

**Goulburn Valley Water – expenditure  
review for 2018 water price review**

Report for the Essential Services  
Commission – FINAL REPORT

February 2018

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# Executive Summary

The Essential Services Commission (ESC) is currently conducting a review of the proposed prices to be charged by Victoria's water businesses for the period 1 July 2018 to 30 June 2023. Deloitte has been engaged by the ESC to review the expenditure forecasts made by the metropolitan businesses and regional urban water businesses. In undertaking this review, Deloitte's key responsibilities are to:

- Assess the appropriateness of the expenditure forecasts in relation to the key objectives of the review
- Provide independent advice to the ESC regarding the appropriateness of the forecasts
- Where Deloitte's advice indicates that a proposed expenditure level is not appropriate, propose to the ESC a revised expenditure level.

## Operating expenditure (opex)

The key features of Goulburn Valley Water's opex forecast include:

- Baseline controllable opex in 2016-17 of \$41.76m, which is \$0.27m (0.6%) less than the 2013 forecast for 2016-17 (\$42.03m)
- A forecast average customer growth rate of 1.3% per annum
- A cost efficiency improvement rate of 3.1% per annum
- An 'efficiency dividend' of \$2.3m per annum, which Goulburn Valley Water has proposed as an offset to required revenue in the price model, to deliver the pricing outcome of CPI minus 2% p.a.
- Variations to baseline operating expenditure of \$21.72m in total across RP4.

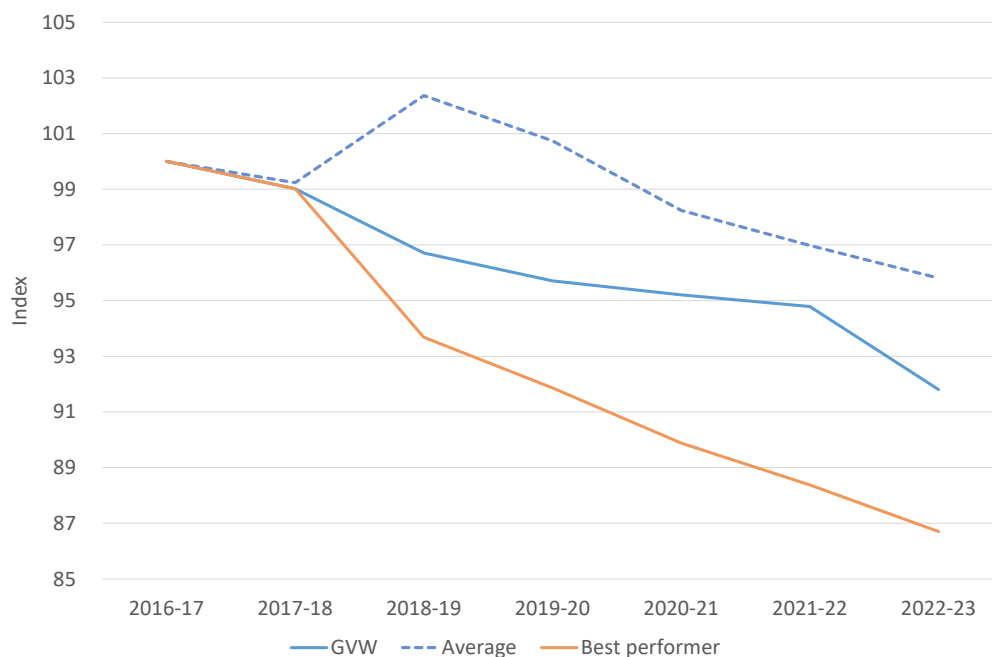
The net result of Goulburn Valley Water's cost efficiency improvement rate and proposed variations to the growth adjusted baseline is an average reduction in controllable opex per connection of 0.4% per annum – slightly less than the average of the regional urban businesses.

Goulburn Valley Water's 'efficiency dividend' of \$2.3m p.a. is used as an offset against the revenue requirement to achieve the price path of CPI minus 2% per annum. We understand that the efficiency dividend comprises:

- \$1.3m per annum to reflect efficiencies achieved in RP3, now handed back to customers to reduce prices
- An additional \$1.0m per annum to be delivered via as yet unidentified initiatives that may include innovative capital works solutions, financing savings, additional revenue opportunities, and operating efficiencies.

Taking into consideration the efficiency dividend, Goulburn Valley Water's pricing offer is equivalent to an average reduction in controllable opex per connection of 1.5% per annum – a greater reduction than the average of the regional urban businesses, as shown in the figure below.

Figure 1.1 Change in controllable opex per connection – index



We have recommended a reduction of **\$9.67m** to Goulburn Valley Water’s RP4 forecast controllable operating expenditure, relating mainly to proposed variations due to opex from new capex (\$4.86m), asset plans and consultancies (\$2.48m), and planning strategy and environmental consultancies (\$1.64m). The reasons for these recommendations are outlined in Chapter 3.

### Capital expenditure (capex)

Goulburn Valley Water proposed a total of \$145.0m in gross capital expenditure over RP4. This is marginally lower than the actual gross capex delivered over RP3 of \$145.9m compared to the approved expenditure for RP3 of \$163.7m (and revised budget of \$154.3m).

Key aspects of the RP4 capex programme include:

- Top 10 Major Projects total \$51.3m which accounts for around 35% of total proposed capital expenditure
- Goulburn Valley Water has forecast a significant budget for renewals with increases in sewer main renewals, and decreases in water main renewals.

We have not recommended any adjustments to Goulburn Valley Water’s proposed capex. Based on the projects and information reviewed, we consider that Goulburn Valley Water’s forecast capex is prudent and efficient. Our reasoning is outlined in Chapter 4.

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# 1 Introduction

## 1.1 Introduction

The Essential Services Commission (ESC) is currently conducting a review of the proposed prices to be charged by Victoria's water businesses for the period 1 July 2018 to 30 June 2023, referred to in this document as 'the next regulatory period' or fourth price submission period (RP4).

The businesses have submitted price submissions to the ESC for the RP4 period. The price submissions include forecasts of operating expenditure (opex), capital expenditure (capex) and demand, proposed service standards and prices.

## 1.2 PREMO framework

In RP4, the ESC is applying a new regulatory framework Performance, Risk, Engagement, Management and Outcomes (PREMO) for the first time. PREMO aims to put customer engagement at the centre of water corporation's proposals whereby service levels and expenditure must reflect outcomes that customers' value. The expectation is that water corporations engage early and then re-test proposals in pricing submissions.

PREMO also provides a range of incentives on a number of levels to encourage businesses to:

- Reveal their efficient costs (and knowledge of efficiency opportunities), by rewarding businesses for both setting and achieving ambitious targets
- Avoid making ambit expenditure claims, as higher financial rewards are available for more ambitious proposals
- Prepare submissions of a high standard, to open the door for a fast-tracked regulatory process (and receive recognition for having done so).

The PREMO model incentivises businesses to self-select appropriate targets for operating parameters that make up the building block calculation. The ESC incentivises and rewards businesses based on the relationship between the quality of the proposal and the return on equity – businesses have the flexibility to prepare their own combinations of service levels and expenditure, as long as these are fundamentally driven by delivering outcomes of value to customers.

The ESC's model also includes a fast-track process whereby the higher quality proposals are not subjected to a detailed review of expenditure (and other key items) but are instead fast-tracked to an early draft decision. In addition, of the businesses that were not fast-tracked, there is further differentiation between those businesses that only require a review on some elements of the proposal (e.g. specific items where expenditure is increasing) and those businesses that require a detailed review.

The expectations of water business proposals are further detailed in the ESC's guidance paper *2018 Water Price Review Guidance Paper November 2016* ('the Guidance Paper').

## 1.3 Scope of review

Deloitte has been engaged by the ESC to review the expenditure forecasts made by the metropolitan businesses and regional urban water businesses. In undertaking this review, Deloitte's key responsibilities are to:

- Assess the appropriateness of the expenditure forecasts in relation to the key objectives of the review
- Provide independent advice to the ESC regarding the appropriateness of the forecasts
- Where Deloitte's advice indicates that a proposed expenditure level is not appropriate, propose to the ESC a revised expenditure level.

In relation to opex we have been asked to provide advice on whether the businesses are fulfilling their obligations and meeting customer service expectations as cost efficiently as possible and that forecast divergences can be readily explained. Although we have not been asked to review pricing outcomes,

which may be influenced by a number of factors in addition to expenditure, we have had regard to the factors outlined in the ESC's guidance for the level of PREMO rating that has been proposed by each business. Benchmarking has been mainly undertaken on the basis of changes from the baseline expenditure identified by businesses as prudent and efficient.

In reviewing capex we have focussed on the major projects that comprise a significant proportion of the total capex.

## 1.4 Approach

### 1.4.1 Operating expenditure

Our approach to assessing opex for each business can be summarised as follows:

1. Determine an appropriate baseline year (2016-17) by examining the actual expenditure incurred by water businesses in 2016-17 and considering: 1) how it compares to the benchmark established by the ESC in the 2013 price review and 2) removing any abnormal items (that are not already accounted for)
2. Benchmark the overall opex package against peers, in particular opex changes from the baseline and opex per connection. This benchmarking has regard to the net effect of efficiency targets, growth rates and adjustments for new opex initiatives.
3. Identify any individual items that are resulting in an increase in forecast expenditure from the 2016-17 baseline and assess the prudence and efficiency of these items. Any proposed expenditure that is above the baseline needs to be fully explained and justified. The types of expenditure that could be considered reasonable in terms of being above the baseline include:
  - a. New obligations from regulators or government (such as changes to the Statement of Obligations, taxes, etc.)
  - b. Customer preferences – where customers are willing to pay more for improved outcomes
  - c. Significant increases in costs that are not able to be managed by the business.In assessing prudence and efficiency for each business, we have also benchmarked expenditure with other water businesses where possible.
4. Identify cuts consistent with prudent and efficient expenditure.

A more detailed explanation of our approach to opex is set out in section 3.

### 1.4.2 Capital expenditure

In forming a view as to whether expenditure meets the requirements in the WIRO, and consistent with advice in the ESC's Guidance Paper, we have had regard to the following questions:

1. Does proposed capital expenditure reflect obligations imposed by Government (including technical regulators) or customers' service expectations?
2. Are proposed new major capital works consistent with efficient long-term expenditure on infrastructure services?
3. Does the business have appropriate asset planning procedures?
4. Does the business have appropriate asset management systems in place?
5. Does the business have appropriate project management procedures in place to enable effective delivery of capital works?
6. Has a risk-based approach been adopted to develop the capital expenditure program? Is there clear evidence that projects are prioritised?
7. Are major projects consistent with long-term strategies and planning?
8. Is the timing for the proposed new capital expenditure reasonable?
9. Are individual project cost forecasts reasonable and do not include undue contingencies or provisions, and reflect current efficient rates for undertaking capital expenditure in the Victorian water sector?
10. Is the capex program deliverable in the timeframes proposed?

With respect to individual capex projects or programs, the ESC has requested that there be a focus on two items in particular – renewals expenditure and digital metering.



- **Renewals expenditure.** There are significant increases in renewals expenditure for some businesses (these businesses have also proposed a price rise). In some cases, this is linked to customer consultation, but for the most part this increase suggests that there are potential issues in asset management and planning. For these specific businesses, the focus of the expenditure review will be on decision making and decision-making tools.
- **Digital metering.** There are a number of proposals to roll out digital meters. Each proposal was reviewed in detail, particularly where businesses have proposed to undertake full rollouts. Each business case should have a sound basis and have undertaken adequate pilots or trials (e.g. non-residential or new developments first) to better understand costs and benefits.

In arriving recommendations for reductions in individual businesses capital programs we have had regard to the following:

- Comparison of overall historical capital expenditure with that proposed for RP4. Where proposed Capex exceeds historical projections, justification for these increases should be provided, namely in a requirement to meet new or expanded obligations or customer requests/engagement which has resulted in new service standards.
- Review of 4 of the Top 10 project business cases to provide an overview of the business case and project development process. It is expected that the business cases should also link to customer outcomes and service levels to justify the decision making process and selection of individual projects. Further, where individual projects are not able to demonstrate suitable business cases, reductions to those projects will be recommended.
- A review of particular capex programs where increases above historical expenditure is proposed. Where this isn't based on meeting new obligations, customer expectations, or rectifying declining performance of assets (evidenced by increased events such as spills, bursts, and leaks), renewals programs will be proposed to be reduced to historical levels. Further, benchmarking of renewals programs will be used to review underlying costs for these programs across the businesses.

### 1.5 Process for review

Our review of opex and capex has involved the following key steps.

- Initial planning and workshop with the ESC
- An initial review of price submissions, financial model templates and associated documentation
- Benchmarking of water business submissions in relation to overall opex and capex and individual expenditure items
- A further workshop with ESC staff to identify and discuss key issues for the focus of the review
- Preparation of queries/areas for discussion was provided to each water business prior to site visits
- Site visit was undertaken with Goulburn Valley Water on 11 December 2017, with the key objective to discuss queries and gather information as required
- Detailed review and analysis of supporting information provided
- A Draft Report was prepared and provided to Goulburn Valley Water for comment
- A Final Report (this report) provided to the ESC to inform the draft price determinations.

Through the process of the review, water businesses have been given a number of opportunities to provide information to support their expenditure proposals. This included:

- Subsequent to final pricing submissions, and prior to our site visits, we wrote to each business identifying additional supporting information required
- During our site visits, businesses had the opportunity to present and provide information
- Following our site visits, there was the opportunity to provide further information on expenditure
- All businesses were provided with draft versions of our reports and recommendations and provided with 10 business days to provide further supporting information.

### 1.6 Structure of this report

This report describes our approach and sets out our findings from the review of Goulburn Valley Water's Price submission. It is structured as follows:

- Chapter 2 briefly summarises Goulburn Valley Water’s Price submission with respect to expenditure forecasts and outlines key drivers of expenditure such as government obligations, service standards and demand forecasts
- Chapter 3 provides our analysis, conclusions and recommendations on key issues with respect to Goulburn Valley Water’s opex forecast
- Chapter 4 provides our analysis, conclusions and recommendations on key issues with respect to Goulburn Valley Water’s capex forecast.

Note that unless stated otherwise, all dollar figures shown in this report exclude the impact of inflation and are expressed in \$2017-18.

# 2 Summary of Goulburn Valley Water's forecast

This chapter provides a summary of Goulburn Valley Water's forecast expenditure including key underpinning assumptions such as efficiency, growth, service standards and demand.

## 2.1 PREMO rating

Goulburn Valley Water has rated its submission as 'Leading' under the ESC's PREMO framework.

## 2.2 Key drivers of expenditure

### 2.2.1 Community expectations and service standards

Goulburn Valley Water provides water services to 57,873 customers in 54 towns via 37 discreet water systems and provides sewerage services to 50,940 customers in 30 towns via 26 discreet wastewater systems.

Goulburn Valley Water consulted with its customers and communities via Water Cafés in each of its 54 towns to prepare its price submission and has proposed ongoing engagement to ensure activities and delivery of services are in line with the expectations and preferences of customers and communities.

The key outcomes proposed as a result of Goulburn Valley Water's customer engagement are under the areas of: prices; water quality and supply; customer service; and environment. Goulburn Valley Water has proposed real reductions in prices of 2% p.a. for RP4.

Goulburn Valley Water has proposed to maintain or improve service standards from their current levels, with the exception of 'average duration of water interruptions' (which have been increased from 100 to 120 minutes), where greater time has been allowed to ensure safety is not compromised. Improvements are proposed for the following measures:

- Unplanned interruption events per 100km of water main, improving from 18.7 to 18 over RP4
- Average minutes to attend Priority 2 leaks and bursts, improving from 51 to 35 minutes
- Average minutes to attend Priority 3 leaks and bursts, improving from 100 to 35 minutes
- Average unplanned customer minutes off water supply, improving from 13.6 to 13 minutes
- Customers experiencing five unplanned interruptions in a year, improving from 85 to 40
- Sewerage blockages – per 100km of sewer, improving from 23.6 to 15
- Average time to attend sewer blockages and spills – minutes, improving from 51 to 40
- Average time to rectify a sewer blockage – minutes, improving from 120 to 100
- Complaints to EWOV – per 1,000 customers, improving from 0.68 to 0.60.

### 2.2.2 Demand for services

Goulburn Valley Water has forecast an average customer growth rate of 1.3% over the next five years. Average customer growth over the last three years of RP3 (2014-15 to 2016-17) was 1.2%.

### 2.2.3 New obligations

Goulburn Valley Water has identified the following new obligations from the Government that require additional funding above the growth adjusted baseline for this regulatory period:

- Meeting the standards set by the Public Records Office of Victoria and Australia Standard ISO 15489
- Implementation of the new requirements of the Victoria Protective Data Security Framework (VPDSF) – additional security standards.

These items are addressed in section 3.5.7 below.

## 2.3 Operating expenditure

### 2.3.1 Overview

The key features of Goulburn Valley Water's opex forecast include:

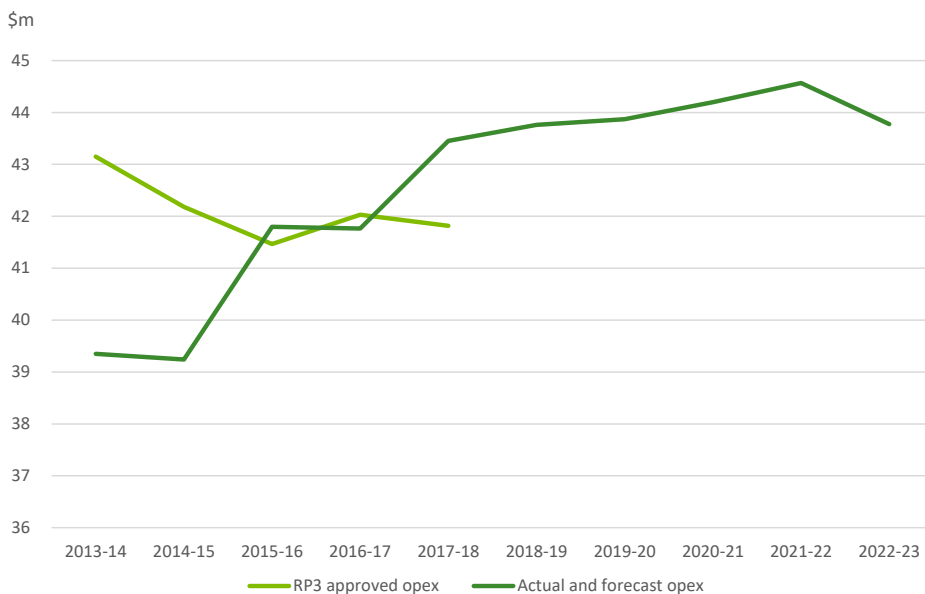
- Baseline controllable opex in 2016-17 of \$41.76m, which is \$0.27m (0.6%) less than the 2013 forecast for 2016-17 (\$42.03m)
- A forecast average customer growth rate of 1.3% per annum
- A cost efficiency improvement rate of 3.1% per annum
- An 'efficiency dividend' of \$2.3m per annum, which Goulburn Valley Water has proposed as an offset to required revenue in the price model, to deliver the pricing outcome of CPI minus 2% p.a.
- Variations to baseline operating expenditure of \$21.72m in total across RP4.

The net result of Goulburn Valley Water's cost efficiency improvement rate and proposed variations to the growth adjusted baseline is an average annual reduction in controllable opex per connection of 0.4%. Taking into consideration the efficiency dividend, Goulburn Valley Water's pricing offer is equivalent to an average reduction in controllable opex per connection of 1.5% per annum.

### 2.3.2 Controllable opex forecast

The chart below shows Goulburn Valley Water's total controllable opex across RP3 and RP4. Goulburn Valley Water's controllable opex was around 9% below the ESC benchmark for RP3 in 2013-14. Subsequently, controllable opex is expected to be higher than the RP3 benchmark for 2017-18, and to increase further for most of RP4.

Figure 2.1 Controllable opex – Goulburn Valley Water (\$2017-18)



## 2.4 Capital expenditure

### 2.4.1 Overview

Goulburn Valley Water proposed a total of \$145.0m in capital expenditure over RP4. This is marginally lower than the actual capex delivered over RP3 of \$145.9m compared to the approved expenditure for RP3 of \$163.7m (and revised budget of \$154.3m).

Key aspects of the RP4 capex programme include:

- Top 10 Major Projects total \$51.3m which accounts for around 35% of total proposed capital expenditure
- Goulburn Valley Water has forecast a significant budget for renewals with increases in sewer main renewals, and decreases in water main renewals.

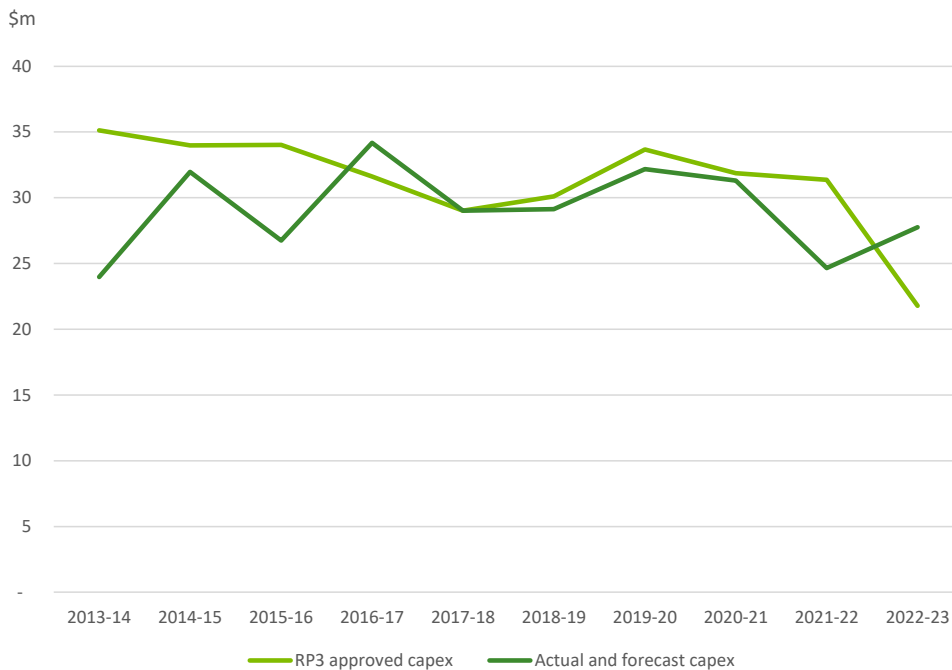
### 2.4.2 Capex forecast

Goulburn Valley Water’s actual and forecast water and sewerage capital expenditure is shown in Figure 2.2 below. Total net capital expenditure for RP3 was forecast to be \$163.7m compared with RP3 actual net expenditure of \$145.9m which represents a 12% decrease.

The key drivers of capital expenditure are renewals and growth, as demonstrated by the Nathalia Treated Water Pipeline and Broadford WTP Upgrades, both also included in the Top 10 projects. It is notable that GVW has also committed to a number of energy efficiency and renewable energy projects, accounting for 4% of the capex program.

Capex classified under Water services has decreased from RP3 \$96.08m to RP4 \$82.43m. Noting that expenditure classified under Sewerage has changed from \$49.83m to \$62.58m (26% increase). Goulburn Valley Water are not forecasting any expenditure on Recycled Water over RP4 (and did not have any Recycled Water expenditure in RP3).

Figure 2.2 Capex forecast – Goulburn Valley Water (\$2017-18)



# 3 Assessment of opex

This chapter assesses Goulburn Valley Water's forecast operating expenditure.

## 3.1 Overview

With respect to opex forecasts, the Guidance Paper outlines that a prudent and efficient operating expenditure forecast would have the following characteristics:

- Baseline year expenditure is reflective of efficient operating costs and is used as a basis to forecast expenditure
- Forecast operating expenditure incorporates expectations for a reasonable rate of improvement in cost efficiency
- Expenditure requirements above the baseline year (adjusted for growth and efficiency improvements) are fully explained and justified.

Under the approach adopted by the ESC, operating expenditure is disaggregated into four separate elements. The elements are:

- **Baseline expenditure** – operating expenditure incurred in 2016-17, adjusted upwards or downwards to reflect any specific factors that mean that expenditure 2016-17 is not representative.
- An adjustment for **customer growth** – the ESC generally considers that increases in operating expenditure in line with customer growth are reasonable. In our view this is a conservative assumption and arguably generous to the water businesses, as many costs of operating water and sewerage systems are fixed or would be expected to grow at a lower rate than customer growth.
- An **efficiency improvement factor** – reflecting general productivity improvements across the economy, water businesses are expected to achieve year-on-year productivity improvements. Businesses are free to propose their own individual improvements
- **Cost increases** – for example those arising from new obligations imposed by regulators or government, major increases in costs which it is not reasonable to expect the business to absorb or manage within the ebb and flow of expenditure from year to year, or new initiatives that customers seek and are willing to pay for.

Our task is primarily to review the baseline expenditure and the cost increases, and to consider these in the context of the net impact of all the above four factors. For example, we are more likely to consider an opex forecast to be reasonable for a business with a low efficiency improvement factor, but an intention to absorb additional expenditure items within its overall expenditure budget, rather than a business with a higher efficiency factor but cost increases for a large range of items not required by regulators or sought by customers.

The concept of baseline expenditure is that it is the level of expenditure necessary to provide a defined level of service. Implicit is the assumption that the actual activities undertaken by a business from year to year to deliver services will change and there will be a number of once-off areas of expenditure in any one year that are not required every year. For example, a business may prepare a sewerage strategy in one year, prepare a water supply demand strategy in another, and do a number of once-off repairs in another year. That is, there will be a number of minor inclusions and exclusions from year to year associated with the normal ebb and flow of work requirements and changes in the industry and wider business environment. Given this, and the additional allowance provided for customer growth, it is therefore not the case that businesses should simply be able to recover increases in all opex line items. An efficient business would be expected to absorb many of these increases within their baseline and growth allowance.

The box below provides a hypothetical and simplified example of the above. Data is only shown for a single year, but the same principle applies across all five years of the RP4 period. Under the example below, and all other things being equal, we would be more likely to recommend reductions to Business A's expenditure, despite it having a nominally higher efficiency factor.

	<b>Business A</b>	<b>Business B</b>
Customer growth (%)	2.0%	1.0%
Proposed efficiency factor (%)	3.0%	1.5%
Growth-efficiency factor (%)	-1.0%	-0.5%
Cost increases (\$m)	4	0.3

	<b>Business A (\$m)</b>	<b>Business B (\$m)</b>
2016-17 Expenditure	100.0	100.0
2016-17 Adjustments	1.0	-2.0
Baseline expenditure	<u>101.0</u>	<u>98.0</u>
Growth-efficiency adjustment	-1.0	-0.5
Growth adjusted expenditure	<u>100.0</u>	<u>97.5</u>
Cost increases	4.0	0.3
Proposed expenditure	<u>104.0</u>	<u>97.8</u>
Change compared to baseline	3.0	-0.2

The tools and approaches we have applied to consider each of the elements and the overall proposed opex package include:

- Benchmarking – of both the level of costs, and changes in costs, against historic and peer expenditure
- Comparing business forecasts to independent forecasts of changes in key expenditure items (for example labour, energy)
- Reflecting Government and regulator policies and requirements
- Considering information on current service levels, customer preferences and willingness to pay
- Reviewing material items of expenditure on a case-by-case basis.

Generally, we note that from an opex perspective, cost pressures on water businesses at this time are weak. Many cost increases that were anticipated at the commencement of RP3 largely did not eventuate. Increases to energy costs aside, inflation is currently weak, wages growth across the economy is at historically low levels, and there are few if any material changes in regulatory obligations that will increase costs. Only a small number of businesses have major capital works that will materially increase operating costs.

While we have examined the costs proposed by each business on its merits, we do hold the view that the current environment provides a strong opportunity for businesses to tightly control their costs and achieve (growth-adjusted) efficiencies. There are a range of systemic opex issues that are material for all businesses. Regardless of whether there are cost increases for these items, they have been reviewed for each business:

- **Labour costs.** Given labour costs are a significant component of opex, each businesses labour forecast has been reviewed, in particular how EBAs have been treated, Victorian Government wages policy, salary progressions, vacancy rates and other expectations from the government.
- **Energy costs.** Energy costs are expected to increase for all businesses particularly in the first year or two of RP4, however the magnitude of the increase is presently uncertain. Given this inherent uncertainty, our review provides indicative adjustments only. Final adjustments will be made by the ESC between its draft and final reports based on actual contract quotes.
- **Emission reduction programs.** Businesses have been asked by the Victorian government to reduce emissions from energy use via various means and most have proposed to do so. We have

reviewed these proposals and checked that reductions in energy use are accounted for (capex and opex must be aligned), appropriate feed in tariffs are used, and any Government funding support is reflected.

- **Savings in RP3.** A number of businesses appear to have made temporary savings in RP3, but have not maintained them through the end of RP3, and are not forecasting to maintain them for RP4. We have identified where this is the case.

### 3.2 Assessment of baseline expenditure

As outlined above, the first step in our approach to assessing baseline expenditure is to define efficient expenditure in the base year of 2016-17.

Goulburn Valley Water's actual total controllable opex was \$44.22m in 2016-17. Goulburn Valley Water has made a downward adjustment to its baseline of \$2.46m to remove amounts related to electricity, chemicals, maintenance, contractors and consultants, other supplier services and employee benefits. This results in a baseline opex of \$41.76m for 2016-17.

Goulburn Valley engaged a consultant (Inside Infrastructure) to assess its baseline operating expenditure and recommend any adjustments. In addition to the above adjustments, Inside Infrastructure also recommended that Goulburn Valley Water make adjustments for:

- Normally incurred items that did not occur in 2016-17 (increase baseline by \$0.1m)
- Fairer Water Bills savings commitments (reduce baseline by \$1.3m to \$2.2m).

In our view, the items identified by Goulburn Valley Water's consultants appear to be 'business as usual' activities, and the approach to determining the adjustments is not closely aligned to the ESC's guidance, which requires the baseline year to be adjusted by:

- Removing any one-off or non-recurring expenditure items incurred in that year, or adding any normally occurring items that did not occur in that year
- Removing any further ongoing cost savings or efficiency commitments that will be realised in the final year of RP3 (2017-18).

We also note that including savings committed to, but that will not be achieved, in the Fairer Water Bills initiative would appear to be inconsistent with the ESC's guidance, which refers to savings that will be realised.

Nevertheless, we note that Goulburn Valley Water's actual controllable opex for 2016-17 of \$44.22m is above the benchmark set by the ESC in its 2013 price review \$42.03m (\$2017-18). As such, we consider Goulburn Valley Water's 2016-17 adjusted baseline of \$41.76m, which is marginally below the benchmark, reflects an efficient baseline and therefore consider no further adjustment is necessary.

### 3.3 Implications of the efficiency dividend

In its price submission, Goulburn Valley Water proposed an 'efficiency dividend' of \$1.3m p.a. to be 'handed back' to customers as a result of Goulburn Valley Water exceeding its expected financial performance in RP3 via operating and capital initiatives focussed on efficiency.<sup>1</sup>

Subsequent to its submission to the ESC in September 2017, Goulburn Valley Water identified errors in the written submission and ESC financial template. These errors meant that the price path of CPI minus 2% p.a. for RP4 would not be achievable. Despite the errors, Goulburn Valley Water resolved to retain all proposed outcomes in the submission, including the price path of CPI minus 2% p.a. for RP4. To achieve this outcome, Goulburn Valley Water increased its efficiency dividend to \$2.3m p.a. for RP4. This \$1.0m p.a. increase in the efficiency dividend represents savings and efficiencies that are unknown at the time of submission but will need to be found by Goulburn Valley Water during RP4.<sup>2</sup> Goulburn Valley Water has advised that the initiatives making up the additional \$1.0m in the efficiency dividend are likely to include

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<sup>1</sup> Goulburn Valley Water 2018 – 2023 Price Submission, p.4

<sup>2</sup> Peter Quinn – Managing Director, Memo to Deloitte: Audit of Price Submission, 11 Dec 2017



innovative capital works solutions, financing savings, additional revenue opportunities and additional operating efficiencies.

The efficiency dividend was reflected by Goulburn Valley Water in the ESC pricing template as a non-prescribed revenue item, which is used to offset the revenue requirement and thereby reduces Goulburn Valley Water’s prices.

In our benchmarking analysis, we have reflected the efficiency dividend as an offset against Goulburn Valley Water’s proposed variations above baseline operating expenditure, as we consider this provides an appropriate representation of the overall pricing offer from Goulburn Valley Water.

### 3.4 Benchmarking opex to other water businesses

A key component of our methodology is to benchmark the opex outcomes of the water businesses. Figure 3.1 below compares the regional urban water businesses’ change in controllable opex per connection over RP4.

This chart shows that reductions in Goulburn Valley Water’s controllable opex per connection for RP4 (adjusted to take the efficiency dividend into account) are more than the average of the regional urban businesses.

Figure 3.1 Change in controllable opex per connection – index

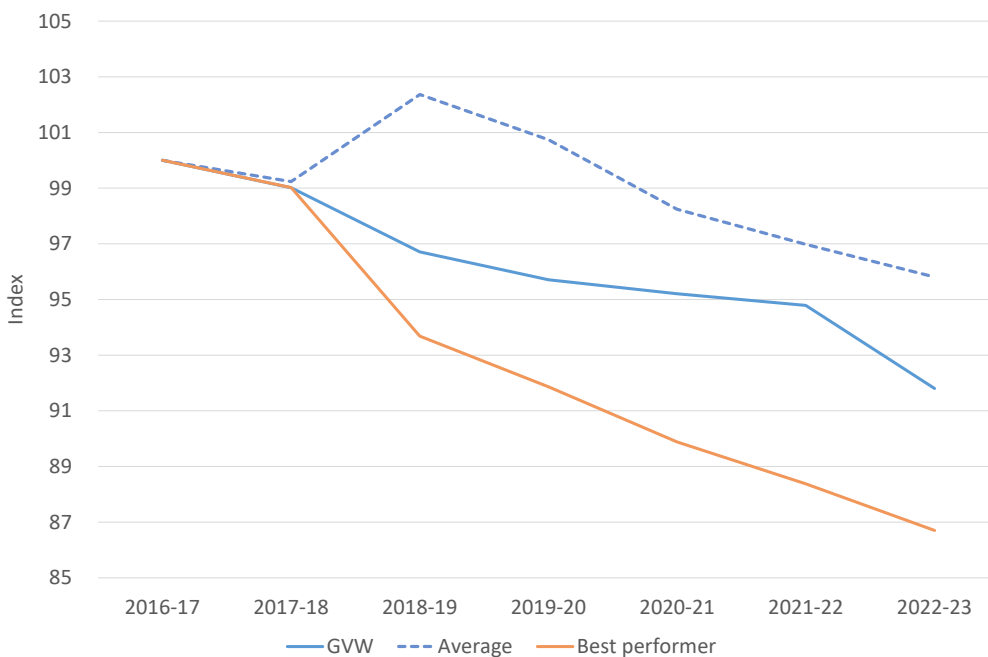


Table 3.1 below compares the water businesses on the basis of the annual effective efficiency rate achieved in RP4, taking into account both the efficiency target and the forecast variations to baseline. As shown in the table, Goulburn Valley Water has proposed the highest efficiency target (3.1%), and variations to baseline expenditure (\$21.72m in total over RP4). Taking the efficiency dividend of \$2.3m p.a. into account (i.e. treating it as an offset to forecast variations in baseline expenditure) results in a proposal equivalent to a reduction in controllable opex per connection of 1.5%, which is the fourth highest of the businesses.

Table 3.1 Comparison of controllable opex for RP4 for the Victorian water businesses

Water business	Efficiency target	Growth rate (% per annum)	Forecast variations to baseline	Reduction in controllable opex per connection
	(avg. % per annum)		(total RP4 \$m)	(avg. % per annum)
Westernport	2.7%	1.9%	0.00	2.6%
Yarra Valley	2.5%	1.7%	8.61	2.2%
South East	2.3%	2.3%	9.58	1.8%
Goulburn Valley	3.1%	1.3%	10.12	1.5%
Barwon	2.3%	1.6%	22.67	1.3%
Lower Murray – urban	1.0%	1.1%	0.26	1.2%
City West	2.0%	2.6%	20.66	1.1%
Coliban	1.5%	1.7%	8.55	1.0%
North East	1.2%	1.2%	6.24	0.9%
East Gippsland	1.2%	1.3%	1.91	0.9%
GWMWater – urban	1.5%	0.5%	8.73	0.8%
Central Highlands	1.6%	1.6%	12.71	0.6%
South Gippsland	1.5%	1.5%	7.03	0.0%
Gippsland	1.0%	1.2%	16.78	-0.2%
Wannon	1.0%	0.8%	25.41	-1.8%

Note: GVW forecast variations are adjusted for the \$2.3m p.a. efficiency dividend

### 3.5 Individual opex items

Goulburn Valley Water has identified \$21.72m of forecast variations to baseline expenditure in total for RP4. Key items to be reviewed as part of that increase include:

- Electricity (\$1.70m)
- Operating expenditure from new assets (\$6.27m)
- M&E Strategy, Asset Class Plans and Asset Performance Consultancies (\$4.44m)
- Operational resourcing strategy (\$2.58m)
- Digital business strategy (\$3.12m)
- Corporate service strategy (Safety, Water for Victoria, Customer Engagement) (\$1.72m)
- Planning, Strategy & Environment Consultancies (\$1.64m)
- Biosolids and alum sludge management (\$0.71m).

These items will be explored further in this section.

Goulburn Valley Water did not propose a stand-alone adjustment to labour costs in its Price Submission or ESC financial template. However, a number of the items listed above include a labour component. As such, we have provided a general commentary on Goulburn Valley Water’s labour costs but no recommendations for labour as a stand-alone item. Rather, the labour component of each item is considered as part of that item.

Goulburn Valley Water also included an adjustment for 'operating cost adjustments', but as the proposed variations for this item (both negative and positive) amount to a downward adjustment of \$0.47m, we have not reviewed this item.

Goulburn Valley Water engaged an independent consultant, Inside Infrastructure, to review the prudence and efficiency of its various programs and initiatives, and provide recommendations on the required additional opex to fund these items. In our view, some aspects of the approach taken by Goulburn Valley Water's consultants depart from the PREMO framework, particularly with regard to assessing the need for variations from the baseline. In particular:

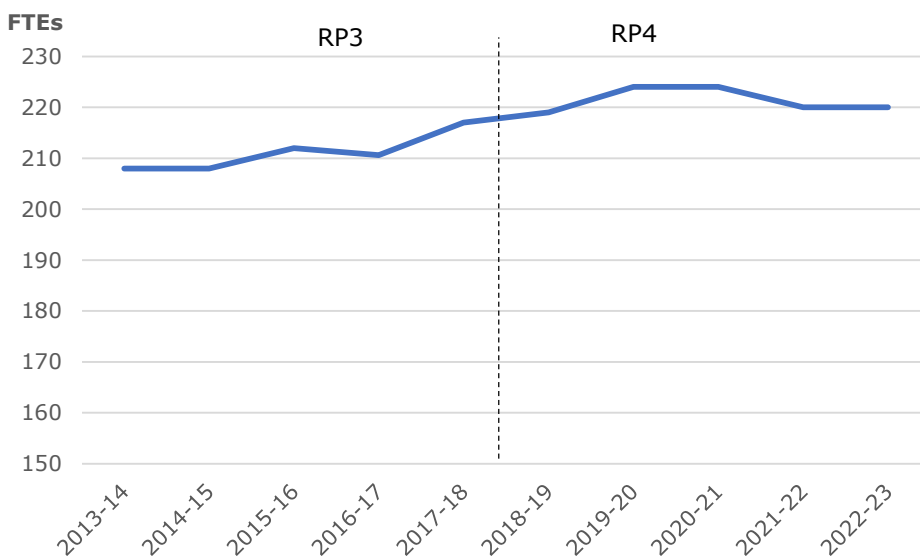
- Each project was investigated in terms of the efficiency of the individual costs making up the project (i.e. bottom-up assessment)
- Little consideration was given for the outcomes associated with the expenditure, or customer engagement demonstrating willingness to pay for the proposed outcomes (although we note that Goulburn Valley Water appears to have consulted widely with its customers, and proposed a range of improvements in service standards)
- No consideration was given to the growth adjusted baseline (i.e. future costs appear to have been compared only against a static figure for 2016-17 expenditure)
- By assessing each expenditure item in isolation, there was no consideration given to items of expenditure that might be decreasing from 2016-17 levels, and thus allowing Goulburn Valley Water to redirect expenditure into other projects and programs without the necessity to request increases above the growth-adjusted baseline. This is particularly apparent for labour expenditure, where the Goulburn Valley Water's consultants identified a number of additional labour costs relating to specific projects.

**3.5.1 Labour**

Goulburn Valley Water has not forecast any explicit variations to baseline operating expenditure as a result of labour cost increases. In our on-site consultation, Goulburn Valley Water noted that it is currently renegotiating its EBA, which is expected to result in a 3% p.a. increase in wages over 4 years, informed by Government policy. Goulburn Valley Water also noted that it expects to be able to achieve efficiencies to make up the gap between the EBA and CPI, resulting in no real increases in labour costs per FTE.

Goulburn Valley Water is also proposing an increase of 13 FTEs from 2016-17 to 2019-20, followed by a reduction of 4 FTEs in 2021-22 (net increase of 9 FTE from the baseline year). Figure 3.2 below illustrates the movement in FTEs proposed by Goulburn Valley Water.

Figure 3.2 Goulburn Valley Water's FTEs across RP3 and RP4



Goulburn Valley Water's labour assumptions in the ESC financial template show total labour costs per FTE declining from the base year of 2016-17, with a very small increase (\$0.58m) above the base year by 2022-23. However, a number of the various individual initiatives identified by Goulburn Valley Water do include an increase in labour costs, and as such, we have assessed Goulburn Valley Water's proposed increases in labour costs on the basis of these figures, not the ESC template. As shown in Table 3.2 below, the sum of Goulburn Valley Water's proposed variations attributable to labour across RP4 is \$5.90m.

Table 3.2 Labour component of Goulburn Valley Water's proposed variations above the baseline (\$m)

	2018-19	2019-20	2020-21	2021-22	2022-23	Total RP4
Opex from new capex	0.15	0.30	0.39	0.47	0.54	<b>1.84</b>
M&E strategy	0.11	0.11	0.11	0.11	0.11	<b>0.53</b>
Digital strategy	0.46	0.46	0.46	0.46	0.46	<b>2.30</b>
Operational resourcing strategy	0.14	0.22	0.29	0.29	0.29	<b>1.24</b>
<b>Total</b>	<b>0.86</b>	<b>1.08</b>	<b>1.24</b>	<b>1.32</b>	<b>1.39</b>	<b>5.90</b>

Source: Inside Infrastructure (2017), *Productivity Hurdle Report*

The table below summarises proposed labour cost variations from the baseline across all of the businesses. Goulburn Valley Water is proposing the third highest variation due to labour, when considered as a proportion of total controllable opex.

Table 3.3 Proposed variations to baseline expenditure due to labour

Water business	Forecast variations to baseline opex (total RP4 \$m)	Total controllable opex (total RP4 \$m)	Labour variations as a % of total controllable opex
Wannon	11.85	201.8	5.9%
Gippsland	10.59	364.2	2.9%
Goulburn Valley	5.90	220.2	2.7%
North East	3.62	196.6	1.8%
Barwon	7.90	453.3	1.7%
GWMWater	2.85	161.1	1.8%
Central Highlands	3.80	266.0	1.4%
East Gippsland	0.32	90.4	0.4%
South Gippsland	0.12	95.8	0.1%
City West	-	534.7	0.0%
South East	-	622.6	0.0%
Yarra Valley	-	674.4	0.0%
Coliban	-	301.3	0.0%

<b>Water business</b>	<b>Forecast variations to baseline opex (total RP4 \$m)</b>	<b>Total controllable opex (total RP4 \$m)</b>	<b>Labour variations as a % of total controllable opex</b>
Westernport	-	66.5	0.0%
Lower Murray – urban	-0.37	103.2	-0.4%

As outlined above, proposed expenditure should only be added to the baseline where the water business can demonstrate that it is required (e.g. new obligation, customer preference or cost that cannot be managed). All Victorian water businesses are owned by the State Government and are subject to the same wages policy, which is overseen by DELWP and DTF. We would therefore expect to see a similar application of this wages policy across all water businesses.

We note that for most if not all water businesses, wage increases established under current EBAs (which are typically in the range of 2.5% to 3.25%) are well above inflation, and are also higher than average growth in wages across the economy. While commentators (including Deloitte Access Economics' own forecasts) expect wages growth to slowly increase over time, most businesses' forecasts of wages growth are higher than those projected for the broader economy for the next few years.

We accept that water businesses are legally obliged to comply with wage increases set out in EBAs. At the same time, our view is that passing through to customer prices wage increases which, it appears, will for several years be well above wage increases in the broader economy, is unlikely to be prudent and efficient. We also consider that pass through of these costs to customers would be inconsistent with the PREMO framework, which requires businesses to demonstrate that they have actively sought to reprioritise expenditure to mitigate the cost and price impacts of any new obligations. There are a range of factors that we consider could mitigate EBA increases, for example:

- EBAs don't necessarily cover all staff in the business
- Businesses have options for delivering services that can reduce the cost impact of EBAs, such as contracting or outsourcing
- We understand that EBAs often have provisions that require increases above inflation to be accompanied by improvements in productivity.

We also note that most businesses have effectively 'absorbed' their above-CPI wage increases within their overall opex forecasts through productivity increases or other cost reductions, meaning that these increases are not passed on to customers. We believe this is a prudent and efficient approach and accordingly we have generally recommended reductions in opex forecasts for those businesses that have proposed wage-driven variations above their growth-adjusted baseline.

Taking into account an adjustment for growth, we consider that Goulburn Valley Water should be able to largely manage its additional labour costs within its baseline expenditure, without the need for a variation. However, a number of the various programs and strategies do include a labour component. This would appear to be a result of the approach taken by Goulburn Valley Water and its consultants in identifying forecast variations to opex for each initiative in isolation, rather than taking a whole of business view and recognising offsetting efficiencies being achieved elsewhere in the business, or opportunities to reallocate resources between programs and activities. Commentary and recommendations on the additional labour costs proposed for the various initiatives and strategies is provided in the relevant sections below.

### **3.5.2 Electricity**

Goulburn Valley Water has forecast electricity expenditure to increase by a total of \$1.70m in RP4 compared to the growth adjusted baseline. This adjustment is approximately 0.8% of total controllable opex over RP4. We note that energy costs make up a relatively high proportion of Goulburn Valley Water's controllable opex when compared to other Victorian water businesses. The table below presents a comparison of Goulburn Valley Water's forecast energy variations relative to the baseline to the other water businesses over RP4.

Table 3.4 Proposed variations to baseline expenditure due to electricity

<b>Water business</b>	<b>Energy costs as a % of 2016-17 controllable opex (\$m)</b>	<b>Forecast variations to baseline opex (total RP4 \$m)</b>	<b>Total controllable opex (total RP4 \$m)</b>	<b>Energy variations as a % of total controllable opex</b>
Wannon	7.6%	5.1	201.8	2.5%
Central Highlands	7.4%	5.5	266.0	2.1%
Coliban	6.6%	5.5	301.3	1.8%
Gippsland	4.7%	6.2	364.2	1.7%
Lower Murray – urban	8.3%	1.6	103.2	1.6%
Barwon	4.7%	5.0	453.3	1.1%
Goulburn Valley	9.6%	1.7	220.2	0.8%
North East	10.1%	1.3	196.6	0.7%
City West	1.5%	3.0	534.7	0.6%
GWMWater	7.9%	0.8	161.1	0.5%
South Gippsland	4.5%	0.2	95.8	0.2%
East Gippsland	5.1%	0.1	90.4	0.1%
South East	3.3%	-	622.6	0.0%
Yarra Valley	4.0%	-	674.4	0.0%
Westernport	4.2%	-	66.5	0.0%

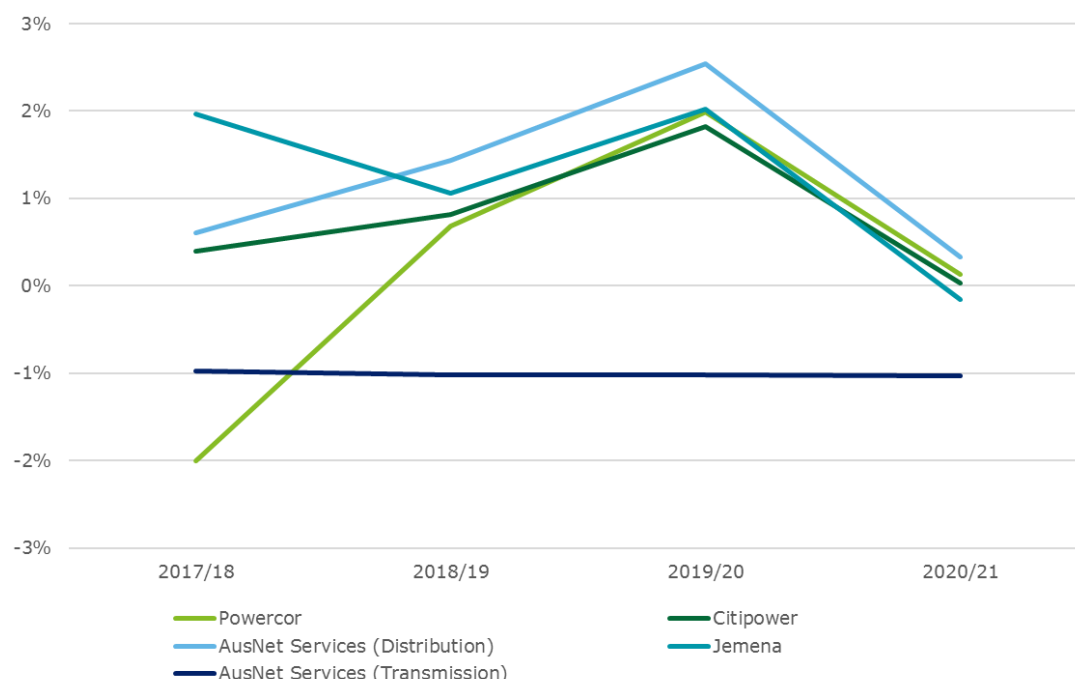
Key aspects of Goulburn Valley Water’s energy cost forecasts are as follows:

- Goulburn Valley Water’s current electricity contract specifies retail prices for large and small sites. This contract expires at the end of 2017-18.
- Goulburn Valley Water has forecast electricity prices for large sites (which contribute approximately 75% of electricity expenditure in 2016-17) based on the VicWater’s Supply Chain Excellence Program 5-Year Electricity Price Forecast Report June 2017 which provides retail electricity price forecasts for the Victorian Water Corporations. This report estimated a significant increase in retail electricity prices in 2017, followed by relatively flat prices in real terms under the base case scenario, and real decreases under two policy change scenarios including the introduction of an emissions intensity scheme or similar policy. Goulburn Valley used the emissions intensity scheme policy scenario. For small sites (which accounted for the remaining 25% of expenditure in 2016-17), it assumes prices remain constant at 2016-17 levels throughout RP4.
- Goulburn Valley Water estimated electricity consumption using 2015-16 values adjusted for forecast growth in water consumption.
- Goulburn Valley Water has proposed a number of capital projects to reduce electricity consumption and greenhouse gas emissions. These include the installation of small scale solar PV at a large number of sites (approximately \$4.2m of capital expenditure) and a large number of energy efficiency projects (approximately \$1.6m of capital expenditure). These are part of its strategy to meet its obligations to reduce greenhouse gas emissions by 19% by 2025.

Retail electricity prices in Victoria have risen significantly over the last year, driven largely by increases in wholesale electricity prices. There is considerable uncertainty around how prices will change over RP4 due to a range of factors, including policy uncertainty, fuel prices including coal and natural gas, and the potential entry and exit of generation capacity. This makes it difficult to accurately forecast electricity prices for the purposes of the price submission.

In Victoria, transmission network services are provided by AusNet Services, and distribution network services are provided by one of the five distribution network service providers (DNSPs) (AusNet Services, CitiPower, Powercor, Jemena and United Energy) in different parts of the State. Network prices are determined by the Australian Energy Regulator (AER). The AER made final decisions on revenue allowances for the five DNSPs in May 2016 for the 2016-20 period<sup>3</sup>, and made a final decision for AusNet Services (transmission) in April 2017 for the 2017-22 period. The annual change in smoothed revenue allowances for each of the network businesses is presented in Figure 3.3 below.

Figure 3.3 Annual change in expected revenue (smoothed, real \$2017/18)



Source: Deloitte analysis of AER decisions

Overall, the revenue allowances for the network business are relatively flat, with small real increases for most of the DNSPs, and a small real decrease for AusNet Services Transmission. Goulburn Valley is located across the Powercor and AusNet Services distribution networks. Powercor has small real revenue increases from 2018-19 onwards (less than 1% average), while AusNet Services Distribution has small real price increases in each year (averaging slightly above 1%). The change in prices for certain customer types may differ from this overall trend, however this does not provide strong evidence of real price increases in the network component of prices. Prices may also follow a slightly different trajectory to account for over or under recovery of revenue in previous years, however this should not have a material impact over the course of a regulatory period.

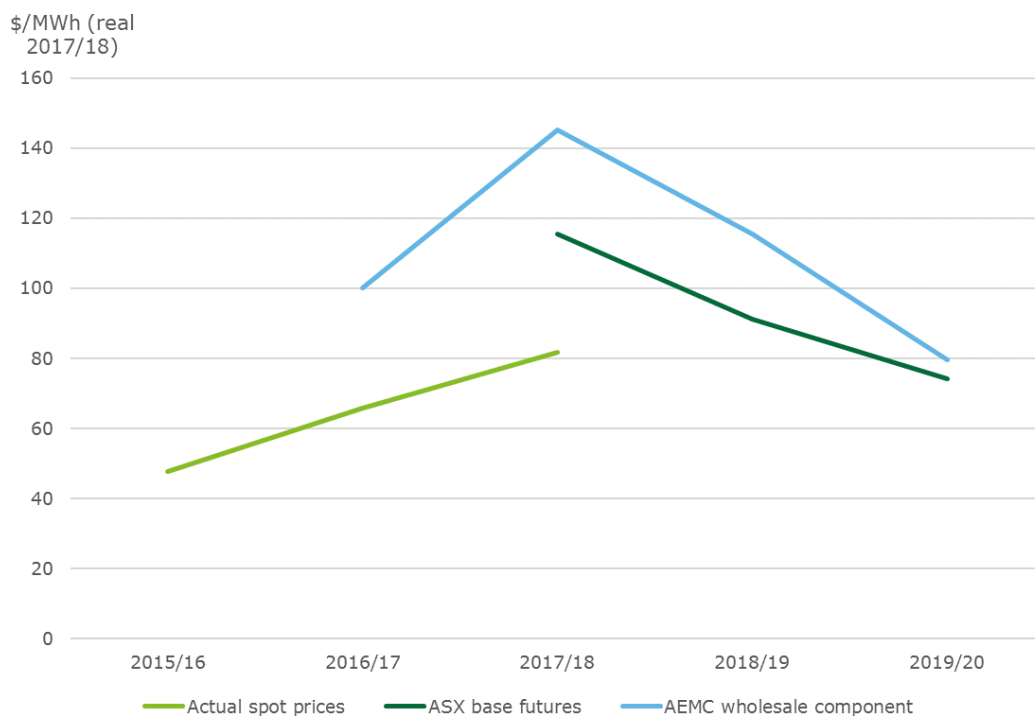
Wholesale prices are harder to forecast accurately, with a wide range of forecasts produced by different bodies over the past year. In December 2017, the Australian Energy Market Commission (AEMC) published a wholesale electricity price forecast (including spot prices, hedging, ancillary services and market fees) in its annual report on residential electricity price trends, based on analysis prepared by Frontier Economics.<sup>4</sup> The AEMC forecasts wholesale prices to peak in 2017-18 before decreasing and falling below the real 2016-17 price by 2019-20. This forecast movement in wholesale electricity prices is broadly in line with the price of Victorian ASX base energy futures, which are approximately \$115/MWh

<sup>3</sup> The AER made a mathematical error in the inflation calculation in these decisions. It has proposed to revoke the decisions and substitute new determinations correcting the error by March 1 2018. We don't expect this to have a material impact on electricity prices.

<sup>4</sup> AEMC, 18 December 2017, *Final Report 2017 Residential Electricity Price Trends*

for the remainder of 2017/18, decreasing to \$74/MWh by 2019-20. These values are presented in Figure 3.4, along with actual average spot prices up to 31 December 2018.

Figure 3.4 Wholesale electricity prices and electricity futures in Victoria



Source: Deloitte analysis of: AEMO data collected through NEOExpress, AEMC 2017 Residential Electricity Price Trends data, and ASX energy futures data accessed 17/01/2018

However, some publically available reports provide quite different outlooks from the AEMC report. A September 2017 report prepared for the Australian Energy Market Operator (AEMO) by Jacobs forecast wholesale market prices to continue to increase to a peak in 2019-20, with retail prices following a similar trajectory.<sup>5</sup> The divergence of views on wholesale costs reflects the overall uncertainty in the market, as well as quickly changing market conditions and expectations. In our analysis, we have placed more weight on the AEMC outlook as this is the more recent analysis.

In reviewing Goulburn Valley Water’s proposal, we have considered the evidence provided by Goulburn Valley Water and recent forecasts of network and wholesale price movements. We consider that Goulburn Valley Water’s proposed electricity price increases for 2018-19 and 2019-20 reflect relatively modest increases above 2016-17 prices which are reasonable, and our preliminary recommendation is that these be approved, subject to updated contract offers before the final decision. However, we do not consider there is strong evidence to support a continued price increase beyond 2019-20 that could not be managed efficiently, noting the investment proposed by Goulburn Valley Water for emissions reductions projects and the forecast savings for those projects already factored into the proposed variation. Therefore, we recommend that no net variation be approved for 2020-21 onwards. This results in a reduction of \$0.70m in total in RP4 from Goulburn Valley Water’s proposal.

We note that the ESC intends to make a decision on allowable energy cost increases using updated contract offers post the finalisation of our reports. Therefore, our recommendations are indicative only.

<sup>5</sup> Jacobs, 21 September 2017, *Retail electricity price history and projected trends*



### **3.5.3 M&E Strategy, Asset Class Plans and Asset Performance Consultancies**

Goulburn Valley Water proposed an additional \$4.44m in opex above the baseline for RP4 (total) for its M&E Strategy, Asset Class Plans and Asset Performance Consultancies.

The costs of this item relate to two separate Goulburn Valley Water Strategies:

- Mechanical and electrical (M&E) preventive maintenance program – the key components of which are 0.75 additional FTEs and an electrical switchboard replacement program (\$1.96m in total for RP4)
- Asset Class Plans and Asset Performance Consultancies (\$2.48m for RP4).

Goulburn Valley Water has not identified any regulatory obligations, or improved service levels related to this expenditure. Nor has Goulburn Valley Water identified any cost reductions or efficiencies that are expected to be achieved due to the program. For example, we would expect a preventative maintenance program to have some impact on reactive maintenance. The supporting documentation provided by Goulburn Valley Water indicated that all of the prioritised initiatives under the Electrical and SCADA Asset Management Review (where these two strategies originate from) were expected to result in cost reductions, however it is not clear that these have been considered in the detailed bottom-up cost assessments undertaken by Goulburn Valley Water's consultants.

We note that the introduction of a preventative maintenance program appears to be a significant change in operating practices, and has been introduced in response to two water quality incidents. Based on the information provided by Goulburn Valley Water, we consider that there is some evidence that the preventative maintenance program will require additional expenditure above the growth adjusted baseline, given the significant change in maintenance practices, and is directed towards addressing a performance issue that occurred in RP3 concerning water quality.

A large number of detailed maintenance activities are included under the Asset Class Plans and Asset Performance Consultancies initiative. The analysis undertaken by Goulburn Valley Water's consultants includes a detailed, bottom-up costing of all the various activities required under the program. The activities include items such as asset inspections, condition assessments, the development of operating plans, manuals and guidelines, investigations, additional maintenance activities, and associated resources. While we do not dispute the need to undertake these activities as part of a prudent asset management program, we do not consider that the information provided by Goulburn Valley Water meets the requirements of the Guidance Paper to justify variations in expenditure above the growth adjusted baseline to undertake these activities.

Therefore, we recommend a downward adjustment to the expenditure allowance above the baseline \$2.48m in total for RP4 to remove the proposed variation for the Asset Class Plans and Asset Performance Consultancies. This adjustment is outlined in Table 3.5.

### **3.5.4 Operating expenditure from new assets**

Goulburn Valley Water has proposed an additional \$6.27m in opex above the baseline for RP4 for operating expenditure arising from new assets. Goulburn Valley Water provided a spreadsheet with a list of projects, their drivers and a brief description for each project that will incur new operating expenditure.

Goulburn Valley Water has noted that the variation in expenditure has been developed using the same methodology that was accepted for Water Plan 3, and that it does not consider that there has been a change in how extra opex associated with new capex is handled. Goulburn Valley Water's consultants, Inside Infrastructure, reviewed the expenditure and recommended a downward adjustment of \$0.41m in 2021-22 (nominal \$), but likewise, noted that the approach used by Goulburn Valley Water to estimate new opex from capex "has general acceptance by regulators, and attempts to provide an allowance for the upkeep of new assets."<sup>6</sup> Goulburn Valley Water has also noted that it is required to make lumpy capital investments such as upgrading treatment plants which have high operating costs (electricity, chemicals and labour).

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<sup>6</sup> Inside Infrastructure (2017), *Productivity Hurdle Report Stage 2*, September, p.11

In our view, the approach used to identifying additional expenditure from new assets is not consistent with the ESC's new PREMO framework. While we note that the approach used by Goulburn Valley Water was previously accepted by the ESC in the 2013 review (and recommended to be accepted by Deloitte in its review of Goulburn Valley Water's expenditure), the process for the previous review was a detailed, bottom-up assessment of the prudence and efficiency of Goulburn Valley Water's entire expenditure program. Under the ESC's new framework, expenditure must meet one of the following categories to be accepted as a variation from baseline expenditure:

- New obligations from regulators or government
- Improved outcomes, supported by customer willingness to pay for those outcomes
- Increases in costs that are not able to be managed within a growth-adjusted baseline.

In general, we do not consider that the information provided by Goulburn Valley Water meets these criteria. In our view, the approach taken by Goulburn Valley Water is reflective of a bottom-up approach to identifying opex requirements, and is not consistent with the incentive-based approach under PREMO, particularly for a leading submission. We also note that other regional water businesses face similar changes in expenditure but the majority have not sought a variation to baseline expenditure. We therefore consider that the majority (if not all) of these costs should be able to be managed within a growth-adjusted baseline. We also note that we have considered electricity cost increases separately, Goulburn Valley Water's template shows a reduction in chemicals costs from the baseline year, and we have not recommended any overarching reductions to labour costs (despite Goulburn Valley Water proposing one of the largest increases due to labour).

We recommend removal of the following opex allowances from Goulburn Valley, on the basis that we consider that these activities should be able to be funded under a growth-adjusted baseline within the normal ebb and flow of opex:

- Any opex from capex explicitly identified by Goulburn Valley Water as being driven by growth
- Opex from capex identified by Goulburn Valley Water as being related to improving or maintaining water supply security
- Opex from minor improvement works (capital) at Goulburn Valley Water sites. For example, minor building upgrade works.

We note that Goulburn Valley Water will face some lumpy capital expenditure investments, and that in some cases the operating costs may be greater than can be accommodated within a growth-adjusted baseline. We also note that Goulburn Valley Water has proposed a number of improvements in service levels (as set out in section 2.2.1 above). Therefore, where Goulburn Valley Water has identified improvement / compliance as the main driver, and the project description appears to explicitly relate to a particular compliance or performance issue, we have not recommended an adjustment.

The resulting adjustments amount to a reduction in operating expenditure of \$4.86m in total across RP4. This adjustment is outlined in Table 3.5.

### **3.5.5 Biosolids and alum sludge management**

Goulburn Valley Water proposed an additional \$0.71m in opex above the baseline for RP4 (total) for its biosolids and alum sludge management strategy.

Goulburn Valley Water's biosolids and sludge management strategy details the program of activities for Goulburn Valley Water to sustainably manage its responsibilities in accordance with the Environmental Protection Agency (EPA) regulations. In particular, the strategy is designed to enable Goulburn Valley Water to deliver a net reduction in stockpiles, consistent with advice from its consultants.

According to the Goulburn Valley Water's consultants, GVW has a history of under-performing in management of this activity, which has led to sludge inventories increasing and the incorrect practice of stockpiling of alum sludge. The consultants also noted that "if the current management practices continue

then this presents an ongoing risk to Goulburn Valley Water with increasing lagoon inventory, increasing stockpiles and potentially noncompliant disposal of alum sludge”.<sup>7</sup>

While we note that a well-managed biosolids and sludge management strategy should not generally require additional expenditure above a growth-adjusted baseline, we note the views of Goulburn Valley Water and its independent consultants that an increase in expenditure from historical levels is required to comply with EPA regulations. Combined with the fact that the proposed additional expenditure is relatively minor, we have not recommended any adjustments to the proposed expenditure.

### **3.5.6 Digital business strategy**

Goulburn Valley Water proposed an additional \$3.12m in opex above the baseline for RP4 (total) for its digital business strategy. The strategy outlines a number of digital business goals and initiatives over 2018-19 to 2022-23, encompassing both:

- Digital ways of working, in order to optimise efficiency and effectiveness of the workforce to further enhance service delivery to all stakeholders
- The digital aspects of the customer experience: transforming channels to match customer behaviours and preferences (e.g. online service portals).

Customer support for additional spending on the digital business strategy appears limited:

- 34% of respondents to the external stakeholder engagement exercise were in favour of improving online services
- One of the findings of the consultants engaged to undertake external stakeholder engagement was “The implication from the findings is that digitisation of services should be made cost neutral to customers.”<sup>8</sup>

A number of efficiencies were identified in the documentation provided by Goulburn Valley Water, in particular, that the cost of service delivery should be reduced.<sup>9</sup> A number of efficiencies were accounted for in the proposed figures recommended by Inside Infrastructure. However, we note that the proposed costs that were reviewed by Inside Infrastructure (\$5.32m in total for RP4, prepared in September 2017), were significantly higher than the figures in the Digital Business Strategy (\$3.12m in total for RP4, finalised in July 2017).

Based on the above, we consider that there is limited justification to include additional operating expenditure above the baseline for delivery of the Digital Business Strategy. However, we also note:

- Comments from Goulburn Valley Water’s consultants that the existing information services team appears to be stretched in delivering the current business as usual program, and therefore some additional expenditure allowance for additional FTEs to deliver the Digital Strategy appears reasonable
- Reasonably significant reductions in opex due to channel management were identified by Goulburn Valley Water’s consultants
- Some of the opex relates to transition to the cloud, and as such is likely to be offset by reductions in capex.

On the basis of the above, we do not recommend any adjustments to Goulburn Valley Water’s proposed opex for this program.

### **3.5.7 Other strategies**

Goulburn Valley Water has proposed a number of additional variations to its baseline operating expenditure related to various business strategies, including:

- Operational Resourcing Strategy (\$2.58m total for RP4)
- Corporate Service Strategy (Safety, Water for Victoria, Customer Engagement) (\$1.72m)

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<sup>7</sup> Inside Infrastructure (2017), *Productivity Hurdle Report Stage 2*, September, p.17

<sup>8</sup> Goulburn Valley Water (2017), *Digital Business Strategy*, July, p.23

<sup>9</sup> Goulburn Valley Water (2017), *Digital Business Strategy*, July, p.8

- Planning, Strategy & Environment Consultancies (\$1.64m).

Together, these programs amount to a combined \$5.94m in total for RP4.

In relation to the operational resourcing strategy, while we are concerned that no improvements in outcomes have been identified as driving this strategy, and the strategy itself notes that the team is meeting its KPIs, the strategy also recognises a number of resourcing constraints, including:

- Growth in the team over RP3 not matching growth in operational responsibilities
- Drawing on resources from other groups to assist in service delivery
- Lack of skills in data analytics and project management.

In relation to the Corporate Service Strategy, Goulburn Valley Water provided a range of data on safety performance at the business, and appears to have a robust strategy for identifying gaps in performance concerning safety of the workforce. Other drivers include:

- Meeting the standards set by the Public Records Office of Victoria and Australia Standard ISO 15489.
- Implementation of the new requirements of the Victoria Protective Data Security Framework (VPDSF) – additional security standards.

We also note that an increased level of customer engagement is being undertaken by Goulburn Valley Water under this strategy.

The proposed budget for Planning, Strategy & Environmental Consultancies represents a near doubling of expenditure on the same program from RP3. The activities under this program include non-revenue water strategy, water pressure review, WTP master plans, Waste Management Facility master plans, water and sewer network modelling, plus 'other areas' for which no detail was available. In our view, these appear to be business as usual activities that should be able to be managed within the normal ebb and flow of expenditure. We also note that no other businesses have proposed similar variations from baseline expenditure.

On the basis of the above, we recommend the removal of the variation to baseline opex due to the Planning, Strategy and Environmental Consultancies (\$1.64m). This adjustment is outlined in Table 3.5.

### 3.6 Recommended changes to forecast opex

This table below summarises the changes to opex above baseline expenditure. We have recommended a reduction of \$9.67m to Goulburn Valley Water's RP4 forecast controllable operating expenditure.

Table 3.5 Goulburn Valley Water forecast controllable operating expenditure and recommended adjustments

Operating expenditure item	Actual		Price submission forecast				Total
	Baseline 2016-17	2018-19	2019-20	2020-21	2021-22	2022-23	RP4
Proposed controllable operating expenditure (\$m)	41.76	43.76	43.87	44.20	44.57	43.77	220.17
<b>Recommended adjustments</b>							
Electricity		0.00	0.00	-0.39	-0.31	0.00	-0.70
Asset Class Plans and Asset Performance Consultancies		-0.54	-0.55	-0.46	-0.48	-0.46	-2.48
Opex from new capex		-0.29	-0.75	-1.04	-1.32	-1.46	-4.86
Planning, Strategy & Environment Consultancies		-0.36	-0.28	-0.29	-0.44	-0.27	-1.64
<b>Total recommended adjustments</b>		<b>-1.19</b>	<b>-1.57</b>	<b>-2.17</b>	<b>-2.54</b>	<b>-2.20</b>	<b>-9.67</b>

Operating expenditure item	Actual		Price submission forecast				Total
	Baseline 2016-17	2018-19	2019-20	2020-21	2021-22	2022-23	RP4
<b>Recommended operating expenditure</b>		<b>42.57</b>	<b>42.30</b>	<b>42.03</b>	<b>42.03</b>	<b>41.58</b>	<b>210.50</b>

Notes: Controllable operating expenditure excludes licence fees, environmental contribution and bulk water costs.

# 4 Assessment of capex

This chapter of the report sets out our assessment of Goulburn Valley Water's capital expenditure proposal for RP4 including:

- An overall assessment of capital planning and asset management approach
- A summary of major projects with a significant impact on the capital expenditure proposal and assessment of each project
- A summary of our recommendations.

## 4.1 Our approach to the assessment of capex

Our overall approach to assessing capex is briefly set out in Section 1.4.2 while this section provides some specific detail on the requirements of the ESC Guidance Paper. In relation to capital expenditure, the Guidance Paper includes the following instructions to businesses:

- Avoid including speculative capital expenditure. That is, where projects are not fully scoped, costed or internally approved (for example, though an approved business case) businesses should consider including only development costs, development costs with a notional allowance for construction, or not at all (relying instead on adjustments for uncertain and unforeseen events)
- Include only capital expenditure that that would be incurred by a prudent service provider acting efficiently to achieve the lowest cost of delivering service outcomes, taking into account a long-term planning horizon (**prudent and efficient forecast capital expenditure**). Prudent and efficient capital expenditure has the following characteristics:
  - is based on a P50 cost estimate
  - has an optimised contingency allowance
  - for renewals, is based on a reasonable rate of improvement in cost efficiency
  - has the risk of project delays and cost overruns managed through contractual arrangements
- Identify expenditure by major service category and by cost driver – renewals, growth and improvements/compliance – including current and forecast expenditure
- Identify expenditure by either major projects (top 10), capital programs (ongoing work) or other capital expenditure (smaller projects or programs)
- Provide supporting information for projects / programs including:
  - Project name, scope, and major service and asset category
  - Justification for project including cost driver
  - Start and completion dates (for projects)
  - Total capital cost itemising government and customer contributions by each year
  - Historical annual costs and explanations for increases / decreases in average annual expenditure (for programs)
  - Objectives of project as aligned with customer outcomes
  - Business case outlining options considered and approach to identifying optimal solution
  - Risk assessment approach
  - Incentive / penalty arrangements (for projects)
  - Tendering arrangement (for projects)
  - List of projects included in program for next regulatory period with business cases and options analyses (for programs)
- Justify the total forecast capital expenditure with reference to the characteristics of prudent expenditure identified above, taking into account forecast demand, benchmarking, and the substitution possibilities between capital expenditure and operating expenditure.

We have applied these specific requirements to our assessment approach to each businesses' forecast capital expenditure.

## 4.2 Overall assessment of capital planning and asset management

Goulburn Valley Water proposed a total of \$144.9m for the capex over RP4. This is consistent with the actual capex delivered over RP3. Goulburn Valley Water has demonstrated that it is capable of delivering capital works program on a scale of \$150m over five years.

Goulburn Valley Water had six projects classified as major projects by the ESC for RP3. As of December 2016, two of the six projects were completed on time with one project being delayed. The remaining three projects were deferred.

Goulburn Valley Water has adopted P40 cost estimates for major projects and a 10% reduction of project cost on the minor projects. We consider this demonstrates a commitment to achieve efficient delivery of the capital works program.

## 4.3 Major projects

The following table provides an overview of the top ten projects and top three programs (by capex), showing the primary driver and forecast expenditure over RP4. Note that not all projects and programs are reviewed. Goulburn Valley provided supporting documentation for Bradford WTP, Climate Change Mitigation Strategy, Digital Enablement Strategy, Nathalia Pipeline and the water and sewer renewal program. These projects / programs were reviewed.

Table 4.1 Goulburn Valley Water forecast capex

Capex item	Primary Driver	Price submission forecast expenditure (\$m)						
		2018-19	2019-20	2020-21	2021-22	2022-23	Total RP4	% of total
Broadford WTP Upgrade	Growth	0.23	3.40	3.77	-	-	7.40	5%
Shepparton Raw Water Pump Station Augmentation	Growth	0.15	0.15	2.45	3.13	-	5.88	4%
Climate Change Mitigation Strategy	Improvement	0.85	0.70	0.93	1.65	1.63	5.76	4%
Digital Enablement Strategy	Improvement	0.50	1.04	1.40	1.44	1.35	5.72	4%
Nathalia Treated Water Pipeline	Renewal	-	-	0.20	0.45	4.55	5.20	4%
Shepparton WMF HRAL Cover Replacement	Renewal	0.80	2.00	2.33	-	-	5.13	4%
Kilmore WMF Offsets	Growth	1.41	1.44	0.90	0.55	-	4.30	3%
Shepparton Outfall Rising Main Replacement	Renewal	2.16	2.08	-	-	-	4.24	3%
Replacement of Abbinga Reservoir	Improvement	-	-	-	3.00	0.99	3.99	3%
Seymour SPS01 Rising Main Replacement	Renewal	-	1.00	2.70	-	-	3.70	3%
<b>Subtotal - Top 10 Projects</b>		<b>6.10</b>	<b>11.81</b>	<b>14.68</b>	<b>10.22</b>	<b>8.52</b>	<b>51.32</b>	
Corporate Asset Acquisitions	Renewal	2.61	2.61	2.61	2.61	2.61	13.05	9%
Water Main Renewals	Renewal	2.25	2.25	2.25	2.48	2.70	11.93	8%
Sewer Main Renewals	Renewal	1.73	1.82	1.91	2.10	2.47	10.04	7%

Capex item	Primary Driver	Price submission forecast expenditure (\$m)						
		2018-19	2019-20	2020-21	2021-22	2022-23	Total RP4	% of total
<b>Subtotal - Top 3 Programs</b>		<b>6.59</b>	<b>6.68</b>	<b>6.77</b>	<b>7.19</b>	<b>7.78</b>	<b>35.02</b>	
<b>Total</b>		<b>12.69</b>	<b>18.49</b>	<b>21.45</b>	<b>17.41</b>	<b>16.30</b>	<b>86.34</b>	

#### 4.4 Renewals expenditure

##### 4.4.1 Description of project

Goulburn Valley Water proposed a total budget of \$11.93m for water main renewal for RP4 which is a 12% reduction compared to RP3 expenditure \$13.62m. Goulburn Valley Water proposed a total budget of \$10.04m for sewer main renewal for RP4 which is an 18% increase compared to the RP3 expenditure of \$8.53.

The renewal budgets were developed using the PARMS software that was developed by CSIRO and WSAA. Some supporting documentation was provided for our review, however some details and supporting information were not included, for example the scope of the proposed renewal (e.g. total length of proposed renewal) was not available.

##### 4.4.2 Analysis

Water main renewal is prioritised based on typical criteria such as age, material, previous failures, etc. The scope of water network renewals appears to be based on pre-determined budget allocation, indicating that other factors determined the renewal budget and that it was not purely based on the need to replace the asset to maintain the service level.

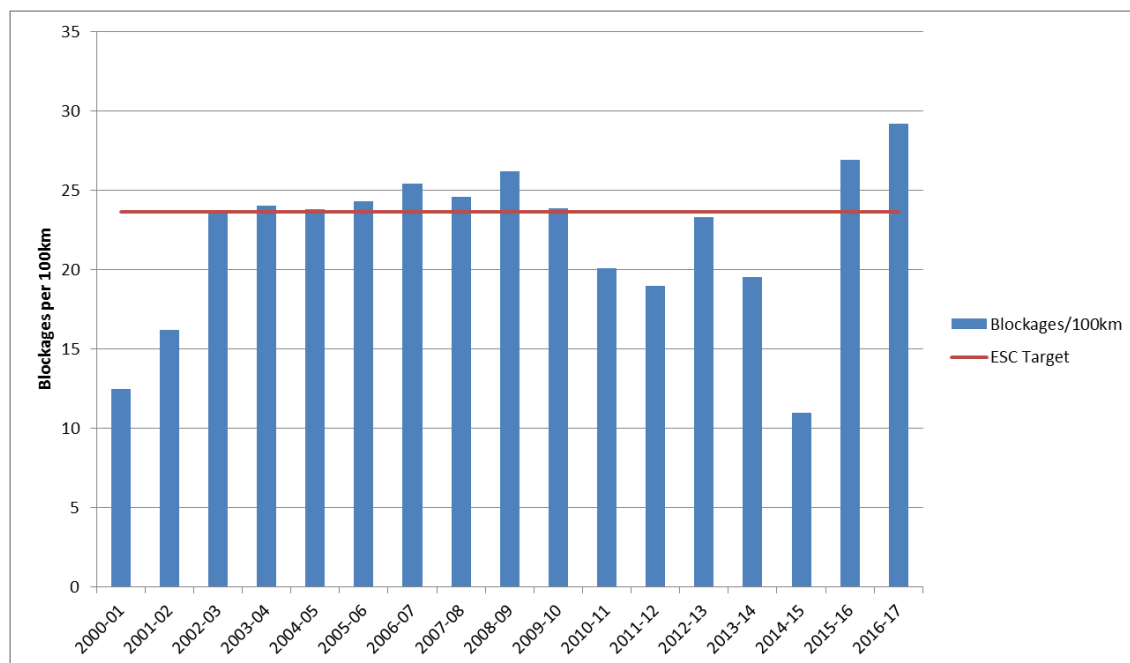
Sewer main renewal is prioritised based on traditional criteria CCTV inspection classification, age, material, previous failures, etc. The sewer main renewal program is also based on condition assessments (this is not a feature of the water main renewal program, but note that it is inherently easier to inspect gravity sewer with CCTV). Goulburn Valley Water currently inspects 2.5% of the sewer network per year.

The water and sewer mains that meet the renewal criteria are prioritised based on Goulburn Valley Water's risk criteria. However, the pre-determined renewal budget limits the scope of water and sewer main renewal that can be implemented each year. Hence, it appears that the renewal program was not based only on the need to renew assets that exceed the renewal criteria. For example, the information provided indicates that there are pipe sections that met the criteria for renewal but were delayed due to budget constraints. The supporting documents for water main renewal are relatively limited. The renewal program makes no reference to customer priorities.

Goulburn Valley Water proposed a 12% reduction for water main renewal as there was no increase in the rate of burst and leaks. An 18% increase is proposed by Goulburn Valley Water for sewer main renewal with data showing an increase in blockages over the last two years, exceeding the KPI level. Figure 4.1 shows the Goulburn Valley Water recorded sewer blockage data.



Figure 4.1 Goulburn Valley Water Recorded Sewer Blockage Data



Going forward, we note that Goulburn Valley Water has proposed to essentially maintain the current level of service in relation to unplanned water main interruptions, and significantly improve sewer blockages per 100km of sewer (from 23.6 to 15).

#### 4.4.3 Recommendation

We recommend no changes to the proposed expenditure allowance for the mains renewal programs, on the basis that the level of expenditure appears reasonable, with the proposed changes in line with performance data and proposed changes in service standards. However, we also recommend that Goulburn Valley Water improve the documentation of the development of the water and sewer main renewal program to provide an auditable trail.

### 4.5 Bradford WTP Upgrade

#### 4.5.1 Description of project

The proposed upgrade of the Bradford WTP is to optimise and increase the output of the existing Bradford filters to meet demand. A pre-treatment clarifier is proposed to improve the treatment process and achieve the target output of 9ML/d.

Other Works included as part of this stage are:

- Permanent pump for 3ML/d transfer from No 3 to Sunday Creek
- Additional outlet pipe and low lift pump station from No 3 Reservoir to the Bradford WTP and power supply upgrade
- Second Bradford CWS tank
- Additional sludge handling – Geotube bags, bund and pipework to existing supernatant return system
- Trim chlorination on CWS Tank.

Goulburn Valley Water supplied the Bradford Kilmore Water Supply Master Plan for review. A total of three stages of work are proposed for the Bradford Kilmore system (Chapter 6 Upgrade Works and Implementation). The proposed upgrade is documented as Stage 1: Bradford WTP Pre-treatment upgrades.

#### 4.5.2 Analysis

The proposed Bradford WTP upgrade is an interim capacity upgrade that will increase the production capacity to 9ML/d which is expected to supply Bradford and Kilmore (after the pipeline connection is constructed) to 2040 depending on actual demand growth.

The overall Broadford-Kilmore water supply strategy appears to be comprehensive. The proposed upgrade to Broadford WTP is necessary to meet future demand.

#### **4.5.3 Recommendation**

Based on the information reviewed, no change is recommended to the proposed budget for the Broadford WTP Upgrade.

### **4.6 Shepparton Raw Water Pump Station Augmentation**

#### **4.6.1 Description of project**

Goulburn Valley Water proposed a budget of \$5.88m for the augmentation of the Shepparton WTP Raw Water Pump Station. This is part of a series of augmentations planned for the Shepparton WTP to achieve a treatment capacity of 95ML/d as part of its long-term planning (to 2036).

The Shepparton WTP currently depends on a single raw water off-take and pump station. However it lacks redundancy. One of the performance objectives for the Shepparton WTP includes managing contingencies within the system, and addressing the raw water pump station security.

A risk assessment conducted by Options Workshop using Goulburn Valley Water's Risk Assessment Matrix found that the current assets have an overall risk level of level A (Board responsibility)/level 1. In the event of tree damage to raw water off-take or structural failure of the wet well (likelihood of 1 in 25-75 years) the consequence could result in loss of service (>500 services) for 24+ hours and also have a financial consequence >\$1m.

Currently, the Shepparton WTP is able to meet the current demand of 75 ML/d but with limited redundancy. Demand cannot be met if a poor water quality event coincides with a peak day due to the poor and uncertain performance of Plant 1 and 2. From the current capacity of the plant, Goulburn Valley Water determined that to meet future demands more capacity from existing (upgraded) or new assets would be required.

#### **4.6.2 Analysis**

Various options to improve capacity and achieve the long-term forecast peak day demand capacity of 95 ML/d were taken into consideration. The assessment identified Option C as the preferred option due to having a lower NPC and greater flexibility in the longer term – Option C works include using the existing raw water off-take and pump station and constructing a new raw water off-take and pump station.

We consider that the options assessment report was well presented with adequate justification and reasoning for selecting the preferred option.

#### **4.6.3 Recommendation**

Based on the information provided by Goulburn Valley Water, we do not recommend any changes to the proposed capex for the Shepparton Raw Water Pump Station Augmentation.

### **4.7 Climate Change Mitigation Strategy**

#### **4.7.1 Description of project**

In response to the Water Minister's request that all Victorian water corporations pledge to a carbon neutral pathway and set a quantitative emissions reduction target for 2025, Goulburn Valley Water has developed a Climate Change Mitigation Strategy to clearly define measures and milestones to meet the Minister's expectations.

The Climate Change Mitigation Strategy consists of four main tranches of projects over the course of the 2018-23 pricing period:

- Renewables Program: Approximately 2.3 megawatts (MW) of corporation-owned behind-the-meter solar photovoltaic assets to displace operational energy usage.
- Energy Performance Program: A capital program of energy efficiency projects with predefined payback and specific outcomes with dedicated funding.
- Business Capability: A group of initiatives to assist the Corporation to more accurately measure carbon emissions, avoid investment in inefficient assets and support existing programs to reduce energy wastage on unrequited production.

- Carbon Farming: Leveraging Goulburn Valley Water’s extensive agriculture and silviculture enterprises to cost effectively generate carbon offsets.

Over the 2018-23 pricing period, these projects represent approximately \$5.7m in capex with a net impact on the recurrent expenditure of approximately -\$1.8m. Some marginally related expenditure has been included in other budgets (as set out in the Goulburn Valley Water Climate Change Mitigation Strategy).

#### **4.7.2 Analysis**

The Climate Change Mitigation Strategy presented a comprehensive program of works to achieve a carbon reduction target of 6,698 tCO<sub>2</sub>-e by 2022-23. The overall target is planned to be achieved by a combination of solar panel installation, improving energy efficiency, improvement in measurement of carbon emissions and carbon farming.

The program appears to be comprehensive and well balanced. It is able to respond to changes if market conditions or if one of the programs becomes more efficient to achieve carbon reduction. Goulburn Valley Water’s customer survey reported a preference for a 30% reduction in emissions. The proposed program will achieve a target of 19% reduction by 2025.

We consider that Goulburn Valley Water’s approach is broadly in line with the Government’s expectations and customer preferences, and also that the substantial savings are projected to be achieved from the strategy.

#### **4.7.3 Recommendation**

We have recommended no changes to the expenditure forecast for the program.

### **4.8 Digital Business Strategy**

#### **4.8.1 Description of project**

As noted in section 3.5.6 above, Goulburn Valley Water has proposed \$3.12m in opex above the baseline for RP4 (total) for its digital business strategy. In addition, the Digital Business Strategy includes \$5.72m in capex for RP4.

#### **4.8.2 Analysis and recommendation**

As noted above, we have some concerns about customer support for the program and the additional opex proposed. However, we also note that the project is likely to lead to a range of efficiencies, and therefore we propose no change to the capex proposed for the Digital Business Strategy.

### **4.9 Nathalia Treated Water Pipeline**

#### **4.9.1 Description of project**

Goulburn Valley Water provided the Nathalia Water Supply Pipeline Project Justification Report, documented the two options evaluated and identified the preferred option. The Nathalia Pipeline Capital Cost Estimating Review Report validated the cost estimate provided by Goulburn Valley Water.

Goulburn Valley Water proposes to construct a 25.6km pipeline between Numurkah to Nathalia. Additional water supply capacity is required to meet the demand growth of Nathalia. The construction of the pipeline is scheduled for 2022-23 and 2023-24. Hence only part of the total cost of the proposed pipeline is allocated to RP4. A budget of \$650,000 is allocated for relocating a filter from Numurkah WTP to Nathalia WTP as an interim option to improve production capacity until the pipeline is required.

#### **4.9.2 Analysis**

The options considered include an upgrade to the existing Nathalia WTP or a pipeline connecting Numurkah WTP and Nathalia WTP. The option assessment concluded that the Nathalia Treated Water Pipeline is the preferred option to service the growth.

The supporting document appears to be comprehensive. However, the pipeline appears to be slightly undersized for the design flow rate and pipeline length required based on the limited information available.

### 4.9.3 Recommendation

We have recommended no changes to the proposed budget for the Nathalia Treated Water Pipeline for RP4.

### 4.10 Summary of recommendations

We have not recommended any adjustments to Goulburn Valley Water’s proposed capex. Based on the projects and information reviewed, we consider that Goulburn Valley Water’s forecast capex is prudent and efficient. The proposed capex is similar to that delivered in RP3.

Table 4.2 Goulburn Valley Water forecast capex

Capex item		Price submission forecast (\$m)					
		2018-19	2019-20	2020-21	2021-22	2022-23	Total RP4
Water Main Renewals	Proposed	2.25	2.25	2.25	2.48	2.70	11.93
	Recommended	2.25	2.25	2.25	2.48	2.70	11.93
	Net change	0.00	0.00	0.00	0.00	0.00	0.00
Sewer Main Renewals	Proposed	1.73	1.82	1.91	2.10	2.47	10.04
	Recommended	1.73	1.82	1.91	2.10	2.47	10.04
	Net change	0.00	0.00	0.00	0.00	0.00	0.00
Broadford WTP Upgrade	Proposed	0.23	3.40	3.77	0.00	0.00	7.40
	Recommended	0.23	3.40	3.77	0.00	0.00	7.40
	Net change	0.00	0.00	0.00	0.00	0.00	0.00
Climate Change Mitigation Strategy	Proposed	0.85	0.70	0.93	1.65	1.63	5.76
	Recommended	0.85	0.70	0.93	1.65	1.63	5.76
	Net change	0.00	0.00	0.00	0.00	0.00	0.00
Digital Enablement Strategy	Proposed	0.50	1.04	1.40	1.44	1.35	5.72
	Recommended	0.50	1.04	1.40	1.44	1.35	5.72
	Net change	0.00	0.00	0.00	0.00	0.00	0.00
Nathalia Treated Water Pipeline	Proposed	-	-	0.20	0.45	4.55	5.20
	Recommended	-	-	0.20	0.45	4.55	5.20
	Net change	0.00	0.00	0.00	0.00	0.00	0.00
Total proposed (Reviewed)		5.56	9.21	10.46	8.12	12.70	46.05
<b>Recommended capex (Reviewed)</b>		5.56	9.21	10.46	8.12	12.70	46.05
<b>Recommended adjustments from proposed (Reviewed)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

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