

Price Submission 2023-28

30 September 2022



CENTRAL
HIGHLANDS
WATER

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1.0 Executive summary

Key points:

Looking back on PR18 (2018-23)

- PREMO rating Advanced
- Strong performance against ambitious Outcomes with increasing customer perceptions of value for money and satisfaction
- Price increases maintained at or below CPI
- COVID-19 pandemic impacted all parts of the business including expenditure profiles and cost escalations
- Operating expenditure 6% above benchmark on a per connection basis
- Capital expenditure of \$158 million 8% above PR18 allowance (\$ 2023)

Looking forward to PR23 (2023-28)

- Accelerated and sustained population growth is driving capital investment program of \$256 million (increase of 62% over the current program spend)
- Increased capital investment also heavily influenced by response to climate change, asset renewals and improvement to services
- Outcomes streamlined to 3 key themes: Customer Care, Equity, Sustainability
- Risk appropriately balanced in highly uncertain environment
- Price path = CPI year 1 then CPI +1.0% for years 2 to 5
- New Customer Contributions to be raised from the existing \$1,504 per lot to a maximum of \$4,000 (for both water and wastewater) and to be phased in
- Support for vulnerable customers doubled to \$2.5 million over 5 years
- Guaranteed Service Level (GSL) customer rebates to increase
- PREMO rating self-assessed to be Standard

Central Highlands Region Water Corporation (CHW) is a Victorian State Government-owned corporation that provides urban water, wastewater (sewerage), trade waste and recycled water services to approximately 161,000 residents and businesses across the Central Highlands region of western Victoria¹. Managing 15 discrete water supply systems and 13 wastewater systems, the main communities serviced are Ballarat, Maryborough and Daylesford, with these 3 communities accounting for approximately 95% of all serviced connections.

CHW and the sector more broadly has operated in a relatively stable environment for the past 10 to 15 years. This changed with the onset of the COVID-19 pandemic in early 2020

¹ Refer to the Appendix in sections 22.1 and 22.2 for details of our service area

which impacted every aspect of operations in some way and continues to add a degree of uncertainty to future operations.

Nevertheless, CHW has delivered on the majority of our PR18 Outcome commitments which were noted by the Essential Services Commission (ESC) to be one of the most ambitious target sets across the state. Independent research indicates that customers have clearly recognised increased value for money and increases across all customer satisfaction measures. This was a key objective of the ESC’s new PREMO framework. During the period CHW worked with our customers to refine delivery targets, demonstrating a strong ongoing commitment to meaningful customer engagement.

This commitment continued into the development of this Price Submission, with an intensive customer and stakeholder engagement program conducted from November 2021 to August 2022. CHW undertook a multi-dimensional approach aimed at ensuring representative customer views were obtained in a COVID-constrained operating environment. For the first time, CHW decided to utilise a Deliberative Assembly customer panel, which enabled deep discussion and consideration of trade-offs in the development of customer priorities and pricing pathway. This was essential, as for the first time in many years, there was the potential for price rises beyond CPI increases, given the emerging and sustained pressures on the business.

There were 3 key stages to the engagement, with each stage building on the previous, both in the data collected and intensity of engagement. Three key themes emerged through the engagement which have been established as the Outcomes: Customer Care, Equity and Sustainability.

Accelerated population growth due to a range of contributing factors is the central theme around which this submission is prepared and is the main driver of expenditure growth in the 2023-28 period. The graph below highlights the impact this has had on a previously stable and largely predictable business model.

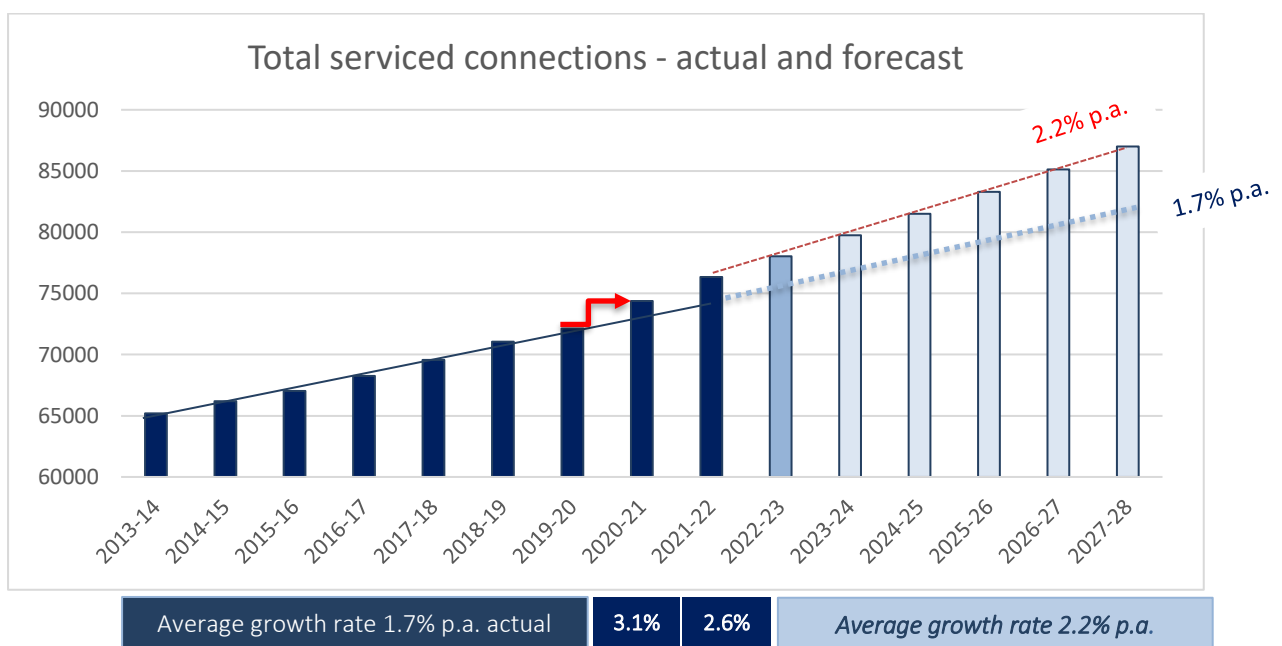


Figure 1.1 Actual and forecast growth in total serviced connections

The graph shows that there was consistent and reliable growth in connected services from 2014 to 2020, averaging 1.7% p.a. growth. However, in 2020-21, a sudden increase in growth above trend (shown by the red arrow) was experienced, with consecutive years of 3.1% p.a. and 2.6% p.a. connection growth.

While this growth surge was driven primarily by response to the pandemic causing an unprecedented population exodus from metropolitan Melbourne, CHW's detailed analysis reveals underlying and sustained forces for increased connection growth rates above the long-term trend. While we expect the growth rate to moderate from the previous 2 years, we do not expect it to return to the lower growth levels previously experienced.

Five key growth zones have been identified around Ballarat for development over the next 20 years to ensure Ballarat maintains 15 years of serviceable lots to meet forecast demand, while there is currently estimated to be only 7 to 9 years of supply. These zones contain approximately 30,000 lots, which is more than 50% of the existing Ballarat connection base. Local and state planning authorities confirm that the provision of further land supply is a significant issue.

CHW has adopted a connection growth rate of 2.2% p.a. across the region which is below the recent 2-year average of 2.9% p.a. experienced but nearly 30% above the historical trend of 1.7% p.a. The result is that CHW expects to service an additional 2,500 properties over and above what would have normally been planned for during this next regulatory period. This anticipated growth and the release and activation of multiple growth frontiers is the main driver of a proposed capital expenditure program of \$256 million which is an increase of 62% on the current period's estimated spend of \$158 million (2023 dollar values).

The impact of the COVID-19 pandemic from March 2020 had a major impact on CHW, the broader water sector and of course, our ability to maintain efficient service delivery.

Controllable operating expenditure exceeded the PR18 benchmark allowance as we have not been able to fully offset cost pressures encountered during the period. This included a significant increase in compliance costs (e.g. safety, cyber security, environmental), accommodating the acceleration in regional growth, IT cloud migration, supply chain challenges, several incidents of flood/storm damage, and costs associated with managing the direct impact of severe and unprecedented COVID-19 public health restrictions on the business.

A small number of major capital expenditure projects were delayed due to a combination of factors including mandated lockdowns during the pandemic period. This restricted movement of goods and services between metropolitan and regional Victoria also resulted in widespread interruptions and delays to local, regional and global supply chains. Dynamic reprioritisation of the program enabled other important projects to be delivered in place of the delayed projects. Supply chain challenges also resulted in capital project cost escalations above CPI which will continue into the next period.

Operational cost pressures noted above have driven an increase in the cost base. Given the experience of the last 4 years and continuing uncertain environment, CHW has adopted a cost efficiency rate of 1.0% p.a. which is lower than the 1.6% p.a. adopted in the current PR18 (2018-23) period. This will result in operating expenditure increasing at 1.2% p.a. over the 5-year forecast period.

CHW has sought to appropriately balance risk through a range of mechanisms including price controls, pass through mechanisms and ultimately taking on more risk through a material increase in debt over the period. Fortunately, CHW has the balance sheet strength to manage this increased expenditure having managed the business prudently over recent regulatory periods.

However, CHW now faces a new era of high growth pressures, additional compliance obligations and an increasing cost base, meaning that price increases marginally above CPI are required for the first time in 10 years.

The result is a proposed price path of CPI for year 1 (2023-24) then CPI+1.0% for years 2 to 5. This is fully supported by our Deliberative Assembly customer group, consisting of approximately 30 customers representative of our diverse service region and following a thorough consideration of all the relevant issues. The table below shows the indicative bill impacts of the proposed prices for each key customer group.

Table 1.1 **Indicative bill impacts for key customer groups – excluding CPI (\$ 2023)**

Customer type	Average consumption (kL p.a.)	2022-23 Current year	2023-24 Year 1	2024-25 Year 2	2025-26 Year 3	2026-27 Year 4	2027-28 Year 5
Residential (Owner occupiers)	150	1,231.27	1,231.27	1,243.58	1,256.02	1,268.58	1,281.26
Residential (Tenants) ²	150	312.87	312.87	316.00	319.16	322.35	325.57
Non-residential (Small)	200	1,347.76	1,347.76	1,361.24	1,374.85	1,388.60	1,402.49
Non-residential (Medium)	1,000	3,943.68	3,943.68	3,983.11	4,022.94	4,063.17	4,103.81
Non-residential (Large)	10,000	33,147.73	33,147.73	33,479.21	33,814.00	34,152.14	34,493.66

As the above table shows, the total price increase for average residential owner/occupiers over the 5-year period amounts to \$50 (excluding CPI). For average residential tenants, the price increase amounts to \$13 (excluding CPI). In recognition of the increased customer prices over the period our customer group also endorsed CHW's intent to double our support for vulnerable customers to \$2.5 million over the regulatory period on order to assist those customers who may be affected by these proposed increases. This may include young people new to the mortgage market.

CHW will also increase our financial support to local Traditional Owner groups and has developed measures for increased engagement and outcomes during the period.

CHW has also embarked on a process of reforming New Customer Contributions (NCC), to make a fairer and more equitable approach to the funding of new growth assets and send efficient pricing signals to land developers. This follows a period of engagement with our

² Residential tenants are charged water volume fees only

local developer community and supported by a thorough review of the NCC model by expert independent consultants Utilities Regulation Advisory, working in association with a group of water corporations and VicWater. As a result of this work, CHW proposes to raise the NCC charge from \$1,504 to \$8,000 per lot (\$4,000 each for both water and wastewater), and to be phased in over the 5-year period. A differential fee will apply between new growth zones and existing growth zones/infill areas.

This price submission also supports CHW’s ongoing role in environmental leadership in the region by taking proactive steps to continue the reduction in greenhouse gas emissions and a commitment to use 100% renewable electricity by 2025. This is a major step on our pathway to net zero emissions by 2035. These initiatives are fully supported by customers.

CHW has self-assessed this submission at the top end of the PREMO ‘Standard’ rating, noting the ESC has ‘raised the bar’ for PREMO ratings from the 2018 self-assessment process, as shown by the following table. Engagement and Outcomes are the highest ranked PREMO elements of the self-assessment (similar to 2018) while Performance, Risk and Management ranked as Standard given the challenging environment.

Table 1.2 **CHW self-assessment of PREMO**

PREMO SCALE	Basic (5-9.25)	Standard (9.5-14.25)	Advanced (14.5-18.75)	Leading (19-20)
CHW Self-Assessment		13.5		

The Board of CHW has been extensively engaged over a period of 12 months and has been actively involved in scenario analysis and key trade-off decisions.

CHW believes this submission represents good value for all customers in a highly challenging and uncertain environment.

2.0 Board attestation

Key points:

- Board extensively engaged over 12-month period
- Active participation in scenario analysis and trade-off decisions
- Ownership of submission
- The Board endorsed this Price Submission at the meeting held 24 August 2022

CHW has engaged with the Board of Directors extensively over the past 12 months in the development of this Price Submission. Every Board meeting since October 2021 has included a briefing and sought Board endorsement on key components of the 2023 Price Submission.

These briefings have included the following:

- detailing the pricing framework and the PREMO model
- identifying key financial variables and testing assumptions and trade-offs through a range of financial scenarios over a number of months
- particular focus and understanding of the drivers of CHW's capital expenditure program
- progress updates on CHW's customer engagement program and ultimate recommendations.

The following attestation is provided as an integral part of CHW's price submission.

The Directors of Central Highlands Water having made such reasonable inquiries of management as we considered necessary (or having satisfied ourselves that we have no query), attest that, to the best of our knowledge, for the purpose of proposing prices for the Essential Services Commission's 2023 water price review:

- *information and documentation provided in the price submission and relied upon to support Central Highlands Water's price submission is reasonably based, complete and accurate in all material respects;*
- *financial and demand forecasts are the business's best estimates, and supporting information is available to justify the assumptions and methodologies used; and*
- *the price submission satisfies the requirements of the 2023 water price review guidance paper issued by the Essential Services Commission in all material respects.*

Jeff Haydon
Managing Director

Angeleen Jenkins
Chair

3.0 PREMO rating

Key points:

- CHW has performed well against ambitious targets in a challenging environment
- ESC has raised the PREMO bar for the 2022 submission
- Engagement and Outcomes highest ranked elements of self-assessment (similar to 2018)
- Performance, Risk and Management ranked lower given challenging environment
- Self-assessment rating Standard (High) Score = 13.5

CHW has completed the PREMO self-assessment using the assessment tool and rating table included in the Guidance Paper.³ The assessment tool provides a set of guiding questions for rating the submission and examples of what constitutes the various ranking levels.

CHW has self-assessed the submission at the top end of the Standard rating, noting the ESC has raised the bar for PREMO ratings from the 2018 submission.

Ratings for each element and the overall rating are shown in the table below.

Table 3.1 CHW self-assessment of PREMO

Ambition level	Basic (1 - 1.5)	Standard (1.75 – 2.5)	Advanced (2.75 – 3.5)	Leading (3.75 – 4)
Performance		2.5		
Risk		2.25		
Engagement			3.25	
Management		2.25		
Outcomes			3.25	
Totals	(5 – 9.25)	(9.5 – 14.25)	(14.5 - 18.75)	(19 – 20)
Overall rating		13.5		

³ Essential Services Commission 2021. *2023 water price review: Guidance paper*, 26 October

4.0 Regulatory period

Key points:

- 5-year period proposed

CHW is proposing a 5-year regulatory period, which is the default option providing the following benefits:

- a relatively long period of certainty for a water business's customers about the outcomes to be delivered and prices to be charged
- sufficient time for CHW to focus on service delivery and achieving the customer outcomes it has set for the period.

Consideration was given to a shorter regulatory period of 3 years given the uncertain environment, particularly in regard to the growth profile of the region. However, on balance we are confident the risks are appropriately balanced in this 5-year submission and the benefit of pricing certainty for our customers outweighs the possible benefits from a shorter period.

5.0 Performance

Key points:

- Strong performance against ambitious Outcome and Output targets in a challenging environment
- Financial benchmarks missed with a number of factors outside CHW control
- Improved customer perceptions of value for money and customer satisfaction
- PREMO self-assessment of Standard (score 2.5)

CHW's performance over the PR18 2018-23 period is evaluated below against the following key criteria:

- Outcomes
- Guaranteed Service Levels (GSLs)
- Operating Expenditure
- Capital Expenditure
- Customer Satisfaction

5.1 Outcomes

CHW has performed well in a challenging environment over the 4 completed years of the current regulatory period against Outcomes/Outputs that were recognised by the ESC as 'one of the most ambitious target sets'.⁴

Delivery of the majority of the Outcomes was made difficult due to the mandatory lock-down and Working From Home direction associated with the COVID-19 pandemic, impacting both staff and customer in-person interactions.

Overall self-assessed 'traffic light' ratings were green for 2018-19 and 2019-20 but slipped to yellow in 2020-21 largely as a result of an abnormally high non-revenue water measure. In 2021-22 overall performance returned to 'green' rating as the majority of Outcomes were met.

CHW's 'traffic light' reporting for the 5 Outcomes for the first 4 years of the regulatory period is shown in the following table:

⁴ Essential Services Commission 2021, *Outcomes Report 2020–21: Performance of Victoria's water businesses against their own commitments to customers*, 19 October (p.18) <https://www.esc.vic.gov.au/water/sector-performance-and-reporting/water-business-outcomes-reporting#tabs-container2>

Table 5.1 Traffic light assessment of Outcomes to 2021-22

Outcome	18-19	19-20	20-21	21-22	22-23
1. Better customer experience	Yellow	Red	Yellow	Yellow	Grey
2. Safe clean drinking water that tastes great	Green	Green	Green	Green	Grey
3. Reliable and sustainable water and sewer systems	Yellow	Yellow	Yellow	Yellow	Grey
4. More efficient water use	Green	Green	Yellow	Green	Grey
5. Increased value for money	Green	Green	Green	Green	Grey
Overall	Green	Green	Yellow	Green	Grey

CHW adopted a conservative approach in the self-assessment of the achievement of the 17 Outputs under the 5 Outcomes.⁵

A more detailed analysis of the traffic light assessment for the individual Output measures reveals that the vast majority of Outputs were assessed as meeting their targets over the past 4 years:

Table 5.2 Output measures - traffic light assessment of performance

Traffic light >	Green - Met target	Yellow - Largely met	Red - Not met	Totals
Number	91	13	11	115
Total (%)	79	11	10	100%

A number of substantial Outputs were delivered in full (green traffic light) including:

- developed and acted upon a new strategy to assist vulnerable customers
- introduction of e-billing
- reduced telephone enquiries by simultaneously increasing customer self-service (through increased online forms options and functionality)
- increase in delivery rate of SMS/email for service interruptions
- increasing customer satisfaction with water quality and a corresponding decrease in water quality complaints

⁵ Refer to Appendix section 22.3 for a list of the PR18 Outcomes and Outputs

- Integrated Water Management Plans developed in collaboration with other agencies and communities for each of our largest service areas: Ballarat, Maryborough and Daylesford (including Creswick and Clunes)
- greenhouse gas emission reductions consistently met targets
- rainwater tank installations exceeded the annual target
- price increases for the average homeowner were restricted to CPI or less.

A small number of Outputs were unable to be met consistently (red traffic light) including:

- accounts using Direct Debit – the target was initially shown to be overly optimistic and was adjusted following consultation with customers
- online platform satisfaction – only a small number of respondents tended to skew the results
- sewer spills inside customer house – unable to meet the ambitious target of zero

CHW conducted a ‘mid-term’ review of the Output measures and targets in association with our Customer Advisory Panel and revised some targets to be more meaningful and reflective of customer priorities, effective from 1 July 2020.

5.2 Guaranteed Service Levels (GSLs)

GSLs are paid as a rebate to customers where we do not meet our GSL service commitment. The number of GSLs (and \$ value) has decreased over the 4 years of this regulatory period by approximately 50%, as demonstrated by the following table.

This is an indicator of customers receiving improved service quality.

Table 5.3 **GSL payments**

Financial year	2018-19	2019-20	2020-21	2021-22	Total
GSLs paid (number)	553	376	219	252	1,400
GSLs paid (\$ value)	50,400	40,200	25,150	28,850	144,600

5.3 Customer Satisfaction

The central premise of the ESC’s PREMO model is that customers should perceive increased satisfaction and improved value for money over time as water companies deliver outcomes that are of importance to them.

However, unlike the more objective criteria for measuring the performance of Outcomes, Operating expenditure and Capital expenditure, there is no single measure by which customer satisfaction and value for money can be easily measured. The ESC uses a robocall telephone survey approach to measure customer perceptions across 4 parameters (value for money, trust, reputation and overall satisfaction) whereas CHW use various

customer survey mechanisms to monitor customer satisfaction and obtain more in-depth and actionable data.

ESC robocall customer perception survey⁶

CHW's robocall survey results have improved steadily across each of the 4 parameters since the first survey was conducted in July 2017, indicating customers have recognised increased value for money in the services we provide.

When the initial (February 2019) and latest (August 2022) rolling 12-month average customer ratings of CHW are compared against the broader water sector results, CHW's rate of improvement has outperformed the sector, as shown by the following table.

Table 5.4 **ESC Robocall customer perception survey results summary (rolling 12-month)**⁷

Survey parameter	Organisation	February 2019 rating ⁸	August 2022 rating	Increase (%)	CHW outperformance of sector (%)
Value for money	Central Highlands Water	5.2	5.8	11.5%	+ 2.9
	Water sector	5.8	6.3	8.6%	
Reputation in the community	Central Highlands Water	5.8	6.4	10.3%	+ 4.0
	Water sector	6.3	6.7	6.3%	
Level of trust	Central Highlands Water	5.7	6.3	10.5%	+ 2.4
	Water sector	6.2	6.7	8.1%	
Overall satisfaction	Central Highlands Water	5.8	6.3	8.6%	+ 2.3
	Water sector	6.4	6.8	6.3%	

However, when compared to other water corporations' 12-month rolling averages, CHW's relative ratings remains in the bottom quartile for each of the 4 survey parameters. So, while CHW's ratings are improving at a rate better than the sector, they are not improving at a rate fast enough to increase our relative ranking.

During the period, CHW commissioned research from Federation University (Ballarat) to further understand the key drivers of customers' perceptions of value for money. These findings have been incorporated into a number of current projects and have been reflected in the development of the PR23 Outcomes and Outputs.

⁶ The survey is conducted by the ESC every quarter with n=100 responses. A rolling 12-month average (n=400 responses) is reported publicly

⁷ Data from ESC online reports accessed 6 September 2022: *How customers rate their water business*.

<https://www.esc.vic.gov.au/water/sector-performance-and-reporting/how-customers-rate-their-water-business#tabs-container2>

⁸ The first rolling 12-month data was reported from February 2019 by the ESC

CHW customer satisfaction surveys

CHW also conducts an annual customer survey as part of an alliance with a group of regional water corporations. The survey is conducted independently by specialist firm Insync, with a sample size of at least n=400 to ensure statistical reliability in the interpretation of results.

The results of this survey show customers rate CHW highly across a range of key measures as depicted below.⁹

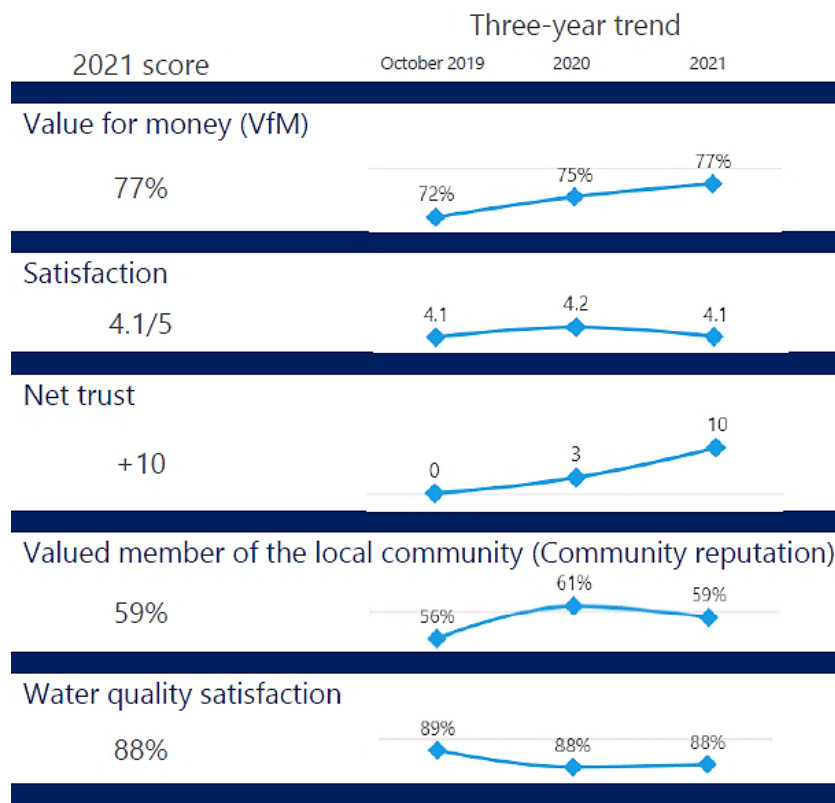


Figure 5.1 **Customer perception results via independent annual survey**

These results tend to support the ESC robocall survey results, showing increased levels of value for money and net trust in particular over the past 3 years.

CHW also gathers customer satisfaction data through other means. Recently we have been trialling a post telephone call survey for customers who contacted us to report a fault or emergency. Early data shows a response rate of approximately 25% with customers rating the CHW experience at 80% plus. These are very encouraging results from a trial which will be fully implemented over the next few months.

⁹ Insync (2022) *Customer Satisfaction Survey October 2021 Executive Summary*. February 2022

5.4 Operating Expenditure

CHW exceeded the allowance for adjusted controlled operating expenditure in the benchmark year (2021-22) by \$6.2 million or 10%. While this result does not meet expectations set in the 2018 Price Submission, CHW believes there are a number of factors contributing to the result which could not be foreseen in 2018.

One of the main unforeseeable factors was the accelerated growth CHW has encountered since 2021. When factoring in this growth and assessing performance on a cost per connection basis we only exceeded the benchmark by 6%.

We believe there are a number of factors contributing to the result which could not be foreseen in 2018 including:

- growth rate above expectations and driven by a dramatic change in regional growth patterns in response to the COVID-19 pandemic
- a significant increase in compliance obligations
- unexpected costs associated with managing CHW's response to the COVID-19 pandemic
- responding to a number of extreme climatic events (floods and wind storms)
- cost escalations well above CPI.

5.5 Capital Expenditure

CHW's total capital expenditure over the 2018-23 period is estimated to be \$158.0 million. When compared to the 2018-23 forecast from the 2018 Price Determination, this is 8% above the benchmark allowance of \$145.8 million (all expressed in 2023 \$). However, further analysis is required to understand the full picture beyond the macro result.

Three major capital projects and one major program have been delayed during the current period due to a range of factors including a range of restrictions beyond CHW's control associated with the extended period of the COVID-19 pandemic. This included contractor availability and restricted access to essential goods and services.

The following table indicates current progress of the major capital projects:

Table 5.5 Progress of major capital projects

Completed on time	Completed late	Delayed
Fellmongers Siphon replacement	Ballarat South Wastewater Treatment Plant lagoon pipeline upgrade	Daylesford water supply upgrade – expected to be awarded by October 2022
Ballan Wastewater Treatment Plant – increase in recycled water winter storage capacity	Evansford raw water pipeline renewal	Ballarat South outfall sewer duplication – expected to be awarded by October 2022
Ballarat East sewer duplication and flow storage	Ring Road trunk water main duplication	Maryborough wastewater reuse scheme improvements –

Completed on time	Completed late	Delayed
		partially complete with further works transitioning into the 2023-28 period
	Ballarat South Wastewater Treatment Plant inlet works upgrade	

The one major capital program that has been delayed has been the introduction of digital metering. After a detailed tender process to identify a supplier for the program, CHW did not award a contract and decided to terminate the procurement process in May 2022. We intend to continue to seek a provider of a digital metering solution and have issued a new Request for Tender. The digital metering market is very competitive, with interest in these projects very high, and we are confident of finding a partner promptly. The tender evaluation phase is nearing completion. The underspend on these projects/programs during the period has been offset by reprioritisation of other key projects.

5.6 Performance – PREMO assessment

For the Performance component of PREMO, we assessed ourselves to be Standard (2.5/2.5) as per the following table:

Table 5.6 Performance – PREMO assessment

Guiding question	Assessment	Rating
Did the business deliver on customer outcomes?	CHW has generally delivered on Outcome commitments which were noted by the ESC to be one of the most ambitious target sets across the state. Targets have been refined with our customers through the period.	Advanced
How does operating expenditure compare to the benchmark allowance?	Controllable operating expenditure exceeded the benchmark allowance as we have not been able to fully offset cost pressures encountered during the period (refer section 14). This additional expenditure cannot not be directly linked to providing material customer value improvements. On a cost per connection basis CHW is 6% above the benchmark, a reasonable performance under the circumstances.	Standard

Guiding question	Assessment	Rating
How does capital expenditure compare to the benchmark allowance?	Total capital expenditure is 8% above the benchmark allowance. A few key projects / programs have not been delivered due to a range of factors (refer section 5). Other priority projects were brought forward.	Standard
To what extent does customer sentiment demonstrate satisfaction in performance?	Customer perceptions of CHW performance continue to improve as measured by both the ESC's quarterly customer perception survey and by annual independent customer surveys (refer section 5.5).	Standard
OVERALL RATING		Standard 2.5

6.0 Risk

Key points:

- Risk assessed at both a strategic and operational level
- Key pricing risks identified and management process and tools documented
- The upcoming period presents the most uncertain period since price regulation began
- Balanced approach taken to avoid passing unnecessary risk to customers
- PREMO self-assessment of Standard (score 2.25)

CHW aligns its risk management framework to AS ISO 31000:2018 Risk Management – Guidelines and manages risk both on a strategic level and on a day to day operational level.

CHW's management of risk is overseen by the Board's Audit and Risk Committee. The Committee provides guidance to Management including the following:

- Fostering a positive risk culture that promotes open discussion of risk and integration of risk management principles into CHW's strategic objectives, policies and processes.
- Providing strategic direction for the development and implementation of CHW's Risk Management Framework (consistent with the AS ISO 31000:2018 Standard) and associated internal control systems.
- Ensuring that significant or material risks are reported to the Board.
- Reviewing CHW's risk appetite and risk tolerance with Management on an annual basis with respect to relevant categories of operational risk.
- Reviewing and assessing the various categories of risk faced by CHW, including any inter-relationships between risks.
- Reviewing and assessing the likelihood of occurrence, severity of impact of, and any mitigating measures affecting the risks for which the Committee is responsible.
- Providing guidance and support to other Board Sub-Committees as required in respect of those risks for which each sub-committee is responsible.

The following table lists CHW's high level corporate risks:

Table 6.1 **Corporate Risks**

Risk - Threat	Risk - Opportunity
Financial Sustainability	Dynamic Business Model
Cyber and Security Threat	Business Transformation
Governance & Compliance	Partnerships and Stakeholders
Customer Needs	People & Culture
Health & Safety	Environmental Regeneration
Drinking Water Quality	
Climate Change	
Infrastructure Sustainability	
Environmental Impacts	

CHW are members of the DELWP Risk Management Network and Water Sector Resilience Network allowing CHW to stay up to date with industry developments affecting water corporations.

CHW's internal auditors conduct approximately 5 audits each year to provide assurance that CHW's operating environment and risk controls are effective by reviewing and identifying any weaknesses. The Strategic Internal Audit Plan is based on CHW's Strategic risks.

As part of the risk framework CHW also maintains an accredited Safety Management System (ISO 45001) and Environmental Management System (ISO 14001). These systems provide a systematic approach to managing safety and environmental impacts and risks. CHW is audited every 12 months to maintain accreditation to these Systems. A recertification audit is conducted every 3 years. External auditors also review aspects of CHW's operations, including drinking water quality, OHS and Environmental performance, Financial reporting, and ESC KPI's.

In conjunction with our internal auditors, CHW is currently undertaking a risk advisory audit of CHW's Risk Framework and associated processes. This will deliver significant improvements to CHW's current risk practices and will ensure ongoing compliance with AS ISO 31000:2018 and the Victorian Government Risk Management Framework. The 5-phase audit will be completed by April 2023 and it is expected that all project outcomes will be completed during 2023.

The following table identifies key risks that may have more specific impacts on prices during the regulatory period and details how CHW is proposing to deal with these risks.

Table 6.2 PR23 risk summary

Key risks that may impact prices	How is risk addressed in submission
Population growth / Development	<p>During the 2018 submission CHW identified slowing population growth as a risk. A significant acceleration in population growth to the region in the past 2 years has now identified higher population growth as a key risk. CHW has forecast a reduction to the most recent growth rates (but still higher than historical trend growth rates) based on multiple sources of data and analysis. As a result, CHW is proposing a capital expenditure program of \$256 million to address this expected growth and other capital expenditure requirements. If we do not begin to invest for this growth over the next 5 years we may limit regional development and create a higher financial risk in 2028.</p>
Climate change	<p>In line with both government policy and customer support, CHW is taking action on climate change. We have made a number of commitments regarding mandated emissions reductions and renewable energy which have been costed in the submission. In terms of climate impact on operations, CHW is not factoring in any costs for potential supply constraints or demand fluctuations. Over recent years storm activity has become more frequent and costlier. CHW estimates costs of storm damage have averaged approximately \$0.4 million p.a. during this regulatory period and now forms part of a higher ongoing operational cost base as a result.</p>
Water security	<p>CHW manages water security consistent with several key planning instruments. The 50-year supply/demand risks are detailed extensively in CHW's 2022 Urban Water Strategy. A range of supply and demand scenarios are considered. This planning work is updated every 5 years to reflect any key changes in the operating environment. CHW also produces the Annual Water Outlook each December which details water security and any required actions for each supply system over the coming 12-month period.</p>
Energy security	<p>Energy markets are volatile with great uncertainty surrounding cost estimates over the next 5 years. While CHW is not proposing to include any increased costs into the financial model as a result of this volatility, we are proposing to enact a pass-through mechanism should this volatility continue and result in cost increase of greater than \$1 million across the period. This volatility risk includes the potential for higher costs resulting from the transition to 100% renewable energy.</p>
Asset performance	<p>CHW's proposed capital expenditure program involved robust risk identification processes which ensures major known risks will be addressed. However, the proposed capital program does not include any speculative expenditure and the overall budget for major renewal programs has remained similar to the previous price period. If new information comes to light during the PR23 period regarding poor asset condition or asset performance some additional projects may</p>

Key risks that may impact prices	How is risk addressed in submission
	emerge, renewal program budgets may need to be increased or projects currently on the 6 to 20-year horizon may need to be brought forward.
Demand	CHW has adopted higher population growth rates than the current Victoria in Future forecasts (VIF2019). CHW has also adopted a tariff basket form of price control. CHW is taking on the revenue risk should these higher growth / demand levels not eventuate.
Vulnerable customers	The water industry has driven a step change in support for vulnerable customers over the past 5 years, from better identification through to increased funding for a range of programs. However, the pandemic has demonstrated further support is needed. CHW is proposing to invest an additional \$1.25 million over the next 5 years across a range of programs in order to assist individuals and lower the risk of vulnerable customers defaulting on their payments and adding to levels of customer debt.
Interest rates	Following a sustained period of low interest rates, increases have been incurred over recent months with further increases to come, according to market forecasts. The regulatory model deals with this through the 10-year rolling average cost of debt mechanism.
Government policy	<p>CHW responds to State Government policy requirements, Changes may occur due to a number of factors such as:</p> <ul style="list-style-type: none"> • the state elections to be held in November 2022 (post lodgement date of this Price Submission of 30 September 2022) and November 2026 • major policy updates e.g. Central and Gippsland Region Sustainable Water Strategy¹⁰. <p>CHW is not factoring in any cost in relation to these potential changes.</p>
Regulatory change	In a heavily regulated sector there is always change to some degree. CHW is not factoring in the cost of any new change. However, similar to the impacts of climate change, recent increases in compliance costs have resulted in a higher ongoing operational cost base.
COVID-19	CHW developed a COVID-19 Incident Management Team early in 2020 to identify and manage the risks associated with the pandemic. This focus ensured that CHW was able to provide essential services uninterrupted and workplace transmission of the virus did not occur. Although public health restrictions have eased at time of preparing this submission, CHW retains a

¹⁰ The final Central and Gippsland Region Sustainable Water Strategy was released by the State Government on 12 September 2022 and contains a number of strategies where CHW is either the lead agency or a delivery partner.

<https://www.water.vic.gov.au/entitlements/long-term-assessments-and-strategies/central-gipps-sws>

Key risks that may impact prices	How is risk addressed in submission
	COVID-19 Planning Team to actively assess risk and elevate organisational response if required.
Supply chain interruptions	The international supply chain has been impacted by a number of coincidental factors such as the COVID-19 pandemic, the war in Ukraine, ongoing lockdowns in China and even a lack of shipping containers. All these factors have conspired to interrupt access to raw materials for local manufacture and availability and lead times for numerous items such as water treatment chemicals, personal protective equipment (PPE) and fuel additives (AdBlue). CHW is working with suppliers and industry groups to ensure the ongoing availability of critical items.

6.1 Risk – PREMO assessment

For the Risk component of PREMO, we assessed ourselves to be Standard (2.25/2.5) as per the following table.

Table 6.3 Risk – PREMO assessment

Guiding question	Assessment	Rating
To what extent has the business demonstrated a robust process for identifying risk, and how it has decided who should bear these risks? i.e. such that customers are not paying more than they need to.	<p>CHW has identified key pricing risks and detailed how these have been addressed in the price submission.</p> <p>Business cases are available for all major projects and CHW's capital investment prioritisation process has been revised (refer section 15).</p> <p>Major projects have been independently tested to ensure objectives, timelines and costs are robust and efficient. This independent review will deliver the following:</p> <ul style="list-style-type: none"> • robust costings based on P50 estimates • sensitivity analysis of P5 and P95 estimates • Monte Carlo analysis to quantify possible risks and appropriate contingency • unit rate benchmarking <p>CHW has adopted a range of regulatory tools to manage risk as follows:</p> <ul style="list-style-type: none"> • tariff basket • pass through mechanism 	Standard

Guiding question	Assessment	Rating
To what extent does the Guaranteed Service Level (GSL) scheme provide incentives for the business to be accountable, and provide incentives to deliver valued services efficiently?	<p>GSLs have been revised to reflect customer priorities and take on more risk.</p> <p>Two priority GSL penalties have been doubled with the remained GSL penalties increased by 50%.</p>	Standard
OVERALL RATING		Standard 2.25

7.0 Management

Key points:

- The PR23 Price Submission document has evolved from the PR18 submission document to be clearer and better aligned with the ESC Guidance chapters
- Price Submission developed with input from multiple internal and external parties
- Increased investment in the Engagement and Outcomes development phase
- The submission has been approved by the Board and endorsed by the Customer Engagement Panel
- The submission has been independently audited and assessed against the ESC Guidance Paper
- PREMO self-assessment of Standard (score 2.25)

7.1 Price Submission development process

This Price Submission was developed with input from our board, senior executive team, subject matter experts, regulatory bodies, expert external consultants, customer representative groups, key stakeholders and the broader customer base.

The structure and content of the 2023 submission has evolved from the 2018 submission in the following ways:

- chapter headings aligned to ESC Guidance Paper requirements
- additional chapters with dedicated focus on PREMO's Performance and Management elements
- streamlined content to ensure key information provided with supporting information available

In managing the development of the submission, the following key elements are of note:

- CHW's board has been extensively engaged over a 12-month period being actively involved in scenario analysis and key trade-off decisions. From the initial meeting in October 2021 to the final meeting prior to lodgement in September 2022 the board has been involved in formal board meetings, presentations, board briefings and discussions.
- consideration of regulators' requirements (e.g. EPA, Department of Health)
- extensive research and engagement with key stakeholders and partners to understand the nature of the change in growth patterns experienced in response to the COVID-19 pandemic
- additional investment in customer engagement given the challenging environment and the prospect of potential price increases beyond CPI

- major review of New Customer Contributions (NCCs) conducted with extensive engagement of key stakeholders
- customer-developed Outcomes for the regulatory period that represents their service priorities
- capital expenditure program developed to meet customer priorities and the region's challenges has been developed in line with industry best practice and efficiency
- compliance with ESC Guidance requirements
- consistency and accuracy of information between the ESC Financial Model and this Price Submission document
- independent audit of the Price Submission and ESC Financial Model
- submission endorsed by our Customer Engagement Panel¹¹

The result is this PR23 (2023-28) Price Submission that ensures that the community's essential water and wastewater services can continue to be delivered and developed despite a challenging operating environment, while representing compelling value and demonstrating CHW's 'best offer'.

7.2 Supporting information

CHW will make the following information available to the ESC to assist in their assessment of this submission:

Table 7.1 **Supporting information**

Section	Information
2.0 Board attestation	<ul style="list-style-type: none"> • List of board meeting and board briefing dates with agenda items
5.0 Performance	<ul style="list-style-type: none"> • PR18 Outcomes report 2021-22 • GSL customer rebate data • ESC Robocall Customer Perception Survey data • Executive Summary – CHW Customer Satisfaction Survey 2021
8.0 Engagement 9.0 Outcomes	<ul style="list-style-type: none"> • Community Engagement Panel webinar 2021 • Community Engagement Reports (5) • Presentation materials provided to Deliberative Assembly • 2023-2028 Price Submission Community Summary • Central and Gippsland Region Sustainable Water Strategy 2022 • Central Highlands Water Innovate Reconciliation Action Plan 2021 • Statement of Obligation (Emission Reduction) 2022 • Media releases

¹¹ The Customer Engagement Panel is the new merged customer representative body following a merger of the original Customer Advisory Panel and members of the Deliberative Assembly

Section	Information
12.0 Demand	<ul style="list-style-type: none"> • Victoria in Future (VIF) 2019 • CHW Urban Water Strategy 2022 • City of Ballarat – 23 February 2022 Council Meeting Agenda Part 1 p.223 • Academic research from Institute of Sustainable Futures (University of Technology Sydney) indicating decrease in residential water use following introduction of digital metering.
14.0 Forecast Operating Expenditure	<ul style="list-style-type: none"> • Compliance Obligation Assessment for the Victorian Water Corporations 2022
15.0 Forecast Capital Expenditure	<ul style="list-style-type: none"> • Master Plans re growth and capacity issues • Asset Management Plans for key asset classes e.g. water mains, sewer mains, key facilities • Options assessment and feasibility studies • Project Justification Report (PJR) for all projects and programs with planned expenditure more than \$500,000 over the 5-year period • Risk based cost estimates for the top 10 projects and top 5 programs
19.0 Prices and Tariff Structure	<ul style="list-style-type: none"> • Independent review of CHW's Trade waste Cost Recovery
20.0 New Customer Contributions	<ul style="list-style-type: none"> • VicWater NCC Model Review and Financial Model • Developer Forum presentation materials May 2022 • Electronic Direct Mail materials June and August 2022 • UDIA Presentation August 2022

7.3 Management – PREMO assessment

For the Management component of PREMO, we assessed ourselves to be Standard (2.25/2.5) as per the following table.

Table 7.2 Management– PREMO assessment

Guiding question	Assessment	Rating
To what extent has the business demonstrated how its proposed prices reflect only prudent and efficient expenditure?	To deliver an ever-increasing program of government directed initiatives, customer driven outcomes and meeting cost escalations above CPI (refer section 19) an efficiency target of 1.0% p.a. is proposed.	Standard
To what extent has the business justified its commitment to cost efficiency or productivity improvements?	CHW has proposed an efficiency target of 1.0% p.a. which is below the 2018 average for a Standard rating but a reasonable target given the cost challenges we face.	Standard
To what extent has the business justified or provided assurance about the quality of the submission, including the quality of supporting information on forecast costs or projects?	CHW's capital expenditure forecasts have been independently assessed by Jacobs with each major project subject to P50 and P95 estimates. Business cases are available for all major capital projects which include evidence of options analysis. Depreciation adopts a straight-line approach.	Standard
To what extent has the business provided evidence that there is senior level, including Board level, ownership and commitment to its submission and its outcomes?	CHW's price submission has been an agenda item on monthly Executive Team and Board meeting agendas since October 2021. During these meetings key assumptions have been modelled across a range of scenarios to ensure a deep understanding and ownership of the final submission output both in terms of the financial model and outcomes. The Board attestation is included in section 2.	Standard
To what extent has the business demonstrated its price submission is an "open book"?	The submission addresses all the requirements of the Guidance Paper with the contents of this submission closely aligned to the chapters in the guidance. We have added additional chapters to ensure compliance against all elements of the guidance e.g. a specific chapter on Performance and Management.	Standard
OVERALL RATING		Standard 2.25

8.0 Engagement

Key points:

- Engagement has been ongoing throughout the regulatory period
- Issues of interest from this ongoing program formed the basis for an extensive deep dive
- A multi-dimensional approach has been taken over a period of 8 months
- Deliberative Assembly customer panel utilised for the first time given the complexity of the operating environment and the nature of the challenges
- Three key themes emerged: Customer Care, Equity, Sustainability
- PREMO self-assessment of Advanced (score 3.25)

8.1 Background and structure

CHW's comprehensive community engagement program *Let's Talk Water* commenced in 2017 to support the 2018 price review. As indicated in the guidance to the 2018 price review engagement should be an ongoing process. CHW has continued 2 key elements of the *Let's Talk Water* program throughout the current price period:

- Customer Advisory Panel¹² met quarterly to discuss service-related issues and opportunities
- Customer Survey independently conducted every 12 months (joint survey with a number of water corporations), identifying trends in performance and opportunities for improvement

The baseline of feedback and insights from this ongoing engagement was used to seed an in-depth community-wide program to support this Price Submission. Public health restrictions imposed by the COVID-19 pandemic resulted in a mix of in-person and online engagement activities.

With these constraints in mind, CHW engaged a panel of expert and experienced consultants to assist with this ambitious program:

- Deliberately Engaging – for overall coordination of the program¹³
- Conversation Caravan – to engage local communities in-person with pop-ups¹⁴
- Altometer – to evaluate survey and feedback data¹⁵

¹² The CAP consists of a range of customers (residential and non-residential), local council representatives and community organisations e.g. community support agencies

¹³ <https://www.deliberatelyengaging.com.au/>

¹⁴ <https://caravan.conversationco.com.au/>

¹⁵ <https://www.altometerbi.com/>

- Max Hardy Consulting – to facilitate the online sessions¹⁶

Development of the program and the various engagement phases was guided by reference to several engagement frameworks:

- IAP2 *Spectrum of Public Participation*¹⁷. The engagement was broadly reflective of the 'Involve' component of the spectrum. However certain elements were more reflective of 'Collaborate' such as detailed discussions with the Deliberative Assembly.
- ESC's 10 principles for universal and inclusive engagement¹⁸: CHW's response to these principles is included in the Appendix at section 22.4

There have been 3 key engagement phases in this program. The first 3 stages build on the previous, both in the data collected and intensity of engagement.

- Stage 1: Broad Customer and Community Engagement: November 2021 to January 2022:
- Stage 2: Workshops with key stakeholder groups: December 2021 to February 2022
- Stage 3: Deliberative Assembly: March to June 2022

8.2 Stage 1: Broad Customer and Community Engagement

Purpose

To explore what matters most to the community in order to identify the community's needs and priorities.

Engagement method

- Conducted between November 2021 to January 2022
- Online Survey (357 surveys completed, 64 at community pop-ups)

In order to broaden the reach of Stage 1 engagement, all customers throughout the CHW service region were written to and invited to complete an online survey. Media in all forms such as traditional print and CHW's social media channels were also used extensively to promote the survey. The survey was open to the public for approximately 8 weeks (11 November 2021 to 10 January 2022).

Place-based community 'pop-ups' were held across the CHW service region at 9 different locations, focussing in particular in areas of known social disadvantage such as Clunes, Delacombe, Maryborough and Wendouree. A further 187 participants were engaged in-person during this process.

Key engagement questions:

Each engagement activity featured these questions, while differing slightly in the way they were asked:

¹⁶ <https://maxhardy.com.au/>

¹⁷ <https://iap2.org.au/>

¹⁸ ESC (2021). *2023 Water Price Review – universal and inclusive engagement – presentation*. September 2021

- How can Central Highlands Water improve its customer service? Why?
- Under what circumstances would it be acceptable for bills to rise?
- What is one thing Central Highlands Water could do to improve what it does for you and the community?
- Where would you like Central Highlands Water to invest in the future?



Figure 8.1 Customers using cue cards indicating their key priorities for CHW at Clunes (left) and Creswick (right) in November 2021¹⁹

Findings summary

Across all respondents, there were 5 priorities:

1. Improved water quality: Water quality was more of a concern for respondents who live outside of Ballarat.
2. Climate change resilience: Climate change is of significant concern to a high proportion (62%) of respondents, while a high proportion of respondents (72%) are also unaware of what CHW is doing on the matter.
3. Keeping bills low: Most people don't want bills and services to change, but there was more appetite to pay more to address climate change than any other issue (42% of respondents indicating they would pay more to see more action).

¹⁹ The image on the right-hand side also shows in the background the approach that respondents could take to place coloured balls in areas of their service priority, thus providing a range of ways for customers to be engaged and provide their thoughts.

4. Base bills on use: A very high proportion of respondents (approximately 90%) wanted bills to be primarily based on usage, rather than fixed charges.
5. Water availability into the future.

These findings were brought into further detailed discussions in Stage 3 to ensure they were fully explored.

8.3 Stage 2: Workshops with key stakeholders

Purpose

- To provide more detailed information from key stakeholders on the findings of Stage 1 and test the key questions to be investigated in the Stage 3 deliberative panel.

Engagement method

- Conducted between December 2021 and February 2022
- Synthetron sessions with CHW staff and customers
- Online workshops with key stakeholders

Findings summary

Synthetron

The Synthetron online platform allocates participants to virtual tables just like a facilitator might allocate people across breakout tables in a face-to-face workshop.²⁰ Participants can raise ideas in response to topic questions and responses that resonate across the groups can receive a high degree of support. Four sessions were held with the key findings as follows:

1. Workshop with staff

- Based on their experience with customers, staff saw the key priorities for customers as affordable services that represent value for money combined with responsive and knowledgeable customer service. Systems such as IT and data systems were identified as barriers to providing improved customer service.
- Customer priorities were:
 - outstanding customer service, driven by timely communications and affordability
 - planning for climate change and the provision of high-quality water
 - a stronger approach to user-pays with lower fixed fees on water bills
 - more regular, smaller bills with more billing options

²⁰ <https://synthetron.com/>

2. *Workshop with existing Customer Advisory Panel*

- Billing more frequently and increasing volume costs may be beneficial to help with cash flow and encourage users to understand and respect the value of water as a resource.
- Investing in long-term projects and future-proofing now was seen as a necessary step for CHW, though it was suggested funding may come through bank loans and developer contributions rather than CHW finances.
- This group were supportive of all initiatives CHW are currently implementing/investigating with regard to climate change and felt that supporting vulnerable customers should be built into CHW running costs.
- Investigate means of providing water to properties without a current connection
- The group were also interested in technology and how it is used as an efficiency lever, including digital metering, as well as nature-based solutions to climate change

3. *Workshop with Careflow Advisory Group (supporting vulnerable customers)*

- Representatives were highly complimentary of the services and support that CHW provides. They noted that, in instances where they needed support or clients needed support, CHW always provided a positive and judgement-free experience. It was identified that CHW is often one of the first calls made as it is a great win for clients getting on top of their affairs.
- The group felt that though a lot of people could deal with issues online or over the phone, the cost of a phone call could be a substantial barrier. There were some people that were falling through the gaps without access to in-person service centres during lockdowns or those that were not willing to ask for help in general.
- The group felt that an important activity to support vulnerable customers was having a presence at other in-person events (e.g. community breakfasts) as well as investing in funding/support programs to improve financial literacy.
- The group felt that other measures such as financial literacy support or cost-saving initiatives (e.g. water-saving showerheads) may be a better use of finances than direct contributions towards vulnerable customers on bills. Though additional funds could be useful, it was also identified that having more staff would be of benefit.
- The group supported increasing bill frequency to reduce bill shock and noted even a change from every 4 months (as is current) to every 3 months could make a big difference. With regards to drinking water, the group felt that it should remain an option for people that choose to live unconnected to drinking water supplies and save money. It was identified that options should be available to support these people during a drought.
- Overall, the group felt it was important to focus on the prevention process and efficiencies (e.g. fixing dripping taps and leaks quickly). It was clear that priorities for supporting vulnerable customers were good engagement, information and strong partnerships.

4. *Workshop with CHW Customer Resolutions and Process Improvement Team*

Based on team members' experience with customers, a number of customer priorities were raised:

- There is an opportunity to improve communications with customers regarding water quality
- Changes to volumetric pricing need to be managed carefully. A move to digital metering would benefit customers (in terms of being able to manage their water usage) but note that not all customers are digital savvy and increased customer call volumes could initially be expected.
- Customers want CHW to be more accountable for climate matters and avoid water wastage through network leaks and bursts.
- Improve communication to customers about planned works to prevent inconvenience.

Key findings

These issues were collated and used to help develop the content for Stage 3 of the engagement process.

8.4 Stage 3: Deliberative Assembly

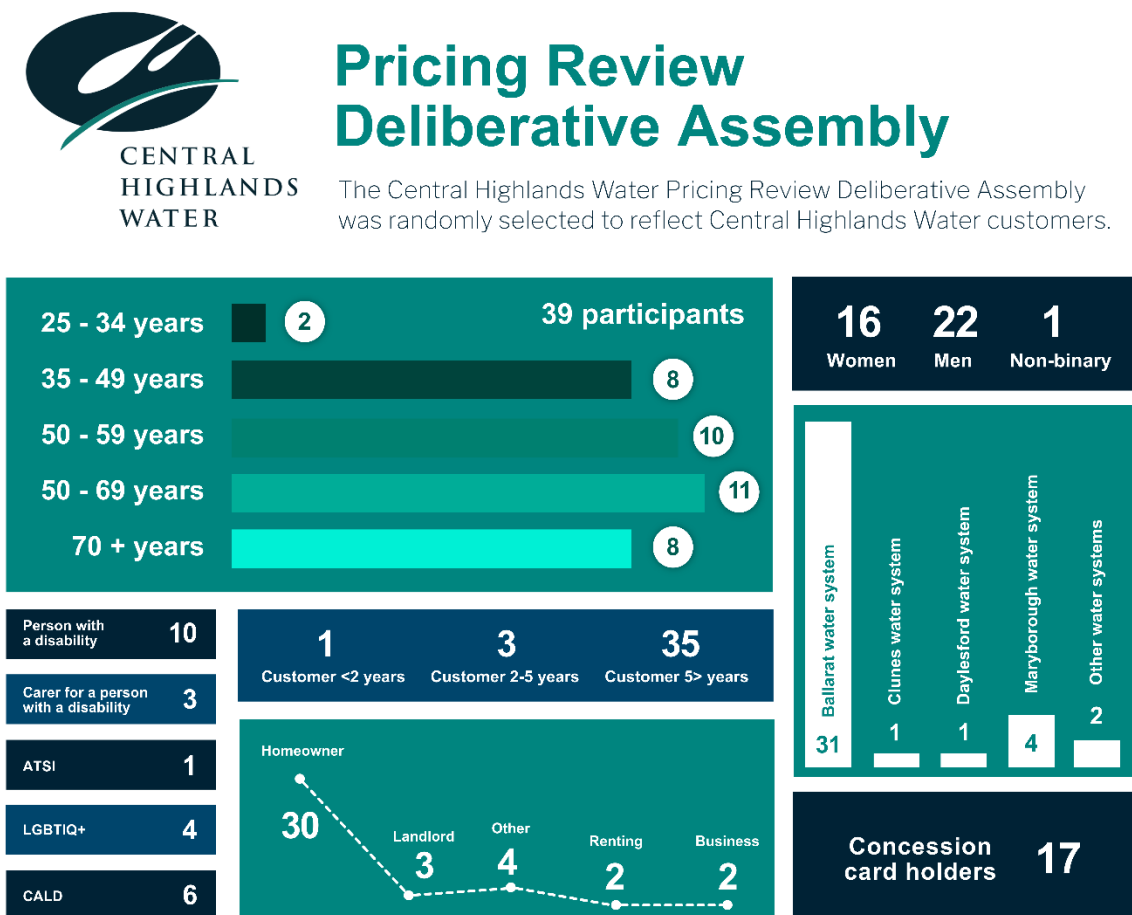
Purpose

To identify detailed and considered responses from a community Deliberative Assembly, in response to the core challenges and questions impacting the future planning of Central Highlands Water and use these findings to inform the Price Submission for 2023.

A Deliberative Assembly is a group of people randomly selected, (but representative of the community), who are devoted to committing time to in-depth detailed discussions of complex issues that often require understanding and understanding of the need to accept ‘trade-offs’ to arrive at a group position.

Engagement method

The Stage 3 Engagement included the recruitment and delivery of a community Deliberative Assembly for 39 randomly selected assembly members that were broadly representative of the CHW service area demographics as demonstrated by the following infographic:



Recruitment and stratification undertaken by Deliberately Engaging

Figure 8.2 Deliberative Assembly customer composition

The Deliberative Assembly stage of the engagement featured the following:

- Conducted between March and June 2022 on weekends
- Initial online briefing session
- 3 x full day Deliberative sessions (held online)
 - including presentations and discussion with expert key staff on priority issues identified by customers e.g. water quality, customer service, affordability and pricing, growth and development, vulnerable customers, climate change, recycled water, communications, capital investments, billing and tariff scenarios and operating expenditure
- A number of customers invited to participate in the online sessions did not have access to appropriate technology, so CHW staff facilitated their participation by providing them with laptop access in the CHW main office.
- 1 x half day feedback session on how the Deliberative Assembly's advice has been used and confirmation of draft Outcomes and Outputs
- CHW's Managing Director and senior Executive Team attended the majority of sessions

Key engagement question

Each engagement activity featured these questions, while differing slightly in the way they were asked:

- How should CHW find a balance between lowering fixed costs while maintaining income?
- Are you willing to pay more in the short term to help fund capital/long-term projects that would help lower costs in the long term if efficiency dividends are paid back to customers?
- How supportive are you of each of the current initiatives that CHW have in place to address climate change impacts on water resources?
- Given that CHW is aware of a number of areas without access to drinkable town water, how should CHW go about prioritising which areas should come first (given CHW is constrained in being able to implement all identified improvements during this Price Submission period?)
- To what extent would you support increasing charges to most customers to provide additional support to vulnerable customers?

Engagement principles

Engagement for this stage is based on the following key principles that ground our approach to the deliberative process:

- Transparency and accountability – all information is clearly communicated, including limitations.
- Foster mutual learning – both CHW and participants are open to advice and will seriously consider information and feedback.

- Inclusive - The process is inclusive and appropriately reflective of the community being consulted.
- Fairness – a fair spread of evidence and information is provided and drawn upon.
- Do-able – the time allowed is sufficient for the assembly to consider the information, deliberate and reach conclusions.
- Clarity – it is clear how the deliberative process relates to broader engagement and how it will be used.

Findings summary

The structure of the Deliberative Assembly was developed to provide more detailed feedback around the key areas identified through Stage 1 (survey and pop-ups) and Stage 2 (Synthetrons and workshops) of this engagement process and CHW's concurrent research into customer value. The key findings for each topic are briefly discussed.

Key service areas

The assembly ranked CHW's key service areas in both Session 1 and Session 3. This found that the top 4 most important service areas were consistent across both sessions and included:

- providing safe, great-tasting water to as many people as possible
- planning for the future and investing to ensure we can survive climate change/natural disasters
- making more water available for the future
- making all efforts to manage costs.

Key discussion points

In Session 1, the assembly had some confusion around what it would mean for CHW to support vulnerable customers and how that was defined. However, in the final session this was raised consistently as an issue the assembly were passionate about, despite being ranked lower in importance as a service area. The group identified that, increasingly, they found all of the service areas to be linked and important.

Pricing, billing and tariffs

In Session 1 it was identified that the assembly were supportive of customers being able to choose their own bill frequency and investigating a tiered volumetric system for billing. (Although noting that this is currently the situation re the pricing structure).

In Session 3 a tariff scenario with lower fixed fees and higher volumetric costs was explored by the assembly in response to the desire to examine a billing structure that would give customers more control over their variable (volumetric) water costs. Following detailed discussions, the assembly were slightly more in favour of retaining the current billing scenario rather than switching to the scenario presented as shown by the following figure²¹. The assembly were generally divided on this issue, however, as some thought that charging

²¹ Scenario 1 was revenue neutral to CHW and featured a reduction in in total annual fixed service fees from \$902 to \$600 with a corresponding 75% increase in water volumetric fees from \$1.98 to \$3.47 per kL

more for water volume was a good move to help reduce water waste whereas others felt that the new scenario presented would have a disproportionate impact on residential renters, more vulnerable customers and businesses. On balance, CHW has decided to retain the current tariff structure arrangements as there was no strong support for change.

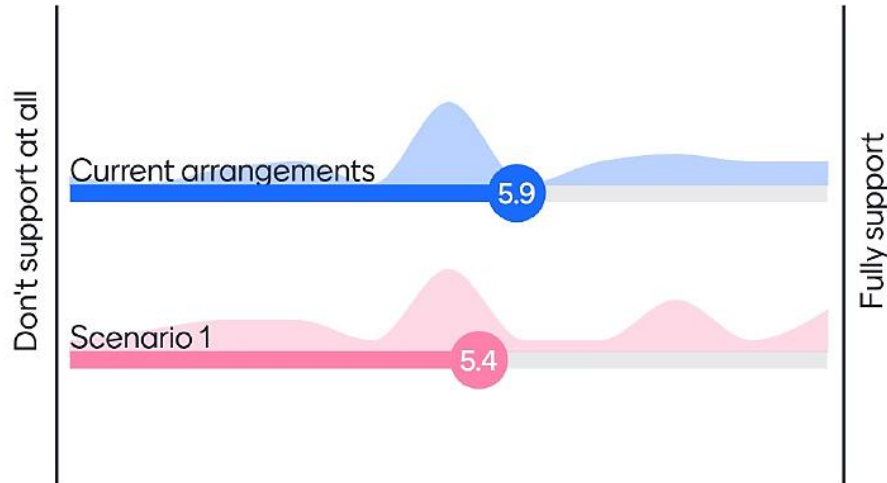


Figure 8.3 Level of support for current arrangement and scenario 1 tariff (10-point scale)

In the final session, the assembly were also asked to review different capital investment and associated pricing scenarios that might accompany the PR23 submission. The scenarios as presented to the assembly were as follows:

Assumption	Low Capital	Midpoint	High Capital
Capital Investment	\$208m	\$255m	\$308m
Debt	\$150m	\$195m	\$250m
Interest p.a.	\$10m	\$13.5m	\$16m
Tariff	CPI	CPI / CPI +1%	CPI +1%

Figure 8.4 Summary of pricing scenarios as discussed with the Deliberative Assembly

There was a clear tension among the assembly between needing to invest now to meet growth aspirations, while also protecting customers from price increases while cost of living is already high. The assembly were most in favour of a midpoint scenario, followed by high capital investment. This included supporting modest price increases of CPI only in the initial year followed by CP+1% in the remaining years of the period. The assembly’s support of the capital investment and pricing scenarios is indicated by the following figure:

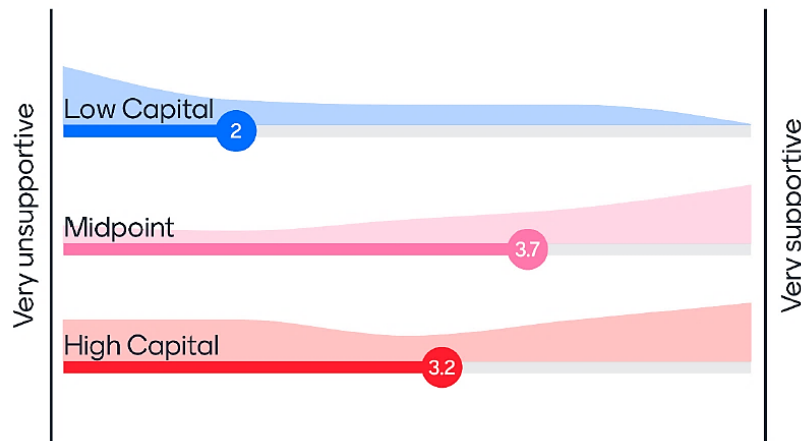


Figure 8.5 **Deliberative Assembly level of support for pricing scenarios (5-point scale)**

As a result of the Deliberative Assembly's preference for the 'Midpoint' scenario, this has been adopted by CHW as the basis for the Capital Expenditure program and the associated pricing pathway.

Long-term planning scenarios

The assembly investigated 5 long-term planning scenarios and was found to be supportive of all scenarios identified (see the following figure). The scenarios with the strongest levels of support were for growth-related subdivisional works (water and wastewater asset extensions and expansion, i.e. pipelines) that continue to be delivered and funded directly by the developer and for CHW to continue to maintain a strong environmental focus.

The assembly discussed the preference for new customers to contribute in a more equitable way to the cost of new growth infrastructure and ease the cost burden on existing customers.

The assembly had the lowest level of support for CHW taking on a higher risk profile to make major infrastructure investment decisions. Though the assembly identified that an aggressive approach may save money in the long term due to high rates of growth, it was determined that more information was needed for the assembly to be confident in a less conservative approach.

The assembly were also asked to vote individually on the extent to which they would support other potential investments and this round of voting found the highest level of support for investigating alternative water options (greywater and recycled water use were a key interest), water efficiency and leak reduction and energy efficiencies. These preferences have been reflected in the 'Sustainability' Outcome – see section 9.

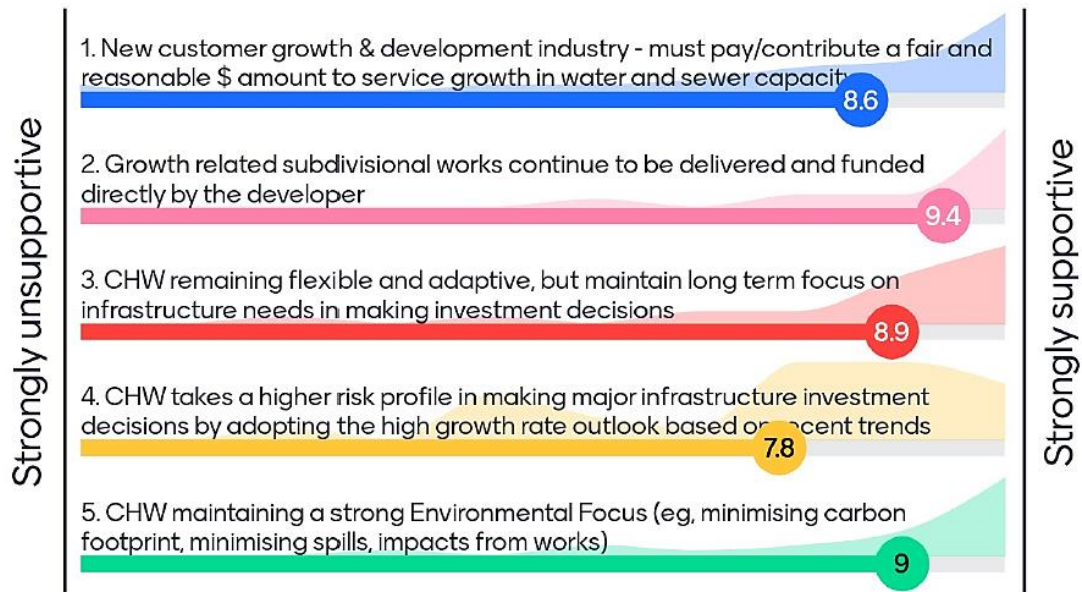


Figure 8.6 **Level of support for long term investment scenarios (10-point scale)**

Climate change

The assembly identified that CHW's current climate change initiatives were adequate and comprehensive, however, there were concerns that they only dealt with CHW's effect on the climate and not specifically the effect of the climate on CHW operations. In terms of climate change initiatives, it was energy efficiencies, renewable electricity purchases, self-generated renewable electricity and process optimisation that had the highest levels of support. Electrification of the vehicle fleet and carbon sequestration projects had the lowest support from the group, with carbon sequestration projects not preferred by the assembly due to issues with efficacy.

Customer service and Guaranteed Service Levels

The assembly were generally content to keep the Guaranteed Service Levels as they are currently. The service levels which had the most support for increasing current standards were 'failure to repair a leaking service within 5 business days' and 'failure to provide clean drinking water with the presence of dirty water'. These preferences have been reflected and incorporated in the 'Customer Care' Outcome with the customer rebate doubled for both (from \$100 to \$200).

Feedback on customer service was very positive with the main suggestion for an additional GSL that identifies call back times though does not come with an associated financial penalty. Ultimately this was not supported by the assembly. CHW's customer service was spoken of very highly throughout the assembly process.

Providing access to potable water

The assembly reviewed CHW's existing criteria on when to provide potable (drinking) water to the non-potable towns of Amphitheatre, Raglan and Redbank and were most supportive of providing potable water when there were health risks or sustainability of supply issues. They also felt that customer demand and the estimated rates of population growth were

considerable factors. The assembly was unsupportive of responding to lobbying groups concerns or historical expectations for service provision.

The assembly also identified their own criteria that was largely consistent with those presented by CHW, but included a significant emphasis on educating users around their water use. The group identified that, where potable water was not provided, it was important to regularly monitor local water related health issues/risks and provide subsidies for new water tanks or in-home water filtration systems.

The majority of those who voted were supportive of providing potable water if 75% of people in an area wanted access to it. There were mixed views of how costs to provide potable water should be recovered with most people happy to recoup costs within 20 to 40 years. This presented a significant change from earlier findings where there was a great level of support for providing potable water to all communities without qualification. With more information the assembly were interested in providing potable water when it met the previously mentioned levels of support but not as an immediate priority.

The assembly recognised it was difficult for them to speak on behalf of the 3 townships and supported CHW undertaking further engagement during the new price period with the communities to more clearly ascertain their needs.

The assembly supported the concept of providing financial support for customers in these areas to inspect and clean their rainwater tank collection systems in order that they could receive the best possible water quality.

These two preferences have been incorporated in the 'Equity' Outcome.

Supporting vulnerable customers

In general, the assembly were impressed by the work that CHW currently does to support vulnerable customers. There were mixed opinions on whether more should be done in this area or whether CHW should stick to their 'core areas of business'. There was a reasonable number of assembly members who were supportive of an optional contribution that may be included on bills as a 'pay it forward' approach however this did not reach any degree of consensus support.

Options to introduce more frequent billing were also identified as a potential avenue to help support vulnerable customers and limit bill shock.

The assembly felt that education and communication were important areas for CHW to focus on, to further support the vulnerable in the community and let the wider community know what they are already doing.

The group felt that any additional support should not simply be restricted to a dollar handout but suggested household improvements to customers' plumbing, so that any leaking water services could be fixed with the commensurate saving in water bills.

Overall the group were supportive of increased support for vulnerable customers and this is shown in the 'Equity' Outcome.

Draft Measurable Outcomes and Outputs

While examining all of the material from the various engagement sessions, it became apparent that 3 broad consistent themes were emerging, and summarised as follows:

1. Customer Care: Ensuring that we continue to improve our support and care to all of our customers, particularly those in need
2. Equity: Ensuring that services are developed and shared more equitably²²
3. Sustainability: Ensuring that we reduce our environmental footprint

Staff were engaged to develop a range of Outputs to address these key customer priorities, based upon suggestions from the assembly as noted above. The key criteria that we adopted during this process was that the Outputs must:

- address the key priority as expressed by the assembly
- have a natural owner within the business that would be accountable for its implementation
- would be a substantial improvement on current service level
- would be consistent with any other regulatory requirements
- be measurable

During the 4th online session the assembly were asked to review these Outcomes in small groups. Customers were asked to rate their support of the Outcomes under each theme with a score between zero and 5. The result of this rating process shows strong support for CHW's proposed Outcomes and Outputs as demonstrated by the following figure.

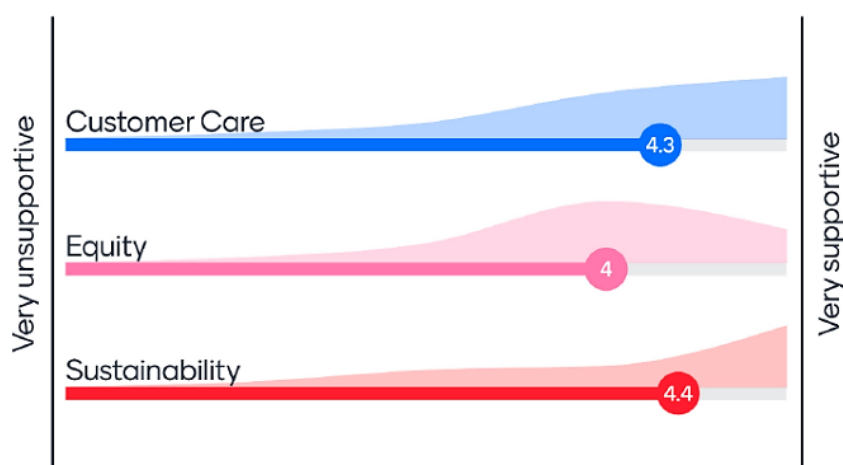


Figure 8.7 **Deliberative Assembly support for the proposed Outcomes (5-point scale)**

There was unanimous support for all Sustainability measurable Outputs and most of the Customer Care and Equity Outputs. The Outputs that had more mixed responses included GSL's (Customer Care), funding regional growth (Equity) and support for vulnerable customers (Equity).

²² This Outcome is the result of a number of discussions with the Deliberative Assembly that expressed a range of social and economic initiatives. It became apparent that these reflected elements of social 'equity' and have been grouped under this Outcome heading.

Traditional Owners

CHW regularly consults with and seeks to partner with Traditional Owner groups as part of our normal business activities. As we continue on our reconciliation journey, CHW has recently launched our *Innovate Reconciliation Action Plan (RAP) 2021-2023* following extensive engagement with Wadawurrung and Dja Dja Wurrung Traditional Owners.²³

CHW commits to exploring further partnership opportunities with Traditional Owner groups beyond what is already committed to in our RAP.

A number of measures have been included under the Outcome 'Equity' in this regard.

8.5 Expectations that cannot be met

During the Deliberative Assembly process, it became evident that not every single expectation could be met for a number of reasons: either support was not strong across assembly members, further exploration was required or it was outside of CHW's remit. These items were collated and discussed with the panel and the reasons for their non-continuance as part of the price submission process discussed. These included:

Table 8.1 **Expectations that cannot be met**

Expectation	Reason
Recycled water use through implementation of purple pipe in design of new housing estates	The cost is prohibitive to retrofit to existing subdivision estates. As new estates are developed this will be retained as a consideration.
Introduce volume charge for residential wastewater discharge so that the fixed service charge can be reduced	Previous CHW experience with this tariff structure and associated billing estimations of wastewater volume were ultimately not supported by customers. The technology is currently not available to make it feasible to retrofit wastewater meters.
Become a gas generator/distributor	While CHW is generating biogas on a small scale for reuse at some wastewater treatment plants it is not feasible to upscale this to the point of becoming a distributor.
Review fluoridation requirement	The fluoridation of water supplies is regulated by the Department of Health, not CHW.
Micro treatment plants	This is beyond the scope of the water price review process
Covering reservoirs to avoid evaporation losses	CHW will continue to maintain a 'watching brief' on this innovation however it is not yet feasible on a large scale for a range of reasons.
Introduce optional donations on bill to fund climate change and support vulnerable customers	The Deliberative Assembly did not support this 'pay it forward' concept.

²³ https://www.chw.net.au/mvc/k12webapi/media/about_us/reconciliation%20action%20plan/central-highlands-water-innovate-rap-2021-2023-endorsed.pdf

Expectation	Reason
Tariff rebalancing	The Deliberative Assembly were mixed in their views but overall did not support tariff rebalancing between volumetric and fixed charges. This was due to the potential adverse financial impacts on residential tenants who are often vulnerable customers, large families and also businesses who are more exposed to volumetric price increases

8.6 Deliberative Assembly feedback on the process

In the final full-day session, the assembly rated their experience regarding the Deliberative Assembly process which was overwhelmingly positive (see following figures).

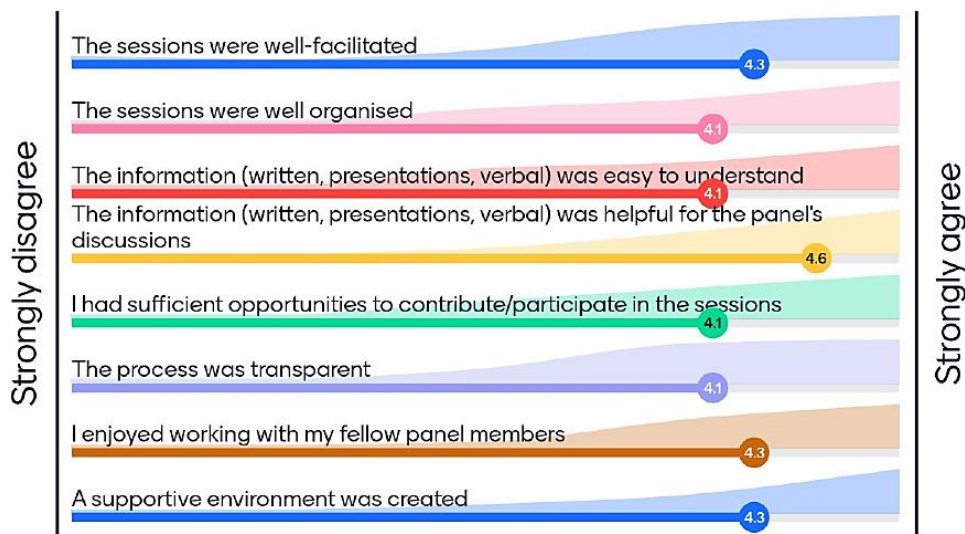


Figure 8.8 Average voting results on 'To what extent do you agree with the following statements about your assembly experience?' (5-point scale)

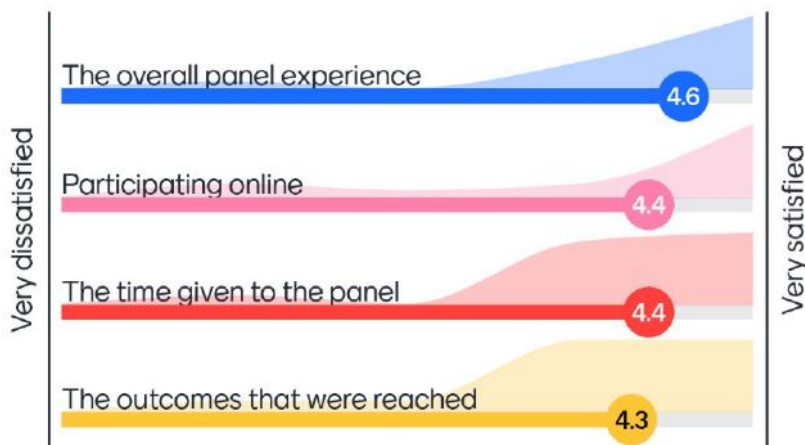


Figure 8.9 Average voting results on 'Overall, how satisfied were you with the assembly experience?' (5-point scale)

A range of positive and reflective comments were received from participants, with positive comments the overwhelming majority. Overall, this feedback demonstrates that the process met the stated engagement objectives and provides CHW with a high degree of confidence in the quality of the outcomes and recommendations from the assembly.

A sample of comments includes:

- Fully supportive:

“Very impressed with the Deliberative Assembly process of consultation, seemed to be authentic. CHW laid out their plans clearly, a genuine consultation. CHW listened and took on our comments.”

“Fantastic experience. I have learnt a hell of a lot about CHW. These types of panels are important towards both the public and the authorities understanding of the issues surrounding both.”

“The process has been very involved and given everyone time to have an open discussion including a breadth of topics that made me think.”

- Reflective:

“Interesting process. I look forward to see whether our input is actually acted upon in the final pricing submission and the future planning of CHW.”

“I think the CHW staff were very transparent and helpful in providing additional information. But the process was hot-housed i.e. I felt forced into some responses I didn't completely agree with owing to the time constraint.”

8.7 Information

At each stage of the customer engagement process, customers were provided with relevant information to support their participation. It is important to note in particular:

- that documents were produced in plain English as much as possible, given the technical nature of some particular topics during the Deliberative Assembly
- that members of the Deliberative Assembly were given access to information that allowed for effective participation and collaboration
- that copies of all information provided can be made available to the ESC

8.8 Community feedback on summary proposal

A 16-page ‘Community Summary’ of the 2023-28 Price Submission was shared with the Community Engagement Panel in mid-August 2022 who endorsed the summary.²⁴

It was then made publicly available for feedback until mid-September 2022. CHW’s Managing Director undertook a number of media and live radio interviews to promote the submission.

²⁴ The document contained the key messages of the price submission, including the proposed Outcomes/Outputs, pricing pathway and major capital expenditure projects/programs and is represented in Appendix section 22.5.

Customers were invited via our social media channels and traditional media to provide feedback ahead of the full submission being made available through the ESC public consultation process in late 2022.

In total, there were 11 responses from community members following the 4-week feedback period.

The following table indicates the key themes of this feedback:

Table 8.2 **Community feedback received**

Feedback theme	Response
<u>Prices (4)</u>	
Supply charges too high on the bill (2)	The Customer Assembly was also originally of the view that the bill proportion should be changed more towards the volumetric component and considered this issue in detail. Following a thorough review of the mix of fixed supply charges and variable volumetric charges, the assembly decided that such a change would be unfair to residential rental customers (many who are also vulnerable customers), large families and businesses, all who would be exposed to substantial increases in the volumetric rate. Refer to section 8 Engagement.
Total bill too high (1)	CHW has managed to keep price rises at our below CPI for at least 10 years. The proposed price rises in this price submission have ensure that CHW has sufficient financial capability to meet the community's rising needs.
CPI (1)	Clarifying if the proposed prices include CPI, which they do not. CPI is applied to each proposed price every year via an ESC formal notification.
Detailed cost breakdown requested (1)	The pricing submission forecasts future operating and capital expenses. Refer sections 14 and 15 respectively. Further details of current expenditure can be gained from the CHW Annual Report, which is available from CHW's website. ²⁵
<u>Water supply (2)</u>	
Concerns over sufficient water supply given the growth of the population (1)	CHW's 2022 Urban Water Supply identifies the 50-year water supply and demand scenarios for each of the 15 systems managed by CHW. The pricing submission incorporates necessary capital investment identified to ensure each system can meet its specified Levels of Service given the dual pressures of climate change and population growth. Refer section 12.1 Growth.
There is no lack of water and residential customers hardly use any, business uses the majority. (1)	Non-residential (business) customers account for approximately 27% of water use with residential customers using the majority, at approximately 73%. Refer section 12 Demand.

²⁵ <https://www.chw.net.au/>

Feedback theme	Response
<p><u>General support (2)</u> CHW has listened to the customer assembly and the submission reflects the opinions and outcomes of the group (2)</p>	<p>This provides confidence that the price submission accurately reflects the priorities of our customers.</p>
<p><u>Water quality (1)</u> Poor water quality experienced</p>	<p>CHW operates 13 water supply systems to ensure water that meets the Australian Drinking Water Guidelines is consistently delivered. It is not known which system this customer was referring to, but the smaller systems of Amphitheatre, Raglan (sub-system of Beaufort) and Redbank receive untreated non-potable water and receive a 50% discount volumetric rate. These 3 systems will benefit from a water quality improvement program, refer section 9 Outcomes.</p>
<p><u>Other - Hepburn Lagoon (1)</u> CHW must oppose the Western Victorian Transmission Network Project as it is going to impact a waterway that feeds into Hepburn Lagoon.</p>	<p>CHW does not have management responsibility for the Hepburn Lagoon or the associated waterway. This may be a matter for the relevant Catchment Management Authority and water corporation who manage the lagoon.</p>

8.9 Engagement – PREMO assessment

For the Engagement component of PREMO, we assessed ourselves to be Advanced (3.25/3.5) as per the following table.

Table 8.3 Engagement – PREMO assessment

Guiding question	Assessment	Rating
<p>Did the form of engagement suit the content of consultation, the circumstances facing the water business and its customers?</p>	<p>CHW undertook a multi-dimensional approach aimed at ensuring a representative sample of customer views were obtained in a COVID-19 constrained environment.</p> <p>The engagement consisted of 3 stages: Stage 1: Community pop-ups, online surveys Stage 2: Customer Synthesron (virtual workshops) and face-to-face workshops with key stakeholders (support agencies, Customer Advisory Panel) Stage 3: Deliberative Assembly.</p>	Advanced
<p>Were appropriate instruction and information provided to customers about the purpose, form and content of engagement?</p>	<p>CHW contracted a panel of experts with specific expertise for each dimension of the engagement approach. A strong focus was placed on ensuring customers were supported with background information, guidance and clear objectives to enable effective contributions.</p>	Advanced

Guiding question	Assessment	Rating
Were the matters engaged on those that have the most influence on the services provided to customers and prices charged?	Early stages of the engagement included themes emerging over the 4 years (Customer Advisory Panel and customer survey) plus open questions to understand customer preferences and priorities. The multi-dimensional approach consisting of 3 phases was designed so that each stage would build on the previous stage, both in the data collected and the intensity of the engagement, culminating in the Deliberative Assembly.	Advanced
To what extent has the business explained how it decided when to carry out its engagement?	Continuing engagement with customers throughout the current periods has been a feature of CHW's approach. The Customer Advisory Panel and a joint customer survey with a group of regional water corporations has been ongoing since 2018. CHW's in-depth customer engagement to support this submission commenced in late 2021 and was tailored to be effective in a COVID-19 environment as Victoria was beginning to ease public health restrictions.	Advanced
How did engagement with customers influence its submission?	CHW's Outcome commitments have evolved since 2018, both through the current period and what is proposed for the 2023-28 period. This has been a direct consequence of listening to customers and shaping the Outcomes to reflect customer preferences and priorities, while acknowledging trade-offs are required and not every customer request can be accommodated.	Advanced
How was engagement inclusive of consumers experiencing vulnerability?	CHW has a strong track record of supporting customers experiencing vulnerability. A dedicated workshop was held with our well-regarded Careflow forum which includes representatives from local support agencies who are at the front line of dealing with the most vulnerable in our communities. Townships with high proportion of social disadvantage were visited specifically as part of the community engagement program.	Advanced
How was engagement inclusive of First Nations people?	CHW regularly consults and engages with First Nations people. As we continue our reconciliation journey, CHW has recently launched our <i>Innovate Reconciliation Action Plan (RAP) 2021-23</i> following extensive engagement with Wadawurrung and Dja Dja Wurrung Traditional Owners. CHW is committed to ongoing engagement and partnership opportunities with Traditional Owner groups.	Advanced
OVERALL RATING		Advanced 3.25

9.0 Outcomes

Key points:

- CHW's Outcomes for the 2018-23 period have evolved since first being established in 2018
- Outcomes for the 2023-28 period have been developed to reflect customer preferences and priorities identified during the multi-dimensional engagement program, with 3 key Outcomes: Customer Care, Equity and Sustainability
- Deliberative Assembly endorsed the Outcomes and Output targets
- PREMO self-assessment of Advanced (score 3.5)

9.1 Summary

CHW's approach to setting Outcomes has not been one of set and forget. Through an ongoing review of our performance with the Customer Advisory Panel, CHW has evolved the Outcomes established in 2018 by revising targets to reflect real time performance, making targets more meaningful as better data and customer understanding is achieved and introducing new targets to reflect customer preferences. In total 6 Output targets were refreshed and 1 new Output introduced. These changes were endorsed by both the Customer Advisory Panel and the ESC and were introduced from the 2021-22 reporting period.

This evolutionary approach has continued with the establishment of Outcomes for the 2023-28 period. CHW's Outcomes have evolved in the following ways:

- removed the network reliability / water quality Output targets based on customer research indicating these are baseline expectations of our customers that are being met
- such metrics will continue to be monitored through the ESC Service Standards reporting and provide a safety net for performance in these areas. However, they are not 'front of mind' for our customers in terms of providing additional value (with 2 notable exceptions, being repair of leaking service and provision of clean drinking water which are further refined under our GSLs – see section 11).
- streamlined the current 5 Outcome themes to 3 which more succinctly and powerfully represent customer thematic preferences:
 - Customer Care
 - Equity
 - Sustainability.

As detailed in the Engagement section (refer section 8), each stage built on the previous, both in the data collected and intensity of engagement. This provided confidence that the

Outcomes proposed have considered customer views, priorities and preferences, as indicated by the feedback from customers on the process (refer section 8.6)

In comparison to the PR18 Outcomes and Outputs, the number of Outcomes has been reduced from 5 to 3 and Outputs from 17 to 14.

This reduction does not diminish the quality of the CHW's commitment, rather the opposite is true, by being able to condense and focus on what is of the most importance to customers, in terms of priorities (Outcomes) and deliverables (Outputs).

CHW has already well-established processes for reporting to customers on the progress of Outcomes through the annual ESC reporting process, our Customer Advisory Panel (to be re-developed into our Community Engagement Panel) and via reporting on our website and social media/traditional media channels.

Where the delivery of an Outcome and/or Output requires discussion or modification due to underperformance or some other consideration, CHW has a track record of engaging promptly and honestly with our customer representative bodies and regulator. This commitment will continue through the PR23 price period.

A number of the individual Outputs may have implications with regards to additional costs that have been fully supported by the Deliberative Assembly. These include the following:

- More frequent billing (from 3 to 4 bills per year) in order to enhance customer affordability by providing smaller bills on average more frequently. This will incur the cost of an additional reading round at an estimated cost of approximately \$200,000 p.a. until digital metering is fully implemented. This is expected to be a short-term measure for years 1 and 2.
- Increased GSL rebates – The increase is not expected to be material, in line with improving performance resulting in fewer payments.
- Improved water quality for towns without access to potable water – A rainwater tank maintenance rebate of up to \$750 per property will be offered to approximately 180 properties in the 3 non-drinking water supply systems of Amphitheatre, Raglan and Redbank at a total cost of approximately \$135,000 if fully taken up.
- Support for vulnerable customers will double to \$500,000 p.a., representing an increased total cost of \$1.25 million across the 5-year period.
- Four-fold increase in support for our Traditional Owner partnership program from \$25,000 p.a. to \$100,000 p.a.

9.2 Outcome - Customer Care

This Outcome ensures that we continue to improve our support and care to all of our customers. Customers were keen for this Outcome to facilitate ongoing and improved customer service while focussing on elements of service of importance to them. It will be delivered by 5 key Outputs, as shown in the following table.

Table 9.1 Proposed Outputs – Customer Care

Output	Measure	Baseline	Target
First call resolution	Percentage of calls which are resolved during initial call, measured by customer response to post-call survey.	N/A. Target to be revised if 12 months of baseline data shows performance above the initial 60% target.	60% initially, improving to 80% by 30 June 2028 Review other channels to establish separate targets during 2023
Net Positive Score	Percentage of promoters less percentage of detractors, measured by customer response to post call survey.	N/A.	Greater than 0
More frequent billing	Quarterly billing has been implemented.	Customers are currently billed every 4 months.	Implement quarterly billing by 31 December 2023 Further targets to be set following the roll out of digital metering.
Priority Guaranteed Service Levels (GSLs)			
Leaking water service	Number of leaking services reported by customers not repaired in 3 business days	- Average 13 leaks per annum not repaired within 4 business days. - GSL rebate for breach is \$100	- 25% reduction in number of leaks by 30 June 2028. - Repaired within 3 business days. - GSL doubled from \$100 to \$200.
Supply of clean drinking water	Supply of dirty water reported by customers not repaired in 8 hours	- Zero cases reported in past 4 years. - GSL payment for breach is \$100.	GSL doubled from \$100 to \$200.
Guaranteed service levels (GSLs)	A range of GSLs exist which provide for customer rebates to be paid if the service level is not met	Average 300 rebates paid per annum over last 4 years (across all 8 GSLs).	10% reduction in total annual rebate payments by 30 June 2028. Increase \$ value of GSL rebates by 50% from 1 July 2023

9.3 Outcome – Equity

This Outcome ensures that services and opportunities are developed, funded and shared more equitably across a range of areas. It is represented by 5 key Outputs.

Table 9.2 **Proposed Outputs - Equity**

Output	Measure	Baseline	Target
Funding regional growth	Decrease cross subsidy between existing and new customers from new subdivisions by increasing New Customer Contributions (NCCs)	NCCs \$1,504 per lot (water only)	Revised NCCs introduced 1 July 2023 with a differential rate between new growth zones and existing growth zones/infill NCC full fee (\$8,000) phased in for new growth zones by 1 July 2025
Improved water quality for customers in towns without access to potable water i.e. Amphitheatre, Raglan and Redbank	Undertake a detailed study of customer needs in these 3 towns: Develop measures from the study outcomes.	N/A	Study completed, outcomes developed and measures established by 30 June 2025
	Provide a rebate program to assist customers in maintaining water quality in rainwater tanks	N/A	Rainwater tank maintenance support program rebate: \$750 per connection. 80% take-up by 30 June 2028
Support for vulnerable customers	\$ spent on direct customer support	Average \$250,000 per annum.	\$500,000 per annum average \$2,500,000 across the 5-year period.
Impact of vulnerable customer support programs	Demonstrate the positive impact of our vulnerable customer support programs through various indicators.	N/A	Lower consumption/bills through leak reduction cohort analysis (% TBC). Customer satisfaction survey to measure the effectiveness of the support (rating level TBC)

Output	Measure	Baseline	Target
Traditional Owner partnerships	\$ spent on CHW/Traditional Owner partnership opportunities.	Average \$25,000 per annum.	\$100,000 p.a. average. \$500,000 across the 5-year period.
	<i>Central and Gippsland Region Sustainable Water Strategy</i> Specific action: 4-6 Streamlining temporary water trades ²⁶	N/A	31 December 2027
	Staff employed directly by CHW who identify as Aboriginal and/or Torres Strait Islander	Staff who identify as Aboriginal and/or Torres Strait Islander Employment 2%	Staff who identify as Aboriginal and/or Torres Strait Islander Employment 3% by 2025
	Demonstrate the positive impact of partnership with Traditional Owners	N/A	Partner satisfaction survey to measure the effectiveness of the partnership (rating level TBC)

²⁶Central and Gippsland Region Sustainable Water Strategy action 4-6: Central Highlands Water (as lead agency), the Wadawurrung Traditional Owners Aboriginal Corporation, the Victorian Environmental Water Holder and the Corangamite CMA will work together to develop agreements to support temporary water trade in the Moorabool system, when conditions allow, from Central Highlands Water to the Wadawurrung and environment, at Lal Lal Reservoir. This will include consideration of how water can be made available to the Wadawurrung Traditional Owners Aboriginal Corporation. Lessons from this case study can be used across the region to make it easier for similar trades to occur for other rivers.

9.4 Outcome – Sustainability

This Outcome ensures that CHW continues to reduce our environmental footprint while continuing to develop and deliver services that customers value. It will be delivered by 4 key Outputs.

Table 9.3 **Proposed Outputs - Sustainability**

Output	Measure	Baseline	Target
Renewable energy ²⁷	Percentage of electricity from renewable sources	32% renewable at 30 June 2021	100% renewable by 30 June 2025
Greenhouse gas emissions reduction ²⁸	Percentage of emissions reduction from 2011-16 baseline	26% reduction at 30 June 2021	55% reduction by 30 June 2028
Recycled water	Increase amount of recycled water used for community benefit	286 ML per annum	75% increase by 30 June 2028
Water efficiency	Amount of unaccounted water in the network (e.g. leaks, unauthorised use)	1,250 ML per annum	15% reduction by 2028

9.5 Outcomes – PREMO assessment

For the Outcomes component of PREMO, we assessed ourselves to be Advanced (3.25/3.5) as per the following table.

Table 9.4 **Outcomes – PREMO assessment**

Guiding question	Assessment	Rating
Has the business provided evidence that the outcomes proposed have taken into account the views, concerns and priorities of customers?	CHW's extensive customer engagement program has shaped the Outcomes development. The multi-dimensional approach consisting of 3 phases was designed so that each stage would build on the previous stage, both in the data collected and the intensity of the engagement. During the final stage (Deliberative Assembly) the Outcomes were shared and received strong support from customers.	Advanced
Has the business provided sufficient explanation of how the outcomes it has	CHW provided a range of high-level financial scenarios to customers during the Deliberative Assembly to enable an understanding of trade-offs.	Standard

²⁷ The renewable energy and greenhouse gas reduction targets are consistent with CHW's 2022 *Statement of Obligations (Emission Reduction)*.

²⁸ <https://www.water.vic.gov.au/climate-change/reduced-emissions-in-the-water-sector/net-zero-emissions-by-2050>

Guiding question	Assessment	Rating
proposed align to the forecast expenditure requested?		
Has the business proposed outputs to support each of its outcomes, which are measurable, robust and deliverable?	CHW has proposed 14 individual Outputs across the 3 Outcomes CHW has defined baseline performance for the majority of Measures with specific targets which show material improvement is required to reach the targets.	Advanced
Has the business provided evidence that the outputs it has proposed are reasonable measures of performance against stated outcomes?	Through the Deliberative Assembly, CHW tested the individual Output measures with customers to ensure they were appropriately aligned and robust.	Advanced
Has the business demonstrated a process to measure performance against each outcome and to inform customers?	CHW will continue to report performance to customers on a 6-monthly basis through a range of communication channels, including engagement with the Community Engagement Panel and timely presentation of annual reporting of progress against Outcome commitments.	Advanced
OVERALL RATING		Advanced 3.25

10.0 Service Standards

Key points:

- ESC has proposed minor changes to the existing service standards
- CHW does not propose any changes above those suggested by the ESC

The ESC has proposed changes to the service standards within the Urban Customer Service Code²⁹ as part of the broader review of our customer service codes. Most of the changes are aimed at making it clear what service standards are and to present them in a way that is more meaningful to customers.

One new service standard has been introduced by the ESC to address minimum water supply requirements.*

CHW is not proposing any further amendments to service standards beyond the changes proposed by the ESC, as indicated by the following table.

Table 10.1 **Proposed service standards**

Service Standard	Target
Water	
* Minimum water flow rate a customer should receive (L/min)	10
Maximum number of unplanned water supply interruptions a customer should experience in any 12 – month period	5
Average time taken to attend bursts and leaks (priority 1) (minutes)	40
Average time taken to attend bursts and leaks (priority 2) (minutes)	65
Average time taken to attend bursts and leaks (priority 3) (minutes)	450
Average duration of unplanned water supply interruptions (minutes)	120
Average duration of planned water supply interruptions (minutes)	175
Sewerage	
Maximum number of sewer blockages a customer should experience in any 12-month period	3
Average time to attend sewer spills and blockages (minutes)	40
Average time to rectify a sewer blockage (minutes)	120
Maximum time taken to contain a sewer spill (minutes)	300

²⁹ To be renamed the *Water Industry Standard – Urban Customer Service*

11.0 Guaranteed Service Levels

Key points:

- CHW substantially revised GSL rebates in 2018.
- Customers have identified 2 priority GSLs requiring service improvement – penalties for these GSLs have increased by 100%.
- CHW is proposing to increase all other GSL rebate penalties by 50% to take on more risk.

CHW substantially increased the GSL penalties applicable for the current price period in 2018. Customer feedback during the engagement phases for this submission showed that customers do not see a need to introduce new GSLs, however customers identified 2 GSLs as priorities for CHW:

- failure to provide clean drinking water – fault not restored within 8 hours
- failure to repair leaking water service within 3 business days.

To reflect this customer feedback CHW will double the rebate penalties that apply to both to \$200.

While not explicitly requested by customers CHW has taken on more risk by increasing the rebate penalties for all other GSLs by 50%.

Table 11.1 **Proposed Guaranteed Service Levels**

Guaranteed Service Level	Current Rebate (\$)	Proposed Rebate (\$)
Failure to provide clean drinking water with the presence of dirty water (more than 5 turbidity units) as the result of a CHW fault not restored within 8 hours	100	200
Failure to rectify an unplanned interruption to a customer's water supply within 4 hours of becoming aware of the interruption	100	150
Exceeding 3 water supply interruptions to a customer in any 12 – month period	100	150
Failure to repair leaking water service within 3 business days of becoming aware of the leak	100	200
In the event of a sewer spill within customer's house, which is caused by CHW, the annual wastewater service fee will be refunded as a rebate	750	1,125
Failure to rectify sewer interruption within 3 hours of becoming aware of the interruption	100	150
Exceeding 1 sewer supply interruption in any 12-month period	100	150
Restricting the water supply of, or taking legal action against a residential customer prior to taking reasonable endeavours to contact the customer and provide information about help that is available if the customer is experiencing difficulties paying	300	450

12.0 Demand

Key points:

- The COVID-19 pandemic has influenced higher regional growth in many parts of regional Victoria, including Ballarat.
- Population growth has accelerated since 2020 with connection growth in the region averaging 2.9% p.a. which is above its long-term average of 1.7% p.a.
- CHW expects this growth to moderate but not return to pre-pandemic levels.
- CHW is forecasting a total overall connection growth rate of 2.2% p.a. for each year of the 5-year period.
- CHW is forecasting a connection growth of 2.5% p.a. for Ballarat, the main growth centre of our service region, which is consistent with the City of Ballarat forecasts
- The growth forecasts are higher than the current Victoria in Future 2019 forecasts which were made pre-pandemic

There are 2 key components to forecasting future demand for services and water consumption. These are the adopted growth rates in regards to new connected services and the average consumption of water per connected service. Both of these components are discussed below.

12.1 Growth

The method for forecasting growth rates for the 2023-28 regulatory period is largely based upon the work completed as part of the development of CHW's 2022 Urban Water Strategy (UWS). The UWS is a 50-year plan that considers in detail the factors that influences future service delivery such as population growth, climate change, regulatory requirements and changing policy directions. The plan, which looks as far ahead as 2070, details connection growth scenarios for each of the 15 systems managed by CHW, as well as wastewater capacity and needs. The UWS and its underlying assumptions regarding supply and demand scenarios have been fully endorsed by the State Government, and it is publicly available on our website.^{30 31}

A key part of the UWS and this review was understanding the influences on future growth rates in the CHW service region. Key sources of information accessed and relied upon included:

- Victoria in Future 2019 (VIF2019) growth forecasts
- changes in regional growth patterns influenced by the COVID-19 pandemic

³⁰ Central Highlands Water (2022) *Urban Water Strategy*. <https://www.chw.net.au/community/future-water-planning/urban-water-strategy>

³¹ Refer to Appendix section 22.7 for a graphic that shows future supply and demand scenarios for the Ballarat water supply system

- influences on future local growth
- historical growth rates from our records
- Local Government forecasts from the City of Ballarat for the Ballarat LGA

A brief discussion of each source of information and outcome is shown below:

Victorian in Future 2019 (VIF2019)

VIF is the Victorian Government's official source of future population projections.³² The most recent VIF2019 data (indicates a residential population growth rate in the Ballarat LGA of 1.8% p.a. over the 5-year period to 2026, reducing to 1.7% p.a. over the following 5-year period to 2031, as shown by the following table. It is important to note that this VIF data was developed in 2019 prior to the COVID-19 pandemic commencing in early 2020 and does not reflect the substantial changes in growth drivers and patterns that have occurred across the state since then. CHW has relied upon additional analysis of economic growth drivers to estimate future connection rates.

Table 12.1 **VIF2019: Ballarat LGA - Estimated residential population**

	Population Estimate			Annual Growth % p.a.	
	2021	2026	2031	2021-26	2026-31
VIF2019	113,710	124,630	135,440	1.8%	1.7%

Changes in regional growth patterns

The global COVID-19 pandemic has created a substantial increase in the number of people moving from Melbourne to regional Victoria, particularly those large regional centres close to Melbourne, as indicated by the following observation from the State Government:

*The COVID-19 pandemic has changed Victoria's longstanding pattern of population growth. While the state's population has declined overall, regional Victoria, since June 2020, has welcomed twice as many people from Melbourne compared to before the pandemic. This is putting increasing pressure on residential development in some areas in regional Victoria.*³³

The scale and pace of change has accelerated and expanded the potential range of population growth possibilities in the CHW service region.

Influences on future local growth

State planning policy identifies the requirement to accommodate projected population growth over at least a 15-year period and provide clear direction on locations where growth should occur. There are only between 7 and 9 years of zoned greenfield supply in Ballarat.

The State Government's *Urban Development Program* identifies greenfield land as land zoned for an urban residential use, such as land zoned General Residential Zone.

³² <https://www.planning.vic.gov.au/land-use-and-population-research/victoria-in-future>

³³ <https://www.planning.vic.gov.au/land-use-and-population-research/urban-development-program/regionaludp> accessed 4 August 2022

The map below shows the existing and proposed growth zones in and around Ballarat including the estimated number of lots available in each zone. Approximately 32,000 lots will be available across these 5 zones. Based on the City of Ballarat greenfield mix of 70%, just under 9,000 lots (28%) of the 32,000 available lots will need to be developed over the next 6 years to maintain the required serviced lots. The main growth frontiers are shown by the following figure.

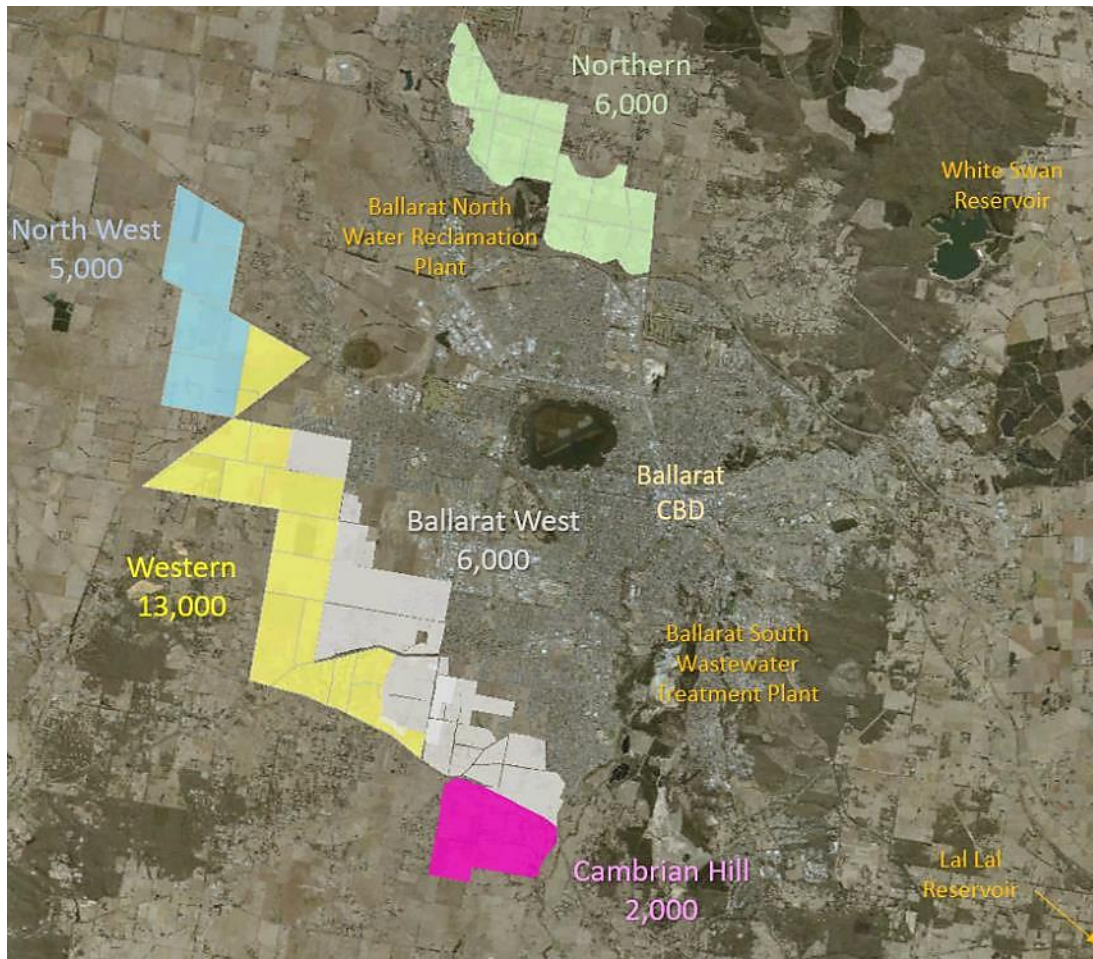


Figure 12.1 **Growth zones in the Ballarat area**

This analysis demonstrates there are strong fundamentals in the Ballarat region and that growth would be more likely to continue at an increased rate rather than return to the pre-2020 growth rates. This is supported by recent advice received from the City of Ballarat in regards to the rezoning of the Ballarat Northern Growth Area.³⁴ See Appendix section 22.6 for the City of Ballarat's full announcement.

Historical growth rates from our records

Historically, the Ballarat system has had an average connection growth rate of 1.9% p.a.

³⁴ CHW received formal advice from the City of Ballarat on 6 September 2022 that the Minister for Planning has instructed the DELWP to prepare to adopt and approve a Planning Scheme Amendment for the Northern Growth Area (as identified in the Ballarat Planning Scheme) that will rezone the identified land for urban development, primarily residential purposes. The Minister has also approved the appointment of the Victorian Planning Authority (VPA) to prepare the necessary Precinct Structure Plan/s (PSP) and CHW has been invited by the VPA to participate in that process, commencing September 2022.

In 2020-21, the first year of the COVID-19 pandemic, this nearly doubled to 3.7% and in the most recent financial year of 2021-22, the growth moderated somewhat to 3.0%, but still substantially above the long-term trend.

Local Government forecasts from the City of Ballarat for the Ballarat LGA

CHW liaises closely with the City of Ballarat, and their detailed analysis conducted in early 2022 also confirmed a higher growth rate for Ballarat than VIF2019, with the City of Ballarat adopting a benchmark future growth rate of 2.5% p.a. for Ballarat.³⁵ This mirrors the adoption of 2.5% p.a. for Ballarat in CHW's 2022 Urban Water Strategy.

Summary

Clearly there are many factors which need to be considered before assuming a continuation of the significant uplift in growth forecasts based on the past 2 year's dramatic increase in growth due to the COVID-19 pandemic. However, a combination of events over the past 2 years, as outlined above, has required a material revision to CHW's connection growth forecasts which will ultimately impact on demand forecasts.

Analysis of the leading indicators of growth from multiple sources such as the State Government and the City of Ballarat, point to a sustained uplift in growth over at least the medium term.

As a result, CHW is comfortable in adopting 2.5% p.a. growth rate for the Ballarat system. This is crucial as Ballarat is the largest system managed by CHW and is expected to account for approximately 94% of all new growth across our service region. This results in an overall growth rate of 2.2% p.a. over the 5-year forecast period as indicated by the following table.

By assuming a higher growth rate than VIF2019 over the medium term CHW is taking on financial risk should these forecasts fail to materialise.

The following table shows the growth rates for each supply system.

Table 12.2 **Adopted growth rates 2023-28**

Water supply system	Growth rate (% p.a.)	Water supply system	Growth rate (% p.a.)
Amphitheatre	0.6	Forest Hill	0.8
Avoca	0.8	Landsborough	0.4
Ballarat & District	2.5	Learmonth	0.8
Beaufort	1.2	Lexton	0.5
Blackwood	0.7	Maryborough	0.8
Clunes	1.2	Redbank	0.3
Daylesford	0.9	Waubra	0.3
Dean	0.8		
Overall:	2.2		

³⁵ <https://www.ballarat.vic.gov.au/2022-agendas-and-minutes> Refer 23 February 2022 Council Meeting Agenda Part 1 p.223

12.2 Demand

Residential water demand per connection has been estimated based on historic consumption trends as shown in Table 12.3 below.

Digital metering is planned to be introduced early in the period and is expected to yield benefits of reduced water demand as residential customers are able to more easily focus on their water consumption and modify their water-use behaviours (albeit considering the overriding influences of climate variation).³⁶ It is not anticipated that non-residential consumption will be influenced to the same extent and will potentially increase slightly year-on-year as the 3 consecutive years of La Nina weather conditions moderate, which have tended to depress water demand.

Average demand for both residential and non-residential customer groups is expected to be lower across the PR23 period in comparison to the PR18 period due to the impact of water efficiency programs.

Residential demand will account for approximately 73% of total demand, with non-residential demand accounting for approximately 27% (refer table 12.5).

Table 12.3 Residential (billable) demand (average kL per connected service)

2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Actual	Actual	Actual	Actual	(est)	Forecast	Forecast	Forecast	Forecast	Forecast
160	151	147	143	150	149	148	148	148	146
PR18 average = 151					PR23 average = 148				

Table 12.4 Non-residential (billable) demand (average kL per connected service)

2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Actual	Actual	Actual	Actual	(est)	Forecast	Forecast	Forecast	Forecast	Forecast
765	692	637	626	633	638	643	649	655	661
PR18 average = 670					PR23 average = 649				

³⁶ Araine Liu, Pierre Mukheibir, Institute for Sustainable Futures, University of Technology Sydney (2018). *Digital metering feedback and changes in water consumption – A review*. Resources, Conservation & Recycling 134 (2018) 136-148. <https://doi.org/10.1016/J.RESCONREC.2018.03.010>

This research paper reviewed 25 published studies regarding the impact that the introduction of digital water metering had on residential water consumption, citing mean savings across all the studies of 5.5%, within the 10th–90th-percentile envelope of 3.0%–8.0% savings (excluding the extreme outliers).

Factors influencing demand

- There is no proposed change to tariff structures that would impact upon existing demand patterns.
- It is expected that Permanent Water Savings Rules would be in place for each of the 15 systems over the PR23 period, as has been the case for the current price period.
- Although CHW is proposing price increases of 1.0% p.a. above CPI in years 2 to 5 of the PR23 regulatory period, we are not expecting that this price increase will directly impact on customer demand. This is due to other factors influencing demand more significantly such as the ability for customers to positively influence their usage through the introduction of digital metering, water efficiency programs and the influence of prevailing climatic conditions.

The following table shows the retail demand forecast across the 10-year regulatory period:

Table 12.5 **Demand forecast**

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Water assessments (no.)										
Total	79,748	81,503	83,296	85,128	87,001	88,915	90,871	92,871	94,914	97,002
Wastewater assessments (no.)										
Total	69,123	70,644	72,198	73,786	75,409	77,068	78,764	80,497	82,268	84,078
Billable water consumption (ML)										
Residential	10,917	11,138	11,364	11,595	11,731	11,869	12,009	12,150	12,294	12,439
Non-residential	4,039	4,116	4,194	4,274	4,355	4,437	4,522	4,608	4,695	4,785
Total (ML)	14,956	15,254	15,558	15,869	16,086	16,306	16,531	16,758	16,989	17,224

13.0 Revenue Requirement

Key points:

- Revenue requirement of \$549.2 million over 5 years using the building block approach
- Return on RAB of 4.1% aligned to a Standard PREMO rating

CHW is proposing a revenue requirement of \$549.2 million over the 5-year period based on the building blocks model adopted in the financial template. The components of the revenue requirement are set out below:

Table 13.1 **5-year revenue requirement** (\$m 2023)

Building block	2023-24	2024-25	2025-26	2026-27	2027-28	5-year Total
Operating expenditure	72.17	74.40	75.69	75.98	77.01	375.25
Return on assets	11.00	10.65	10.63	10.63	10.76	53.66
Regulatory depreciation of assets	20.90	21.89	22.86	23.84	24.87	114.37
Adjustments from last period	-	-	-	-	-	-
Non-prescribed revenue offset of revenue requirement	-	-	-	-	-	-
Tax liability					5.91	5.91
Total	104.06	106.94	109.18	110.45	118.55	549.19

The forecast revenue requirement over a 10-year period is shown below:

Table 13.2 **10-year revenue requirement (\$m 2023)**

Building block	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	10-year total
Operating expenditure	72.17	74.40	75.69	75.98	77.01	75.47	76.20	76.94	77.70	78.46	760.03
Return on assets	11.00	10.65	10.63	10.63	10.76	11.27	12.02	12.88	13.39	13.63	116.84
Regulatory depreciation of assets	20.90	21.89	22.86	23.84	24.87	26.81	29.26	30.86	31.45	32.00	264.76
Adjustments from last period	-	-	-	-	-	-	-	-	-	-	0
Non-prescribed revenue offset of revenue requirement	-	-	-	-	-	-	-	-	-	-	0
Tax liability					5.91	7.20	7.48	7.67	7.74	7.81	43.91
Total	104.06	106.94	109.18	110.45	118.55	120.76	124.96	128.35	130.28	131.90	1,185.45

14.0 Forecast Operating Expenditure

Key points:

- Operating expenditure for the baseline reference year (2021-22) is 10% above the PR18 Price Determination allowance, but only 6% above on a per connection basis due to above-forecast connection growth.
- Significant cost pressures have emerged since 2018.
- Gross cost growth of 2.2% p.a. in line with forecast connection growth during 2023-28
- Cost efficiency of 1.0% p.a. forecast to be achieved
- Net cost growth of 1.2% p.a. proposed

The operating costs included in our submission have been reviewed and analysed extensively to ensure they are as prudent and efficient as possible while continuing to provide the service levels that our customers expect and are willing to pay, while also managing the significant cost pressures due to a number of factors that are detailed below.

14.1 Total operating expenditure

We forecast a total prescribed operating expenditure of \$375.2 million over the 5-year regulatory period which includes \$34.6 million of non-controllable costs associated with license fees, environmental contribution and bulk water charges.

The following Figure 14.1 outlines the actual and forecast operating expenditure over the current 2018-23 regulatory period as well as forecast for the next regulatory period. The chart shows an increase in expenditure from 2021-22 due to substantial and sustained cost pressures, which are described in detail in sections 14.3 and 14.4.

Due to the increased connection growth forecasts over the next 5 years (2.2% p.a.), and ongoing cost pressures, operating expenditure is forecast to incrementally increase year-on-year from the current price period.

However, the operating expenditure increases will be less than the forecast growth rate which continues to reflect our commitment to deliver our operational efficiency program as detailed in section 14.4.

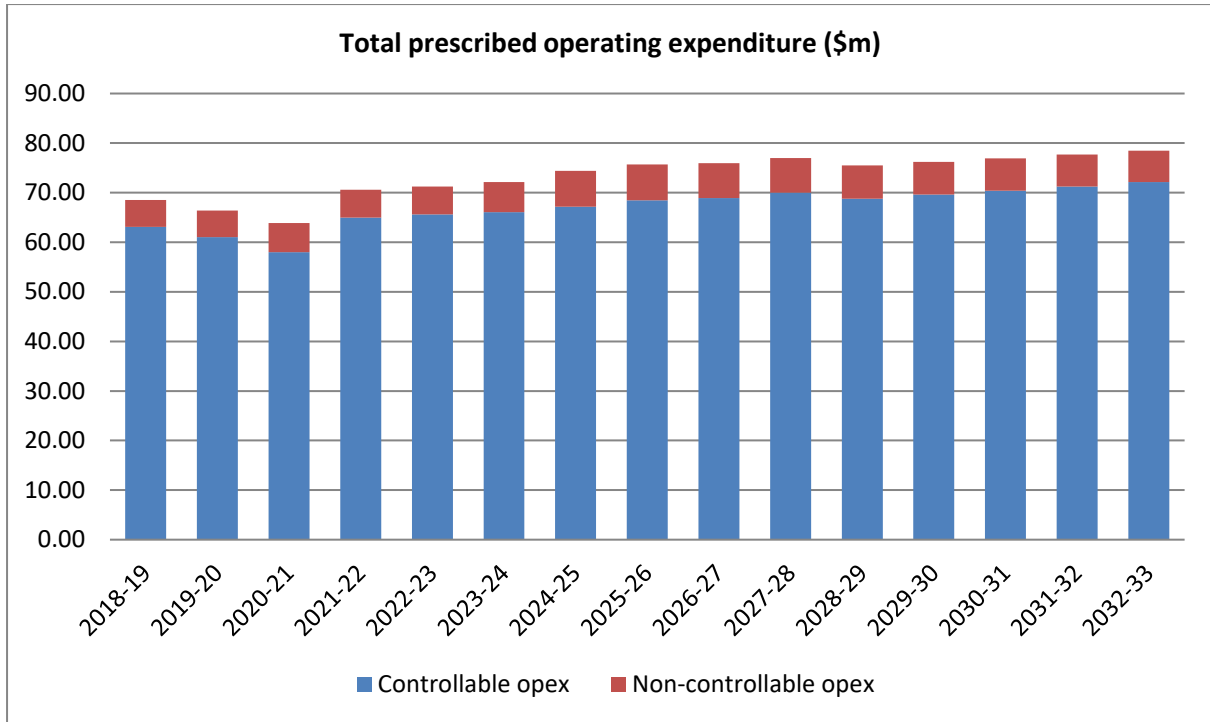


Figure 14.1 Total prescribed operating expenditure (\$m 2023)

Figures 14.2 and 14.3 (following) outlines our forecast operating expenditure per annum for each year of the upcoming regulatory period, categorised into the major service areas.

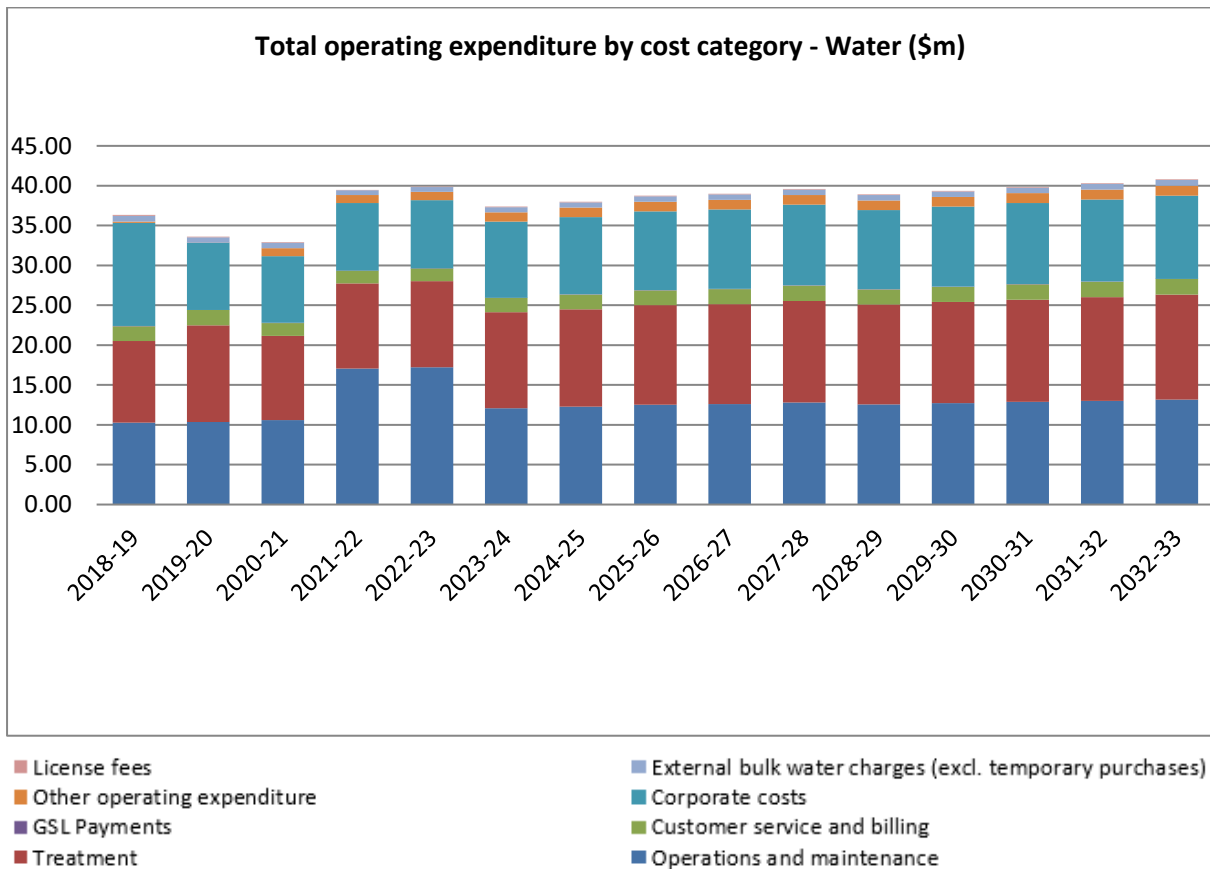


Figure 14.2 Total operating expenditure by cost category - Water (\$m 2023)

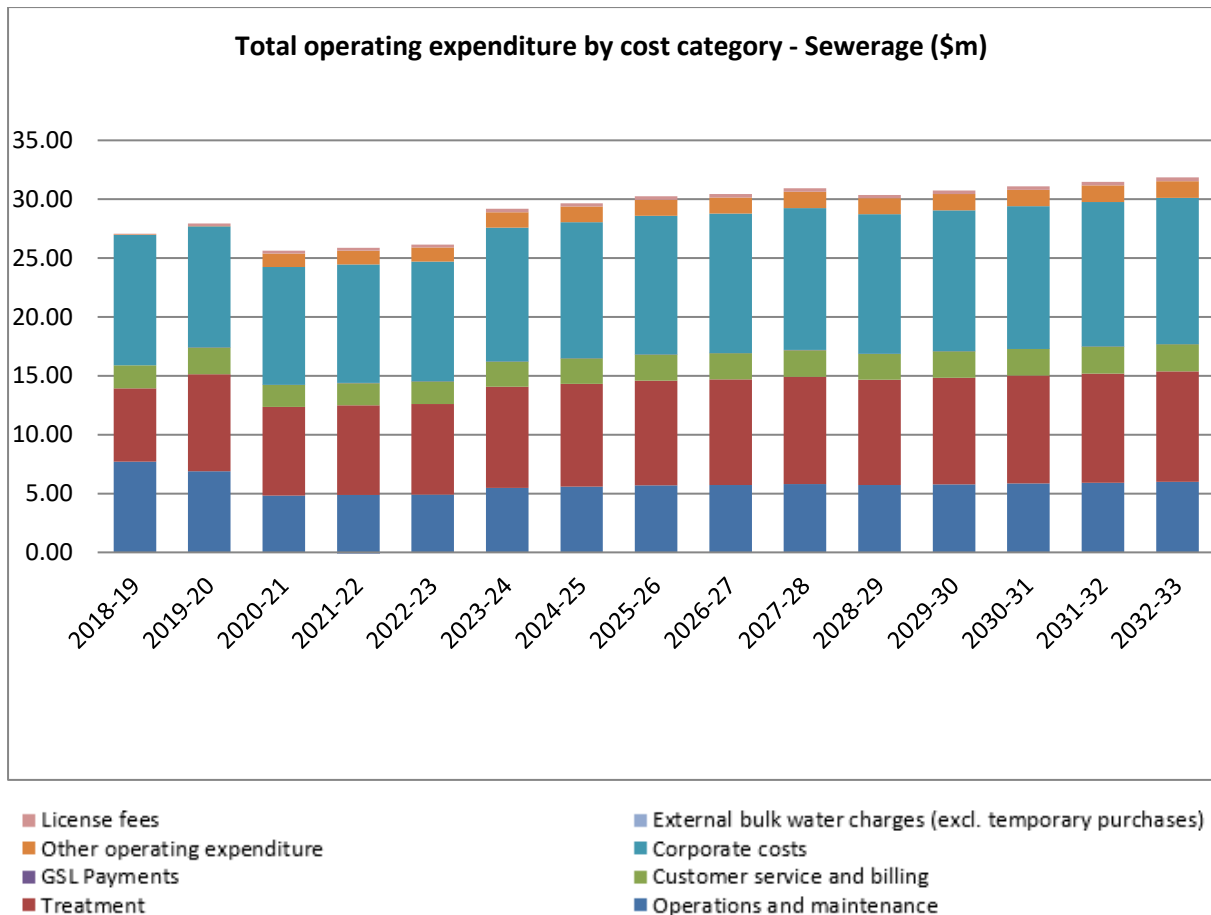


Figure 14.3 Total operating expenditure by cost category – Sewerage (\$m 2023)

14.2 Baseline controllable operating expenditure

The 2021-22 financial year was selected to develop a baseline controllable operating expenditure profile for the 2023-28 regulatory period. As part of this process, all non-controllable, one-off and non-recurring costs in 2021-22 were removed from the baseline calculation.

The total prescribed operating expenditure for 2021-22 was recorded as \$70.6 million (2023 \$). Once the non-controllable costs were removed along with the one-off and non-recurring costs, the adjusted baseline operating expenditure value is \$63.31 million.

This adjusted baseline value, compared to the 2021-22 controllable operating expenditure, as approved in the 2018 Price Determination of \$57.1 million is \$6.2 million or 10.8% above (expressed as 2023 \$).

However, the controllable operating expenditure is only 6% above the baseline on a per connection basis due to above-forecast connection growth, as shown by the following table:

Table 14.1 **Adjusted baseline controllable expenditure 2021-22 (\$ 2023)**

	PR18 Forecast	Actual	Variation
Adjusted expenditure	\$57.13m	\$63.31m	+ 10.8%
Connected water services (number)	73,355	76,352	+ 4.1%
Adjusted expenditure per connection	\$778.82	\$829.16	+ 6.4%

14.3 Operating expenditure 2018-23

CHW has experienced significant cost pressures over the past 4 years driven by a range of factors as outlined below:

- compliance costs
- higher than forecast growth as a result of the COVID-19 pandemic
- digital and IT costs including additional costs associated with cyber-security
- supply chain costs above CPI
- increase in FTE's to support and service growth and increased compliance costs
- insurance increases

These are shown in the table below.

Table 14.2 **Unplanned cost pressures during past 4 years**

Cost pressure	Description
Compliance costs	An independent review of compliance costs across the water industry identified approximately 30 new or amended obligations have been introduced since 2018. ³⁷ There is also evidence to suggest that requirements relating to reporting, assurance, attestation, and auditing across many obligations has become more onerous, thus contributing to this cost increase. While some of these costs have been absorbed, other costs have not, requiring expenditure above the 2018 forecast.
Victorian Protective Data Security Standards (VPDSS)	To meet the comprehensive compliance requirements of these standards CHW has added 2 FTE staff dedicated to this program. In addition, external vendor support has also increased to drive compliance costs in our IT systems.
Occupational Health & Safety	A review of CHW's civil maintenance program identified a number of improvement opportunities to ensure CHW continues to provide a safe environment for staff, contractors, customers and the community. One example of the improvements made included revisions to 2 major contracts – traffic management and road reinstatements. These contract revisions have added additional costs to CHW's operating cost base. A new senior safety position has also been created in the business and,

³⁷ Inxure Strategy Group (2022). *Compliance Obligation Assessment for the Victorian Water Corporations*. (June)

Cost pressure	Description
	more recently, additional roles dedicated to staff wellbeing have been created which the pandemic has shown is an essential requirement.
Additional compliance activities	Other new compliance activities which have required investment in FTE staff include the following: Asset Management Accountability Framework, Social Procurement, Gender Equity, Emissions reduction, General Environmental Duty and Environmental Site Improvement plans.
Accommodating growth	CHW's recent acceleration in connection growth has resulted in total connections being 4.1% higher in 2021-22 than forecast in the 2018 price submission. This in turn has led to cost increases across CHW with material increases (including additional staffing resources) in those functions directly impacted, including Land Development, Asset Planning and Maintenance and Meter Reading.
COVID-19 pandemic	Although the pandemic resulted in some non-critical activities being deferred due to constraints on accessing services, CHW quickly adapted to the new environment. We invested in new technology to ensure service to our customers continued without any significant impact (which is evidenced by our customer satisfaction ratings continuing to improve during this time). This included additional digital platforms for staff, online training opportunities to ensure we remained compliant with all legislative requirements and an increase in labour hire costs to manage staff on leave as a result of COVID-related illness.
Other Full Time Equivalent (FTE) increases	<p>FTE's have increased during the 2018 to 2023 period to ensure service levels to our customers continued to be delivered and also to deliver on the additional compliance and legislative requirement in specific areas. Total FTE's have increased from 190.7 in 2018-19 to 197.8 at 30 June 2022 in the following activities:</p> <ul style="list-style-type: none"> • ICT and digital services to provide additional support to cyber security and enterprise services • Civil Maintenance • Customer Service including a dedicated hardship officer to support customers in hardship during the pandemic and beyond • Environmental Strategy and planning to deliver on environmental strategy and targets • Infrastructure Planning and delivery to manage the impact of significant growth forecasts • Customer Experience to provide dedicated focus on improving our customer satisfaction ratings
Insurances	<p>CHW continues to leverage the benefits of collective purchase of our insurance policies with the Victorian Water Corporations (VWCs) despite a challenging market and difficulties in sourcing adequate coverage and competitive rates. However due to a number of internal and external factors insurance continues to increase with the base premium for 2022-23 increasing by 16% from the 2021-22 year. These factors include:</p> <ul style="list-style-type: none"> • Major rain events in South Australia, Queensland and New South Wales occurred in Q1 2022, resulting in what is anticipated to be an overall

Cost pressure	Description
	<p>insurance market loss of close to \$5 billion, putting upward pressure on premiums.</p> <ul style="list-style-type: none"> • Adverse developments in the consolidated VWC Liability claims record resulting in premium increases • War in Ukraine has created further challenges in the insurance market, with government utilities perceived by many markets as uninsurable.

14.4 Operating expenses 2023-28

The Baseline Operating Expenditure in 2021-22 has been adjusted as follows to develop the forecast for the 2023-28 period:

1. Add growth rate

CHW is targeting a gross cost growth of 2.2% p.a. in line with connection growth. Given the cost pressures noted above we believe this is a solid starting position.

2. Apply efficiency target

An efficiency target of 1.0% p.a. has been set to mitigate these cost pressures. Key efficiency initiatives include the following:

- digitisation of systems across both corporate and operating systems will drive efficiency savings in all aspects of business
- continuing to identify and participate in joint procurement opportunities
- participating in VicWater working groups to enable collaboration across the water sector and shared benefits
- the establishment of an enterprise program management office and innovation hub to identify and deliver on initiatives that will drive efficiencies.

3. Variations to baseline

A number of adjustments to the baseline have been identified:

- Directly related to customer-endorsed Outcomes:
 - Double our support for vulnerable customers from \$250,000 p.a. to \$500,000 p.a.
 - Four-fold increase in support for our Traditional Owner partnership program from \$25,000 p.a. to \$100,000 p.a.
 - Provide a rainwater tank maintenance rebate to customers of Amphitheatre, Raglan and Redbank to the value of \$135,000 if fully taken up
 - Introduce an additional meter reading round prior to the introduction of digital metering to the value of approximately \$200,000 p.a. for year 1 and year 2

- Additional cost obligations:
 - White Swan Dam Safety project. The White Swan Dam Safety Improvement capital project (refer section 15) will require the reservoir levels be reduced for rectification works. Water will need to be accessed via pumping from the Goldfields Superpipe in order to maintain reservoir levels within the contract defects period. Pumping costs of \$1.1 million will be incurred over a 3-year period.
 - An estimated 2 FTE per annum to support the increased growth projections and legislative requirements.
 - Costs associated with managing biosolid stockpile to meet EPA requirements are estimated to be \$200,000 per annum
 - Lagoon biosolids remediation costs estimated to be \$390,000 per annum

The net result of this forecast is operating cost growth of 1.2% average per annum.

15.0 Forecast Capital Expenditure

Key points:

- Ballarat is experiencing unprecedented growth in new development zones
- A proposed capital allowance uplift of 62% on the current program
- \$256 million capital works program over 5 years
- 45% of spend on supporting regional growth and supporting new growth areas
- 32% of spend on service improvements and compliance with regulations
- 23% of spend on renewals and replacements to maintain service standards
- A lean capital program with high confidence levels regarding budgets and deliverability due to major projects and programs that are well advanced.

15.1 PR18 2018-23 on reflection

The following provides a high-level summary of the capital expenditure program during the PR18 2108-23 period:

- ESC approved capital allowance in PR18 of \$130 million (based on 2018 \$) is equivalent to \$145.8 million (based on 2023 \$)
- an estimated capital expenditure of \$158.0 million (2023 \$) for the full PR18 period
- overall capital expenditure is estimated to be 8.4% higher than the PR18 capital program allowance due primarily to the following:
 - cost escalations materially above CPI
 - required capital investment in growth and development exceeded expectations
- most major projects and programs were delivered during the 5-year period
- 3 major projects commenced and require completion during the early years of the PR23 period

15.2 Summary

CHW has utilised a robust method to develop our capital expenditure forecasts for the price period and we have drawn on numerous inputs to shape the program. The proposed capital expenditure outcome of \$256 million reflects a prudent and efficient program that meets our commitments, balances our risks, leverages key opportunities and is deliverable.

A key insight from the capital program development process is the impact of investments related to growth. Although the Central Highlands region grew at a steady rate of 1.7% per annum for the 15-year period from 2005 to 2020, capital investment in growth-related projects remained relatively low. This was largely due to spare capacity which was present

within our existing infrastructure. The past few years have seen ongoing growth absorb much of the spare capacity that existed within our assets. In addition, the regional growth rate has almost doubled since 2020. CHW's previous price submissions were characterised by lean and prudent capital expenditure when benchmarked against other water corporations on a per connection basis. Historically, spare infrastructure capacity, the ability to optimise our networks and new development being centred in one major growth area all contributed to a relatively lean capital program. Sustained growth, recent accelerated growth and the emergence of new growth zones has resulted in the need for major investment in water and sewer infrastructure during the PR23 price period.

Other factors that have contributed to the proposed uplift in the capital expenditure to \$256 million include the ongoing cost of meeting compliance obligations, customer service improvement expectations, renewing our existing asset base and enhanced ICT capability in response to a range of key drivers such as system updates, data integrity, cyber security and digital metering. The accumulated impact of CPI increases and construction cost escalations have also applied upward cost pressure.

Figure 15.1 following highlights in some detail the areas where capital investment is required to plan, service, or construct infrastructure to support Ballarat's major growth frontiers.

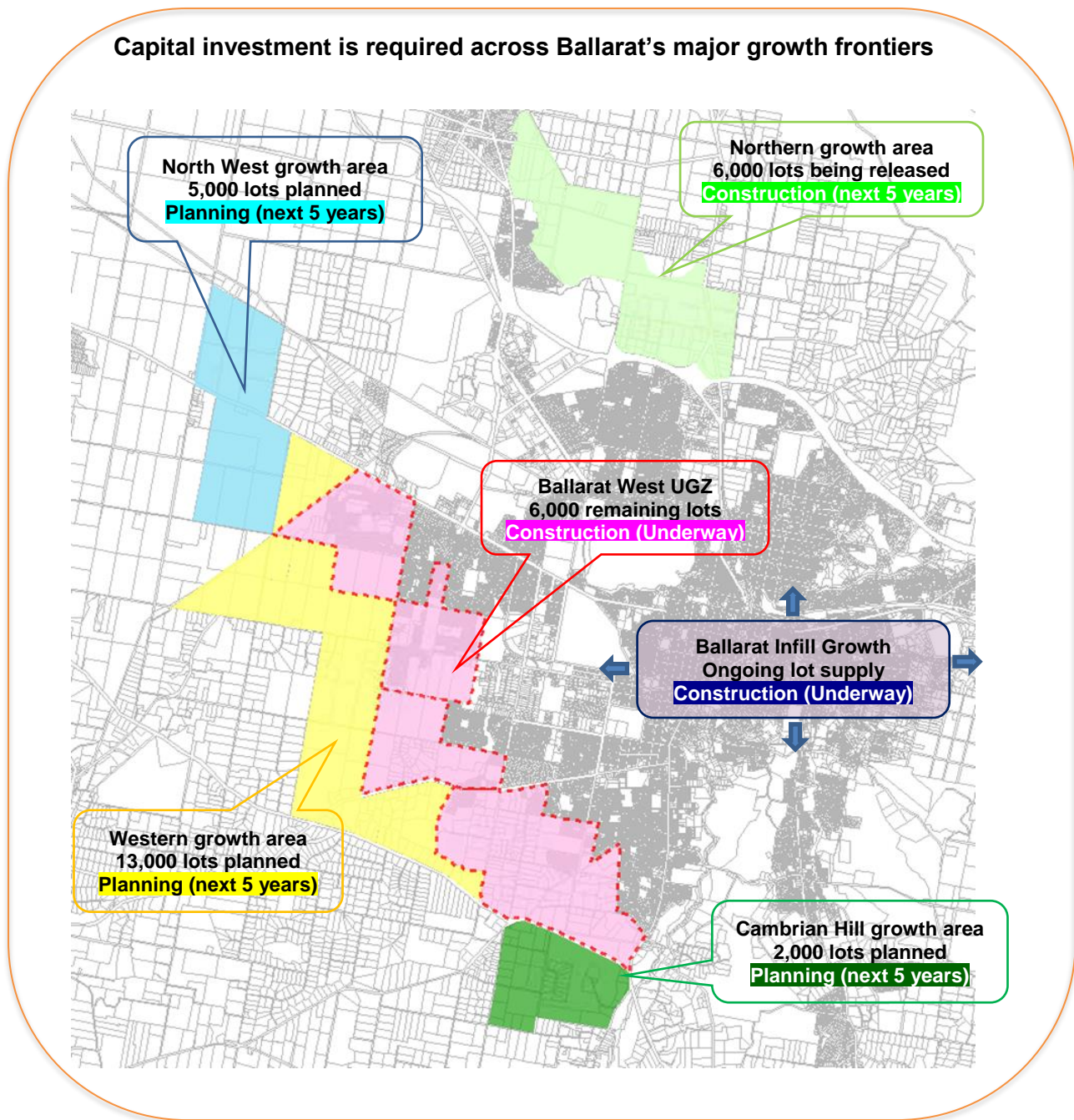


Figure 15.1 Ballarat's major growth frontiers

15.3 Capital program development

CHW's future capital expenditure program has been compiled having regard to population growth projections, regulatory compliance requirements, asset management risk profiles and customer engagement feedback.

The following table shows the proposed capital budget spend over the next 10 years categorised by ESC cost driver categories.

Table 15.1 Forecast capital expenditure by cost driver (\$m 2023)

Cost driver	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Renewals	9.7	9.9	12.1	12.0	16.0	17.2	16.6	19.1	15.4	20.3
Growth	18.1	15.3	19.7	28.4	29.1	59.4	55.2	31.9	20.6	28.0
Improvements & compliance	18.2	22.8	18.2	13.6	12.9	22.0	23.4	17.2	19.1	18.6
Total	46.0	48.0	50.0	54.0	58.0	98.6	95.2	68.2	55.1	66.9

We plan to invest \$256 million in capital works over the 5-year PR23 regulatory period.

Our \$256 million capital program is characterised by the following major service cost driver categories:

- \$60 million to maintain service standards through renewals and replacements
- \$111 million to support our regional growth boom and service new growth areas
- \$85 million to comply with regulatory obligations, make service improvements and essential upgrades.

The gradual increase in capital expenditure across the 5-year PR23 regulatory period reflects investment to meet key local and regional priorities, including:

- customer support to enhance digital capability
- the ongoing release of additional growth areas across Ballarat and the region
- prudent risk prioritisation to reduce customer price impacts as long as possible

Table 15.1 also shows a marked increase in expenditure on growth-servicing assets (and total expenditure) in years 1 (2028-29) and 2 (2029-30) of the following pricing period, PR28. This is due primarily to a number of major water and sewer network projects identified to support Ballarat's current and proposed growth zones.³⁸ CHW has adopted the prudent approach to defer these projects from the PR23 period to the PR28 period and accept the risk if these projects need to be brought forward. CHW will undertake further risk analysis and prioritisation during the PR23 period to better understand the optimal timing of these projects in order to maintain a smooth delivery pathway across the 2 regulatory periods.

³⁸ For example: Water Network Rationalisation program \$13.0 million (2028-29) and \$10.0 million (2029-30)

Regional Water Network Growth Project \$5.0 million (2028-29) and \$6.6 million (2029-30)

Ballarat Water Growth Project - Western & North-Western growth area \$4.8 million (2028-29) and \$8.5 million (2029-30)

15.4 Major capital projects

A summary of CHW's Top 10 projects by cost is provided below. These projects represent \$116.2 million (45%) of the total capital expenditure across the 5-year capital program.

Table 15.2 Major capital projects - summary (\$m 2023)

Project Name	Service Category	Cost Driver Category	Asset Category	Budget (\$m)
Ballarat Sewer Growth Project – - Ballarat West UGZ southern section	Sewer	Growth	Pipelines/ network	17.3
Ballarat Sewer Build –Ballarat East Trunk Sewer (Stage 2)	Sewer	Growth	Pipelines/ network	14.5
White Swan Dam Safety Improvement	Water	Improvements / Compliance	Headworks	13.1
Digital Water Metering*	Water	Improvements / Compliance	Pipelines/ network	13.0
Ballarat Water Growth Project - Northern Growth Area	Water	Growth	Pipelines/ network	13.0
Ballarat Sewer Build - Ballarat South Outfall Project*	Sewer	Growth	Pipelines/ network	12.1
Regional Recycled Water Scheme Upgrades	Recycled Water	Improvements / Compliance	Treatment	9.5
Daylesford Water Treatment Upgrade	Water	Improvements / Compliance	Treatment	9.0
Daylesford Superpipe Raw Water Interconnection*	Water	Improvements / Compliance	Pipelines/ network	8.5
Ballarat Sewer Growth Project - Northern Growth Area	Sewer	Growth	Pipelines/ network	6.2

* Project commenced during the PR18 price submission period

Key themes and drivers of the major capital projects within this price submission period are:

- 4 new projects where network augmentations are being driven by growth
- 3 key service improvement and compliance projects
- 3 existing projects which have commenced but will be completed during the early stages of the PR23 price period.

A more detailed overview of each of our Top 10 major projects is outlined in the following tables.³⁹

³⁹ Note all costs are expressed as 2023 dollars

Table 15.3 **Major Project 1 – Ballarat Sewer Growth Project – Ballarat West UGZ southern section**

Project: Ballarat Sewer Growth Project – Southern augmentation				
Cost: \$17.3m	Timing: 2025-28	Service Category: Sewer	Cost Driver Category: Growth	Asset Category: Pipelines/network
Description: Major sewer main augmentation				
Outcome: A reliable and sustainable sewer system				
Risk/Opportunity Assessment: Risk reduction from High to Low				
Background: Ongoing growth within the existing Ballarat West Urban Growth Zone (particularly along its southern fringe) will soon exceed network capacity of the sewer system in this area.				
Scope: Deliver major sewer infrastructure to service existing growth areas and develop staged designs to increase capacity for development areas planned in the near future.				

Table 15.4 **Major Project 2 – Ballarat Sewer Build – Ballarat East Trunk Sewer (Stage 2)**


Project: Ballarat Sewer Build – Eastern Augmentations				
Cost: \$14.5m	Timing: 2024-27	Service Category: Sewer	Cost Driver Category: Growth	Asset Category: Pipelines/network
Description: Major sewer main augmentation extension				
Outcome: A reliable and sustainable sewer system				
Risk/Opportunity Assessment: Risk reduction from Significant to Low				
Background: Ongoing infill and new growth in the eastern parts of Ballarat has resulted in sewer capacity constraints along the Yarrowee River and the entry to the central business district.				
Scope: Construction of sewer main augmentation along the trunk sewer network in the vicinity of the Yarrowee River and Peel Street.				

Table 15.5 Major Project 3 – White Swan Dam Safety Improvement


Project White Swan Dam Safety Upgrade				
Cost: \$13.1m	Timing: 2024-26	Service Category: Water	Cost Driver Category: Improvements/Compliance	Asset Category: Headworks
Description: Major dam safety compliance upgrade				
Outcome: Reduce dam safety risk below acceptable thresholds				
Risk/Opportunity Assessment: Risk reduction from Significant to Low				
Background: The White Swan Dam was constructed in 1951. Our recent dam safety risk assessment and review highlighted that the current risk profile requires improvement to align with national dam standards.				
Scope: Deliver major dam upgrades to the main and subsidiary embankments, including filter installation and reinstatement of compacted earthen fill.				

Table 15.6 Major Project 4 – Digital Water Metering


Project: Digital Water Metering				
Cost: \$13.0m	Timing: Now-2026	Service Category: Water	Cost Driver Category: Improvements/Compliance	Asset Category: Pipelines/Network
Description: Digital metering installations for customers				
Outcome: Digital transformation and better customer experience				
Risk/Opportunity Assessment: Significant efficiencies and customer benefits				
Background: Water metering and customer billing largely occurs via physical reading of manual meters with billing on a 4-monthly cycle. This largely manual process fails to meet modern expectations in terms of real time feedback, digital information access, billing frequency and customer experience.				
Scope: Complete rollout of digital metering for all customers in the Central Highlands region.				

Table 15.7 Major Project 5 – Ballarat Water Growth Project – Northern Growth Area


Project: Ballarat Water Growth Project – Northern augmentation				
Cost: \$13.0m	Timing: 2025-28	Service Category: Water	Cost Driver Category: Growth	Asset Category: Pipelines/network
Description: Major water main augmentation				
Outcome: A reliable and sustainable water system				
Risk/Opportunity Assessment: Risk reduction from High to Low				
Background: Major growth on the northern and western fringe of Ballarat is reducing system capacity. Augmentation is required along the northern extremities of the Ballarat water network.				
Scope: Deliver major water supply augmentations across northern Ballarat to maintain service standards for existing customers in the Ballarat West urban growth area and to service new connections in the Northern Growth Area.				

Table 15.8 Major Project 6 – Ballarat Sewer Build - Ballarat South Outfall Project


Project: Ballarat Sewer Build - Ballarat South Outfall Project				
Cost: \$12.1m	Timing: Now - 2025	Service Category: Sewer	Cost Driver Category: Growth	Asset Category: Pipelines/network
Description: Major sewer augmentation				
Outcome: A reliable and sustainable sewer system				
Risk/Opportunity Assessment: Risk reduction from Significant to Low				
Background: Trunk sewer main capacity along the outfall main that leads to the Ballarat South Wastewater Treatment Plant has reached capacity due to ongoing growth across Ballarat.				
Scope: Complete construction of major sewer infrastructure duplication from the Ballarat central business district in a southerly direction towards the Ballarat South Wastewater Treatment Plant.				

Table 15.9 Major Project 7 – Regional Recycled Water Scheme Upgrades


Project: Regional Irrigation Scheme Upgrade				
Cost: \$9.5m	Timing: 2023-28	Service Category: Recycled Water	Cost Driver Category: Growth	Asset Category: Treatment
Description: Major irrigation capacity upgrades				
Outcome: Reliable and sustainable sewer treatment systems				
Risk/Opportunity Assessment: Risk reduction from Significant to Low				
Background: Irrigation schemes at regional sites have largely remained at their original constructed capacity with very few recent upgrades. Water balance models highlight that growth and compliance pressures have caused capacity constraints at several locations.				
Scope: Deliver major irrigation area expansion, improve infrastructure capacity at key regional plants, and minor works to refurbish irrigation land and optimise irrigation output at outer locations.				

Table 15.10 Major Project 8 – Daylesford Water Treatment Upgrade


Project: Daylesford Water Treatment Upgrade				
Cost: \$9.0m	Timing: 2023-26	Service Category: Water	Cost Driver Category: Improvements/Compliance	Asset Category: Treatment
Description: Water treatment compliance upgrades				
Outcome: Safe drinking water that tastes great				
Risk/Opportunity Assessment: Risk reduction from High to Low				
Background: The Daylesford water treatment plant was constructed in 2000 and was designed to treat local water sources. Our recent master planning identified that changes to water supply sources over the years and the forthcoming introduction of an additional water source will stretch the plant beyond its treatment specifications.				
Scope: Design and construction of new treatment components and optimisation works on existing treatment assets. This includes piping, contact tanks, electrical works and upgrades to powder activated carbon and potassium permanganate processes.				

Table 15.11 Major Project 9 – Daylesford Superpipe Raw Water Interconnection



Project: Daylesford Superpipe Raw Water Interconnection				
Cost: \$8.5m	Timing: Now - 2025	Service Category: Water	Cost Driver Category: Improvements/Compliance	Asset Category: Headworks
Description: Major raw water pipeline				
Outcome: Long-term water supply security				
Risk/Opportunity Assessment: Risk reduction from Significant to Low				
Background: Water resource assessments completed for the 2022 Urban Water Strategy highlight current system performance shortfalls at Daylesford. In addition, the water supply challenges are projected to increase in the future due to growth and climate change impacts.				
Scope: Complete construction of the pipeline and ancillary assets to provide water supply interconnection between the Goldfields Superpipe and Daylesford.				

Table 15.12 Major Project 10 – Ballarat Sewer Growth Project – Northern Growth Area

Project: Ballarat Sewer Growth Project – Northern augmentation				
Cost: \$6.2m	Timing: 2026-28	Service Category: Sewer	Cost Driver Category: Growth	Asset Category: Pipelines/network
Description: Major sewer network augmentation				
Outcome: A reliable and sustainable sewer system				
Risk/Opportunity Assessment: Risk reduction from High to Low				
Background: Sustained growth in the Miners Rest area has resulted in sewer flow capacity constraints. The introduction of the Northern Growth area will increase capacity risks while presenting an opportunity to resolve constraints and optimise the network.				
Scope: Deliver sewer network capacity improvements and optimisation works to the Miners Rest network. Construct major capacity upgrades for the Cummins Road sewer pumping station.				

15.5 Major capital programs and other capital expenditure

A summary of CHW's Top 5 programs by cost is provided below. These programs represent 22% of the total capital expenditure across the 5-year capital program.

Table 15.13 Top 5 capital expenditure programs (\$m 2023)

Project Name	Budget (\$m)	Historical spend comparison	Outcomes	Objectives
ICT Business Solutions Enhancements	14.9	Significant increase to meet customer outcomes and lift digital capability ⁴⁰	Maintain existing service standards, cyber safety compliance and meeting customer expectations.	Ensure ICT infrastructure can meet customer needs, replace legacy systems and obsolete hardware.
Growth & Development Upsizing/Efficiency Program	12.4	Significant increase to service regional growth boom	Reliable, sustainable and cost-effective servicing of new growth areas.	Service new growth areas and maintain service standards across existing systems.
Water Main Renewals Program	10.0	Similar to previous 5 years	Maintain water service standards and provide safe drinking water that tastes great.	Maintain service standards by balancing asset life with risk of asset failures.
Clear Water Storage Tank Rehabilitation Program	9.9	Increased spend to address high asset risk profile re structural standards	Maintain water service standards and provide safe drinking water that tastes great.	Rectify high risk areas while maintaining service standards and protecting water quality.
Sewer Gravity Mains Renewals - Gravity	9.0	Similar to previous 5 years	Meet sewerage service standards and support environmental sustainability.	Maintain service standards by balancing asset life with risk of asset failures.

15.6 Other capital expenditure

All other capital expenditure that is not associated with the Top 10 major projects or Top 5 major programs amounts to \$84 million. This other capital expenditure is grouped together for the purposes of this price submission. It makes up 33% of the overall capital program.

It is comprised of many small to medium sized discreet projects and capital programs. All projects and programs have been developed to address specific risks or opportunities and

⁴⁰ Key drivers include upgrading end-of-life systems with improved applications and functionality, growth in IOT, cybersecurity requirements, enhanced mobility and field services, data analytics and warehousing, digital metering, system integration and internet-based technologies.

consist of prudent and efficient forecasts. Needs definition documents or project justification reports have been developed for each individual project/program.

15.7 Method for developing the capital expenditure program

CHW's method for developing its capital expenditure program involved robust risk identification processes to ensure that risks and opportunities were collated and viewed in the context of current challenges and long-term planning implications.

A range of approaches were used to identify potential projects and line items within capital programs. This included assessing a range of external and internal inputs, including:

- Local and State Planning Authority engagement and advice
- customer engagement and feedback
- Government directions, obligations and funded initiatives
- regulatory and compliance guidelines.

Key internal references and inputs to developing the capital program included:

- business strategies
- master plans
- asset management plans
- project justification reports
- team workshops
- 20-year capital program outlook.

A comprehensive risk and opportunities prioritisation framework was utilised to allocate risks, ensure major risks were addressed and align the capital program with customer outcomes.

The prioritisation process leveraged our strategic risks and opportunities framework to assess consequences and likelihoods, apply weightings and assess the value of projects. This enabled risks to be assessed and appropriately apportioned by delivering discreet projects or capturing them within capital programs.

As such, the final capital program reflects an overall balance of probabilities and has produced a program which avoids speculative expenditure and reduces the risk borne by customers. The refinement process above enabled our early draft capital program estimate of \$400 million to be better understood and gradually refined to its final figure of \$256 million.

Importantly, projects and programs which were not included in the PR23 capital program and have valid drivers, were retained in our longer term 20-year capital works program. Some of these projects could be brought forward if triggered by changing circumstances such as accelerated growth, land rezoning, climate change and asset condition knowledge.

Some of the notable exclusions and risks associated with our capital program refinement process includes:

- Major capital expenditure to achieve the 2035 net-zero greenhouse gas emissions target will not commence until the PR28 period.

- Purchasing permanent water shares to support longer-term water resource needs have been deferred.
- Capital investment in new small-town sewer schemes are excluded from the capital program.
- Upgrading regulated (non-potable) water supply systems is not included in the capital program.
- Some major growth servicing projects have been spread across the next 2 price periods.
- Expenditure for major renewal programs is similar to previous price submissions despite an ageing and growing asset base.
- Asset management approaches are being adopted to defer some major wastewater treatment upgrades.
- Some major projects have been split into 2 distinct stages within different price submission periods.

A stringent process for phasing the capital spend across the 5-year period was also adopted. This focused on progressively increasing the annual spend across the five-year period to support delaying the impact on customer pricing. The proposed phasing sees the program increase from an annual budget of \$46 million in year 1 to \$58 million in year 5.

15.8 Prudent and efficient capital expenditure program

Our capital expenditure program reflects a prudent and efficient approach at both the overall program development level and within specific capital projects and programs.

Numerous measures were put in place to develop a lean program with a sound infrastructure sustainability approach while reducing risks borne by customers. This included:

- a comprehensive risk-based prioritisation process
- utilising more programs to support risk apportionment within asset classes
- appropriately scoping and timing capital works across the program.

Within specific capital projects and programs, the following approaches were adopted to develop enhanced project scopes and drive cost efficiencies:

- project justification reports to ensure robust options assessment and project scoping.
- extensive development of concept design reports and detailed designs
- current pricing used to develop cost estimates.
- P50 cost estimates utilised to ensure robust pricing.
- full Monte Carlo (P5-P95) analysis on all major projects to understand cost risks.

We have also learned from delivering capital projects during previous regulatory periods and have included efficiencies within this submission, which include:

- grouping like projects and creating more programs to streamline processes and generate efficiencies of scale

- enhancing asset condition assessment processes for major renewal programs to improve risk-based decision making in delivering these programs
- forming joint procurement and construction services panels with industry partners

Importantly, we have a high degree of confidence and certainty regarding capital budgets for many our major projects. Tendered prices have been used for 3 of our top 10 major projects and 2 of our top 5 major programs with highly competitive contract rates. A detailed design has also been completed for the White Swan Dam Safety Improvement project.

15.9 Capacity to deliver

CHW has an excellent track record of delivering its capital expenditure program over multiple regulatory periods. Our internal capacity and external partnerships have gradually been increased to boost our delivery capability over time. The phasing of our capital expenditure program over the 5-year period also supports our ability to increase our output over time.

Based on our previous track record and capacity building approach, delivering the total \$256 million capital program is well within our capability. Specific measures that CHW have available to support delivering the program, include:

- strong preparation and planning focus over the past 2 years with the majority of major projects having concept designs, detailed designs or technical specifications.
- 3 major projects have already commenced with tendering nearing completion. These are worth approximately \$34 million which provide reduced delivery risk for CHW:
 - Digital Water Metering (estimated \$13.0 million)
 - Ballarat Sewer Build - Ballarat South Outfall Project (estimated \$12.1 million)
 - Daylesford Superpipe Raw Water Interconnection (estimated \$8.5 million)

Actions taken to improve the delivery capability of the capital program include:

- bolstering internal resources within the Capital Delivery team
- enhanced digital tools to streamline processes, improve project tracking and reporting
- contracts in place for delivering major programs and capital work packages
- leveraging collaboration with industry partners to streamline delivery, including:
 - private sector construction through land development models
 - using our Engineering Services partnership to secure expert services and resources
 - delivering works via our Public Private Partnership (PPP) service contract
 - utilising existing contractors to deliver capital works.

In summary, our capital program is sufficiently lean given the emerging challenges and encompasses a sound infrastructure sustainability approach. A large number of projects and programs are well advanced with clearly defined scopes and high confidence levels regarding project budgets and delivery mechanisms.

16.0 Regulatory Asset Base

Key points:

- Opening RAB in line with 2018 determination
- RAB grows to \$520.2 million by 2028 on the back of significant capital investment program
- Depreciation methodology consistent with 2018 submission
- Reform to New Customer Contributions tariff offsets growth in RAB

Following the completion of the 2021-22 financial year the RAB closing balance is \$405.6 million. When adding forecast capital expenditure and associated components for the 2022-23 year in line with the 2018 Price Determination the closing RAB at 30 June 2023 is forecast to be \$421.2 million.

Table 16.1 **Regulatory asset base – 4th regulatory period PR18** (\$m 2023)

	2018-19	2019-20	2020-21	2021-22	2022-23
Opening asset base	381.77	391.45	401.75	405.59	409.37
plus Gross capex	30.45	32.86	28.09	29.14	37.50
less Government contributions	-	-	0.44	0.44	0.45
less Customer contributions	2.04	3.31	3.71	4.10	4.14
less Proceeds from disposals	0.57	0.22	0.61	0.62	0.62
less Regulatory depreciation	18.16	19.03	19.50	20.20	20.51
Closing asset base	391.45	401.75	405.59	409.37	421.15

Key assumptions for each of the RAB components for the 2023-28 period are :

1. Gross Capital expenditure

Five year forecast of \$256 million driven by the significant growth profile in the Ballarat region (refer section 15).

2. Government contributions

There are no projects included in the forecast which have qualified for contributions from government.

3. Customer Contributions

Following feedback from our customers about the funding of growth and a review of the New Customer Contribution (NCC) model, CHW is proposing increases to NCCs in the forecast period (refer section 20).

4. Gifted Assets

The strong growth profile in the Ballarat region will result in gifted assets continuing at the higher rates incurred during the current period.

5. Proceeds from asset disposals

The level of assets disposals is forecast to be consistent with trends of recent years.

6. Regulatory depreciation

A straight-line depreciation profile has been applied at rates consistent with the 2018 price determination.

The forecast for each of these components is shown in the following table:

Table 16.2 **Regulatory asset base – 5th regulatory period PR23 (\$m 2023)**

	2023-24	2024-25	2025-26	2026-27	2027-28
Opening asset base	421.15	441.33	460.88	479.71	499.61
plus Gross capex	45.99	48.00	50.01	54.01	57.99
less Government contributions	-	-	-	-	-
less Customer contributions	4.51	6.15	7.91	9.86	12.16
less Proceeds from disposals	0.40	0.40	0.41	0.41	0.42
less Regulatory depreciation	20.90	21.89	22.86	23.84	24.87
Closing asset base	441.33	460.88	479.71	499.61	520.15

The impact of the significant increase in growth related capital investment required in the region on the value of regulatory asset base is depicted in the following figure:

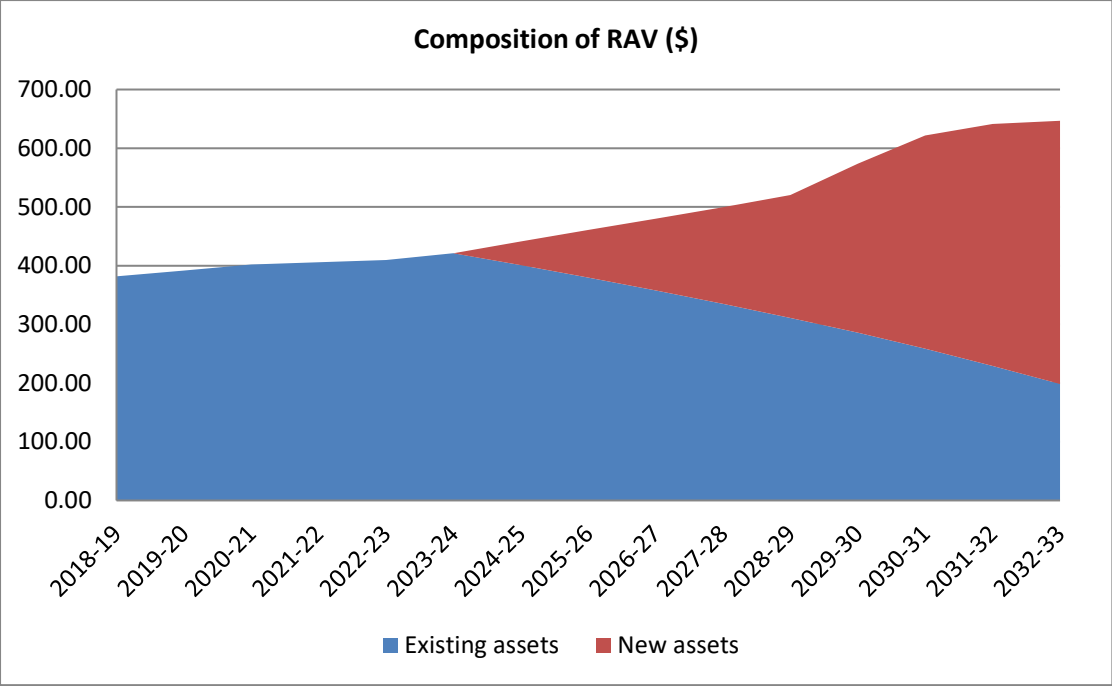


Figure 16.1 Composition of RAV (\$m, 2023)

17.0 Cost of Debt/Return on Equity/Tax Allowance

Key points:

- CHW has adopted the cost of debt methodology from the Guidance paper
- Return on Equity of 4.10% adopted based on PREMO rating of Standard
- Tax losses expire in 2026-27 with CHW entering a tax paying position

17.1 Cost of debt

The 10-year trailing average approach to estimate the benchmark cost of debt has been adopted in line with the Guidance and reflected in the ESC financial model submission template.

17.2 Return on equity

CHW’s self-assessed PREMO rating of Standard (refer section 3) equates to a return on equity of 4.10% in line with the matrix of returns in the submission template as shown below.

		Water business self-assessment			
		Leading	Advanced	Standard	Basic
ESC assessment of submission	Leading	4.90			
	Advanced	4.30	4.50		
	Standard	3.70	3.90	4.10	
	Basic			3.50	3.70

Figure 17.1 CHW PREMO self-assessment and return on equity

17.3 Tax allowance

In summary:

- Tax losses expire in 2026-27 with CHW entering a tax paying position in 2027-28
- A company tax rate of 30% has been used for each of the regulatory periods.

Since the inception of the National Tax Equivalent regime administered by the Australian Tax Office, CHW has carried tax losses forward year on year. However, for the 2023-28 regulatory period we are expecting to enter a tax paying position in 2027-28.

This result is based on our current forecast and assumes tax depreciation is at 1.2 times of accounting depreciation and also takes into the account the proposed increase in capital expenditure over the regulatory period.

18.0 Form of Price Control/Adjusting Prices

Key points:

- Tariff Basket form of price control to be continued
- Cost of debt adjustment mechanism to continue from current period
- Pass through mechanism proposed to manage volatility and uncertainty in energy markets

18.1 Form of price control

CHW had adopted an individual price form of price control for the current regulatory period. In April 2021, CHW applied to the ESC to apply a tariff basket form of price control to better manage the impacts of the cost of debt adjustment in line with customer preference for a rebalancing of fixed water and wastewater tariffs. The tariff basket has served CHW well and we propose to maintain this form of price control for the next 5-year period.

The following tariffs will be subject to the tariff basket consistent with the current approach:

- Residential / Non-residential / Concessional Sewerage Tariff

18.2 Adjusting prices

CHW proposes to maintain the annual cost of debt adjustment mechanism consistent with the current period as outlined in CHW's 2018 price determination.

CHW proposes to introduce a pass-through mechanism to deal with the volatility and uncertainty present in energy market. Forward costs are extremely difficult to forecast given the range of factors impacting prices at both an international and domestic level including:

- geopolitical impacts on global supply chains
- domestic policy developments
- domestic supply chain challenges

CHW has adopted the VicWater industry forecast provided by independent expert consultants Schneider Electrical Australia, however given the uncertainty noted above we believe the implementation of a pass-through mechanism will protect CHW from materially higher costs than forecast.

19.0 Prices and Tariff Structure

Key points:

- Tariff structures to be maintained over next 5-year period
- Zero % price increase in year 1, followed by 1.0% price increase in years 2 to 5 (excluding CPI)
- Trade-waste principles reviewed with no proposed price changes
- Major review of New Customer Contributions with a new price schedule proposed
- Desktop analysis of miscellaneous tariffs identified CHW within regional benchmarks

19.1 Introduction

After reviewing our current tariff structures, we propose no change for the 2023-28 regulatory period.

In summary, our prices applied uniformly across all service districts and are consistent with the Water Industry Regulatory Order (WIRO). 'Postage stamp' pricing supports the principle of 'same service – same price' and is easy for customers to understand and for CHW to administer.

The following price increases will apply uniformly across all systems in the following sections:

Table 19.1 **Proposed price increases (%) – excluding CPI**

	2023-24	2024-25	2025-26	2026-27	2027-28
Price increase	0.0	1.0	1.0	1.0	1.0

The following sections describe each tariff type and proposed price.⁴¹

19.2 Water tariff

The retail water tariff consists of a fixed and variable charge which will be retained unchanged.

A substantial discount (approximately 50%) for non-connected properties is applied to the fixed service charges for water services.

The water volume fee is a 2-part inclining block tariff in order to encourage water conservation. The second block applies from 175 kL p.a. water use and is charged 20% higher than the first block for residential customers only. Non-residential customers are charged only the tariff of the first block.

⁴¹ Variable water, sewerage (wastewater) and trade waste charges are rounded down to 4 decimal places. All other charges are rounded down to 2 decimal places.

A substantial discount (approximately 50%) to the water volume fee is charged for customers of the regulated supply systems (i.e. non-potable water supply) of Amphitheatre, Raglan and Redbank in recognition of the lower grade of water quality supplied.

A detailed breakdown of the water tariff fees is provided in the tables below.

Table 19.2 **Residential Water Tariff** (\$ 2023)

Tariff and price component	2023-24	2024-25	2025-26	2026-27	2027-28
Service charge (per annum)	218.76	220.95	223.16	225.39	227.64
Service charge – non-connected/vacant land (per annum)	109.76	110.86	111.97	113.09	114.22
Fire services charge (per service)	281.47	284.28	287.13	290.00	292.90
Usage charge – category 1*, (0 to 175 kL/a) (per kL)	2.0858	2.1067	2.1277	2.1490	2.1705
Usage charge – category 1*, (Over 175 kL/a) (per kL)	2.5032	2.5282	2.5535	2.5790	2.6048
Usage charge – category 2*, (0 to 175 kL/a) (per kL)	0.9577	0.9673	0.9769	0.9867	0.9966
Usage charge – category 2*, (Over 175 kL/a) (per kL)	1.2439	1.2563	1.2689	1.2816	1.2944
*Note: Category 1 refers to potable water supply systems e.g. Avoca, Ballarat, Beaufort (excluding Raglan), Blackwood, Clunes, Daylesford, Dean, Forest Hill, Landsborough, Learmonth, Lexton, Maryborough and Waubra. Category 2 refers to regulated non-potable water supply systems e.g. Amphitheatre, Raglan and Redbank					

Table 19.3 **Non-residential Water Tariff** (\$ 2023)

Tariff	2023-24	2024-25	2025-26	2026-27	2027-28
Service charge (per annum)	218.76	220.95	223.16	225.39	227.64
Service charge – non-connected/vacant land (per annum)	109.76	110.86	111.97	113.09	114.22
Usage charge – category 1* volume	2.0858	2.1067	2.1277	2.1490	2.1705
Usage charge – category 2* volume	0.9577	0.9673	0.9769	0.9867	0.9966
*Note: Category 1 refers to potable water supply systems e.g. Avoca, Ballarat, Beaufort (excluding Raglan), Blackwood, Clunes, Daylesford, Dean, Forest Hill, Landsborough, Learmonth, Lexton, Maryborough and Waubra. Category 2 refers to regulated non-potable water supply systems e.g. Amphitheatre, Raglan and Redbank					

19.3 Sewerage tariff

The sewerage (wastewater) tariff consists of a fixed charge for residential customers. Non-residential customers are charged both a fixed charge and a variable charge calculated in accordance with the CHW Tariff Policy, which assumes 95% discharge factor and a discharge allowance of 180 kL p.a. A substantial discount (approximately 74%) for non-connected properties is applied to the fixed wastewater (sewer) charge.

A detailed breakdown of the wastewater tariff fees is provided in Table 19.4.

Table 19.4 Residential / Non-residential Sewerage Tariff (\$ 2023)

Tariff	2023-24	2024-25	2025-26	2026-27	2027-28
Sewer service charge (per annum)	699.64	706.64	713.70	720.84	728.05
Sewer service charge non-connected/vacant land (per annum)	183.90	185.74	187.60	189.47	191.37
Non-residential volume disposal charge (per kL)	1.2201	1.2323	1.2446	1.2571	1.2696

19.4 Trade waste

CHW engaged Utilities Regulation Advisory as independent regulatory pricing experts to undertake a review of our trade waste charges.

As part of this review the cost of the service for trade waste and the level of cost recovery associated with trade waste prices was examined. CHW currently levies trade waste prices for minor (minor A and B) and major commercial customers. These customers are defined by the levels of pollutant and the volume of their discharges.

CHW currently levies the following trade waste charges:

- Minor Trade Waste A – Covers the discharge of up to 500 kilolitres of compliant trade waste per annum. This attracts a standard fixed charge.
- Minor Trade Waste B – Covers the discharge of between 501 kilolitres and 5000 kilolitres of compliant trade waste per annum. This attracts a charge per kilolitre tariff based on either the volume of water consumed, or the measured volume of trade waste discharged.
- Major Trade Waste – Covers the annual discharge of greater than 5,000 kilolitres of compliant trade waste, or any amount of non-compliant trade waste approved by CHW. The charge payable to CHW for discharging major trade waste to the sewer comprises the following:
 - a charge per kilolitre for the volume of trade waste discharged
 - a charge per kilogram for every kilogram of the 5-day Biochemical Oxygen Demand (BOD.) contained in the trade waste discharged

- a charge per kilogram for every kilogram of Suspended Solids (SS) contained in the trade waste discharged
- a charge per kilolitre for every kilolitre of trade waste discharged where the Trade Waste Agreement includes permission to discharge heavy metals
- where BOD or SS concentrations exceed limiting concentrations a 25% surcharge applies to that portion exceeding the limiting concentration
- where the concentration of an individual heavy metal or total heavy metals exceeds limiting concentration a surcharge for that heavy metal is applied to every kilolitre of trade waste discharged.

These tariffs are levied uniformly across all CHW wastewater treatment systems.

The review found that the current trade waste tariffs have recovered between approximately 70% and 95% of associated costs over the last 5 years. As such, CHW has decided that the current pricing approach is appropriate and we do not propose any changes.

Table 19.5 **Trade Waste Charges** (\$ 2023)

Tariff	2023-24	2024-25	2025-26	2026-27	2027-28
Major Trade Waste – B.O.D.(per kg)	1.6051	1.6212	1.6374	1.6537	1.6703
Major Trade Waste – Suspended Solids (per kg)	1.6051	1.6212	1.6374	1.6537	1.6703
Major Trade Waste – Volume (per kL)	0.4633	0.4679	0.4726	0.4773	0.4821
Minor A Standard Charge (<500kL pa) (per item)	345.79	349.24	352.74	356.26	359.83
Minor B Volume Charge (>500 & <5,000 kL/a) (per kL)	1.3916	1.4055	1.4196	1.4338	1.4481
Additional sampling, investigations & enforcements	Actual cost	Actual cost	Actual cost	Actual cost	Actual cost

19.5 New Customer Contributions

CHW has undertaken a major review of the New Customer Contributions (NCCs) prices. This review was supported by extensive customer and stakeholder engagement. Refer to the following section 20 for a detailed description of this process. As a result of this review process, the following NCCs are proposed:

Table 19.6 New Customer Contributions (\$ 2023)⁴²

Development area	2023-24	2024-25	2025-26	2026-27	2027-28
New growth zones ⁴³					
Water	3,000.00	3,535.00	4,040.00	4,080.40	4,121.20
Wastewater	3,000.00	3,535.00	4,040.00	4,080.40	4,121.20
Existing growth zones and infill					
Water	1,300.00	1,641.25	1,969.50	2,297.75	2,626.00
Wastewater	1,300.00	1,641.25	1,969.50	2,297.75	2,626.00

19.6 Recycled water tariff

CHW provides a small number of customers with recycled water from a number of wastewater treatment plants subject to existing supply agreements. These customers are normally charged for metered recycled water on a per ML basis. As each agreement is unique, prices may not be uniform. These tariffs will be reviewed consistent with each agreement.

If larger scale residential recycled water was introduced via 'purple pipe' CHW would commit to ensuring this is priced at or below potable water supply tariff and undertake a more thorough review for the next regulatory period.

19.7 Supply by agreement customers

CHW provides a small number of customers with water where the quality or reliability of the service is not able to be guaranteed (for example via private extensions and direct supply from bulk supply pipelines). CHW has agreements with these customers that specify the conditions under which the water is supplied and the relevant charges.

19.8 Miscellaneous services

In addition to providing water and wastewater services, CHW also provides a range of secondary services (miscellaneous services) as prescribed under the WIRO, such as:

- Special Meter Readings
- Provision of water meters

⁴² Note this table is also shown in section 20.7 New Customer Contributions

⁴³ Refer to Table 20.2 for definition of 'New growth zones' and 'Existing growth zones and infill'

- Property Information Statement
- Plumbing consent
- Tapping fees

A desktop analysis of miscellaneous tariffs identified CHW within regional benchmarks and no changes are proposed.

Table 19.7 **Miscellaneous fees and charges** (\$ 2023)

Tariff	2023-24	2024-25	2025-26	2026-27	2027-28
Special Meter Reading Fees (per meter read) – includes charging owner / landlord for changes of tenancy	30.81	31.12	31.43	31.74	32.06
Meter cost – 20 mm (per item)	123.12	124.35	125.59	126.85	128.12
Information Statement (per item)	68.68	69.37	70.06	70.76	71.47
Plumbing consent fees (per item)	138.53	139.92	141.31	142.73	144.15
Tapping fees – 20 mm standard (per item)	261.72	264.34	266.98	269.65	272.35
Non-core miscellaneous services	Actual cost	Actual cost	Actual cost	Actual cost	Actual cost

CHW commit to charging new digital meters at cost for the period.

19.9 Indicative bill impacts

The following table shows indicative bill impacts for key customer groups, according to the prices proposed in the preceding sections.

Table 19.8 **Indicative bill impacts for key customer groups – excluding CPI** (\$ 2023)

Customer type	Average consumption (kL p.a.)	2022-23 Current year	2023-24 Year 1	2024-25 Year 2	2025-26 Year 3	2026-27 Year 4	2027-28 Year 5
Residential (Owner occupiers)	150	1,231.27	1,231.27	1,243.58	1,256.02	1,268.58	1,281.26
Residential (Tenants) ⁴⁴	150	312.87	312.87	316.00	319.16	322.35	325.57
Non-residential (Small)	200	1,347.76	1,347.76	1,361.24	1,374.85	1,388.60	1,402.49
Non-residential (Medium)	1,000	3,943.68	3,943.68	3,983.11	4,022.94	4,063.17	4,103.81
Non-residential (Large)	10,000	33,147.73	33,147.73	33,479.21	33,814.00	34,152.14	34,493.66

⁴⁴ Residential tenants are charged water volume fees only

20.0 New Customer Contributions

Key points:

- CHW currently has one of the lowest New Customer Contributions (NCCs) charges in Victoria but is experiencing high growth rates
- The current default estimator model is creating a cross-subsidy from existing to new customers and not sending efficient pricing signals to developers
- A revised NCC model (Average Incremental Cost or 'AIC') has been developed which more closely aligns to the ESC's NCC principles
- NCC charges for water are proposed to increase from current \$1,504 per lot to \$4,000 per lot for new growth zones and transitioned in over the 5-year period
- NCCs for wastewater are currently not charged. NCCs for wastewater are proposed to be introduced to \$4,000 per lot for new growth areas and transitioned in over the 5-year period
- A differential rate will apply to existing growth zones and infill development
- Key stakeholders (local developer community, UDIA, DELWP, and the ESC) have been consulted on the new model with no major objections received

This section describes the process and engagement CHW has undertaken in proposing revised New Customer Contributions (NCCs).

20.1 Introduction

The current New Customer Contributions (NCC) framework has been in place for 2 regulatory price periods. Over this time, there have been significant changes in the nature of development across the towns serviced by CHW, notably Ballarat. This is most evident in the high and accelerating rates of development that have occurred during the COVID-19 pandemic, with significant migration from metropolitan Melbourne to regional Victoria.

The level and pattern of development could not have been anticipated when the ESC established the current framework in its 2012 guidance. To manage the ongoing growth risks related to these changes, CHW has undertaken an extensive review of our NCC framework and is proposing to adopt an alternative approach that will address the risks associated with development and provide for a more intuitive and transparent approach to calculating NCCs.

This section sets out the rationale for changing NCCs, the process CHW went through to identify the most appropriate approach to calculating NCCs, what that approach is, the impacts of the change on customers and how CHW will implement the new approach.

The proposed NCCs are shown at section 20.7 in Table 20.2.

20.2 The case for change

There are 2 primary drivers for CHW's NCC reforms. The first of these is the demand risk associated with the recent development boom, with growth rates expected to be above historical trend for the foreseeable future (refer section 12.1).

CHW has faced unprecedented and unanticipated growth in connections over the last 2 years. There is also a level of uncertainty around the forward profile of the growth boom. To manage this demand risk needs an NCC approach that is capable of signalling to developers the efficient costs associated with their location and timing decisions. Incentivising efficient location and timing development decisions will allow CHW to ensure that the prices it levies on both its existing and new customers reflect efficient infrastructure growth and investment.

The second driver is a lack of transparency in the rationale and calculation of current NCCs. NCCs at a high level are a single fixed charge per lot and relatively easy for customers to understand. However, at a procedural and principled level the approach is not intuitive and the complexity of the current net cashflow approach leads to difficulties in explaining the rationale for NCCs to customers.

20.3 ESC regulatory guidance

In 2012, the ESC released a guidance paper on NCCs that set out the current principle-based regulatory framework. The framework incorporates a number of defined pricing instruments that allow for:

- the calculation of costs associated with changes in the timing of development
- governance and negotiation arrangements
- an NCC estimator model.

The framework allows for both standard and negotiated NCCs. Standard NCCs are based on a net cashflow approach, where NCCs are the residual between the net present value (NPV) of the revenue stream associated with new customers and the NPV of the costs associated with connecting new customers, allowing for the recovery of the costs associated with sunk assets.

The ESC's Pricing Principles apply to both standard and negotiated NCCs and are as follows:

- have regard to the incremental infrastructure and associated costs in one or more of the statutory cost categories attributable to a given connection
- have regard to the incremental future revenues that will be earned from customers at that connection
- be greater than the avoidable cost of that connection and less than the standalone cost of that connection.

The pricing principles outlined in the ESC's NCC guidance are informed by the ESC's broader principles and objectives that are outlined in the Water Industry Regulatory Order 2014 (WIRO). These objectives determine the outcomes the ESC is itself obliged to pursue in its pricing decisions and the principles that must be met in order for the ESC to approve

any prices including NCCs. Section 8 of the WIRO requires the ESC to have regard to and to place emphasis on:

- the promotion of efficient use of prescribed services by customers
- the promotion of efficiency in regulated entities as well as efficiency in, and the financial viability of, the regulated water industry
- the provision to regulated entities of incentives to pursue efficiency improvements.

Section 11 of the WIRO sets out the pricing principles that the ESC must base its approvals on. These include that prices should:

- enable customers or potential customers of the regulated entity to easily understand the prices charged by the regulated entity for prescribed services or the way such prices are calculated, determined or otherwise regulated
- provide signals about the efficient costs of providing prescribed services to customers (either collectively or to an individual customer or class of customers) while avoiding price shocks where possible
- consider the interests of customers of the regulated entity, including low income and vulnerable customers.

20.4 NCC reform process

New Customer Contributions are fundamental to achieving long lasting efficient growth outcomes for CHW's customers. Accordingly, CHW has adopted a principled, evidenced, transparent and consultative reform process. This process involved CHW's participation in the Victorian Water Industry Association (VicWater) review of the appropriateness of the current approach to NCCs. The review was undertaken on behalf of a number of regional water businesses. The overarching objective of the review was to consider approaches that not only manage the uncertainty surrounding future growth, but also to establish a pricing methodology that better meets the ESC's principles, and is consistent with customer expectations.

The VicWater review adopted the following structure:

- To meet the project's requirements, a multistage program of activities was undertaken which involved consultation with each of the member participants, including:
 - detailing the ESC's regulatory framework and requirements for setting NCCs and recovering development related costs
 - documenting good practice pricing objectives and pricing principles for NCCs and developer related charges, and the assessment framework to be applied
 - assessing the ESC's current NCC framework and approach against the criteria
 - setting out the nature and extent of growth anticipated by member participants and the impact of this growth on expenditure

- documenting the current state of NCC charging arrangements, including governance arrangements, negotiation framework, and application of standard and negotiated NCCs
- undertaking a desktop review of NCC and developer charges frameworks and approaches in other jurisdictions
- specifying a comprehensive set of alternative approaches (options) for the setting of NCCs
- qualitatively assessing the current approach and the alternative NCC tariff options against the assessment criteria, including key risks and forming a shortlist of alternative NCC options for consideration
- quantifying the potential NCCs for water and wastewater resulting from the adoption of the shortlisted NCC options
- setting out a detailed specification of the final preferred NCC approach, the Average Incremental Cost (AIC).

20.5 Average incremental cost based NCCs

The proposed Average Incremental Cost (AIC) NCC is a direct cost approach based on the average incremental costs of connection. The core elements of the option are:

- standard NCCs based on the AIC of connections with separate NCCs for water and sewerage (wastewater)
- the continuation of the incremental finance charge to address out of sequence developments
- the continuation of the current approach for negotiated NCCs.

Estimating NCCs using average incremental cost

The AIC approach estimates NCCs by separately identifying capacity related expenditure and averaging the expenditure over growth-related output. The AIC approach can be broadly summarised under the following steps:

- Consider the resource position over 20 years. This step involves determining the availability of existing capacity for water and wastewater treatment.
- Forecast unconstrained demand (demand based on present demand policies) over the same period, including both demand from existing customer and from new customers.
- Identify a schedule of capital projects that can be implemented to meet capacity requirements over the period — the capital program only includes expenditure relating to increased capacity and does not include expenditure relating to changes in quality of service or compliance with new obligations (unless those associated expenditures are clearly driven by growth).
- Optimise the capital program to generate the least cost solution to addressing supply/demand imbalances.

- Estimate AIC as the present value of the expected costs of the optimal strategy divided by the present value of the changes in the underlying customer connections (assuming the supply demand balance is maintained).

The AIC estimation is:

$$AIC = NPV \left(\frac{\text{optimal cost servicing connection growth}}{\text{additional connections}} \right)$$

It is worth noting that the AIC estimate is the net present value of the ratio of growth-related capex to new connections, as such the discount rate used to determine the AIC must be applied consistently across both the numerator and denominator for the NPV to be mathematically correct.

Aligning the price period with the NCC calculation

AIC-based NCCs are set based on a minimum 20-year forward estimation of cost and growth. The NCC will reflect the net present value of these forward estimations. The long-term nature of the NCC calculation raises issues regarding the alignment of the period used to generate NCCs and the 5-year regulatory price periods proposed in the price submission.

In order to provide for continuity of NCC outcomes for developers over this period, CHW is proposing to adopt 10-year price paths for our NCCs. These price paths are subject to review after the first 5-year regulatory period. The review would focus on adjusting the NCC to account for:

- changes in forecasted connections growth
- any bring forward of planned works that had occurred during the period
- material changes in the capital program associated with the NCC.

This approach will allow CHW to account for and recover growth related expenditure over a reasonable time frame and provide continuity in NCCs over time. It will also avoid potentially large step increases and decreases in NCCs due to the large lumpy nature of capital expenditure that may occur over a shorter 5-year price path.

Meeting regulatory pricing principles

AIC delivers a number of benefits relative to the current approach. The primary benefits are:

- Sending developers efficient pricing signals and incentivising efficient locational and timing decisions. AIC is a stronger approximation of the marginal cost of connection than the current approach. It clearly aligns the charge to the incremental costs associated with the connection and excludes sunk assets from the calculation of the charge.
- Ease of understanding: AIC is a more intuitive approach than the current approach. The relative simplicity of the approach will enhance the effectiveness of the charge in incentivising efficient development decisions
- The ability to send clear signals to developers is fundamental to the management of demand risk associated with the regional growth boom. Risk is best placed with those

whose actions are capable of changing risk outcomes, through their development decisions.

Table 20.1 **AIC and the ESC's NCC and WIRO regulatory principles**

Regulatory principles	Comment
WIRO (S.11)	
Enable customers or potential customers of the regulated entity to easily understand the prices charged by the regulated entity for prescribed services or the way such prices are calculated, determined or otherwise regulated;	AIC is a much simpler and more intuitive approach to calculating NCCs than the current net cashflow approach. AIC has been developed to address feedback from developers and customers concerning difficulty in understanding the current approach.
Provide signals about the efficient costs of providing prescribed services to customers (either collectively or to an individual customer or class of customers) while avoiding price shocks where possible	Unlike the current approach AIC is forward looking and excludes sunk assets. As a result, AIC provides efficient signals to customers regarding their timing and locational development decisions.
Consider the interests of customers of the regulated entity, including low income and vulnerable customers.	AIC is aimed at managing demand risks such that CHW's broader customer base are not subsidising growth
NCC	
Have regard to the incremental infrastructure and associated costs in one or more of the statutory cost categories attributable to a given connection;	AIC is determined based on incremental infrastructure and associated costs.
Have regard to the incremental future revenues that will be earned from customers at that connection	Incremental revenues are considered through the setting of the NCC within the context of the broader price review process. Both NCCs and water and sewerage charges are set such that the revenues they generate cannot exceed the associated revenue requirement.
Be greater than the avoidable cost of that connection and less than the standalone cost of that connection.	AIC is an accepted measure of avoidable cost. AIC provides for a NCC that is within the range of avoidable and standalone costs.

In addition to the WIRO and NCC principles, Section 268 (3) of the *Water Act* 1989 requires businesses to seek payments that are fair and reasonable and consider the benefits associated with extending infrastructure to a property relative to the benefits to other properties. The clause states:

(3) The amount of payment required from an owner must be assessed by the Authority to be fair and reasonable, taking into account the benefit to that property relative to the benefit to other properties.

This clause is directly addressed by the proposed AIC methodology through the adoption of a definition of growth capital expenditure that references the capacity share between new and existing customers for shared assets. This definition of growth recognises that both existing and new customers may benefit from growth related capital projects.

Key assumptions

In CHW's application of the updated NCC model, the following key assumptions were made:

- NCCs apply to both residential and non-residential property categories.
- NCCs have been calculated separately for both water and wastewater customers.
- We adopted a 20-year NCC calculation timeframe.
- The only incremental operational expenditure included in the NCC model relates to functional business units which solely exist to service new growth.
- Only capital projects categorised as having growth as the predominant driver have been included in the NCC model.
- All other projects where growth was considered a partial driver have been excluded.
- Costs for projects that have growth as the predominant driver and only exist due to new growth were included with a 100% costing proportion.
- Costs for projects that have growth as the predominant driver but exist due to new growth as well as servicing existing areas, were included based on the proportion of new connections versus existing connections over the 20-year period.
- A total of \$389 million of essential capital investment triggered by growth is included across both the water and wastewater 20-year NCC model calculations.
- Capital investment is phased annually for all expenditure in years 1 to 5 and most programs in years 6 to 20.
- Where the annual timing of more distant projects cannot be accurately forecast, the timing has been assigned to year 3 of the specific 5-year price period.
- The model does not include any Government or other contributions.
- Connection growth forecasts are consistent with CHW's 50-year 2022 Urban Water Strategy.
- Over the 20-year period, 36% of properties in the region will be new connections.
- CHW has excluded tax from the model based on the assumption that the ATO ruling (expected late 2022) on gifted assets will not be categorised as taxable income. If this ATO ruling does not eventuate, CHW will take on this financial risk.
- The input figures for the NCC model align with, and are reconcilable with, those used within the ESC financial template model.

CHW's application of the updated model was independently assessed by Utilities Regulation Advisory who provided rigorous and objective advice and regulatory economic support.

20.6 Feedback from customer and stakeholder engagement

Customer engagement.

Customers engaged during the *Let's Talk Water* customer engagement program supported a revised NCC charge in order to reduce the current cross-subsidy between existing and new customers and send efficient pricing signals in the development of new infrastructure for growth areas.

Stakeholder engagement

CHW directly engaged with our local developer community by the following means:

- All local developers on CHW's Land Development contact list (of approximately 80 contacts) were invited to an in-person 'Developer Forum' information session held on 30 May 2022 in Ballarat. There were approximately 17 attendees, consisting of developers, engineering consultants and local financiers.
- CHW presented the rationale behind the proposed changes to the NCC model as outlined in this section
- A formal Q&A session was followed by morning tea to enable more informal discussions to continue.
- CHW emailed the presentation and accompanying newsletter to CHW's Land Development contact list on 1 June 2022, seeking feedback.
- CHW subsequently received written feedback from 3 respondents, which reinforced the verbal feedback received at the information session:
 - recognition that the NCC charges had been too low for too long and support for revised NCCs
 - request for CHW to respect existing agreements
 - request that any new NCCs be phased in over the 5-year period
 - request that there be recognition of a differential charge between existing and proposed (new) growth zones.

This feedback has informed and been designed into the proposed NCC pricing pathway.

The proposed new NCC pricing pathway was emailed to our Land Development contact list on 25 August 2022. We received only 2 responses and they were seeking clarification on the application of the proposed changes to specific locations. We have received no objections to the implementation of the proposed NCC changes.

CHW also engaged directly with DEWLP and the ESC who were broadly in support of our proposed changes, provided that the local developer community and the Urban Development Industry of Australia (UDIA) had been satisfactorily engaged.

CHW engaged more indirectly with the UDIA – Victoria Branch, as part of a VicWater stakeholder workshop presentation on 1 August 2022, where no major objections to the proposed NCC changes were raised.

20.7 Implementation

CHW is proposing the implementation of AIC-based standard NCCs, commencing 1 July 2023, for both water and wastewater services.

CHW has incorporated customer and stakeholder feedback to phase in the NCC charges during the 5-year period, reaching the maximum fee of \$8,000 per lot (\$4,000 for both water and \$4,000 for wastewater - plus 1.0% price increase p.a.) in year 3 for new growth zones. Note prices from 2024-25 are indexed by the proposed price increase of 1.0% p.a. as per Table 20.2 following.

CHW also proposes to introduce a differential charge between existing growth areas/infill and new growth zones. During the transitional period, the existing growth areas/infill development will be initially charged at 43% of the new growth zone NCC, slowly rising to 65% in year 5 (2027-28)

It is expected that both the existing growth areas/infill and new growth zones NCC charge will reach parity by 2028-29 (year 1 of PR28) as the majority of new development will be occurring in new growth zones by then.

The following chart shows the proposed NCCs, indicating the differential rate between growth zone types and the phasing in of the NCC charge for each.

Table 20.2 **Proposed New Customer Contributions (\$ 2023)⁴⁵**

Development area	2023-24	2024-25	2025-26	2026-27	2027-28
New growth zones ^{See note 1 below}					
Water	3,000.00	3,535.00	4,040.00	4,080.40	4,121.20
Wastewater	3,000.00	3,535.00	4,040.00	4,080.40	4,121.20
Existing growth zones and infill ^{See note 2 below}					
Water	1,300.00	1,641.25	1,969.50	2,297.75	2,626.00
Wastewater	1,300.00	1,641.25	1,969.50	2,297.75	2,626.00

Notes on Table 20.2

1. New growth areas yet to be rezoned in a Planning Scheme, including but not limited to:

- Ballarat - North West Growth Area
- Ballarat - Northern Growth Area ⁴⁶

⁴⁵ Note prices from 2024-25 are indexed by the proposed price increase of 1.0% p.a.

⁴⁶ Refer section 12.1 regarding the Government's intention to rezone this growth area and Appendix section 22.6 for the City of Ballarat's full announcement on 13 September 2022

Notes on Table 20.2

- Ballarat - Western Growth Area
- Golden Plains - Cambrian Hill Growth Area
- Moorabool – North West Ballan Growth Area
- New growth zones – commence year 1 at 75% of the maximum charge

2. All other growth areas not mentioned above and infill development:

- Ballarat West Urban Growth Area
- Ballarat West Employment Zone
- Existing growth zones/infill – commence year 1 at 43% of the NCC charge for new growth zones

21.0 Financial Position

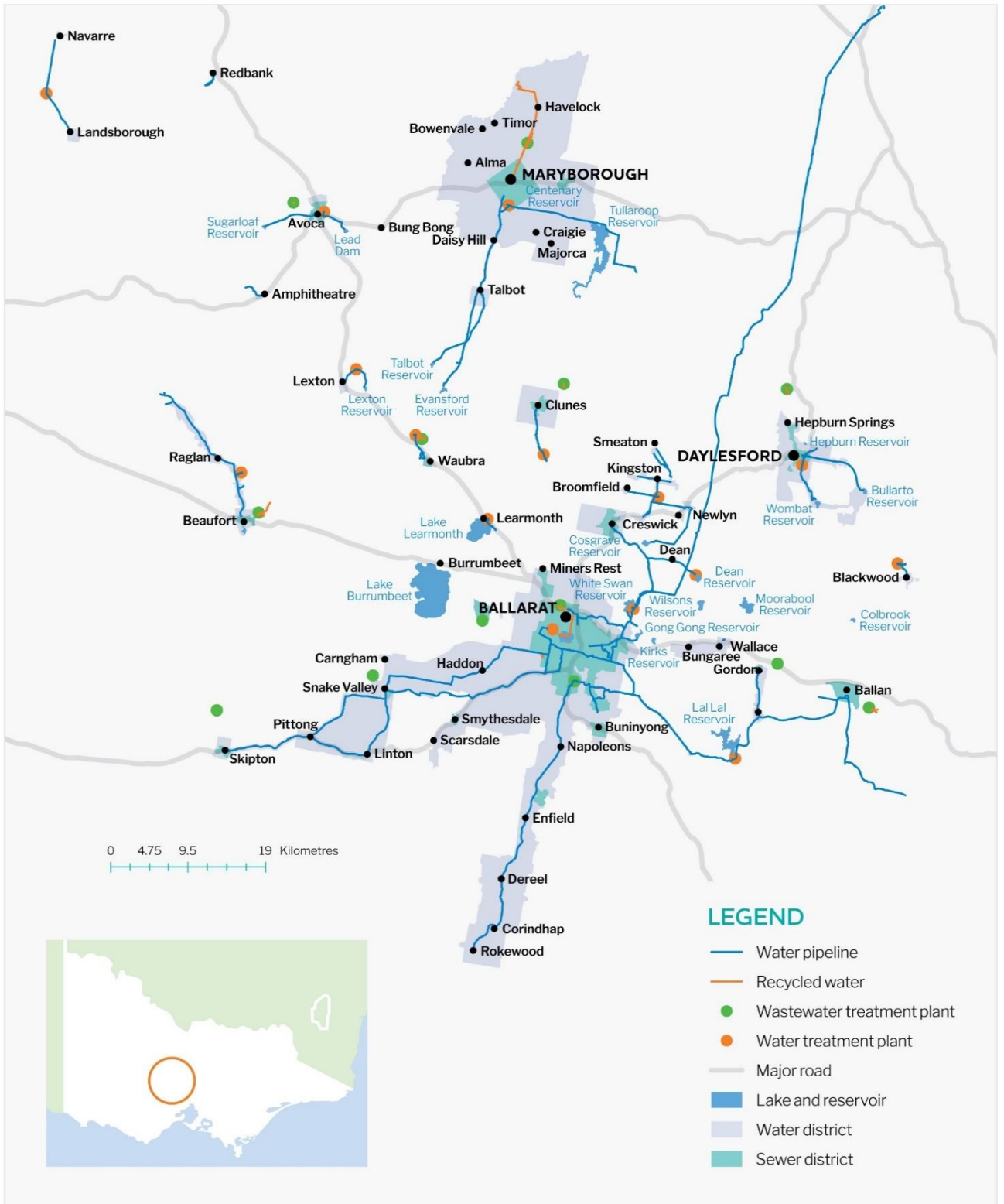
Key points:

- A comparison of CHW forecast financial position compared with ESC's key financial indicators demonstrates this price submission is financially sound.

As noted throughout the submission, the main driver of CHW's financial position is the increased capital expenditure to fund the acceleration in population growth across 5 separate growth areas across the Ballarat area. However, as evidenced within the indicator tab of CHW's financial model that when compared with the benchmark indicators provided by the ESC, our forecast financial position will remain strong during the 2023-2028 regulatory period.

22.0 Appendices

22.1 Service area



22.2 Serviced properties as at 30 June 2022

Water supply system	Number of water connections as at 30 June 2022	Communities provided with water supply	Communities provided with sewerage service
Amphitheatre ^R	76	Amphitheatre	-
Avoca	688	Avoca	Avoca
Ballarat ^F	63,058	Ballan, Ballarat and immediate suburbs, Buninyong, Cardigan Village, Creswick, Dereel, Enfield, Gordon, Haddon, Linton, Miners Rest, Mt Egerton, Napoleons, Rokewood, Scarsdale, Skipton, Smythesdale, Snake Valley, Wallace	Ballan, Ballarat and immediate suburbs, Buninyong, Cardigan Village, Creswick, Enfield, Gordon, Miners Rest, Skipton, Smythesdale, Snake Valley
Beaufort - Raglan ^R	841 67	Beaufort, Raglan ^R	Beaufort
Blackwood	347	Barry's Reef, Blackwood	-
Clunes	1,002	Clunes	Clunes
Daylesford	3,016	Daylesford, Hepburn	Daylesford, Hepburn
Dean	21	Dean	-
Forest Hill	519	Allendale, Broomfield, Newlyn, Kingston, Smeaton, Springmount	-
Landsborough	144	Landsborough, Navarre	-
Learmonth	161	Learmonth	Learmonth
Lexton	104	Lexton	-
Maryborough ^F	6,152	Alma, Bet Bet, Carisbrook, Daisy Hill, Majorca, Maryborough, Talbot	Maryborough, Carisbrook
Redbank ^R	44	Redbank	-
Waubra	111	Waubra	Waubra
Total	76,352		

R = Regulated (non-drinking water) supply F = Fluoridated drinking water supply

22.3 PR18 Outcomes and Outputs

Better customer experience	Safe clean drinking water that tastes great	Reliable and sustainable water and sewer systems	More efficient water use	Increased value for money
Online self-service account access	Safe drinking water	Sustainable water resource planning	Digital metering program	Minimise cost of living pressures
Online two-way digital communication channels	Options for improved water quality of small towns	Communicate long term water security plan	Rainwater tank rebates	Community amenity plan
Service interruption alerts by SMS & email	Improve water quality rating	Improve network performance		Assist vulnerable customers
Understand our customers' needs		Reduce greenhouse gas emissions		Improve value for money

22.4 ESC's 10 principles for universal and inclusive engagement

Principle	CHW approach
1. Be inclusive	<ul style="list-style-type: none"> • Personal presence in community areas known to have high levels of social disadvantage • Provided a range of response mechanisms in the initial stages of engagement e.g. face to face survey and discussion, online survey, cue cards with images, gamification using coloured balls to represent service priorities • Provided support to customers who required assistance with technology to enable their participation in on-line sessions
2. Collaborate and co-design with consumers	<ul style="list-style-type: none"> • Continually asked for feedback from Deliberative Assembly members regarding structure of online sessions and modified accordingly
3. Treat engagement as an ongoing process based on relationships	<ul style="list-style-type: none"> • Provided opportunities for community members of the established Customer Advisory Panel to participate • Facilitated discussions with several established groups and forums within the community as part of ongoing communications
4. Have a clear purpose	<ul style="list-style-type: none"> • Participants were advised that their contributions would assist in CHW developing service priority and prices for the 2023-28 period
5. Reflect community diversity	<ul style="list-style-type: none"> • A range of communities and community events were visited • The Deliberative Assembly panel was randomly selected against criteria ensuring it was representative of community diversity
6. Invest in engagement	<ul style="list-style-type: none"> • CHW invested in community engagement professionals across a range of disciplines • Participants attending the Deliberative Assembly were offered a gift card in appreciation of their time and effort over 4 weekend sessions
7. Be transparent and offer genuine involvement	<ul style="list-style-type: none"> • CHW provided equal access to technical experts and decision makers within Senior Management during the Deliberative Assembly sessions • The Deliberative Assembly reviewed the final proposed Outputs and agreed they were an accurate representation of their priorities • The Community Summary document was similarly shared with customer representatives prior to its broader distribution

Principle	CHW approach
8. Show respect for individuals, their knowledge and expertise	<ul style="list-style-type: none"> • Online facilitators were briefed to ensure that all participants in the Deliberative Assembly sessions had the opportunity to voice their opinion • Assembly members in small discussion groups were invited to be the 'scribe' and summarise their group's discussions back to the larger assembly group
9. Use methods that are universal and flexible	<ul style="list-style-type: none"> • CHW provided a welcome and respectful engagement environment that put participants at ease and willing to participate
10. Reflect, adapt, improve	<ul style="list-style-type: none"> • Informal reviews were conducted at every stage of the engagement process • Extensive evaluation was conducted at the conclusion of the online Deliberative Assembly process. The results are shown at section 8.6.

22.5 Community Summary document

Delivering for our community.

2023-2028 Price Submission Summary

Have your say

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Delivering on customers' priorities

- Proposed 5-year pricing plan from 2023 to 2028
- Focus on Customer Care, Equity and Sustainability
- 20 new and improved services
- Doubling our commitment to supporting vulnerable customers to \$2.5 million
- Doubling the reduction in our greenhouse gas emissions to 50%
- Increasing our rebate for Guaranteed Service Levels (GSL)
- 100% renewable electricity by 2025
- Proposed price increase averaging below 3% per annum (including CPI) over the 5-year period
- Capital increases to be shared by more than 70% to \$256 million to improve services and support our customers

Have your say and share your views about where you live

“ We share a common goal of contributing to make the Central Highlands region a great place to live. ”

— Yousof Mechanical / Electrical Planning Manager, Office

About the Pricing Submission

CHW is required to lodge a pricing submission every 5 years with the Essential Services Commission (ESC), which outlines our services and prices for the coming 5-year period (2023-2028).

We have been a significant community contributor 2023/24 Submission, addressing our customers' needs, while still being a profitable business for the service to be able to fund.

The submission presents us with a range of options to meet our customers' needs, while still being a profitable business for the service to be able to fund. We have been a significant community contributor 2023/24 Submission, addressing our customers' needs, while still being a profitable business for the service to be able to fund.

Let's Talk Water - 2023 Pricing Submission

Our Let's Talk Water community engagement program introduced our customers to the submission process and provided an opportunity for them to share their views on the submission.

Our engagement journey

In 2021, we led our customers and community to help shape our 5-year pricing submission and help us to deliver increased customer value and better service. It was important to our community.

We made this journey a two-way street, ensuring our customers' views were heard and acted upon. We also provided an opportunity for our customers to share their views on the submission process and provided an opportunity for them to share their views on the submission process.

Our 3 key outcomes

After listening to our community we developed 3 key themes to meet our customers' needs:

- 1 Customer Care** Ensuring that we continue to improve our support and care for all customers, particularly those at risk of non-compliance.
- 2 Equity** Ensuring that services are designed and shared across our community.
- 3 Sustainability** Ensuring that we reduce our environmental footprint.

These initiatives have been developed in conjunction with our customers and the community and are fully supported by them.

“ Invaluable experience. CHW is a good corporate citizen and I wish that more of the community could understand the hard work that goes into the 5-year plan. ”

1 Customer Care

- More present billing: To help our customers manage their bills, we will introduce a new billing system that will allow customers to view their bills online and receive them via email.
- More positive service: We will continue to improve our customer service, ensuring that we are always available to help our customers with any issues.
- Accountability: We will continue to be transparent about our services and ensure that we are always available to help our customers with any issues.

2 Equity

- Reducing regional growth: We will continue to invest in our infrastructure, ensuring that we are always available to help our customers with any issues.
- Support for vulnerable customers: We will continue to provide support for our most vulnerable customers, ensuring that they can access our services.
- Worked with our customers: We will continue to work with our customers to ensure that our services are always available to help our customers with any issues.

3 Sustainability

- Renewable energy: We will continue to invest in renewable energy, ensuring that we are always available to help our customers with any issues.
- Water recycling: We will continue to invest in water recycling, ensuring that we are always available to help our customers with any issues.
- Water recovery: We will continue to invest in water recovery, ensuring that we are always available to help our customers with any issues.

Our Pricing Submission

Following our extensive community engagement, and with the support of the Deliberative Assembly, we propose a pricing pathway of 3.1% per annum (including CPI) for the first year (2023-24), then followed by CPI for the remaining 4 years (2024-28).

Our pricing submission is based on a range of options, ensuring that we are always available to help our customers with any issues.

Pricing pathway

	2023-24 Proposed	2024-25 Proposed	2025-26 Proposed	2026-27 Proposed	2027-28 Proposed
Overall Price % Change	3.1%	3.1%	3.1%	3.1%	3.1%
Water % Change	3.1%	3.1%	3.1%	3.1%	3.1%
Other % Change	3.1%	3.1%	3.1%	3.1%	3.1%

“ I am passionate about protecting our local environment and working to ensure we maintain a clean, safe drinking water supply. ”

— Jane Senior Technical Advisor Environment & Heritage

Major projects and programs

We will focus on a number of major projects and programs during 2023-28 with a total investment of \$256 million over the 5-year period. Our major projects and programs include:

- Water Main Rehabilitation Program:** To improve the reliability of our water mains, we will undertake a program of rehabilitation work.
- Water Main Replacement Program:** To replace old and unreliable water mains, we will undertake a program of replacement work.
- Water Main Upgrade Program:** To improve the capacity of our water mains, we will undertake a program of upgrade work.
- Water Main Protection Program:** To protect our water mains from damage, we will undertake a program of protection work.
- Water Main Monitoring Program:** To monitor the condition of our water mains, we will undertake a program of monitoring work.
- Water Main Inspection Program:** To inspect the condition of our water mains, we will undertake a program of inspection work.
- Water Main Testing Program:** To test the condition of our water mains, we will undertake a program of testing work.
- Water Main Cleaning Program:** To clean our water mains, we will undertake a program of cleaning work.
- Water Main Painting Program:** To protect our water mains from corrosion, we will undertake a program of painting work.
- Water Main Wrapping Program:** To protect our water mains from damage, we will undertake a program of wrapping work.
- Water Main Encasement Program:** To protect our water mains from damage, we will undertake a program of encasement work.
- Water Main Relocation Program:** To relocate our water mains, we will undertake a program of relocation work.
- Water Main Removal Program:** To remove our water mains, we will undertake a program of removal work.

Future proofing is key.

CHW has a critical role to play in providing services to a growing population.

Working with our customers and the community to ensure we maintain a clean, safe drinking water supply.

22.6 City of Ballarat online article – Ballarat grows to the north ⁴⁷

The City of Ballarat has welcomed the decision by the State Government to authorise the rezoning of the core area of Ballarat’s Northern Growth Area to an Urban Growth Zone which will become the city’s newest residential growth area.

At its meeting in February, Ballarat City Council resolved to support the rezoning of three new growth areas in Ballarat – the Northern, the Western and the North-Western growth areas – underpinning a strategic and planned approach to the delivery of infrastructure, services and housing needed to keep pace with Ballarat’s expected growth.

The Minister for Planning, Lizzie Blandthorn has authorised the approval of an amendment to rezone the core area of the Northern Growth Area and update policy in the Ballarat Planning Scheme.

The Minister has also appointed the Victorian Planning Authority (VPA) to prepare the required Precinct Structure Plan, Developer Contribution Plan and Planning Scheme Amendment. This process includes consideration for an extension to the boundary. The City of Ballarat is committed to working closely with VPA and stakeholders to plan for the future.

The VPA will also work with the City of Ballarat to deliver a high-level strategic review of Ballarat’s greenfield land which includes the Western and North-Western growth areas together with urban renewal areas to inform future staging of residential growth and ensure adequate land supply.

City of Ballarat Mayor, Cr Daniel Moloney said sustainably managing growth is critical.

“It’s important that the planning and delivery of large areas of residential growth is staged to ensure development is in line with environmental principles to ensure future communities are well-planned and sustainable,” he said.

“The City of Ballarat Council Plan 2021-2025 identifies as two of the organisation’s key goals, a city that fosters sustainable growth and conserves and enhances our natural and built assets.

“We are looking forward to working with the VPA to see this important planning work completed.

“This will ensure residential growth is delivered in a way that meets the Council Plan goals and allows for ongoing supply of land to meet the needs of future residents.”

Cr Moloney thanked the community and key stakeholders for their contributions to the process.

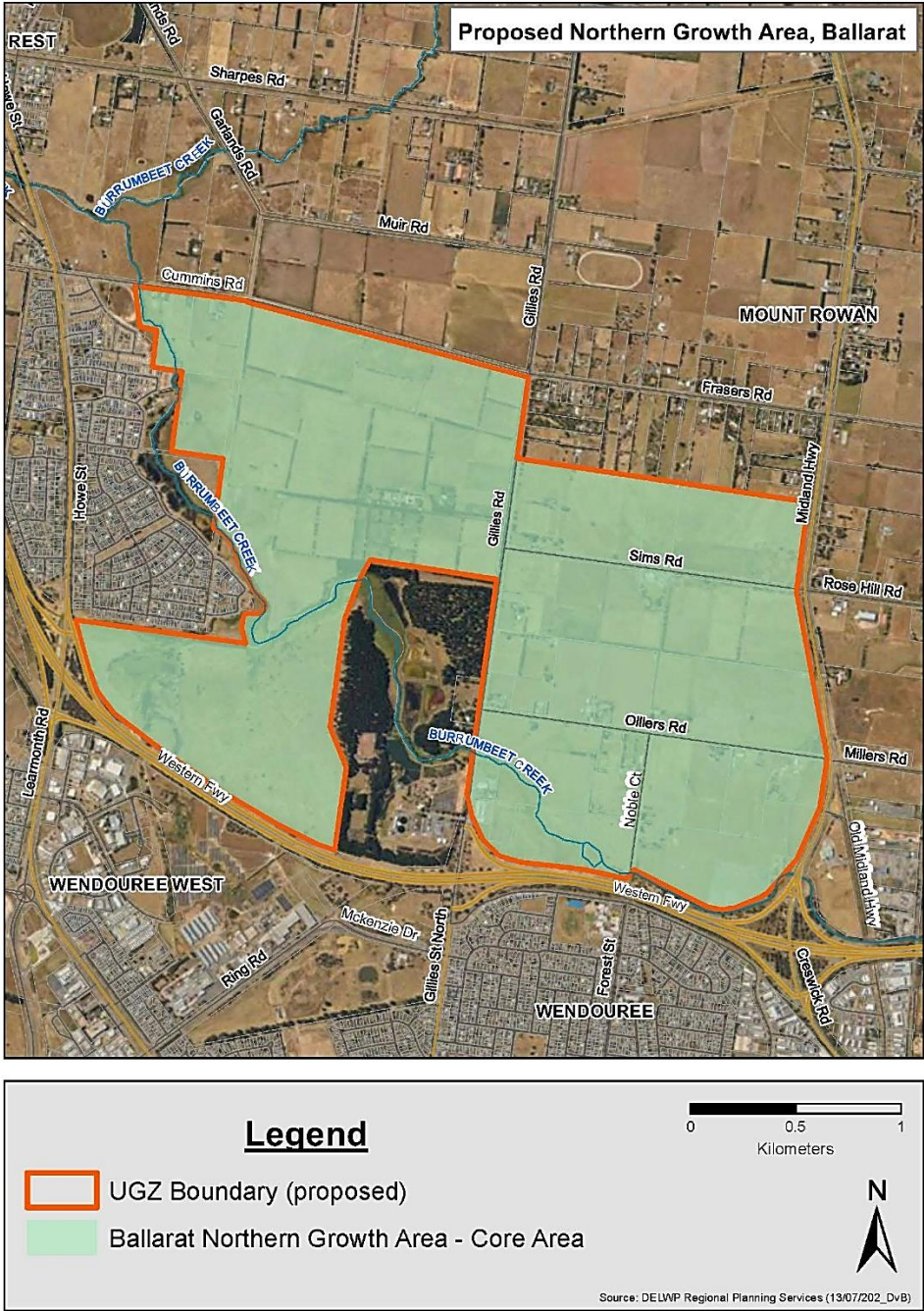
Key Points

- DELWP to rezone Northern Growth Area to an Urban Growth Zone.
- DELWP to update the Ballarat Planning Scheme.
- City of Ballarat to work with the VPA to review Ballarat’s greenfield land and urban renewal areas.
- City of Ballarat to prepare a growth area framework plan for the western growth areas to inform appropriate staging and sequencing of residential growth.
- The new Northern Growth area is expected to accommodate up to 6,000 houses and potentially some 15,000 residents.

Mt Rowan is a key landscape feature of the Northern Growth Area; detailed landscape assessments will be part of the future planning processes to ensure it is protected. Future planning will also consider Burrumbeet Creek and protecting the Dowling Forest Racecourse precinct and nearby rural living areas.

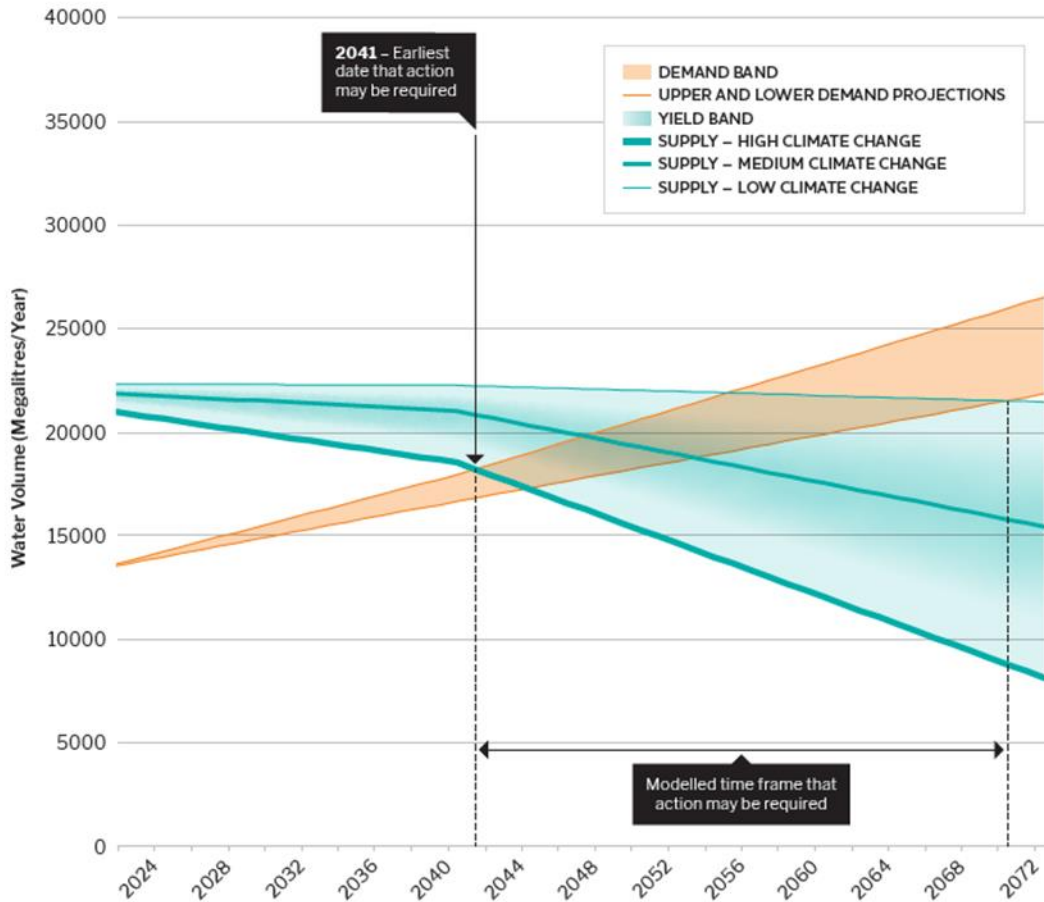
⁴⁷ Announcement from <https://www.ballarat.vic.gov.au/news/ballarat-grows-north> accessed 14 September 2022

Northern Growth Areas Map



22.7 Supply and Demand scenarios for Ballarat water supply

BALLARAT SUPPLY DEMAND 2022-2072



SUPPLY ELEMENTS

Water source: Surface water from local systems (Upper West Moorabool, Upper Yarrowee/White Swan Reservoir, Lal Lal Reservoir). Surface water from Northern Victoria via Goldfields Superpipe. Ballarat West bores not included in graph shown.

Level of service: 95% – Restrictions 1 year in 20 on average, minimum reserves always held in major storages.

Allowance for climate change: Baseline historical streamflow adjusted pre 1975. High medium and low climate change streamflow, rainfall and evaporation adjustment.

Other: Reservoir and channel system losses are implicit in baseline inflows. Northern Victorian allocations from DELWP modelling.

DEMAND ELEMENTS

Residential: Low demand projection ranges from 1.12% to 1.9%. High demand projection ranges from 1.62% to 2.55%.

Non-residential: Low demand projection ranges from 0.62% to 1.4%. High demand projection ranges from 1.12% to 1.9%.

Non-revenue: 8.7% of total demand.

Climate scenario: Median climate change scenario.

Extract from the CHW 2022 Urban Water Strategy