

---

<sup>13</sup> Between water usage of 500kL per year and 1000kL per year the basic discharge factor declines from 90% to 45%. This assumes that this level of water usage indicates a much greater proportion being used for discretionary purposes such as garden watering.

In our Draft Water Plan, we proposed to apply fixed charges to all properties that receive a water and sewerage service regardless of their land title situation. This proposal would be revenue neutral to Yarra Valley Water and would not result in more revenue. We recognise that introducing fixed charges to customers who have not previously paid those charges will have an impact. We propose, therefore, to phase them in over two years from 2014/15.

There would be no change in 2013/14 (due to the anticipated price increase we believe shifting to connection based charges at the same time will potentially confuse customers), 50% of the charge applying in 2014/15 and full implementation in 2015/16.

## Customer Research

We asked customers if they supported the extension of service charges to those who do not currently pay. Almost half of the respondents indicated that they strongly supported (25%) or somewhat supported (24%) the idea of introducing fixed service charges to dwellings not currently being charged. Around one in five neither supported nor opposed the idea (20%) and 22% opposed the idea to some extent (8% somewhat, 14% strongly). The results are shown in Chapter 3.

## Proposal

On balance, customers support the extension of service charges. We estimate that an additional 30,000 existing water customers (approximately 28,000 residential and 2,000 non-residential) will now pay service charges. Because this change will generate additional revenue, it will effectively lower the bills of existing customers.

We propose to introduce the change over two years from 2014/15. This strikes a balance between the impact on the affected customers and ending the inequity for existing customers.

The change also means that all new customers will receive a service charge. This will come into effect from 2013/14 because new customers will not have a history of paying bills without the charge.

*Table 8: Phased introduction of connection-based charge for residential customers*

YEAR	FULL CHARGE	CHARGE FOR CONNECTED BUT UNTITLED PROPERTIES
(CHARGES IN JANUARY 2013 DOLLARS – EXCLUDES INFLATION)	WATER + SEWERAGE FIXED CHARGES	WATER + SEWERAGE FIXED CHARGES
2013/14	\$575	\$0
2014/15	\$575	\$288
2015/16	\$575	\$575
2016/17	\$575	\$575
2017/18	\$575	\$575

Table 9: Impact of the introduction of connection-based service charges to a typical customer using 147kL per year

	2013/14	2014/15	2015/16	2016/17	2017/18
Bill for typical customer already receiving service charge	\$1,232	\$1,232	\$1,232	\$1,232	\$1,232
Bill for typical customer not already receiving a service charge	\$657	\$945	\$1,232	\$1,232	\$1,232
Percentage change over previous year	n/a	44%	30%	0%	0%

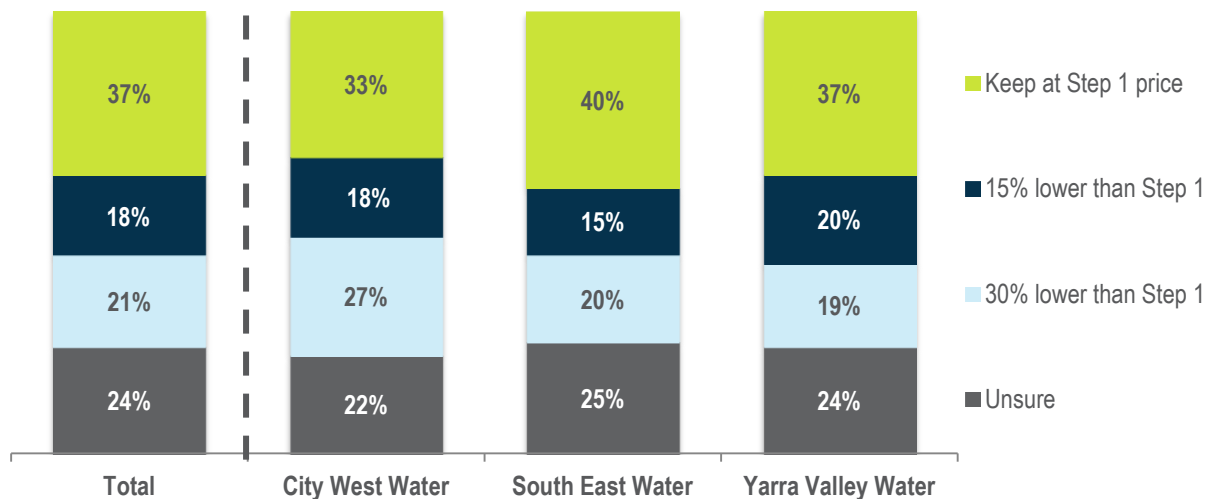
### Recycled water services

Recycled water is a direct replacement for potable water for many purposes. Therefore, we currently charge for recycled water at the Step 1 potable water price (\$1.78 per kilolitre in 2012/13).

#### Customer research

Our customer research showed that customers are clearly in favour of recycled water. Most customers would take up the service if it were available. We asked them to indicate a reasonable price by using the Step 1 potable water price as a benchmark. Opinions were fairly divided. The most common response was that the price should be kept at its current level – 37% selected this option. Around one in five (18%) supported a 15% reduction and roughly the same proportion supported a 30% reduction (21%), meaning that 39% supported a reduction of at least 15%. Almost a quarter were unsure either way (24%). There were no major differences in preferences by general interest in connecting to recycled water. The results are shown in Figure 10.

Figure 10: Recycled water tariff customer research



Base: All respondents (n=1,200).

Q14. [RETAILER] is seeking customer feedback to help determine the appropriate pricing level for recycled water to eligible residential homes for the next five year period. Please indicate which one of the following options you support.

## Proposal

We propose to continue pricing recycled water at the Step 1 potable water price. Most customers with both potable and recycled supplies should be indifferent to the source of the water they use. Recycled water stands in for most purposes and there is no reason for these customers to choose one supply over the other. Although recycled water has benefits for the wider community in terms of a more secure supply, it is more expensive to produce than potable water.

## Non-residential tariffs

The current non-residential tariff includes:

- Fixed charge for the water service.
- Fixed charge for the sewerage service.
- Single-step volume charge for water.
- Volume charge for sewage disposal.

Like residential tariffs, the water charges are applied to the metered volume of water used by the customer. The Sewage Disposal Charge is based on a flat discharge factor (i.e. no seasonal variation) for the calculation of sewage volumes derived from the metered volume of water (which is adjusted on an individual basis for variations such as trade waste volumes).

We are proposing minor changes to our non-residential tariffs. We understand from non-residential customer groups that these customers value consistency and certainty in their charges.

*Table 10: Non-residential water and sewerage tariffs for 2013/14 to 2017/18 (January 2013 dollars)*

TARIFF	UNIT	RATE
Water fixed	per year	\$293
Sewerage fixed	per year	\$613
Water volume	per kilolitre	\$2.87
Sewage disposal	per kilolitre	\$2.33

## Connection-based charges

Similar to residential customers, we currently apply fixed charges for water and sewerage on connected properties with an individual title. There are industrial estates where there are individually connected businesses that are not on individual titles so they currently do not pay fixed charges – approximately 2,000 non-residential customers are involved.

As for domestic customers, we propose to introduce fixed charges for any business that is directly connected and receives a water and sewerage service from us. This will remove the unfairness where two similar properties receive the same services but one does not pay the full cost because of an administrative distinction.

We recognise that introducing fixed charges to customers who have not previously paid those charges will be a significant bill increase. Similar to residential customers, we propose to phase them in over two years from 2014/15 as shown in the table below.

*Table 11: Phased introduction of connection-based charge for non-residential customers*

YEAR	FULL CHARGE	CHARGE FOR CONNECTED BUT UNTITLED PROPERTIES
(CHARGES IN JANUARY 2013 DOLLARS – EXCLUDES INFLATION)	WATER + SEWERAGE FIXED CHARGES	WATER + SEWERAGE FIXED CHARGES
2013/14	\$906	\$0
2014/15	\$906	\$453
2015/16	\$906	\$906
2016/17	\$906	\$906
2017/18	\$906	\$906

### Trade waste tariffs

We do not propose any major changes to trade waste volume and load charges. The one key difference will be the introduction of fees based on a risk ranking to replace the current volume based annual fees. This will bring us into line with the charging structures of the other metropolitan retailers.

We propose to increase the price of trade waste services by 5% plus inflation in 2013/14 then by inflation only over the remaining the 2014/15 to 2017/18 Water Plan period.

Table 12: Trade waste discharge fees for 2013/14 to 2017/18 (January 2013 dollars)

TRADE WASTE CONTRACT FEE	CHARGE (\$)
Volume (\$/kilolitre)	1.03
Biochemical Oxygen Demand (BOD) (\$/kilogram)	0.80
Suspended Solids (SS) (\$/kilogram)	0.47
Total Kjeldahl Nitrogen (TKN) (\$/kilogram)	2.17
Inorganic Total Dissolved Solids (ITDS) (\$/kilogram)	0.03

### Annual contract fees

All trade waste customers pay an annual fee to cover Yarra Valley Water’s operational costs incurred in the regulation, maintenance and consultation of trade waste customers.

Customers are currently subject to a stepped fee based on the annual estimated trade waste volume, with high volume customers paying the highest fees. In 2013/14, we propose to move to a stepped fee based on the risk ranking of each customer. The risk ranking for each customer is determined as a weighted sum of six factors:

- Treatment plant to which the customer discharges.
- Maximum discharge volume as stated in their discharge consent.
- Compliance history of the customer.
- Activity of the customer.
- Substance the customer is likely to discharge.
- Class of the customer which gives an additional factor for higher risk activities such as chemical manufacturing, etc...

The risk ranking determines the number of monitoring visits a customer receives in the course of a year. A customer with a risk rank of five receives a single annual visit each year while a customer with a risk rank of one receives up to 12 visits each year. Clearly, multiple visits impose greater costs to Yarra Valley Water and the new annual contract fees will reflect this.



Table 13: Trade waste contract fees (volume based) for 2012/13

ANNUAL TRADE WASTE CONTRACT FEE	CHARGE (\$)
Trade Waste Contract Charge less than 2,500 kilolitres/year (\$/year)	529
Trade Waste Contract Charge 2,500.1 to 25,000 kilolitres/year (\$/year)	1,590
Trade Waste Contract Charge 25,000.1 to 100,000 kilolitres/year (\$/year)	5,301
Trade Waste Contract Charge greater than 100,000 kilolitres/year (\$/year)	15,905

Table 14: Risk rank charges from 2013/14 (January 2013 dollars)

RANK	CATEGORY	CHARGE (\$)
Risk Rank = 1	Extreme	17,940
Risk Rank = 2	High	14,799
Risk Rank = 3	Moderate	5,980
Risk Rank = 4	Low	1,793
Risk Rank = 5	Minimal	597

## Optional tariffs

Our market research indicates that many customers value better control over water and sewerage bills and simplicity in charges. Some customers have indicated a preference for tariff choice, although not all will exercise this choice.

We discussed our idea of offering optional tariffs with various stakeholders, including customer groups, the ESC, academics and the State Government. A press article about our concept indicated that a notable proportion of customers reacted positively to the idea.

The ESC has indicated that our revenue for the 2013/14 to 2017/18 Water Plan will be calculated on the basis of the default tariff alone. This increases the risk to the water utility if an optional tariff does not raise as much revenue from a set of customers as the default tariff would.

In summary, stakeholders' views indicate that much depends on the options and their context. Optional tariffs must balance the wishes of customers with the need for water utilities to remain financially viable.

As indicated in Chapter 3, we are planning to conduct an 'opt-in' trial comprising approximately 1,000 eligible customers of a 100% variable tariff in 2013/14.

During consultation on our draft Water Plan, many non-residential customers expressed a desire for price certainty to help them prepare forward budgets for water and wastewater costs and make planning decisions. They indicated concern about the effect of the revenue cap and desalinated water order price adjustment on prices from year-to-year. Some certainty will be lost if we adopt a revenue cap where prices can be adjusted annually above or below the base price path.

### Proposal

Offering optional tariffs is new ground for water utilities. Although our customers have indicated interest, there is little experience to guide us in how they will react to an option in areas such as uptake and reaction to a different price. Therefore, we propose to:

- Undertake a trial of a 100% variable tariff for a limited number of customers. The trial is planned to commence in 2013/14.
- Explore an optional tariff with business customers that set a customer's prices in line with the base price path. There would be conditions attached to the option such as:
  - the customer is tied for three years which may be renewed each year
  - demand may not increase by more than, say, 5% without agreement. This upper constraint is to ensure that the customer is not contributing to additional demand and so creating the need for an order of desalinated water.

### New customer contributions

New customer contributions (NCCs) are contributions made by developers towards the cost of providing major sewerage, water and alternative water infrastructure for new connections. The required infrastructure can be the expansion of the existing networks into the growth corridors and/or the augmentation of existing networks in our inner areas.

Over the past year, Yarra Valley Water, other water utilities and representatives from the development industry have worked with the ESC to develop guidelines on the application of new customer contributions for the 2013/14 to 2017/18 Water Plan period. The ESC issued a guidance paper and contribution calculation model in August 2012.

The guidance paper provides two options for the water companies:

- a complete submission in the Water Plan incorporating capital expenditure, gifted assets, NCC revenue, standardised charges, negotiating framework and transition plan; or
- a staged submission which as a minimum the water utilities:
  - in the Water Plan must include capital expenditure, gifted assets, NCC revenue based on existing framework and a default negotiating framework; and
  - by 7 December 2012 submit forecasts of capital expenditure, gifted assets, revised NCC revenue, standardised charges, negotiating framework and transition plan.

We have decided to pursue the second option – below is a summary of our proposed approach. We propose to refine this approach prior to 7 December 2012 when we will lodge our final submission with the ESC.

The ESC guidance paper sets minimum pricing principles where the new customer contribution must be greater than avoidable cost, less than stand alone cost and have regard to the cost of providing the service and future revenues that will be earned from customers at that connection. The guidance paper gives the water utilities flexibility to:

- have individual charges for developments and/or standard charges;
- set standard charges based on catchments (zones) or based on water company area;
- choose charging units that are fit for purpose for each connection type, e.g. per connection for standard residential development, capacity of system used by the connection for non-residential and non-standard residential development; and

- apply bring forward costs, in addition to new customer contributions, where the water company is required to provide assets earlier than would otherwise be expected.

Our overarching principle is that new customer contributions should reflect the cost of providing water, sewerage and alternative water infrastructure for new connections and not be set so low that our existing customer base is subsidising development costs nor should it be set so high that the total revenue received from the new connections subsidises the existing customer base.

We recognise that the provision of one service can often affect the cost of delivering another service. The use of a local sewage treatment plant and third pipe recycled water system can often provide fit for purpose services at the lowest community cost. It can reduce the required size and thus cost of potable water infrastructure and eliminate the need for long and expensive sewerage infrastructure to connect to the existing sewerage system. For the provision of a combination of water, sewerage and recycled water services, the calculated new customer contribution for sewer and potable water may be negative and thus be set at zero when treated in isolation. However, the new customer contribution for recycled water may be very high due to the significant capital and operating costs and the little revenue received to offset the costs.

For this reason, we will consider ‘bundled’ new customer contributions for our submission that allows the calculated negative new customer contributions to, in part, offset the calculated positive new customer contribution. However, for this Water Plan submission, we have assumed no increase in revenue from new customer contributions with the amount for each year of the Water Plan 3 period being the same as the 2012/13 forecast – refer Table 15.

We are proposing that the load on the systems imposed by non-residential and non-standard residential connections be converted to equivalent residential connections using calculations based on actual demand and discharge where known and fixture units and/or water meter size where the actual demand is not known.

We also propose to produce plans showing the extent and timing of growth assets. If specific development requires assets to be provided earlier than programmed then bring forward costs will be calculated and applied to a development in addition to the applicable new customer contributions.

For this Water Plan submission, we will adopt the sample negotiating framework contained in the ESC’s NCC guidance paper as our draft negotiating framework. Our final negotiating framework will be submitted as part of our NCC proposal on 7 December 2012.

*Table 15: Forecast growth- related expenditure and new customer contribution revenue (\$ million January 2013 dollars)*

ITEM	2012/13 FORECAST	WATER PLAN 3 FORECAST				
		2013/14	2014/15	2015/16	2016/17	2017/18
Growth capital expenditure (excluding new meters)	83.83	64.77	64.94	63.45	61.30	60.45
Gifted assets	16.06	16.06	16.06	16.06	16.06	16.06
Estimated new customer contribution revenue	14.73	14.73	14.73	14.73	14.73	14.73

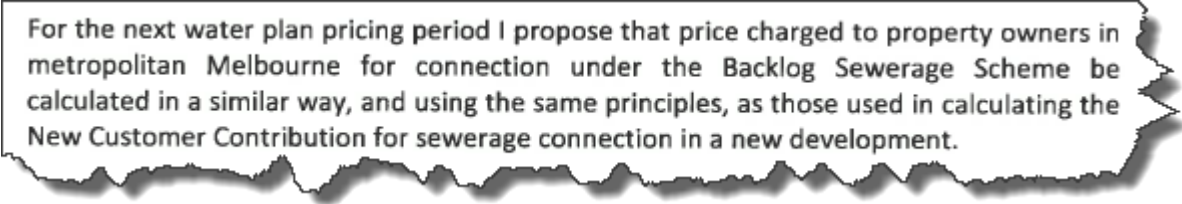
## Backlog customer contributions

As stated previously, our region has around 14,000 remaining properties that do not have access to our sewerage system. These unsewered properties rely on septic tank systems to dispose of their sewage onsite and often results in seepage of sewage into groundwater and run-off into waterways resulting in poor amenity, environmental and health problems.

Upon the provision of backlog sewerage facilities, the owners of unsewered properties are currently required to contribute \$500 (payable in quarterly instalments of \$25 over five years) towards the capital costs. In addition, property owners are required to pay for any on-property plumbing costs which may be incurred in connecting the property to the new sewerage system (including decommissioning of the existing septic tank).

The Minister for Water has decided that the \$500 contribution is no longer Government policy – refer extract below – and that the contribution should be set using the same methodology as that used in calculating new customer contributions.

*Extract from Minister for Water letter to Yarra Valley Water 25 May 2012*



**For the next water plan pricing period I propose that price charged to property owners in metropolitan Melbourne for connection under the Backlog Sewerage Scheme be calculated in a similar way, and using the same principles, as those used in calculating the New Customer Contribution for sewerage connection in a new development.**

As indicated above, this Water Plan submission assumes that our existing revenue from new customer contributions levied on developers will be maintained. As backlog properties will be provided with only one service (sewerage), we propose to set the backlog contribution at half of a bundled new customer contribution for a new connection requiring both water and sewerage connections (if a bundled approach is adopted for new connection contributions). The period over which this contribution can be paid has been extended from five years to twenty years.

In order for the community to gain the optimal economic and environmental benefits from these investments, we will continue our current practice of encouraging customers to connect to the sewerage system as soon as possible after a connection point is provided. Part of this practice is to waive the contribution if the property owner connects within 12 months of the connection point being made available. As such, we are forecasting to receive zero contributions over the Water Plan period.

## Additional products and services

We have reviewed all products and services for which we currently levy a charge, to ensure we continue to recover the costs associated with providing services. If the cost of providing individual products and services to customers can be recovered through charges, this helps reduce the price for the wider customer base.

Our prices have been informed by:

- Our commitment to protect vulnerable customers.
- Our customer service charter and commitments.
- The degree of choice that would be available to customers in regard to the product or service charge.
- Common business practice both in the community and the water industry.
- Customer and stakeholder feedback.

Further details on prices for miscellaneous products and charges are contained in **Appendix 10**.

## APPENDIX 1

# OUR COMMUNITY ENGAGEMENT PROCESS

Our customer and community insights have been garnered through a broad combination of research and engagement activities utilising extensive market research (both qualitative and quantitative), key stakeholder briefings and ongoing review and input from our Customer Advisory Committee.

This approach adheres to the Community Engagement Spectrum developed by the International Association for Public Participation commonly known as IAP2 – refer below for details.

### The IAP2 community engagement spectrum



### IAP2 definitions

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
<b>GOAL:</b>	<b>GOAL:</b>	<b>GOAL:</b>	<b>GOAL:</b>	<b>GOAL:</b>
To provide the community with balanced and objective information to assist them in understanding the role, scope and options for our Water Plan.	To obtain community feedback on analysis and options.	To work directly with stakeholders to ensure that community concerns and aspirations are consistently understood and considered.	To partner with stakeholders in key aspects of investigation including the development of alternatives and the identification of preferred solutions.	Decision-making.

## APPENDIX 2

# OUR ON-LINE PORTAL FOR CUSTOMER ENGAGEMENT

We established an on-line portal for customers to access all relevant information, ask questions and provide feedback on our proposals. This website facilitated participatory information sharing so that community members could provide their opinion in a user friendly manner that is moderated continuously.

Yarra Valley Water's online community engagement portal serves as a key platform for two-way dialogue (refer to <http://yoursayvw/waterplan>).

**YOUR SAY**

Yarra Valley Water

Home | Help Sign In or Register To Get Involved

Your Say Yarra Valley Water > Draft Water Plan

### Draft Water Plan

Share

**REGISTER to get involved!**

**LIBRARY**

- Addendum to our 2013-18 Water Plan (331 KB) (pdf)
- Snapshot of our Water Plan (87 KB) (pdf)
- Overview of our Water Plan (155 KB) (pdf)
- Our Draft Water Plan 2013-18 (3 MB) (pdf)

more...

**FAQS**

What is a Water Plan?  
Why do water utilities develop a Water Plan?  
Is this the first time a Water Plan has been developed?

more...

**KEY LINKS**

Yarra Valley Water

**KEY DATES**

Yarra Valley Water finalises the Water Plan and lodges it with the Essential Services Commission  
26 October 2012

ESC releases its draft decision following audit and review  
February 2013

We respond to ESC's draft decision  
March 2013

Final decision and determination by ESC  
May 2013

New prices take effect  
01 July 2013

more...

**RELATED PROJECTS**

- Your Say Yarra Valley Water
- Your say on sewerage options

**Have Your Say Here**

#### Feedback on draft Water Plan

We're keen to hear what you have to say about all aspects of the Water Plan. We are particularly interested in your responses to the questions asked throughout the draft document.  
You may provide comments below or upload a document if you want to provide a formal response on personal, company or an organisation's letterhead.

**Name**

**Email**

**Phone**

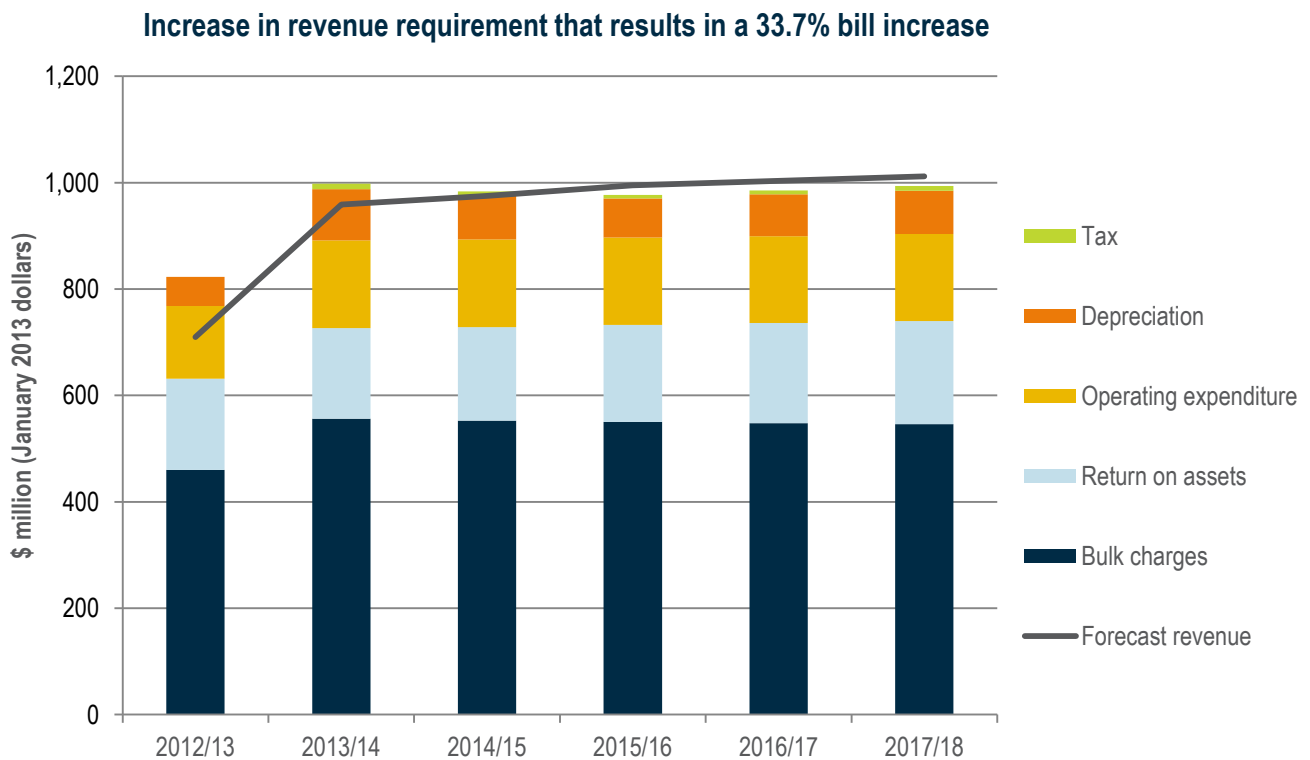
**Address**

## APPENDIX 3

# OUR BUILDING BLOCKS

The prices we propose to charge for our services are calculated using the ESC's 'building blocks' methodology. The methodology provides for our aggregate prices to recover the sum of efficient operating expenditure, a return on capital investment, depreciation of assets, and tax paid. The graph below shows our building blocks for these costs for the Water Plan 3 period.

Our forecast bill increase is 33.7% plus inflation in July 2013, the first year of the 2013/14 to 2017/18 regulatory period, followed by inflation only increases for the period from 2014/15 to 2017/18 and these bill increases are forecast to recover sufficient revenue to meet our costs.



## APPENDIX 4

# RESIDENTIAL CUSTOMER BILLS

Our forecast bill increase is 33.7% plus inflation in July 2013, the first year of the 2013/14 to 2017/18 regulatory period, followed by inflation only increases for the period from 2014/15 to 2017/18.

While 33.7% is the average bill increase across water and sewerage services in 2013/14, we are proposing to apply the increases to water and sewerage services based on where the investment is occurring. The proposed increases are:

- **Water:** 50% plus inflation in 2013/14 followed by inflation only from 2014/15 to 2017/18.
- **Sewerage:** 22.6% plus inflation in 2013/14 followed by inflation only from 2014/15 to 2017/18.

These increases will affect customers with diverse levels of use and different services by varying amounts, both in terms of dollar changes to their bills and percentage changes. The table below sets out the bill impacts for some typical customers.

CUSTOMER TYPE	ANNUAL USE (KILOLITRES)	2012/13 ANNUAL BILL	2013/14 ANNUAL BILL (JANUARY 2013 DOLLARS)	DOLLAR CHANGE FROM 2012/13 TO 2013/14 (JANUARY 2013 DOLLARS)	PERCENTAGE CHANGE FROM 2012/13 TO 2013/14
Single living in a unit	60	\$637	\$842	\$205	32.2%
Couple living in a unit	90	\$735	\$976	\$241	32.8%
Average household	147	\$922	\$1,232	\$310	33.7%
Average household with a water service only	147	\$382	\$574	\$192	50.0%
Household of four renting	155	\$507	\$694	\$187	37.0%
Larger household	200	\$1,105	\$1,485	\$380	34.3%
Larger household watering a large garden	240	\$1,248	\$1,682	\$434	34.8%

- Notes:
1. Customers who rent pay volume charges only. The property owner pays the fixed charges.
  2. For those customers with concession cards, the impact may vary according to the concession provided by the Department of Human Services. The concession from 1 July 2012 has a maximum cap of \$277.00. Customers who are billed for a single service are entitled to a maximum of \$138.50.

## Bills from 2014/15 to 2017/18

Prices will be adjusted annually for inflation for the remainder of the Water Plan period after the initial increase in 2013/14. What this means is that the bills shown in the table above will increase by inflation in 2013/14 and then only by inflation in each year from 2014/15 to 2017/18.



## APPENDIX 5

# SERVICE LEVELS

The Essential Services Commission (ESC) has established a set of core service standards for reflecting the service outcomes that are important to customers. In addition, each urban water utility can specify up to another 20 service standards (called approved service standards) which reflect attributes and drivers of outcomes in Water Plans.

The ESC has indicated that:

*“The starting point for setting targets for core service standards should be the average performance of the business over the last five years. This should account for temporary fluctuations in performance while still reflecting technological changes.”*

### Proposed core service standards

Our proposed customer service targets for the core ESC service standards for the 2013/14 to 2017/18 Water Plan have been set to maintain current service level performance based on a 5-year average in accordance with the ESC’s guidance except for:

- Unaccounted for water (%): we have adopted an improved target of 10% based on our existing level of performance (compared to a 5-year average of 12%). Recent efforts to reduce water losses from the network have resulted in a large improvement in this indicator over the 5-year period, with Yarra Valley Water having the lowest level of leakage of all water utilities across Australia – and this has a significant financial return with lower costs and water conservation benefits.
- Service fault response times service targets which are based on 3-year averages to reflect current traffic congestion.
- Unplanned water supply interruptions frequency and duration service targets which are based on 3-year averages to reflect our current practice of turning off the supply to conserve water.

Now that the drought has ended and given our customers say drinking water quality is most important, we are planning to recommence our routine water mains cleaning program (suspended in November 2006 with the introduction of Stage 3 water restrictions). This is forecast to cost an additional \$0.8 million per year. If we don’t do this, water quality complaints are expected to rise as demand increases and causes higher water velocities in water distribution mains.

The following table shows the proposed core service levels for our 2013/14 to 2017/18 Water Plan.

SERVICE STANDARDS	2011/12 ACTUAL	5-YR AVERAGE (2007/08 TO 2011/12)	2013/14 to 2017/18 WATER PLAN	
			PROPOSED TARGET	REMARKS
<b>Water</b>				
Unplanned water supply interruptions (per 100 km)	48.9	56.7	56.7	Target based on 5-year average
Average time taken to attend bursts and leaks (priority 1) (minutes)	30.6	30.6	32.8	Target based on 3-year average to reflect current traffic congestion conditions
Average time taken to attend bursts and leaks (priority 2) (minutes)	44.5	43.0	44.7	Target based on 3-year average to reflect current traffic congestion conditions
Average time taken to attend bursts and leaks (priority 3) (minutes)	444.6	415.1	453.4	Target based on 3-year average to reflect current traffic congestion conditions
Unplanned water supply interruptions restored within 5 hours (per cent)	96.6	97.2	96.3	Target based on 3-year average to reflect current practice of turning off supply to conserve water
Planned water supply interruptions restored within 5 hours (per cent)	98.3	99.2	99.2	Target based on 5-year average
Average unplanned customer minutes off water supply (minutes)	21.5	24.2	24.2	Target based on 5-year average
Average planned customer minutes off water supply (minutes)	9.6	7.4	7.4	Target based on 5-year average
Average unplanned frequency of water supply interruptions (per 1,000 customers)	0.20	0.24	0.24	Target based on 5-year average
Average planned frequency of water supply interruptions (per 1,000 customers)	0.10	0.06	0.06	Target based on 5-year average
Average duration of unplanned water supply interruptions (minutes)	101.3	100.4	104.4	Target based on 3-year average to reflect current practice of turning off supply to conserve water
Average duration of planned water supply interruptions (minutes)	155.5	145	145	Target based on 5-year average
Customers experiencing more than 5 unplanned water supply interruptions in the year (number)	218	335	335	Target based on 5-year average
Unaccounted for water (per cent)	10.4	12.1	10	Recent efforts to reduce water losses from the network have resulted in a large improvement in this indicator over the past five years. Target is set at existing level of performance

SERVICE STANDARDS	2011/12 ACTUAL	5-YR AVERAGE (2007/08 TO 2011/12)	2013/14 to 2017/18 WATER PLAN	
			PROPOSED TARGET	REMARKS
<b>Sewerage</b>				
Sewerage blockages (per 100 km)	26.5	41.2	41.2	Target based on 5-year average
Average time to attend sewer spills and blockages (minutes)	50.0	50.4	52.8	Target based on 3-year average to reflect current traffic congestion conditions
Average time to rectify a sewer blockage (minutes)	186.3	196.3	196.3	Target based on 5-year average
Spills contained within 5 hours (per cent)	90.0	97.7	97.7	Target based on 5-year average
Customers receiving more than 3 sewer blockages in the year (number)	8	15	15	Target based on 5-year average
<b>Customer Service</b>				
Complaints to Energy and Water Ombudsman Victoria (per 1,000 customers)	1.06	0.76	0.76	Target based on 5-year average
Telephone calls answered within 30 seconds (per cent)	62.6	77	77	Target based on 5-year average

## Proposed approved service standards

The Essential Services Commission guidance has indicated that the additional service standards must include:

- biosolids reuse;
- sewer backlog connections;
- environmental discharge licence requirements; and
- drinking water quality compliance with standards.

In addition, we are proposing two additional service standards that are cost drivers for our 2013/14 to 2017/18 Water Plan:

- drinking water quality – customer complaints; and
- recycled water use from our sewage treatment plants.

The following table shows the proposed additional service levels for our 2013/14 to 2017/18 Water Plan.

SERVICE STANDARDS	2011/12 ACTUAL	5-YR AVERAGE (2007/08 TO 2011/12)	2013/14 to 2017/18 WATER PLAN	
			PROPOSED TARGET	REMARKS
<b>Sewerage</b>				
Compliance with Environment Protection Authority environmental discharge licences at sewage treatment plants (per cent)	100	100	100	Target based on 5-year average. We will comply with all requirements in our discharge licences.
Sewer backlog properties provided with a connection point (number)	387	Not Applicable	5,110	Target set at the number of properties within the backlog areas identified to be completed during the Water Plan period. Total program to be completed by 2030.
<b>Customer Service</b>				
Drinking water quality – customer complaints (per 1,000 customers)	3.6	4.3	4.3	Target based on 5-year average
<b>Re-use</b>				
Recycled water from Yarra Valley Water's sewage treatment plants (per cent)	20.7	23	28.8	Target reflects a continued development of local re-use schemes around sewage treatment plants and through development of new stormwater recycling projects.
Biosolids recycled (per cent)	0	50	0	Our performance over the 2007/08 to 2011/12 period has been reflective of our ongoing strategy to undertake opportunistic recycling of biosolids to minimise operational expenditure. The key reuse project undertaken to date has been the recycling of biosolids stockpiled at our Craigieburn Sewage Treatment Plant in 2008/09 as part of the construction of a buffer area for the plant. During these works an extensive amount of stockpiled biosolids were reused as part of the landscaping works undertaken.
<b>Drinking Water Quality</b>				
Compliance with drinking water quality regulations and standards (per cent)	100	Approx. 100	100	Target based on 5-year average. We will comply with all Safe Drinking Water Regulations.

## APPENDIX 6

# SEWERAGE SYSTEM CAPACITY

Yarra Valley Water's sewerage system is designed to convey sewage from properties to sewage treatment plants. The local council's drainage network is designed to convey stormwater to local creeks and streams. During wet weather, stormwater enters the sewerage system via illegal connection of property stormwater drains to the sewerage network and via infiltration of groundwater. Melbourne's sewerage system is designed with extra capacity to accommodate stormwater that enters the sewerage system during wet weather. However, it would be prohibitively expensive to have a sewerage system that could totally contain extreme storm events.

Like sewerage systems in all western cities, our sewerage system has inbuilt features that cater for extreme events and the influx of stormwater to minimise the impact on customers. The most critical of these are 'Emergency Relief Structures' that help relieve the pressure on the system. They do this by allowing controlled spilling at points in the system where the local environment can cope with the additional flow (e.g. drains and waterways), preventing spilling at lower points in the system which would usually be on a customer's property.

Typically the water split to the environment from these structures is heavily diluted, although we always recommend the community refrain from contact with this water as a safety precaution.

## Why are we increasing the capacity of the existing sewerage system?

Under Schedule F7 of the *State environment protection policy (Waters of Victoria)*, it is the responsibility of Yarra Valley Water to progressively upgrade our existing sewerage system so that it is capable of containing the flows associated with a 1 in 5 year rainfall event or other standard of performance approved by the Environment Protection Authority Victoria. Priority is given to those areas which most adversely affect, or have the potential to most adversely affect, beneficial uses of waterways and their environs.

## Performance of our existing sewerage system

Currently, we spill on average 156 times per year from uncontrolled sites and nine times per year from controlled sites.

## Our program of works

Spills can be minimised in two ways:

- Minimise the amount of stormwater entering the sewerage system.
- Increase the capacity of the sewerage system to cater for the stormwater.

During 2013/14 to 2017/18, we propose a combination of both measures to ensure we meet the State environment protection policies. In doing so we are planning to have no controlled sewage spills for 1 in 5 year rainfall events and to halve the number of uncontrolled sewage spills for 1 in 5 year rainfall events by 2018.

Over the five years, we propose investments on 36 projects amounting to \$109 million to:

- investigate the source of stormwater entry into the sewerage system and implement reduction measures (\$14 million); and
- upgrade emergency relief structures and the capacity of sewerage pipes (\$95 million).

## APPENDIX 7

# MODERN SEWERAGE SYSTEMS FOR HOUSHOLDS CURRENTLY USING SEPTIC TANKS

Yarra Valley Water's region has around 14,000 remaining properties that do not have access to our sewerage system. These unsewered properties rely on septic tank systems to dispose of their sewage onsite. If the area available within the property for dispersal of the sewage is unsuitable or the systems are inadequately maintained, seepage of sewage into groundwater and run-off into waterways can occur resulting in poor amenity, environmental and health problems.

### Why do we provide sewerage systems to enable connection of unsewered properties?

Under Schedule F7 of the *State environment protection policy (Waters of Victoria)*, it is the responsibility of councils, in conjunction with the Environment Protection Authority Victoria, to identify properties that are not capable of treating and retaining sewage within their boundaries and to recommend priorities for the provision of sewerage systems.

Councils originally identified around 17,150 properties in our service area with septic tank systems not capable of properly treating and disposing of sewage onsite. We have worked with councils to prioritise those areas where environmental and health benefits can be achieved most cost effectively and are currently working with councils and communities in the higher priority areas to develop suitable modern sewerage systems.

### Types of sewerage systems provided

There is often a range of alternative sewage management options, aside from conventional reticulated sewerage schemes, that can be used to manage sewage within an identified area. We strive to implement sustainable solutions and develop options in our design process that provide environmental and health benefits most cost effectively.

We are currently installing two types of reticulated sewerage systems – conventional gravity sewers and pressure sewers. The type of system used to service an area is determined during the design process which involves consultation with the local community. Factors, such as the topography of the land and environmental disruption, influence the selected solution.

### Contributions by property owners provided with sewerage facilities

Upon the provision of backlog sewerage facilities, the owners of unsewered properties are currently required to contribute \$500 (payable in quarterly instalments of \$25 over five years) towards the capital costs. In addition, property owners are required to pay for any on-property plumbing costs which may be incurred in connecting the property to the new sewerage system (including decommissioning of the existing septic tank).

The Minister for Water has decided that the \$500 contribution is no longer Government policy and that the contribution should be set using the same methodology as that used in calculating new customer contributions.

Our proposal is to charge backlog properties, which will be provided with only one service (sewerage), half of the bundled new customer contribution for a new connection requiring both water and sewerage connections. The period over which this contribution can be paid has been extended from five years to twenty years.

In order to provide maximum environmental benefit, we will continue our current practice of encouraging customers to connect to the sewerage system as soon as possible after a connection point is provided. Part of this practice is to waive the contribution if the property owner connects within 12 months of the connection point being made available. We believe with the contribution tripling, this will provide added incentive for the property owners to connect within 12 months and as such we are forecasting to receive zero contributions over the Water Plan period.

## Our program of works

Our current program of works provides all of the unsewered properties with sewerage systems by 2025. Given the extent of the current program, its associated cost and the need to work with local communities to develop specific solutions, we are proposing to extend the program by five years so that the end date will be 2030. This new end date provides a more realistic schedule for completion of the program. Even though we are proposing to complete the program over a longer timeframe, we will be increasing our efforts and the number of properties proposed to be provided with modern sewerage services in the next five years (2013/14 to 2017/18) is about double the number serviced in the current Water Plan period.

Extending the program provides the time to trial and implement improvements to the servicing solutions – which can produce the same outcomes as a traditional approach but at a much lower cost. The extension of the program will reduce the investment expenditure by an estimated \$5 million per year between 2013 and 2025 and result in a 25 cent reduction in the average quarterly customer bill.

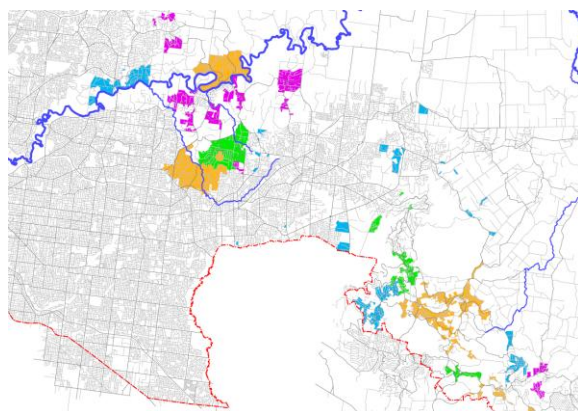
The table below outlines our completed works and those proposed for the remainder of the program until 2030.

WATER PLAN PERIOD	LOCATION		NUMBER OF LOTS
	MUNICIPALITY	SUBURBS	
<b>Water Plans 1 and 2 (2005/06 to 2012/13)</b>	Banyule	Lower Plenty, Preston	7
	Cardinia	Avonsleigh South, Avonsleigh North, Cockatoo, Cockatoo Upper, Cockatoo Middle, Cockatoo Lower, Emerald, Gembrook	1,414
	Manningham	Donvale, Park Orchards, Templestowe, Warrandyte, Wonga Park	1,805
	Maroondah	Ringwood North	48
	Murrindindi	Kinglake West	73
	Nillumbik	Eltham, Eltham North	198
	Whittlesea	Mernda, South Morang, Thomastown	234
	Yarra Ranges	Healesville, Montrose, Wandin North, Woori Yallock	121
	<b>Total Water Plans 1 and 2</b>		
<b>Water Plan 3 (2013/14 to 2017/18)</b>	Cardinia	Clematis, Emerald	404
	Manningham	Donvale, Park Orchards, Ringwood North	1,331
	Nillumbik	Warrandyte North	1,046
	Whitehorse	Donvale, Mitcham	22
	Yarra Ranges	Kallista, Menzies Creek, Monbulk, The Patch	2,307
<b>Total Water Plan 3</b>			<b>5,110</b>

WATER PLAN PERIOD	LOCATION		NUMBER OF LOTS
	MUNICIPALITY	SUBURBS	
Water Plan 4 (2018/19 to 2022/23)	Manningham	Park Orchards	1,212
	Yarra Ranges	Chum Creek, Healesville, Kalorama, Kallista, Menzies Creek, Monbulk, Montrose, Olinda, Sassafras, Sherbrooke, The Patch, Warburton	2,497
<b>Total Water Plan 4</b>			<b>3,709</b>
Water Plans 5 and 6 (2023/24 to 2029/30)	Banyule	Briar Hill, Lower Plenty	237
	Cardinia	Emerald, Gembrook	728
	Maroondah	Bayswater North, Heathmont, Kilysth South, Ringwood, Ringwood North, Warranwood	141
	Nillumbik	Diamond Creek, Eltham, Hurstbridge, Wattle Glen	401
	Whittlesea	Donnybrook, Epping, Humevale, Panton Hill, St Andrews, South Mernda, Morang, Whittlesea, Yan Yean, Yarrambat	493
	Yarra Ranges	Don Valley, East Warburton, Ferny Creek, Launching Place, Lilydale, Mount Evelyn, Sassafras, Selby, Silvan, Woori Yallock, Yarra Junction	2,531
	<b>Total Water Plans 5 and 6</b>		
<b>WATER PLANS 1 to 6 (2005/06 to 2029/30)</b>	<b>TOTAL</b>		<b>17,250<sup>14</sup></b>

## 2013/14 to 2017/18 Water Plan works

During the 2013/14 to 2017/18 Water Plan period, we propose to invest about \$97 million to provide modern sewerage systems to 5,110 unsewered properties in Park Orchards, Ringwood, Donvale, Warrandyte North, Monbulk, Emerald, Clematis, Kallista, Menzies Creek, Olinda, The Patch and Mitcham. These areas are major contributors towards the degraded water quality in the local waterways – and **are shaded orange** on the map below.



<sup>14</sup> Original backlog program number was 17,150 lots. An extra 100 lots have been added to the program as the backlog program works have progressed.



## APPENDIX 8

# GUARANTEED SERVICE LEVELS

**In 1996, we were the first water utility in Australia to introduce a Guaranteed Service Level (GSL) Scheme. Under this scheme, payments are made to residential customers where designated performance levels are not met by us. The Guaranteed Service Level Scheme forms an important part of our customer service offering and is automated so that customers do not need to apply. In particular, the scheme provides customers with a guarantee as to the minimum level of service we will deliver; e.g. customers will not be without water for more than four hours.**

Since 2005 the Essential Services Commission has carried out price regulation of the Victorian water industry. In its 2008 price review, the Commission commented:

*“Experience in the Melbourne metropolitan water industry and energy sectors with GSL schemes is that businesses show improved service performance and an enhanced customer service focus.”*

Our scheme has provided us with an incentive to improve our services to a small number of our customers. In the scheme's first year of operation (1996/97), Yarra Valley Water paid out \$700,000 (\$1,040,000 in today's dollars) to our customers and this amount has substantially reduced over the years as many customer service issues have been rectified.

We are planning to continue this scheme for our 2013/14 to 2017/18 Water Plan. We are proposing to increase the payments for 'no more than 3 sewerage interruptions within any 12-month period' and 'sewerage interruption restored within 4 hours' from \$50 to \$100, based on market research and following consultation with our Community Advisory Group.

## Our proposed GSL payments

In the following table, find our proposed Guaranteed Service Level payment scheme for the 2013/14 to 2017/18 Water Plan.

SERVICE LEVEL OBLIGATION	2009/10 to 2012/13 WATER PLAN PAYMENT (\$)	PROPOSED 2013/14 to 2017/18 WATER PLAN PAYMENT (\$)
<b>Water</b>		
Unplanned water interruption restored within 4 hours	50	50
Give at least 3 days' notice of a planned water interruption	50	50
<b>Interruptions</b>		
No more than 5 unplanned water or sewerage interruptions in total within any 12-month period	50	50
No planned interruption during peak hours (5 am to 9 am and 5 pm to 11 pm)	50	50
No planned interruption longer than advised	50	50
No planned interruption longer than 5 hours	50	50
<b>Sewerage</b>		
No more than 3 sewerage interruptions within any 12-month period	50	100
Sewerage interruption restored within 4 hours	50	100
Sewer spill contained within 4 hours	1000	1000
Sewer spill in a house contained within 1 hour of notification	1000	1000
<b>Hardship</b>		
Restricting the water supply of, or taking legal action against, a residential customer prior to taking reasonable endeavours (as defined by the Essential Services Commission) to contact the customer and provide information about help that is available if the customer is experiencing difficulties paying	300	300

## APPENDIX 9

# TOP 10 CAPITAL PROJECTS/PROGRAMS

We are planning on investing \$1,147 million on new and existing infrastructure to service our current and future customers between 2013/14 and 2017/18.

Replacing ageing infrastructure accounts for 50% of our planned infrastructure investments in our 2013/14 to 2017/18 Water Plan and is driven by our proposal to maintain our current levels of service and customer satisfaction. For example, we plan to renew 290 kilometres of water reticulation mains to maintain our water supply network performance.

Our capital expenditure has been prioritised to:

- expand the water supply and sewerage networks and provide recycled water to service new developments in the rapidly growing northern suburbs of Melbourne;
- continue our program to provide sewerage systems to unsewered areas with a target completion date of 2030 (rather than 2025) so as to provide a more realistic schedule using solutions developed with the local communities. We are planning to provide sewerage systems to 5,110 properties during 2013 to 2018;
- increase the capacity of our sewerage system to ensure it meets State environment protection policies;
- reduce the number of sewer blockages and thereby the number of properties having problems discharging their waste; and
- sustain current performance in the number of properties experiencing an interruption to their water supply.

### Top 10 programs/projects

The Essential Services Commission requires each water utility to nominate its top 10 investment programs/projects for the 2013/14 to 2017/18 Water Plan period. Our top 10 programs/projects account for 47% of our planned investment spend during this period. Our top 10 programs/projects are set out in the following table.

PROJECT/PROGRAM	DRIVER	DELIVERY DATE	2013/14 to 2017/18 WATER PLAN COST	COMMENTS
Water reticulation pipe renewal program	Maintain service levels and customer satisfaction	June 2018	\$98.5 million (\$19.7 million per year)	58 km renewed per year
Water distribution main renewal program	Reduce risk of major water supply interruptions disrupting traffic and damaging properties	June 2018	\$55.7 million (\$11.1 million per year on average)	3.7 km per year
House connection branch renewal program (the junction pipe between our pipes and property pipes)	Maintain service levels and customer satisfaction	June 2018	\$43 million (\$8.6 million per year)	2,000 replacements per year
Sewer renewal program (main, branch and reticulation)	Maintain service levels and customer satisfaction	June 2018	\$134.5 million (\$26.9 million per year)	62 km renewed per year on average

PROJECT/PROGRAM	DRIVER	DELIVERY DATE	2013/14 to 2017/18 WATER PLAN COST	COMMENTS
Sewer capacity upgrades	Increase sewerage capacity to comply with State environment protection policies	June 2018	\$109.1 million (\$21.8 million per year on average)	25 emergency relief structures made compliant with standards over the Water Plan 3 period and halving non-compliant uncontrolled spills from our sewerage system
Epping Branch Sewer Tunnel	Growth in new suburbs – connects northern suburbs to metropolitan sewerage system	June 2020	\$15 million	Project cost: \$62 million Length: 2 km
Amaroo Branch Sewer	Growth in new suburbs – connects northern suburbs to metropolitan sewerage system	June 2017	\$26.6 million	Length: 6.5 km
Lockerbie Branch Sewer	Growth in new suburbs – connects northern suburbs to metropolitan sewerage system	June 2018	\$21.0 million	Length: 9.2 km
Warrandyte North Sewerage Project (modern sewerage system for properties with septic tanks)	State environment protection policies and Government's Statement of Obligations	June 2014 (main sewerage system)	\$17.8 million	Project cost: \$19.3 million Sewerage services to 1,046 houses
Donvale Sewerage Project (modern sewerage system for properties with septic tanks)	State environment protection policies and Government's Statement of Obligations	June 2016 (main sewerage system)	\$18.9 million	Project cost: \$19.7 million Sewerage services to 1,222 houses

## APPENDIX 10

# MISCELLANEOUS PRODUCTS AND CHARGES

Our significant miscellaneous fees and charges for the Water Plan 3 period are shown below.

TARIFF AND PRICE COMPONENT	PROPOSED PRICE (1 JULY 2013)	PRICE INCREASE (1 JULY 2014)	PRICE INCREASE (1 JULY 2015)	PRICE INCREASE (1 JULY 2016)	PRICE INCREASE (1 JULY 2017)
<b>20mm Potable and Recycled Water Connection Fees</b>					
Supply 20 mm Drinking/ Recycled Water Meter	\$123.22	0%	0%	0%	0%
Install 20 mm Drinking/ Recycled Water Meter	\$27.61	0%	0%	0%	0%
20 mm New Estate Drinking Water Connection	\$185.29	0%	0%	0%	0%
20 mm New Estate Recycled Water Connection	\$263.47	0%	0%	0%	0%
Supply and install 20 mm Meter Assembly	\$68.12	0%	0%	0%	0%
Supply and install 20 mm Service Pipe (includes excavation) - per metre	\$73.96	0%	0%	0%	0%
<b>Fire Services</b>					
Unmetered fire service (without sprinkler system)	\$118.20	0%	0%	0%	0%
Unmetered fire sprinkler service fee	\$987.01	0%	0%	0%	0%
<b>Land development</b>					
Complete Servicing Advice 2 Lot Development Application	\$687.63	0%	0%	0%	0%
Complete Servicing Advice 3-19 Lot Development Application	\$902.12	0%	0%	0%	0%
Development Deed Application	\$2,016.03	0%	0%	0%	0%
<b>Other Products &amp; Services</b>					
Residential Sewer Connection Application	\$39.14	0%	0%	0%	0%
Information Statement	\$23.44	0%	0%	0%	0%
Property Sewerage Plan	\$22.01	0%	0%	0%	0%
100 mm Water Service Connection	\$1,846.37	0%	0%	0%	0%
Residential Sewer Connection Application	\$39.14	0%	0%	0%	0%
Sewer Depth and Offset Plan	\$39.81	0%	0%	0%	0%
Non-core miscellaneous services	Actual cost	Actual cost	Actual cost	Actual cost	Actual cost

---

[WWW.YVW.COM.AU](http://WWW.YVW.COM.AU) EMAIL: [ENQUIRY@YVW.COM.AU](mailto:ENQUIRY@YVW.COM.AU)

GENERAL ENQUIRIES: 13 1721 EMERGENCIES AND FAULTS: 13 2762 TRANSLATOR AND INTERPRETER SERVICE: 13 1450

 Printed on Australian-made recycled paper. Yarra Valley Water, Lucknow Street, Mitcham. Private Bag 1, Mitcham Victoria 3132

