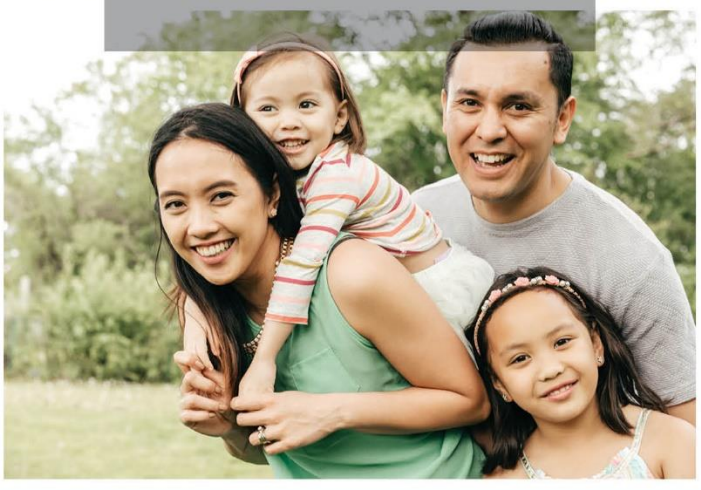
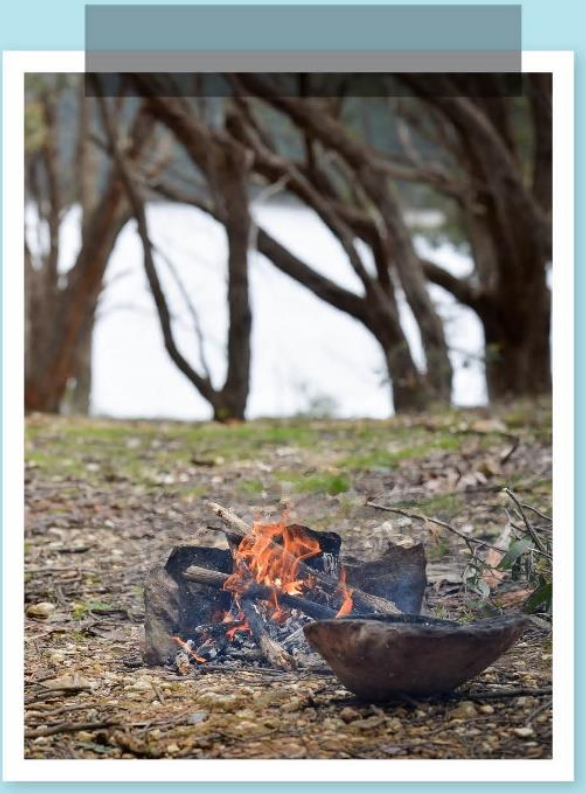
Barwon Water

2023 Price Submission

September 2022



We recognise Aboriginal and Torres Strait Islander peoples as the First Peoples of this nation. We proudly acknowledge the Traditional Custodians of the land and water on which we rely, and pay respects to their Elders, past, present and emerging.



We operate on the lands of Wadawurrung and Eastern Maar. We proudly acknowledge them as the Traditional Owners of the land and water on which we rely, and pay respects to their Elders, past, present and emerging.

We also acknowledge that Wadawurrung and Eastern Maar never ceded this land or the water that flows through it. We thank them for the care they have taken of land, water and natural environment for tens of thousands of years and still continue this today.

Our vision for reconciliation is for all peoples to stand unified in an inclusive and connected community.

We will deeply support Wadawurrung and Eastern Maar in the development and implementation of their Country Plans and in their journey for self-determination.

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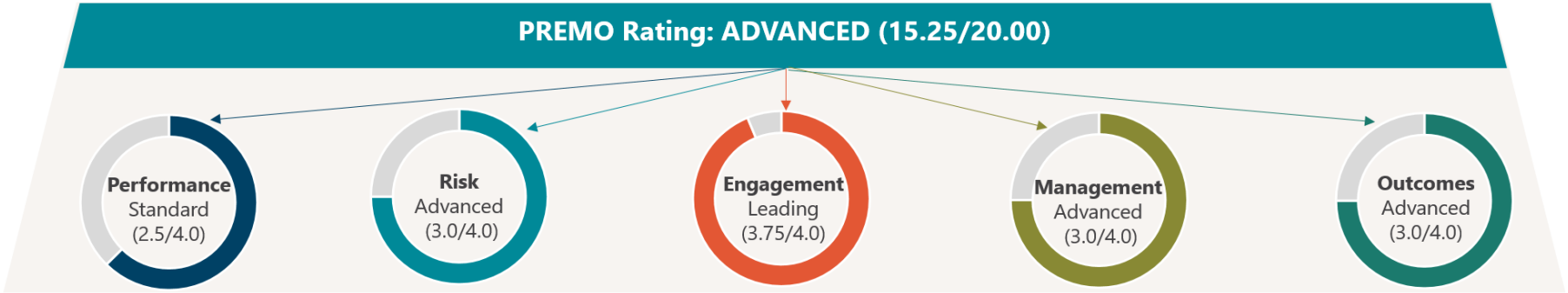
Executive Summary

Barwon Water is pleased to provide its 2023 Price Submission to the Essential Services Commission (ESC).

Figure 0-1: Summary of Barwon Water's Advanced 2023 Price Submission



Our performance over 2018-23 has been strong

- Overall "green" rating from customers for delivery of outcomes over Years 1-4, on track for "green" in Year 5
- Total variation in capital expenditure of 15.8% and operating expenditure of 14.0% due to threats to water security, COVID-19, new community and environmental health requirements, ageing infrastructure, capability uplift
- One of top four water businesses in Victoria for overall satisfaction, value for money, level of trust and reputation since August 2020

We will bear more risk on behalf of customers

- Price cap means we will bear inflows and demand risk – if it is dry, increased operational costs lessen the benefit of increased revenue; if it is wet, minimal operational savings do not offset decreased revenue
- We will defer passing through up to $111.7M of strategic projects until 2028
- We will bear risk of external market factors – no escalation applied since estimates made in December 2021
- We will not use price adjustment mechanism for up to 12% of our annual opex that is uncontrollable yet uncertain

Over 336,000 touchpoints, 3 x deliberative processes

- 5-year foundational engagement program supplemented by 18-month targeted engagement – over 336,000 customer touchpoints
- Three key reference groups over five years, using deliberative principles – Customer Advisory Committee, Regional Forum, Water for our Future Community Panel
- 82% of 5,570 customers surveyed in July 2022 thought our Draft 2023 Price Submission offered value for money at flat prices – and now we are delivering a price decrease

Our prices will decrease by 1.4% p.a. in real terms

- Prices going down by 1.4% on average, despite 29% higher capital program and performance improving for 50% of our 44 measures of success
- 1.95% efficiency rate, including $5.8M via our Customer Affordability Pipeline, whilst operating expenditure per customer has decreased for past 10 years and already compares favourably to our peers
- Independent review of business cases for top 20 projects and top 10 programs, plus risk-based prioritisation reducing capital project spend by $50M

We will deliver more of what customers want

- Corporate Strategy (*Strategy 2030*) and 2023 Price Submission are fully aligned with same outcomes, goals, metrics – reflects complete customer focus of the business
- Holding ourselves accountable via continuation of our Performance Incentive Mechanism – up to $15.6M is at risk for underperformance against four key metrics (one for each customer outcome)
- Increasing direct financial support for vulnerable customers and those affected by family violence to $3M, as part of our $4.8M hardship program

We consider our submission meets the requirements of an "Advanced" PREMO rating, as shown in Figure 0-1. Further explanation of key points is provided below.

Our prices will decrease by 1.4% p.a. in real terms

Our core residential and non-residential prices will decrease by 1.4% each year (excluding Consumer Price Index (CPI) and Cost of Debt (CoD) adjustments) and 6.8% in total over the five-year regulatory period, as shown in Table 0-1.

Table 0-1 Prescribed prices for residential and non-residential water and sewerage tariffs (excluding CPI and CoD adjustments) – in $2022-23 dollars

		2023-24	2024-25	2025-26	2026-27	2027-28
Residential	**Unit**					
Water volume charge	$/kL	$2.1976	$2.1671	$2.1370	$2.1073	$2.0780
Water service charge	$/year	$133.23	$131.38	$129.55	$127.75	$125.98
Sewer service charge	$/year	$576.25	$568.24	$560.34	$552.55	$544.87
Non-Residential						
Water volume charge	$/kL	$2.1976	$2.1671	$2.1370	$2.1073	$2.0780
Water service charge	$/year	$133.23	$131.38	$129.55	$127.75	$125.98
Sewer volume charge	$/kL	$1.9558	$1.9286	$1.9018	$1.8754	$1.8493
Sewer service charge	$/year	$348.67	$343.82	$339.04	$334.33	$329.68

Average bills for home-owners and businesses will decrease in real terms (excluding CPI and CoD adjustments), as shown in Table 0-2.

Although average bills for tenants will increase slightly over the period, those in need of additional financial support as we gradually remove the Transitional Rebate Adjustment will be able to access our enhanced customer support programs, along with all other customers who may be finding it difficult to pay their bills – we are here to help.

Table 0-2: Forecast average bills (excluding CPI and CoD adjustments) – in $2022-23 dollars

	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Home-owners[1]	$1,076	$1,061	$1,046	$1,032	$1,017	$1,003
Tenants (including TRA)[1]	$314	$309	$314	$320	$326	$332
Transitionary Rebate Adjustment (TRA)	$43.00	$43.00	$32.25	$21.50	$10.75	$0.00
Business (small)[2]	$1,723	$1,699	$1,675	$1,652	$1,629	$1,606
Business (medium)[2]	$12,827	$12,649	$12,473	$12,300	$12,129	$11,960
Business (large)[2]	$206,130	$203,265	$200,440	$197,654	$194,907	$192,198

1. *Based on 160kL water usage per year*
2. *Based on 300kL, 3,000kL and 50,000kL water usage per year respectively*

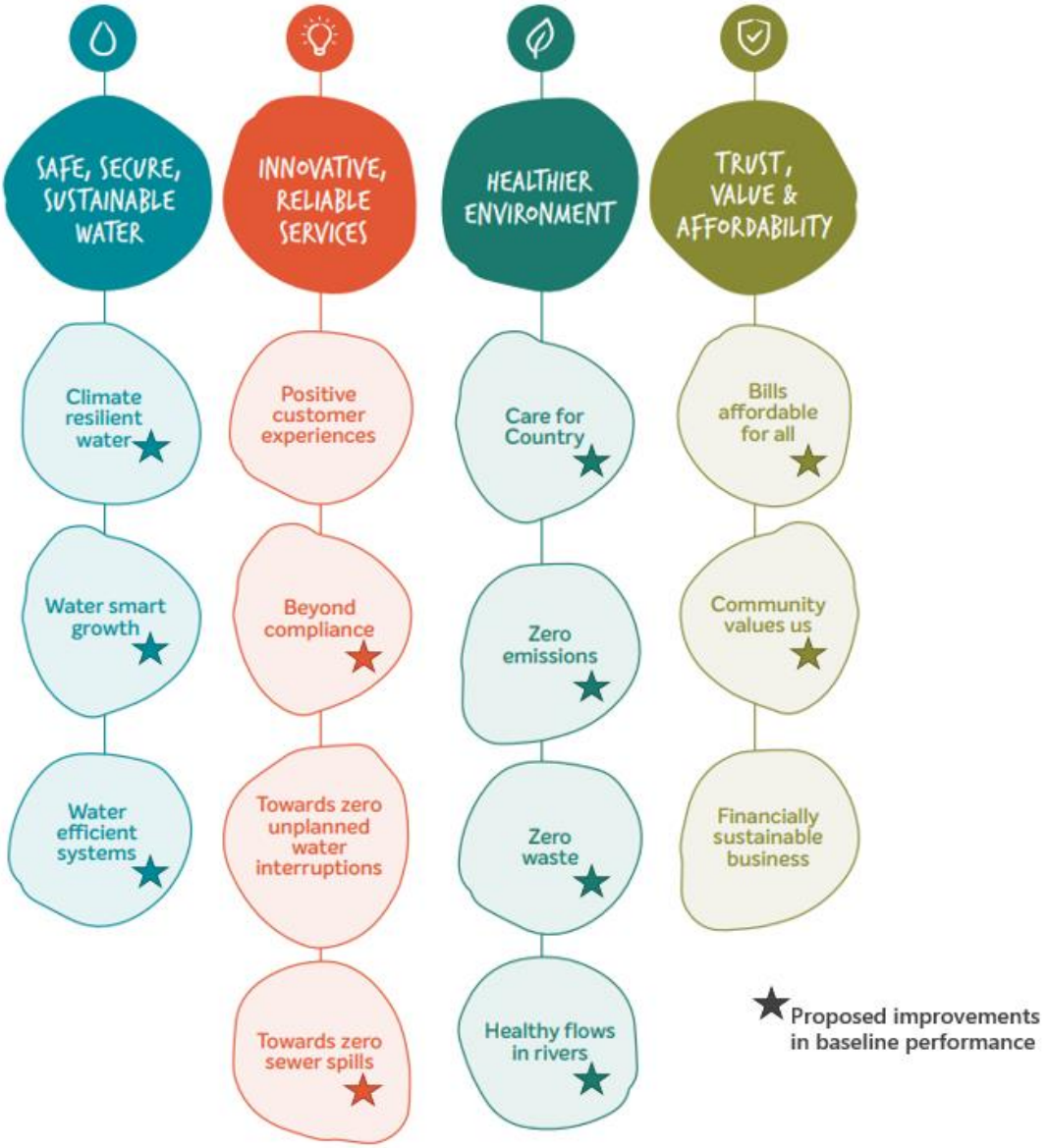
We will deliver more of what our customers want – informed by over 336,000 customer touchpoints, including 3 x deliberative processes

The four outcomes we propose to deliver reflect our genuine, ongoing engagement over the past five years, rather than a "one-off" engagement process for this submission.

Our comprehensive engagement program has reshaped our corporate strategy (Strategy 2030) in parallel with the development of this submission – so these are now fully aligned. As a result, we are focused on delivering the outcomes we know our customers want.

We will deliver improvements to our baseline performance for half of our 44 measures of success, across nearly all of our 14 aspirations, as shown in Figure 0-2. We will hold ourselves accountable for delivery – by adding a new Guaranteed Service Level and adjusting our Performance Incentive Mechanism so it targets key customer priorities.

Figure 0-2: Outcomes and aspirations



We will bear more risk on behalf of our customers

We propose a **$549.4 million capital works program**, an increase of 29% on the 2018-23 regulatory period.

Our key drivers for this increased capital expenditure are renewals (45%) and growth (33%). The challenges of climate change, population growth, economic transition and rapid technological advancements mean we need to invest more to improve the resilience of our infrastructure.

Our capital works program has been thoroughly scrutinised to ensure it is prudent and efficient, including an independent review of business cases for all our top 20 projects and top 10 programs, exclusion of $111.7 million key projects and risk-based prioritisation of a further $50 million projects without compromising service quality.

A robust and revised capital delivery model, which has been significantly strengthened in the current regulatory period, positions us to deliver in a challenging market.

We propose **$670.7 million of total operating expenditure** over the regulatory period.

Annual spend will remain relatively flat at an average of $134.1 million per annum, in line with 2021-22 baseline operating expenditure of $132 million.

We propose an efficiency rate of 1.95% per annum, including continuation of our successful Customer Affordability Pipeline (CAP) to realise $5.8 million of savings.

We have adopted an average customer growth rate of 2.1% per annum. This is higher than our 2018 growth assumptions (1.6% p.a.) but reflective of latest Victoria in Future (VIF) estimates, verified by forecast.id, and less than observed growth over past five years (average 2.5% p.a. across five years).

Our performance over 2018-23 regulatory period has been strong, despite challenging operating conditions

Our total capital and operating expenditure over the current regulatory period is forecast to be 15.8% and 14.0% more than our 2018 price determination respectively. This increased expenditure has been in response to threats to water security, coronavirus (COVID-19), new community and environmental health requirements (as reflected in regulations, legislation and Government obligations), ageing infrastructure and strategic uplift opportunities.

Our Board's carefully considered, strategic responses to these challenges have focused on ensuring customer value, consistent with the outcomes our customers wanted us to deliver. Through our ongoing, genuine engagement we know our customers understand the challenges we have faced and are confident with our performance.

Board attestation

The Board of Directors of Barwon Region Water Corporation, 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 Barwon 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.

By resolution of the Board dated Thursday, September 15, 2022.

Jo Plummer, Chair

Tracey Slatter, Managing Director

Message from Customer Advisory Committee

The Customer Advisory Committee (CAC) thanks Barwon Water for developing a comprehensive 2023 Price Submission. This plan incorporates inclusive customer insights from a broad and diverse range of people within the region. We are satisfied with the inclusive engagement approach by Barwon Water to include customers from Culturally and Linguistically Diverse (CALD) backgrounds and vulnerable customers.

Throughout the process, the CAC has felt part of the Barwon Water team and the conversation at large. Information provided to us was clear, evidence-based and concise. This helped us understand community sentiments when interacting with Barwon Water and the challenges Barwon Water is managing.

Our contributions and outputs have been recorded, valued and strongly considered by the Board. We have had several opportunities to review and refine our recommendations.

Since May 2021, our meetings have focused on the 2023 Price Submission and key inputs, with each session building on the last one. Clear reporting back has helped us understand how our input influenced decisions from the customer outcomes, metrics and defining vulnerability in our area. We have learnt a lot about the work Barwon Water does to keep prices as affordable as possible. Their commitment to customer affordability and balancing that with changing customer expectations around environment, innovation and technology, gives us strong position of comfort that the customer is a priority in the commitments outlined in the 2023 Price Submission.

Shared Statement

Barwon Water Customer Advisory Committee Members

1 Management

At a glance

- We have reshaped our corporate strategy – Strategy 2030 – in parallel with development of our 2023 Price Submission, to ensure they are fully aligned and we are focused on delivering the outcomes our customers want.
- A robust governance framework guided the development of this submission, which ensured ownership and buy-in across all levels of our organisation, including our Board and Executive Leadership Team.
- Our capital expenditure program has been thoroughly scrutinised, including independent review of business cases for all top 20 projects and top 10 programs, exclusion of $111.7 million key projects and risk-based prioritisation of a further $50 million projects without comprising service quality (refer Section 7).
- Our operating expenditure profile includes an efficiency rate of 1.95%, and a continuation of our Customer Affordability Pipeline to realise $5.8 million of cost savings (refer Section 6).
- Our PREMO self-assessment rating for Management is **Advanced** (3.0/4).

1.1 Our strategic alignment

Five years ago, we – the Board, management and staff at Barwon Water – began a bold and ambitious new phase in our organisation's history. Together, we agreed to shift our mindset from water utility to being an enabler of regional prosperity. A strategy outlining our new corporate direction – Strategy 2030 – was released in May 2017. Shortly afterwards, we finalised our 2018 Price Submission and promised to deliver the outcomes that our customers had told us were important to them[1].

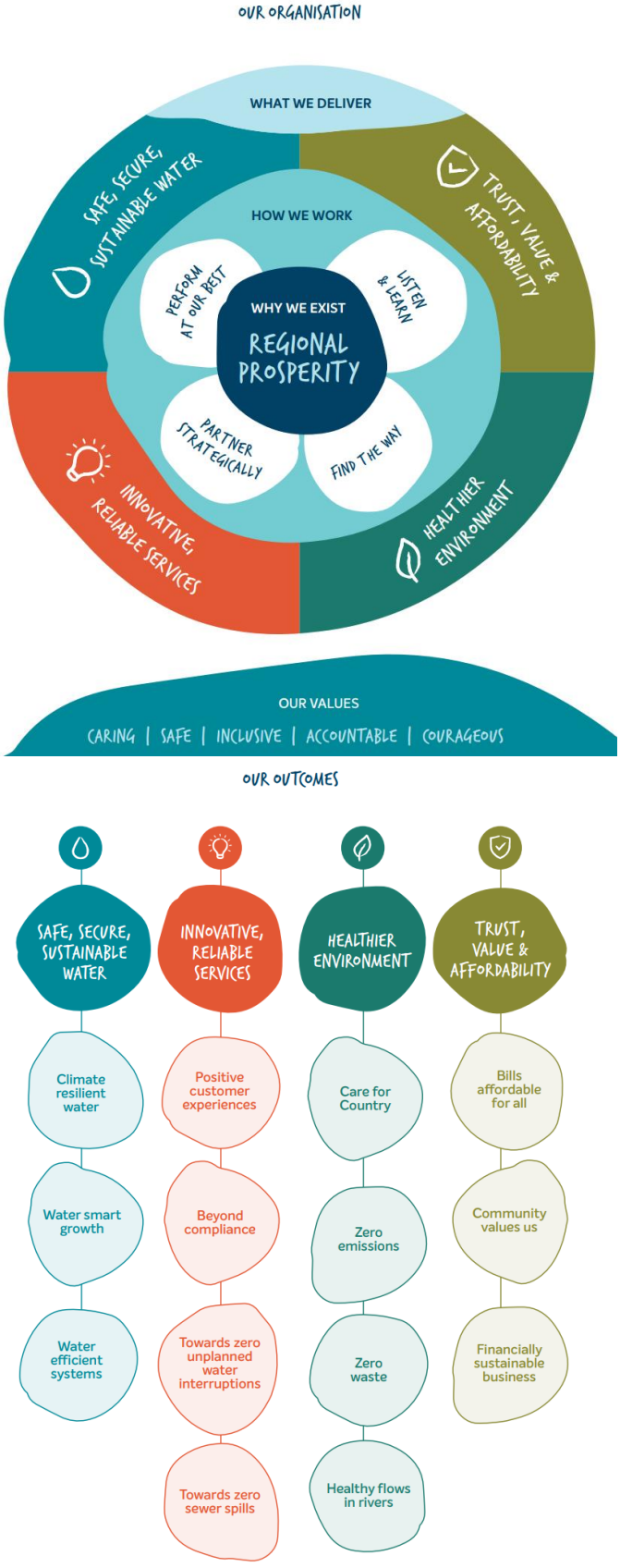
These two key strategic documents – Strategy 2030 and our 2018 Price Submission – set a path for our organisation to follow for the next five years. We experienced many successes and setbacks as we followed this path, and learnt from them all. Most importantly, we learnt the value of ongoing, genuine and meaningful engagement with our customers and community across all aspects of our business, and the importance of placing customers at the centre of our business.

We have reshaped our Strategy 2030 in parallel with the development of our 2023 Price Submission, based on what we heard from our customers and community over the past five years, so that our entire organisation is now singularly focused on the delivery of outcomes that matter most to our customers[2].

To achieve our objective of strategic alignment, our Board, Executive Leadership Team and Senior Leadership Team have worked together with subject matter experts from within and outside our organisation, as well as our customers and community, to develop and agree the central premise of *what* we will deliver to our customers, along with *how* we will work to deliver this, to achieve our *why* of regional prosperity. Figure 1-1 demonstrates how the

conceptual model in our refreshed Strategy 2030 – that sets out our *what*, *how* and *why* – is focused on delivering the four outcomes that customers told us they wanted.

Figure 1-1 Refreshed Strategy 2030 focused on delivery of customer outcomes



1.2 How we developed this submission

A robust governance framework[3] guided the development of this submission for more than two years, ensuring ownership and buy-in across all levels of our organisation. Incorporating insights from our comprehensive five-year engagement program was a key focus of this governance framework, with engagement recognised as an overarching work-stream, to ensure that the proposals set out in this submission reflected the preferences and priorities of our customers (refer Section 4).

Board

Our Board has been heavily involved in renewing Strategy 2030 and aligning it with our 2023 Price Submission. Annual strategic workshops held in March 2021 and March 2022 both focused on this strategic alignment[4]. In addition, the 2023 Price Submission has been a standing agenda item at all but two Board meetings since February 2021, with key decisions made along the way. Our Board also took a leading role in our community and stakeholder engagement during the development of both our Strategy 2030 and our 2023 Price Submission, by attending workshops and briefings as well as reviewing and contributing to our engagement materials.

Executive Leadership Team

A dedicated Project Control Board, comprising five members of our Executive Leadership Team, met regularly since May 2019 to oversee development of the 2023 Price Submission. Frequency of Project Control Board meetings increased from monthly to fortnightly to weekly as the program progressed, with 65 meetings held in total. Detailed briefing materials were always provided in advance of meetings, to guide discussion and facilitate decisions[5].

Senior Leadership Team (and subject matter experts)

Managers and subject matter experts across our organisation were assigned as Leads for respective elements of our 2023 Price Submission, with weekly meetings held with the dedicated Project Team to review progress, resolve issues and escalate decisions to the Project Control Board. We also employed a rigorous internal quality assurance approach that required managers and subject matter experts to review and verify all elements of the submission before it was presented to our Executive Leadership Team for final review, and onto our Board for attestation[6].

Staff

We kept our people engaged throughout the process with a series of introductory interactive webinars, attended or viewed by over 100 staff, as well as an internal Knowledge Base article, an organisation-wide e-Learn completed by over 430 staff[7] (87% of Barwon Water Group staff) and regular internal news stories. Our renewed Strategy 2030 and our 2023 Price Submission were also the focus of our all-staff event in April 2022 – our first in-person since

December 2019[8]. High levels of support and enthusiasm were evident from over 310 staff in attendance, with themes of "inspired, excited, positive, energised, aligned" evident in our staff feedback[9].

1.3 PREMO assessment – Management

Independently facilitated workshops involving members of the Project Control Board and Senior Leadership Team, as well as subject matter experts across our organisation, were held during July 2022 to self-assess each of our PREMO ratings[10]. These workshops were informed by an early assessment undertaken in late 2021 to help shape our work program as we finalised our submission[11]. These processes added further independent scrutiny to our submission.

We have summarised the results of our self-assessment in a table at the conclusion of each of the PREMO chapters in this submission.

For the management component of PREMO, we have assessed ourselves to be **Advanced** (3.0 out of 4), as summarised in Table 1-1 below.

Table 1-1: PREMO assessment – Management

Guiding Question	Score	Comment
To what extent has the business demonstrated how its proposed prices reflect only prudent and efficient expenditure?	2.75	Our capital expenditure program has been thoroughly scrutinised. As set out in Section 7, this has included – Business Cases for all top 20 capital projects independently reviewed, exclusion of $111.7 million key projects from our revenue requirement, risk-based prioritisation of a further $50 million projects, and a critical pre-mortem of our capital delivery approach. As set out in Section 6, our operating expenditure profile includes an efficiency rate of 1.95% and compares favourably to our peers.
To what extent has the business justified its commitment to cost efficiency or productivity improvements?	2.75	Our operating expenditure profile reflects our commitment to finding ongoing efficiencies. Our efficiency rate of 1.95% is in line with the average rate of an Advanced rated business in the 2018 water price review and includes a continuation of our Customer Affordability Pipeline to realise $5.8 million of cost savings, noting that our overall operating expenditure already compares favourably to our peers (refer Section 6).
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?	3.0	We instigated a comprehensive review and sign-off process across all levels of our organisation[6] – consistent with the governance framework established to guide the development of this submission[3] – to ensure the quality of all aspects of this submission. In addition, we have judiciously engaged independent experts to review and/or verify key inputs and assumptions taken in this submission, including – KPMG (regarding capital expenditure delivery) and forecast.id (regarding demand forecasts). These processes culminated in the Board making its attestation in support of this submission at its September 2022 meeting[12].
To what extent has the business provided evidence that there is senior level, including Board level,	3.5	This submission is the product of over two years of strategic thought leadership by our Board and Executive Leadership Team to reshape our corporate strategy in parallel with development of our 2023 Price Submission.

Guiding Question	Score	Comment
ownership and commitment to its submission and its outcomes?		The ownership and commitment of our Board and Executive Leadership Team to this submission, and to the delivery of the outcomes our customers want, is evident in the strategic alignment that now exists between Strategy 2030 and our 2023 Price Submission. The involvement of our Board and Executive Leadership Team in the development of this submission is evident in the governance framework established[3] and time invested as a result.
To what extent has the business demonstrated its price submission is an "open book"?	3.0	We have engaged openly with the ESC throughout the development of this submission, including regular briefings from members of our Board and Executive Leadership Team. We have listed an extensive array of reference materials in this submission that we will make available on request. In addition, we are available to further discuss or provide any other information required for the ESC to undertake its assessment of our submission. We will also publish a summary of our 2023 Price Submission on our website.
Average Score	**3.0**	**Advanced**

1.4 Key reference materials

1. 2018 Price Submission (A12486731)
2. Strategy 2030 (incorporating Draft 2023-28 Price Submission) – available online at 2023 - 2028 Price Submission
3. 2023 Price Submission – Governance Overview (A21509236)
4. Strategy 2030 Refresh Board Feedback_18 March 2022 (A20361154)
5. For example, see Project Control Board pack for 29 July 2022 (A22026022)
6. Attestation Process (A21854372)
7. Price Submission eLearn Report, August 2022 (A21740025)
8. Strategy 2030 refresh & 2023 Price Submission, All-Staff event presentation (A20510439)
9. Barwon Water All-Staff, Mentimeter results, April 2022 (A21949690)
10. P workshop (A21452534), R workshop (A21478182), E workshop (A21475042), M workshop (A21463406), O workshop (A21475044)
11. 2023 Price Submission PREMO Self-Assessment, December 2021 (A16772082)
12. Board meeting minutes, 15 September 2022 (A21980056)

2 Performance

At a glance

- We have achieved an overall "Green" rating for delivery of each of our five customer outcomes in Years 1, 2, 3 and 4 of the current regulatory period, and are on-track for the same in Year 5.
- We expect that our total operating expenditure over the current regulatory period will be 14% higher than forecast. Key drivers include threats to water security, the emergence of the coronavirus pandemic, new community and environmental health requirements (as reflected in regulations, legislation and new Government obligations) and new opportunities to strategically uplift our capability.
- We expect our total capital expenditure over the current regulatory period will be 15.8% higher than forecast. Key drivers include those listed above, along with the effects of climate variability on ageing infrastructure.
- Our customers are satisfied with our performance. Results from the ESC's quarterly customer perception surveys have seen us ranked as one of the top four water businesses in Victoria in terms of overall satisfaction, value for money, level of trust and reputation in the community since August 2020 – and most recently, in the top two.
- Our PREMO self-assessment rating for Performance is **Standard** (2.5/4).

2.1 Our 2018 commitment

Our 2018 Price Submission set ambitious targets against 33 key performance measures to achieve five outcomes that customers told us were important to them.

We committed to transparent, annual reporting of our performance in delivering these outcomes. We also committed to reimbursing customers should we under-perform, through our Performance Incentive Mechanism.

The ESC acknowledged that our proposals would deliver better value to customers, when it concurred with our "Advanced" self-assessment of our 2018 Price Submission.

2.2 What has changed since 1 July 2018

Since 1 July 2018, various factors – from dry conditions to high growth – have contributed to different cost pressures across our business.

While these have changed our expenditure profiles compared to those expected in our 2018 Price Submission, our strategic responses have focused on ensuring customer value, consistent with the outcomes customers wanted us to deliver. Through our ongoing foundational engagement, we have also incorporated customer feedback in our responses.

Figure 2-1 summarises the key challenges we have faced, the opportunities we have realised, and the additional expenditure we have incurred as a result. Further information about these challenges and opportunities is provided in Appendix 1.

Figure 2-1 Challenges and opportunities over 2018-23 regulatory period – in $2022-23 dollars

Challenge / Opportunity	Additional Expenditure		Outcomes delivered
Threats to water security • Withdrawal of application to renew groundwater extraction licence at Barwon Downs borefield brought augmentation timeframe forward to 2027 • Record hot, dry conditions over 2018-19 meant storages fell to 32.6% in Geelong	• 2 year Water for our Future program • Additional use of Melbourne to Geelong pipeline • Lovely Banks to Montpellier pump station • Recommissioning Anglesea borefield	$2.4M opex $4.6M opex $3.1M capex $1.4M opex	
Emergence of COVID-19 pandemic • Higher short-term growth in our region – actual growth averaged 2.4% per year compared to the PS18 forecast of 1.6% per year • More customers struggling to pay their bills	• Increase in civil maintenance costs by Barwon Asset Solutions • Additional customer support costs • Increases in labour and on-costs	$3.0M opex $1.9M opex $0.5M opex	
Community and environmental health requirements • Ministerial directive to remediate Boundary Creek and Big Swamp • Review of Anglesea Borefield bulk entitlement required after its usage • Addressing imminent safety issues associated with 100-year-old Ovoid Sewer Aqueduct • Opportunities to align with State Government infrastructure to meet community needs	• Remediation of Boundary Creek • Additional monitoring at Anglesea borefield • Imminent safety issues at the Aqueduct • Bellarine Transfer Main – Stage 5B • Bellbrae Primary School • East Barwon willow tree removal • Recycled water investigations • Recycled water on the Bellarine – Portarlington • Renewable Organics Network • Depot security improvements	$7.5M opex $0.9M opex $1.0M opex + $7.1M capex $10.3M capex $4.1M capex $2.6M opex $0.5M opex $2.2M capex $2.3M opex $2.1M capex	
Ageing infrastructure • Extreme dry conditions in 2018-19 and extreme wet conditions from 2020 onwards exacerbated existing problems with ageing infrastructure • In other cases, project costs increased when highly complex works were undertaken on existing infrastructure and brownfields sites • Additional expenditure partially offset by optimisation, reprioritisation or innovative delivery of other capital projects	• Colac Water Reclamation Plant upgrade • Black Rock Water Reclamation Plant sludge dewatering • West Gellibrand Reservoir upgrade • Black Rock Water Reclamation Plant • Sewer reticulation improvements • Colac pump station and pipeline	$13.6M capex $11.3M capex $5.2M capex $4.4M capex $4.1M capex $2.1M capex	
Capability uplift • Investments to improve capacity and capability of our organisation, and to realise innovative and strategic opportunities	• Labour costs • Infrastructure transformation • Technology uplift • Business transformation • LEAD 2030 program	$12.1M opex $5.0M opex $3.0M opex + $3.2M capex $2.6M opex $1.2M opex	

2018 Price Submission outcomes

A reliable, secure water future for our region

Timely innovative services for our customers

A healthier environment for all

Deeper knowledge and partnerships with our community

Affordability for all our customers

2.3 How we have performed

Customer value

We have considered our delivery of customer value through two distinct, but related, frames.

Did we deliver what we said we would? ***Yes***

We have achieved an overall "Green" rating for delivery of each of our five customer outcomes in Years 1, 2, 3 and 4 of the current regulatory period[1].

Across the 33 key performance measures we identified to demonstrate our delivery of these outcomes, only 10% have been rated as "Amber" and 4% as "Red" over the current regulatory period[1]. We are confident that all 33 key performance measures will be rated as "Green" in 2022-23, giving us an overall "Green" rating for the 2018-23 regulatory period.

We conducted a mid-period review of our performance with our Customer and Environmental Advisory committees in May 2021[2], and again with our Customer Advisory Committee in July 2022[3], to invite feedback on our performance and our self-rating for each outcome.

We received positive feedback about our performance in 2020-21 and 2021-22. In 2021, both committees suggested that the performance assessment framework itself should have more flexibility so that minor non-compliances for individual metrics should not automatically mean the overall outcome rating is "Red". In the instance of Outcomes 1 and 2, where this occurred, both committees felt strongly that the overall outcome rating should be "Green" or "Amber" for Outcome 1 (not "Red") and "Green" for Outcome 2 (not "Red")[2]. In 2022, the Customer Advisory Committee provided similar feedback, suggesting that four out of five outcomes should be rated "Green", with Outcome 1 to be rated "Amber"[3].

To date, we are obliged to return $0.18 million out of a possible $11.5 million to our customers as a result of holding ourselves to account for our performance under our Performance Incentive Mechanism[4]. We will do this by reducing our 2023 price submission requirement by this amount and squaring up for our Year 5 result in our 2028 price submission.

Do our customers think that we offer them value? ***Yes***

Assessments of our performance over the regulatory period – by ourselves and by our advisory committees – are verified by broader customer perception data collected by both Barwon Water and independent third parties.

We are proud that Figure 2-1 shows that the performance ratings given to us by our customers place us as one of the top four water businesses in Victoria in terms of overall

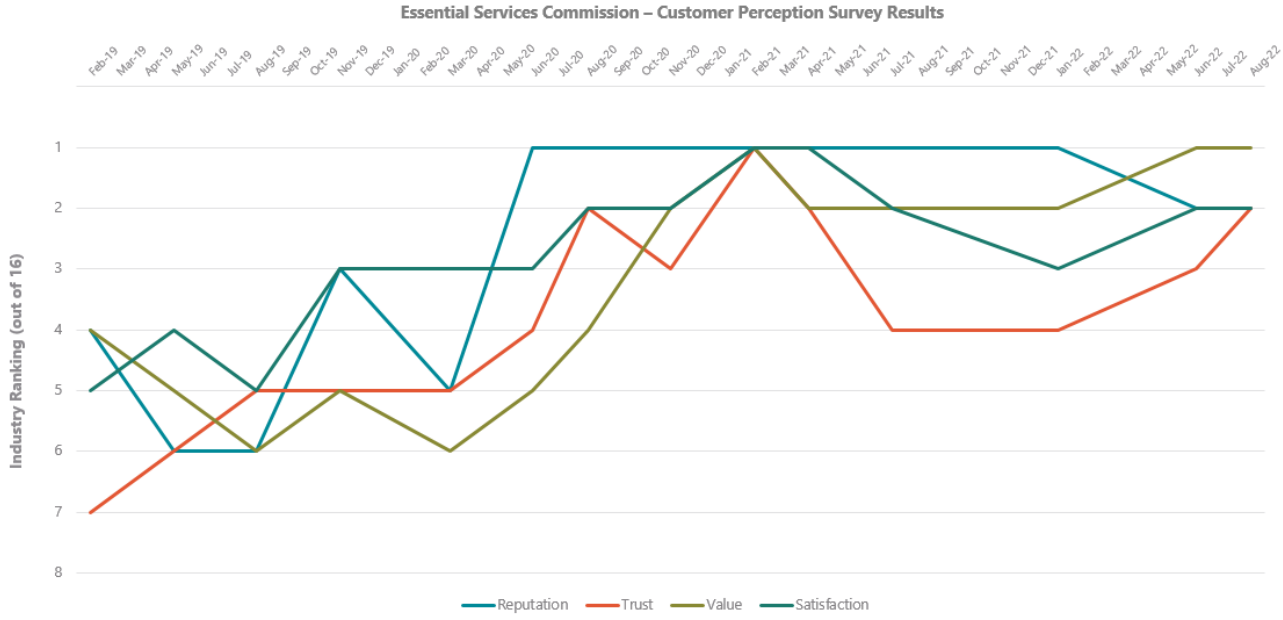
satisfaction, value for money, level of trust and reputation in the community through the ESC's quarterly customer perception monitoring since August 2020[5].

Recent Customer Service Benchmarking Association (CSBA) reports released as part of its multiple-sector benchmarking program also verified this customer sentiment, placing us second in the water sector, and 10th out of 198 organisations across numerous sectors nationwide[6].

Our own surveys have shown high levels of satisfaction with the value we provide to customers. In 2021, a survey of key stakeholders saw us achieve an overall satisfaction rating of 86% (target 76% and 2020 result 85%), with 87% of surveyed stakeholders agreeing that we were a trusted brand[7]. At the same time, a survey of business customers saw us achieve an overall satisfaction rating of 76%, with 84% of surveyed business customers agreeing that we were a trusted brand[7]. More recent customer focus groups in March 2022 highlighted that business customers feel they have a positive relationship with Barwon Water and have built trust through open dialogue, with 86% of business customers surveyed in March 2022 indicating satisfaction with our performance[8].

In addition, Net Promoter Scores provided by our customers via post contact surveys achieved an average of 73 in 2021-22 – far exceeding the average of -28 that was recorded as typical for water businesses across the nation by WSAA in 2021[9].

Figure 2-1: Our performance in ESC's customer perception monitoring



Financial performance

We have considered our financial performance through three separate frames.

Operating expenditure

We expect our total operating expenditure over the 2018-23 regulatory period will be $75.6 million (or 14.0%) higher than forecast in our 2018 Price Determination (projected total $617.1 million compared to forecast total $541.5 million)[10].

Figure 2-2 shows how our operating expenditure has tracked relative to these forecasts, in the context of the challenges and opportunities that have increased our operating expenditure, as summarised in Figure 2-1 and discussed further in Appendix 1.

Figure 2-2: Operating expenditure over 2018-23 regulatory period – in $2022-23 dollars ($M)

	2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL
2018 Price Determination	$110.3	$108.9	$107.5	$107.8	$107.0	**$541.5**
Actual / Forecast Expenditure	$118.6	$122.4	$119.1	$132.0	$125.0	**$617.1**
Cumulative Variance	**7.5%**	**9.9%**	**10.2%**	**13.3%**	**14.0%**	**14.0%**

$52.5M of additional **$75.6M** operating expenditure was driven by:

- Threats to water security $8.4M
- Emergence of the coronavirus pandemic $5.4M
- Community & environmental health requirements $14.8M
- Capability uplift $23.9M

Today, our cumulative spend is **13.3%** over the 2018 Price Determination

By July 2023, forecast to exceed by **$75.6M**

During 2021/22, we also made operating expenditure reimbursements of **$6.2M** to a developer for a share of the proceeds of sale at our property realisation development at Salt Torquay, which have been offset in full during the current regulatory period by revenue from the sale of these lots.

Capital expenditure

We expect our total capital expenditure over the 2018-23 regulatory period will be $58.3 million (or 15.8%) higher than forecast in our 2018 Price Determination (projected total $426.8 million compared to forecast total $368.5 million)[11].

Figure 2-3 shows how our capital works program has been delivered in comparison to these forecasts, again in the context of the challenges and opportunities we have faced. Our increased capex during the current regulatory period has been largely offset by increased revenue, including an additional $24.7 million of New Customer Contributions, $4.0 million of Government contributions (for the Bellbrae Primary School and Bellarine Recycled Water projects) and $10.3 million from property sales as part of our Property Realisation program.

Table 2-1 shows gross and net capital expenditure, relative to our 2018 forecasts.

We tested the changes in our capital works program with our Customer Advisory Committee in December 2021 and June 2022[12]. Their feedback confirmed their confidence that we were still delivering value for money for our customers.

Figure A1-0-1 to Figure A1-0-3 in Appendix 1 also show the current status of delivery of our top 12 capital projects from the 2018-23 regulatory period. While some projects have been delayed due to coronavirus or external factors beyond our control, or reprioritised due to innovative or more strategic approaches to delivery, we are confident that the quality of our services and value to our customers has not suffered as a result.

We have confidence in the 2022-23 capital program delivery as forecasts are aligned to approved budgets and many major capital projects are already in the construction phase.

Figure 2-3: Capital expenditure over 2018-23 regulatory period – in $2022-23 dollars ($M)

	2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL
2018 Price Determination	96.5	88.7	64.6	56.5	62.3	**368.5**
Actual / Forecast Expenditure	91.1	86.1	77.4	55.1	117.1*	**426.8**
Cumulative Variance	**-5.6%**	**-4.3%**	**2.0%**	**1.1%**	**15.8%**	**15.8%**

The **$58.3M** was driven by an additional **$72.8M** of capital expenditure:

- Threats to water security $3.1M
- Community & environmental health requirements $25.8M
- Ageing infrastructure $40.7M
- Capability uplift $3.2M

Note, this (and other) additional expenditure was partially offset by $30.6M of savings across the capital works program through optimisation, reprioritisation or innovative delivery of projects.

Today, our cumulative spend is **on track** with the 2018 Price Determination

By July 2023, forecast to exceed by **$58.3M**

*Note - for the purposes of calculating the RAB and the revenue requirement in the ESC pricing template, we are using our 2018 Price Determination of $68.5 million as per ESC Guidance in 2022-23. However, Section 7 is reflecting our updated 2022-23 capital expenditure forecast of $117.1 million, which more accurately reflects our forecast performance in the current 2018 regulatory period.

Table 2-1: Gross and net capital expenditure for current period compared to ESC allowance – in $2022-23 dollars ($M)

	ESC 2018 allowance	Actual and forecast expenditure	Variance
Gross capital expenditure	368.5	426.8	15.8%
Net capital expenditure	331.6	361.0	8.9%

Revenue

Operating revenue over the regulatory period is currently tracking very close to target at $8.0 million (under 1%) above the 2018 Price Determination benchmark.

The new customer contributions revenue over the regulatory period is currently tracking $24.7 million above the 2018 Price Determination benchmark. This is due to stronger than anticipated customer growth to 2020-21 and strong projected growth through to 2022-23.

2.4 PREMO assessment – Performance

For the performance component of PREMO, we have assessed ourselves to be **Standard** (2.5 out of 4), as summarised in Table 2-2: PREMO assessment – Performance below.

Table 2-2: PREMO assessment – Performance

Guiding Question	Score	Comment
To what extent has the business demonstrated delivery of its customer outcomes commitment over the current regulatory period? Did its customers get what they paid for?	2.25	We have achieved an overall "Green" rating for delivery of each of our five customer outcomes in Years 1, 2, 3 and 4 of the current regulatory period, and are on-track for the same in Year 5. Whilst some of our major capital projects have been delayed due to coronavirus or external factors beyond our control, or reprioritised due to innovative or more strategic approaches to delivery, we are confident that the quality of our services and value to our customers has not suffered as a result.
How does actual operating expenditure across the current period compare with the established benchmark allowance, and to what extent has the business rationalised any discrepancies?	2.0	We expect that our total operating expenditure over the 2018-23 regulatory period will be 14.0% higher than forecast in our 2018 Price Determination (projected total $617.1 million compared to forecast total $541.5 million). Of this, almost 70% relates to key drivers beyond the control of our organisation, such as threats to water security, the emergence of coronavirus, and new community and environmental health requirements. Our strategic responses to these challenges have focused on ensuring customer value, consistent with the outcomes customers wanted us to deliver. We have provided a detailed reconciliation of our increased expenditure in light of these challenges, and how our decision-making has been guided by community preferences, in Appendix 1.
How does actual capital expenditure across the current period compare with the established benchmark allowance, and to what extent has the business rationalised any discrepancies?	2.25	We expect that our total capital expenditure over the 2018-23 regulatory period will be 15.8% higher than forecast in our 2018 Price Determination (projected total $426.77 million compared to forecast total $368.43 million). Key drivers for this increase include ageing infrastructure and additional projects we have undertaken to reflect new Government requirements and opportunities that have presented themselves over the regulatory period. Over 80% of these costs have been offset by additional revenue. Some of our major capital projects have been delayed due to coronavirus or external factors beyond our control, or reprioritised due to innovative or more strategic approaches to delivery.
To what extent does customer sentiment demonstrate satisfaction in the business's performance over the current regulatory period? Are customers happy with the value they receive from their water business?	3.5	Positive assessments of our performance – by ourselves and by our advisory committees – have been verified by broader customer perception data collected by ourselves and independent third parties. Significantly, our customers have consistently rated as one of the top four water businesses in Victoria in terms of overall satisfaction, value for money, level of trust and reputation in the community through the ESC's annual customer perception monitoring since August 2020, and within the top 5-10 water businesses prior to that.
Average Score	**2.5**	**Standard**

2.5 Key reference materials

1. Annual Performance Scorecards for 2018-19 (Year 1), 2019-20 (Year 2), 2020-21 (Year 3) and 2021-22 (Year 4) Price submission 2018–2023 - Barwon Water
2. Joint Customer Advisory Committee (CAC)/Environment Advisory Committee (EAC) Performance Review Sessions, May 2021 – Pre-reading pack (A18422906); Presentation pack (A18422974); Discussion Report (A18544953); Minutes (A18544964)
3. Customer Advisory Committee (CAC) Performance Survey Results, July 2022 (A21656487)
4. Project Control Board slidepack, 22 August 2022 (A21553139)
5. ESC perception survey results (A21656522) How customers rate their water business | Essential Services Commission
6. Customer Experience Benchmarking - CSBA
7. Annual Strategic Stakeholder Perception Survey 2021 (A18821537) and Annual Key Business Perception Survey (A18248672)
8. Customer Willingness to Pay: Research Report, EY Sweeney, May 2022 – refer page 23 (A20892460)
9. WSAA Customer Perceptions Survey, Insync, December 2021 (A21689839)
10. 2023 Water Price Review, Supporting Paper 3: Operating Expenditure, Barwon Water, September 2022 (A16774177)
11. 2023 Water Price Review, Supporting Paper 2: Capital Expenditure, Barwon Water, September 2022 (A20269406)
12. CAC Capex Session, Dec 2021 – Pre-reading pack (A19721262); Presentation pack (A19712029); Discussion Report (A19769576); Minutes (A19769296) | CAC Capex Session, June 2022 – Presentation pack (A21137275); Discussion Report (A21276326).

3 Risk

At a glance

- We have carefully considered risk through the eyes of our customers and consistent with our Enterprise Risk Management Framework[1].
- The key global challenges facing our region – climate change, population growth, economic transition, rapid technological development and equity divides – each pose risks, which could result in customers paying too much or receiving poor quality services.
- Risks we will largely bear on customers' behalf include – inflows, demand, escalations in construction and operating costs, cyber-attack, meeting community expectations, customers unable to pay their bills.
- Risks we will share with our customers include – ageing infrastructure, capital delivery program.
- We propose to continue our Performance Incentive Mechanism to ensure we are accountable for the four key customer outcomes we have promised to deliver. We are proposing a new Guaranteed Service Level in response to customer feedback.
- Our PREMO self-assessment rating for Risk is **Advanced** (3.0/4).

3.1 Our identification of risks

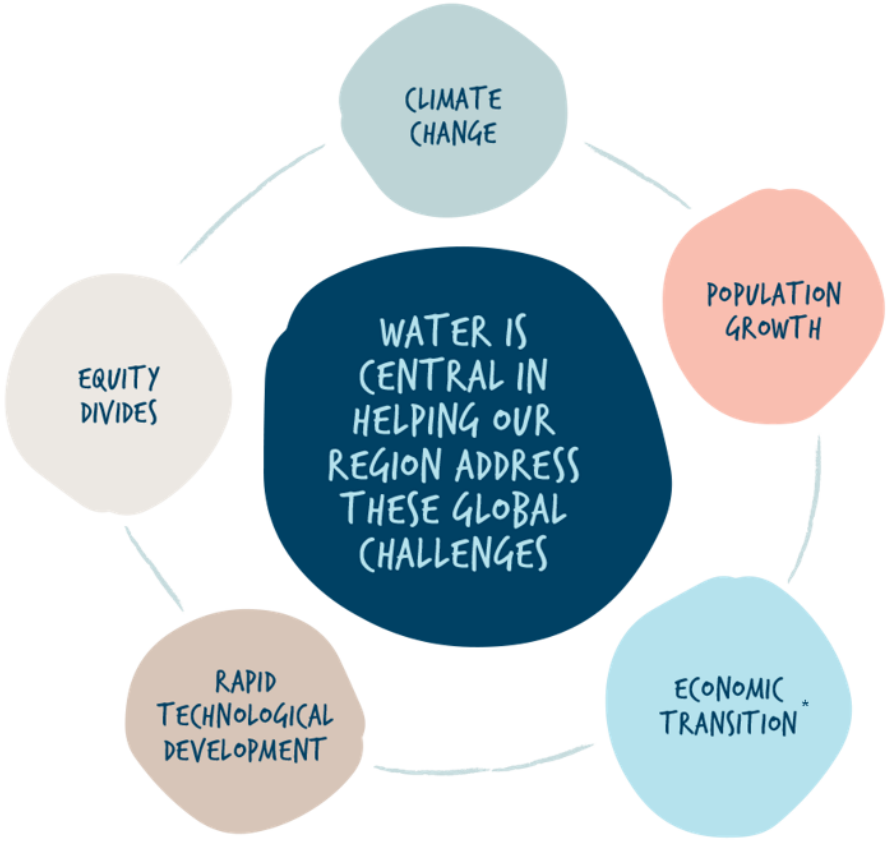
In the development of our 2023 Price Submission, we have carefully considered risk through the eyes of our customers.

By genuinely engaging with our customers and community over the past five years, we have heard – loudly and clearly – that our customers want us to lean in and help address key global challenges in partnership with them, so that we can protect and enhance all that makes our region great.

Yet, with these challenges come risks. Risks that can affect either the prices that customers pay for our services, or the quality of services they receive. Our aim is to balance the impact of customers paying too much against the impact of poor quality services. Figure 3-1 shows the eight material risks to customer prices and/or services that we have considered in the development of our 2023 Price Submission, relative to the global challenges that are impacting our region and we have agreed to address in partnership with our customers. We have considered these risks in the context of our Enterprise Risk Management Framework[1]. This provides the appropriate principles, processes and tools to support effective risk management across the Barwon Water group in a holistic and consistent manner; ensuring risk management is considered in organisational planning activities and decision-making.

We explored the specific cost-service trade-offs presented by these risks with over 50 customers and regional stakeholders in a deliberative Regional Forum in July 2022, to test and confirm our proposed approach to mitigation and allocation of risks. Overall, 92% of attendees said they were comfortable with our proposed approach[2].

Figure 3-1: Material risks to customer services and/or prices



*Exacerbated by current macro-economic conditions

Due to the uncertainty of rainfall under **climate change**, our systems receive less inflows than forecast, resulting in customers receiving poor quality service (e.g. water restrictions)

Due to the uncertain impacts of **climate change**, our ageing infrastructure deteriorates differently than expected, resulting in customers either paying too much (if deterioration is less than forecast) or receiving poor quality service (if deterioration is worse than forecast)

Due to uncertainty around **population growth**, actual growth is different to that forecast, resulting in customers either paying too much (if growth is lower) or receiving poor quality service due to insufficient revenue for proactive/reactive maintenance works (if growth is greater)

Due to the uncertain impacts of our **economic transition**, in light of current macro-economic conditions, our construction and operating costs are higher than forecast, resulting in customers receiving poor quality service due to insufficient revenue to fund capital works program

Due to the uncertain impacts of our **economic transition**, in light of current macro-economic conditions, our capital delivery program is not fully realised due to inability of the market to provide services, resulting in customers paying too much due to expected costs being built into prices

Due to inability to keep pace with **rapid technological development**, our systems are subject to cyber attack or digital failure, resulting in customers receiving poor quality service (e.g. unplanned interruptions to essential water and sewerage services)

Due to existing **equity divides** across our socially and economically diverse region, we do not strike the right balance between affordable bills and meeting community expectations, resulting in customers either paying too much (due to over expenditure on items that fail to deliver customer value) or receiving poor quality service (due to failure to meet expectations)

Due to existing **equity divides** across our socially and economically diverse region, some customers are unable to pay their water bills, resulting in customers receiving poor quality service (due to insufficient revenue necessitating expenditure cuts)

3.2 Our mitigation and allocation of risks

Tables 3-1 to 3-8 summarises our approach to mitigation and allocation of the eight material risks to customer prices and/or services that we have identified. Appendix 2 provides further details of these risks, our underlying assumptions and our proposed controls.

The risk ratings given in each table show the residual risk to Barwon Water, given the controls that have been (or are able to be) implemented, as assessed in accordance with our Enterprise Risk Management Framework[1].

Table 3-1: Inflows – Risk summary

Risk	Assumptions	Controls	Risk Rating
 Uncertainty of inflows over regulatory period and security of supply over long-term	• Median climate for short-term supply-demand forecasting • Worst-case climate for long-term supply-demand planning • No material change in cost of supply from Melbourne	• Short-term response mechanisms ready if needed – e.g. Melbourne to Geelong pipeline, Anglesea borefield • Long-term adaptive planning means action taken if and when required – 2022 Urban Water Strategy - Water for our Future	Medium (3C) – Finance • Possible (likelihood) • Major (consequence)

Risk Allocation
Largely borne by Barwon Water We have accepted risk on behalf of our customers, due to the higher cost of accessing extra supplies to maintain service levels in the event of dry conditions, which lessens the benefit of increased revenue from higher water demand. Conversely, we realise minimal cost savings in the event of wet conditions, given the fixed cost nature of our water supply infrastructure and our use of the Melbourne to Geelong pipeline (MGP) to balance peak day demand in any case. In addition, while we are ensuring we are ready for the worst-case climate scenario should this occur in the long-term (considered prudent due to the length of time required to implement infrastructure solutions), our adaptive planning approach (supported by robust economic analysis) means we are confident that we are not proposing any unnecessary expenditure. Further, our approach was tested with and supported by customers through extensive engagement as part of the *Water for our Future* program[3].

Table 3-2: Ageing infrastructure and an uncertain climate – Risk summary

Risk	Assumptions	Controls	Risk Rating
 Ageing infrastructure impacting on our ability to deliver services, exacerbated by climate variability and climate change	• Renewals will account for 45% of our total capital expenditure over 2023-28 • Increased capital expenditure on sewer network	• Risk based asset renewal plans • Strategic technology uplift to improve understanding of asset performance • Additional expenditure to increase the resilience of our infrastructure	Low (3B) – Finance • Unlikely (possibility) • Major (consequence)
Risk Allocation			
Shared – Barwon Water / Customer Our robust risk-based approach to renewals, resulting in our efficient and effective Asset Renewal Plans, means we are not proposing unnecessary expenditure on our ageing infrastructure. Rather, we have struck a balance between expenditure and asset performance – so we have assessed this risk as shared. In addition, our uplift in renewals across our sewer network will be accompanied by an uplift in performance over time, meaning customers will get an improved level of service.			

Table 3-3: Demand – Risk summary

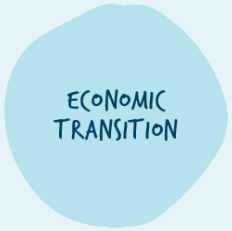
Risk	Assumptions	Controls	Risk Rating
 Forecast demand is materially different from actual demand	• Median climate for short-term demand forecasting • High population growth for long-term planning • forecast.id growth forecasts – align with Victoria in Future (average 2.1% p.a.)	• Continuous reviews of demand information – i.e. analysis of recent trends • Independent advice on forecast population – i.e. expert opinion on future trends	Medium (3C) – Finance • Possible (likelihood) • Major (consequence)
Risk Allocation			
Largely borne by Barwon Water Demand assumptions impact both the expenditure forecast and the calculation of prices for customers. We have adopted a price cap form of price control, meaning that if actual demand is less than forecast, we will bear the financial risk of recovering less revenue throughout the regulatory period. We also accepted risk on behalf of our customers by assuming a median climate scenario for short-term demand forecasting, due to the higher cost of accessing additional supplies to maintain service levels in the event of dry conditions, which lessens the benefit of increased revenue from higher water demand. Conversely, if demand is less than forecast due to wet conditions, we will bear the financial risk of recovering less revenue. Demand can vary +/-8% due to climate conditions, which would mean a loss of revenue of $35 million per annum under wet conditions. We have sought to use an independent estimate of population growth that is as accurate as possible for the Barwon region. We note that our forecast growth in connections is higher than was assumed in our 2018 Price Submission, but is less than has been observed in recent years. By assuming a relatively high growth rate over the period, rather than reducing back to pre-coronavirus growth estimates, we are reducing the risk of over-recovery of revenue from customers. Actual growth in connections reduced from 3.0% in 2020-21 down to 2.2% in 2021-22, which is in line with VIF estimates.			

Table 3-4: Increase in input costs from external factors – Risk summary

Risk	Assumptions	Controls	Risk Rating
 Forecast capital and operating expenditure does not adequately capture external market factors	• $549.4 million in capital expenditure over 2023-28 – no allowance for market escalations beyond when estimates prepared (December 2021) • $670.7 million in operating expenditure – no allowance for market escalations beyond when forecasts prepared (December 2021) • No use of pass-through mechanism for cost uncertainties related to the Environmental Contribution Levy or Melbourne Water charges	• Detailed review of historical expenditure • Internal reporting processes • Robust approval and procurement processes • Actual prudent and efficient capital expenditure can be assessed for inclusion in our RAB via 2028 Price Submission	Medium (3C) – Finance • Possible (likelihood) • Major (consequence)

Risk Allocation
Largely borne by Barwon Water We have proposed a price cap form of price control. This means that we will bear any operating expenditure in excess of the approved allowance. Similarly, any capital expenditure in excess of the allowance will be initially borne by us and assessed by the ESC prior to its inclusion in the RAB via our 2028 Price Submission. In developing capital cost estimates for the regulatory period, Barwon Water has adopted P50 estimates, using Monte Carlo process for major projects – this is designed to share the risk of over or under-forecasting of cost estimates with customers. We will also defer passing through the costs of $111.7 million strategic projects – instead bearing the cost risk of these projects until they can be assessed by the ESC prior to inclusion in the RAB via our 2028 Price Submission. However, we are bearing additional risk around current volatile market conditions, which were not evident at the time capital cost and operating estimates were prepared (December 2021). For example, treatment chemicals will be at least $0.8 million higher than estimated over the regulatory period, based on current market costs. We have applied an efficiency factor of 1.95% to our forecast operating expenditure and assumed that continuation of our Customer Affordability Pipeline (CAP) will realise $5.8 million of cost savings through our High Performance program. This means we will take on the financial risk of not being able to meet these efficiencies across the period.

Table 3-5: Capital program delivery – Risk summary

Risk	Assumptions	Controls	Risk Rating
 Ability to deliver increased capital program	• $549.4 million in capital expenditure over 2023-28 – a 29% increase on 2018-23	• Critical review and risk-based prioritisation of the capital program (refer Section 7) • Existing capabilities have increased within the current regulatory period, including robust and revised capital delivery model (refer Section 7) • Incorporating flexibility within the capital program (refer Section 7)	Low (3B) – Service Delivery • Unlikely (likelihood) • Major (consequence)

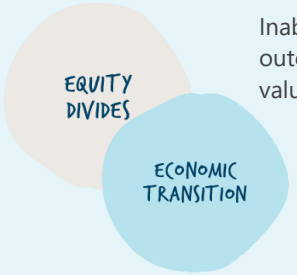
Risk Allocation
Shared – Barwon Water / Customer We have applied rigorous internal and external processes to justify the proposed capital expenditure program. These processes are designed to ensure a prudent and efficient capital program that aligns with customer expectations for the period. In managing the risk of the uncertainty regarding the capital program and potential ability to deliver the program in full, we have undertaken a risk-based prioritisation exercise to reduce our capital works program by $50 million (refer Section 7). This reduces the risk of under-spending the capital program and potentially over-recovering revenue from customers.

Table 3-6: Cyber-attack or digital failure – Risk summary

Risk	Assumptions	Controls	Risk Rating
 Essential water and sewerage services cannot be delivered due to cyber-attack or digital failure	• Fit-for-purpose uplift in digital and cyber security ($5.3 million operating expenditure, $0.2 million capital expenditure)	• Audit of digital controls and practices • Development of digital strategy – with 5-year roadmap	Medium (3C) – Service Delivery • Possible (likelihood) • Major (consequence)

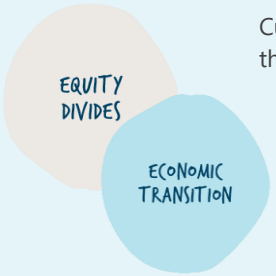
Risk Allocation
Largely borne by Barwon Water Whilst we have proposed some modest increases in expenditure to address the known risks, which are partly included as a "step-change" to our baseline operating expenditure, there remain unknown risks in the evolution of cyber security that we will need to continue to monitor and mitigate against over the regulatory period. We will bear the risk of being ready and able to respond to these unknown, emerging risks.

Table 3-7: Meeting community expectations – Risk summary

Risk	Assumptions	Controls	Risk Rating
 Inability to deliver customer outcomes or enhance customer value	• Proposed prices and actions will deliver customer value and meet community expectations – given these have been shaped by comprehensive engagement (refer Section 4)	• We have rigorously tested our proposals – high levels of support for proposals in our Draft 2023 Price Submission[4] • Mechanisms to hold ourselves to account are in place – e.g. Performance Incentive Mechanism (refer Section 5.4)	Medium (3C) – Reputational • Possible (likelihood) • Major (consequence)

Risk Allocation
Largely borne by Barwon Water Through our Performance Incentive Mechanism, we are taking on a financial risk of $15.6 million if we fail to meet customer expectations (refer Section 5.4). We also bear the risk of customer expectations changing to a degree that we are unable to meet them over the regulatory period, e.g. due to demographic, economic or climatic changes in our region.

Table 3-8: Customers unable to pay bills – Risk summary

Risk	Assumptions	Controls	Risk Rating
 Customers unable to pay water bills through external financial pressures	• $220K annual average of revenue is not collected each year due to customer inability to pay and sundry debt not expected to be recovered. • $4.8 million overall hardship program – boosting financial assistance and upgrading customer contact centre.	• Increasing direct financial support for vulnerable customers and those affected by family violence by at least $0.8 million, resulting in total of $3 million direct customer support payments • High degree of scrutiny to ensure expenditure is prudent and efficient (refer Section 6 and Section 7)	Low (2C) – Finance • Possible (likelihood) • Moderate (consequence)

Risk Allocation
Largely borne by Barwon Water The cost of our additional customer hardship support has been partly included as a "step-change" to our baseline operating expenditure, on the basis that there is significant customer support to help support those in need, with 95% of surveyed customers considering this important[5]. However, we still largely bear the financial risk that the number of customers that are unable to pay their bills is greater than we have assumed.

3.3 PREMO assessment – Risk

For the risk component of PREMO, we have assessed ourselves to be **Advanced** (**3.0** out of 4), as summarised in Table 3-9 below.

Table 3-9: PREMO assessment – Risk

Guiding question	Score	Comment
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.	3.0	We have identified eight material risks to customer prices and/or services and considered our approach to mitigation and allocation of these risks in the context of our Enterprise Risk Management Framework[1]. We are bearing significant known revenue risks (inflows, demand, Performance Incentive Mechanism, cost uncertainties for Environmental Contribution Levy and fixed and variable costs associated with our share of water in the Melbourne system), along with other revenue risks (such as external market forces) that are unable to be quantified. We are proposing to maintain a price cap and are not proposing to use the pass-through mechanism to deal with cost uncertainties within the latter part of the regulatory period.
To what extent does the proposed guaranteed service level (GSL) scheme provide incentives for the business to be accountable for the quality of services delivered, and provide incentives to deliver valued services efficiently?	3.0	Our proposed GSLs offer a higher level of service than the majority of other water businesses proposed in their 2018 Price Submission, and we have added a new GSL to reflect what customers have asked for (refer to Section 5.4). In addition, we have proposed the continuation of our Performance Incentive Mechanism (PIM). We have revised the performance measures that will be subject to the PIM to better reflect delivery of the four outcomes our customers have told us they want (refer Section 5.4). This will ensure we remain focussed on, and accountable for, the delivery of the outcomes we have promised in this submission. The $ at risk for under-performance via our PIM were originally based on the revenue difference between our "Advanced" rating and a "Standard" rating for our 2018 Price Submission. Applying this same methodology means we have put $15.6 million at risk in our 2023 Price Submission (refer Section 5.4)
Average Score	**3.0**	**Advanced**

3.4 Key reference materials

1. Enterprise Risk Management Framework (A21292292)
2. Barwon Water: Regional Forum #4, Summary notes ('What was said' report), Mosaic Lab, July 2022 (A21893366)
3. *Water for our Future* Strategy (2022 Urban Water Strategy) (A20887284)
4. Barwon Water: Draft 2023 Price Submission customer check in research, EY Sweeney, August 2022 (A21905035)
5. Barwon Water: Customer Willingness to Pay: Research Report, EY Sweeney, May 2022 (A20892460)

4 Engagement

At a glance

- We began engaging with our customers and community about our 2023 Price Submission once we presented our 2018 Price Submission to the ESC.
- Our foundational engagement since October 2017 was supplemented by targeted engagement on key aspects of our 2023 Price Submission over the past 18 months. There were more than 336,000 customer touchpoints (excluding social media) over this five-year journey.
- We have used deliberative methods to share the problem of how to tackle the challenges we are facing with three key reference groups – our dedicated Customer Advisory Committee (8 x 2-hour sessions over 18 months), our broader Regional Forum (4 x 3-hour sessions over 4 years) and our deliberative *Water for our Future* Community Panel (9 x 8-hour sessions, 1 x 4-hour session and 1 x webinar over two years).
- As a result of our ongoing and genuine engagement, we are confident our 2023 Price Submission will generate exceptional value for our customers. Pleasingly, our customers agree – with 82% of 5,570 surveyed customers confirming that they think proposals in our Draft Price Submission offered value for money when we were projecting a flat price path in July 2022[1]. Our finalised negative price path provides even greater value.
- Our PREMO self-assessment rating for Engagement is **Leading** (3.75/4).

4.1 What we did

We approached engagement holistically

The holistic engagement approach we adopted in developing our 2018 Price Submission was transformative for our organisation. Our approach – assessed as "Leading" by the ESC – showed us the value of engaging early and deeply with our customers on the challenges we face. It led to a whole-of-organisation commitment to consistent, genuine and more meaningful engagement moving forward.

This commitment means we do not view engagement on our Price Submission as a "once-off" process that occurs every five years. Rather, all aspects of our business are now built upon a strong foundation of engagement, with the form, instruction and timing of each engagement activity tailored to suit the matter at hand, the customers affected and the level of community interest.

Accordingly, our engagement activities range from personalised stakeholder briefings through to deliberative panels, spanning the International Association for Public Participation (IAP2) spectrum of engagement from "inform" to "empower". Deliberative principles have been embedded into all forms of engagement, by providing a clear overview of the level of influence in the process from the start, detailed information in a balanced format and clear opportunities for customer involvement and two-way dialogue through informed trade-offs.

Figure 4-1 shows how our ongoing foundational engagement over the past five years – supplemented by specific, targeted engagement on key aspects of our 2023 Price

Submission – has allowed us to gather a comprehensive picture of what our customers and community value about our services and expect from us as a regional water business. Figure 4-2 to Figure 4-4 show the breadth of our foundational engagement.

Figure 4-5 shows how insights from our foundational engagement have been distilled and refined through more targeted engagement as we developed our 2023 Price Submission. Tailored and detailed engagement was conducted with many customer groups, including our trade waste and recycled water customers and regional developers (New Customer Contributions). The engagement was designed to reflect these customers' communication preferences and included a combination of webinars, emails outlining proposed bill estimates, phone calls, surveys and fact sheets. Our trade waste, recycled water and New Customer Contributions supporting papers include specific details of this engagement and can be found in Section 10.

We adopted an inclusive approach

We tailored our approach and content across both our foundational and targeted engagement activities to ensure respect and inclusivity for vulnerable customers, culturally and linguistically diverse communities, First Nation customers and Traditional Owners.

In 2018, we partnered with 13 social support service organisations and local councils from across our region to develop our Customer Support Strategy[2]. Over three deliberative workshops, we worked together to understand the challenges facing those in our community, without needing direct customers to reshare their trauma and experiences with us. This approach enabled us to build long-term relationships with support agencies. As a result, we conduct annual check-ins as a group and ad-hoc conversations to strengthen our customer support program and address emerging challenges, including those associated with coronavirus. We held a dedicated workshop with this group on our proposed changes to the Transitional Rebate Adjustment in 2022[3]. Customer support organisations, Tenants Victoria and Consumer Action Law Centre were all comfortable with our approach.

We have also worked with two Traditional Owner groups across our region to establish trust and build a collaborative partnership that helps them realise self-determination. Our formal partnership agreement with Wadawurrung Traditional Owners Aboriginal Corporation (Wadawurrung) since 2019 details their involvement in our strategic projects that align with their aspirations for self-determination, including a commitment to regular and ongoing meetings. Equally, we look forward to growing our relationship with Eastern Maar Aboriginal Corporation as we engage and become more aware of the things important to them.

Independent, specific outreach to vulnerable and First Nations customers completed as part of our targeted engagement in early 2022[4] included:

- six in-depth interviews with support organisations, including Wathaurong Aboriginal Co-operative
- three focus groups

- 12 in-depth interviews with customers considered "at-risk" of vulnerability.

We are committed to ensuring inclusivity and diversity across all levels of our organisation. The “Belonging @ Barwon Water” Inclusion Action Plan highlights our commitment to diversity so that we can better serve the community we represent[5]. Our award-winning Aboriginal Employment and Retention Strategy[6] reflects our commitment to a safe, inclusive workplace for Aboriginal and Torres Strait Islander peoples. These strategies help us embody a more inclusive approach to all aspects of our business, including our engagement activities.

Figure 4-1: Engagement approach for 2023 Price Submission

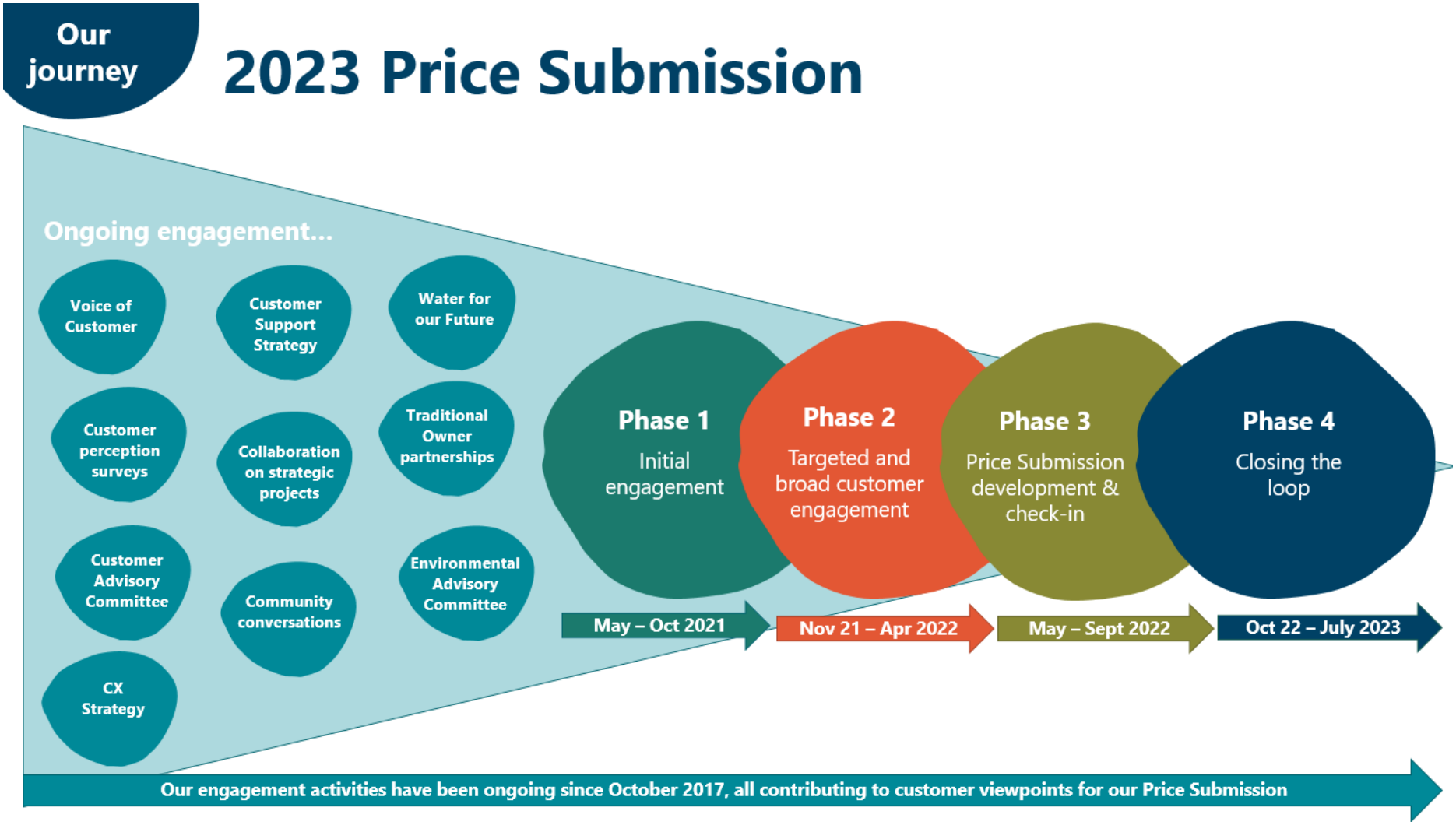


Figure 4-2: Breadth of ongoing foundational engagement (1)

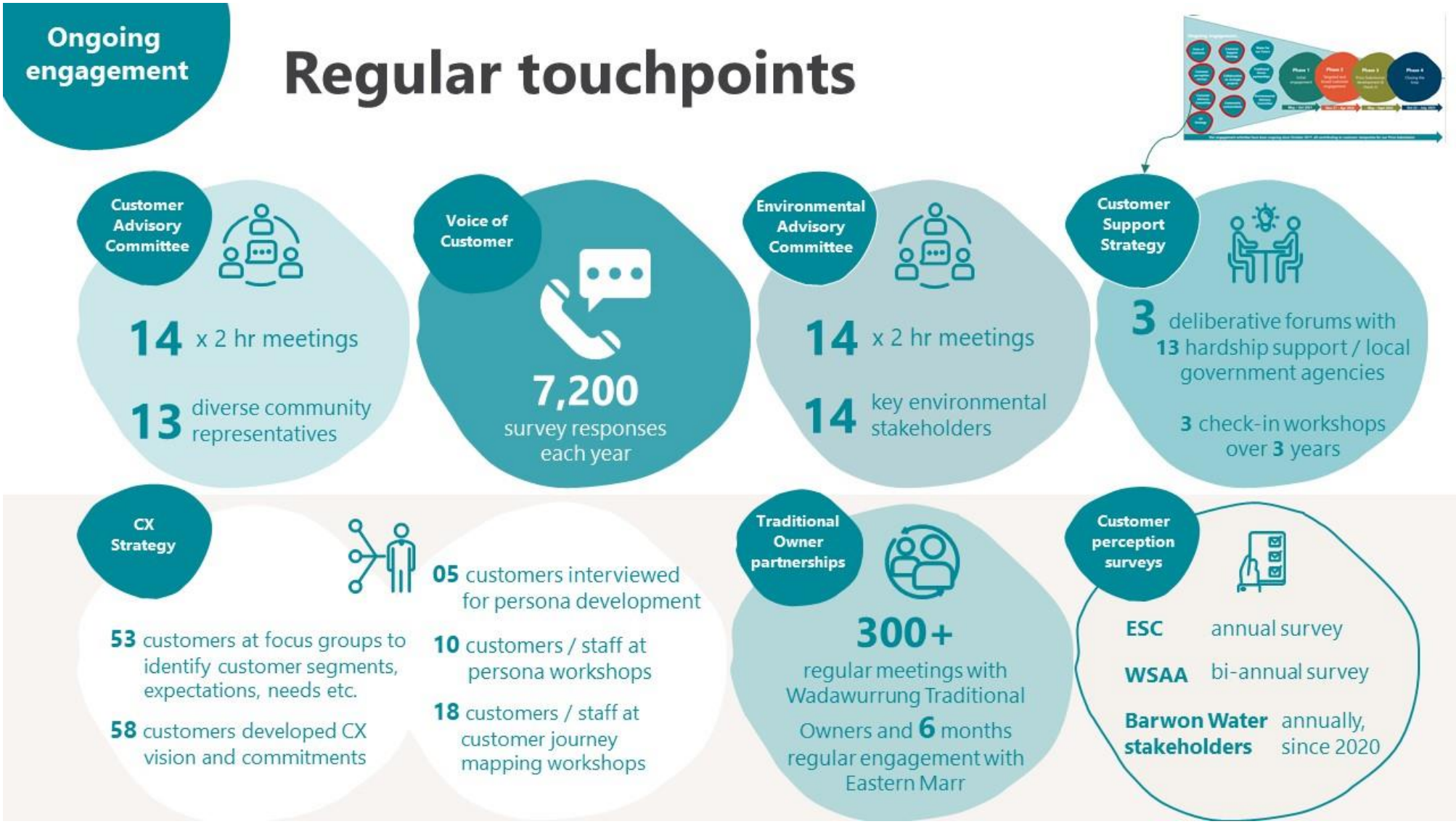


Figure 4-3: Breadth of ongoing foundational engagement (2)

Ongoing engagement

Specific discussions

Community conversations

Birregurra sustainable communities - water	1 webinar 700 letters / updates 279 reports issued 16 working group meetings 1 x IAP2 award 1 x OzWater national conference presentation 2 surveys
Anglesea borefield	4 information sessions 10 Anglesea River Working Group meetings 1 Friends of the Anglesea River meeting 2 Surf Coast Shire officer level briefings 7 community pop-ups 125 e-newsletters issued
Community education (Water efficiency and conservation)	18 markets / pop ups 34 Bay FM spotlight interviews
MD briefings	164+ briefings and presentations to key stakeholder and community groups
Class A recycled water	8,047 letters sent 20,120 e-newsletters issued 3 community pop-ups 22 survey responses 450 students engaged via our Education Program
Schools	16,700 students engaged through our Education Program.

Collaboration on strategic projects

Bellarine Basin	194 surveys 6 community briefings 180 letters 800 e-newsletters issued
Capital projects (Barwon Water / Barwon Asset Solutions)	15,007 letters / e-newsletter updates 30 landowner meetings
Porronggitj Karrong (ovoid sewer aqueduct)	4 community reference group meetings
Regional Renewable Organics Network	2 webinars 690 updates / letters 10 1:1 project team conversations 793 visits to project website
Forrest wastewater	7 workshops, info sessions and listening posts 1,600 updates / letters 5 surveys
Bellarine recycled water (Portarlington water reclamation plant upgrade and pipeline)	398 letters / e-newsletter updates 31 landowner meetings 80 e-newsletters issued
Birregurra water supply upgrade	517 letters / e-newsletter updates 3 key stakeholder briefings 10 landowner meetings
Bellbrae Primary School (water and sewerage upgrade)	1,014 letters / e-newsletter updates 1 community information session
Boundary Creek remediation	18 community reference group meetings 8 information sessions.

Figure 4-4: Example of ongoing foundational engagement: *Water for our Future* program

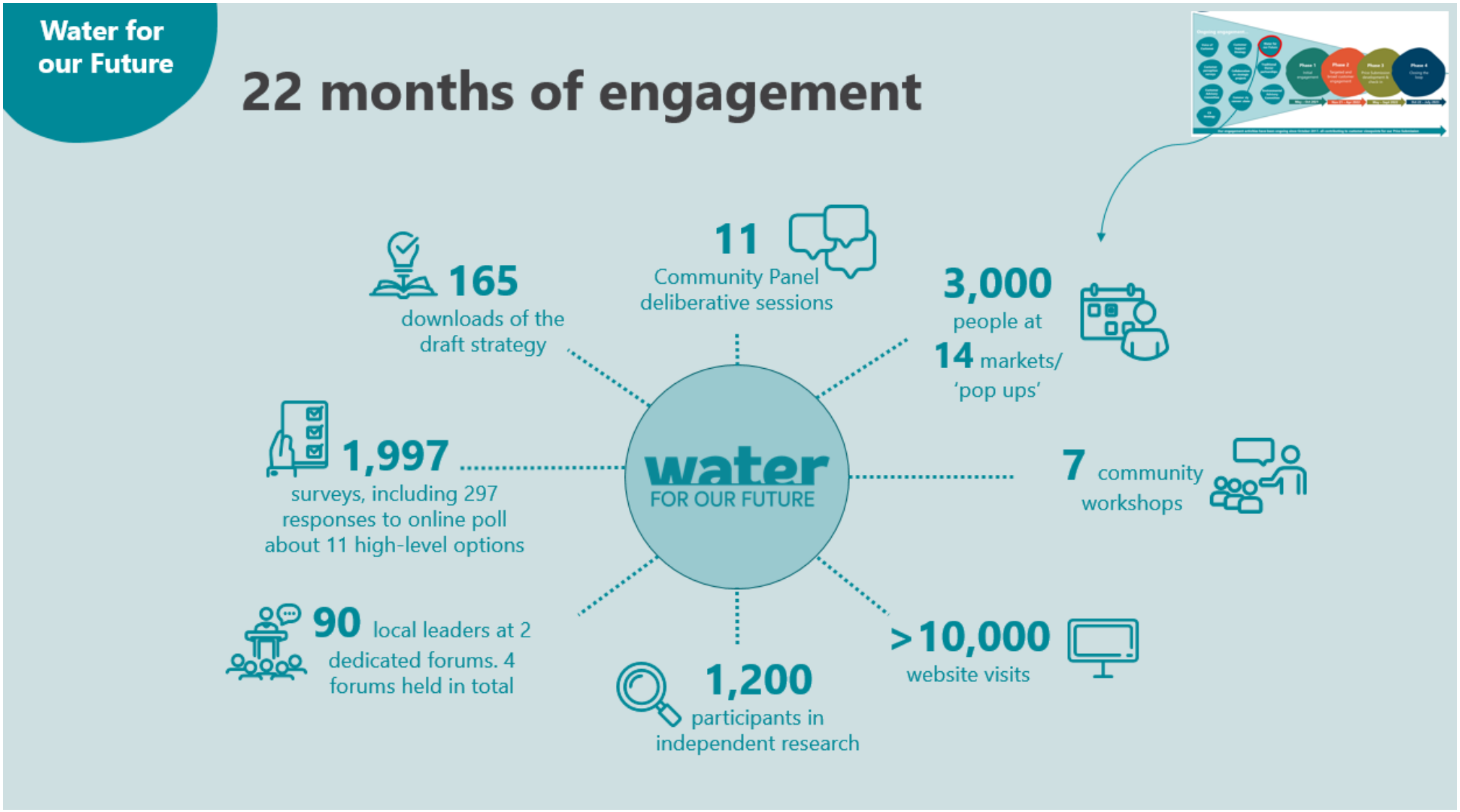


Figure 4-5: Breadth of engagement during Phases 1-3

4.2 What we provided

We believe the generous, thoughtful and considered feedback we receive from our customers and community is partly reflective of the quality of information we provided them. We strive to be accessible, creative and engaging in how we present information, and tailor our approach and materials according to our audience.

Appendix 3 provides a snapshot of some examples of our engagement materials, each of which was tailored to suit the form and purpose of our engagement in line with the IAP2 spectrum of engagement.

Where our purpose is to inform, we aim to provide simple, easy-to-understand messages. Where our purpose is to collaborate or empower, we aim to provide the necessary detail in a fair and balanced format for participants to make informed recommendations[7]. Examples shown in Appendix 3 include videos, animations, posters, information sheets, personalised briefings, information sessions or webinars.

We also listen to and learn from our customers, community and stakeholders about how we can improve the way we engage. For example, in response to feedback from our Customer Advisory Committee, we are now much more proactive in our work with them.

We prepare detailed pre-reading information packs that are sent in advance of each meeting[8] and conduct personalised phone calls with each member prior to the meeting to work through the materials together. This helps members prepare for the meeting and arrive ready to participate meaningfully. It also helps to identify issues, areas of concerns or where clarity is required, so we can in turn adapt the agenda, format and style of information to be shared at the meetings, in response to what we are hearing from members. This provides a genuine platform for members to share feedback and discuss their concerns.

4.3 What we heard

Regardless of the form of our engagement, we found the same key insights emerged. Figure 4-6 summarises these key insights and shows how we have addressed them in the development of our 2023 Price Submission, with further detail provided in Appendix 3.

We believe that our customers and community are willing to engage openly with us because they know we will genuinely listen to them.

Results from the ESC's quarterly customer perception surveys demonstrates that we have a high level of trust with our customers and a positive reputation in our community – we have been one of the top four water businesses for each in the ESC's annual customer perception data since August 2020, even achieving the number one spot for reputation seven times[9]. These independent survey results give us confidence that our customers feel we are genuine when we engage with them.

Where appropriate, we also engage independent customer insights specialists and facilitators for key engagement activities, such as customer preference surveys, focus groups and deliberative processes like our Regional Forums and *Water for our Future* Community Panel sessions, to ensure maximum trust and transparency for participants[10].

Recent results from our engagement with customers on our Draft 2023 Price Submission give further evidence of our positive relationship with customers. 5,570 people – or almost 4% of our entire customer base – chose to complete a survey to provide their views on our Draft 2023 Price Submission[1]. This tremendous response was borne of 74% of customers who were provided with an email about our Draft 2023 Price Submission choosing to open it, with a click-through rate of 9%. It also represents an uplift in participation since our 2018 Price Submission, when just over 1,100 people completed a survey on our proposed services and prices[11].

Figure 4-7 shows a small sample of feedback we have received from our customers and community about the value of our engagement approach[12].

Figure 4-6: Key insights that have shaped our 2023 Price Submission

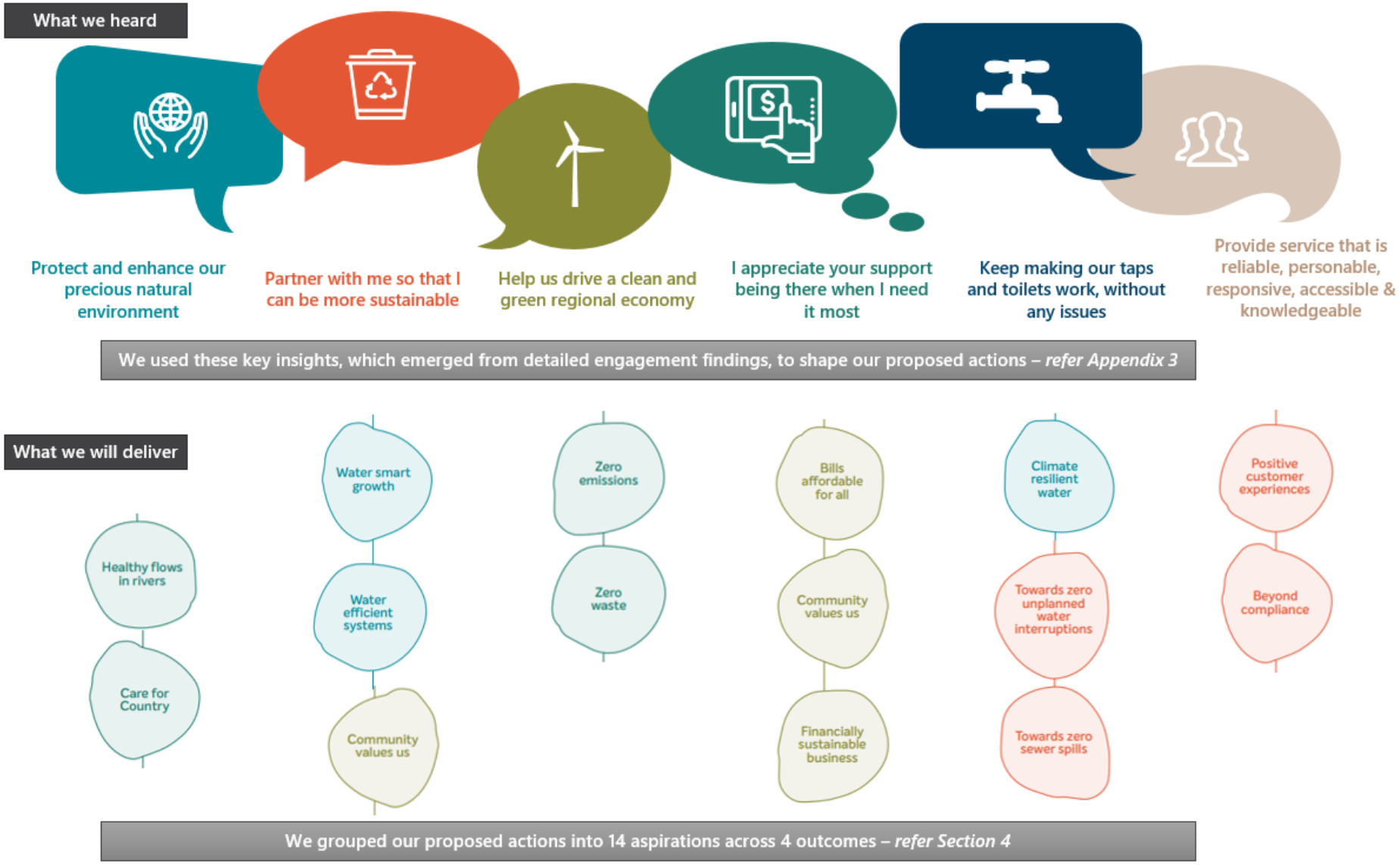


Figure 4-7: Examples of customer feedback about our engagement

4.4 PREMO assessment – Engagement

For the engagement component of PREMO, we have assessed ourselves to be **Leading** (3.75 out of 4), as summarised in Table 4-1 below.

Table 4-1: PREMO assessment – Engagement

Guiding Question	Score	Comment
To what extent has the business justified how the form of engagement suits the content of consultation, the circumstances facing the water business and its customers?	3.75	Our ongoing commitment to engagement across all aspects of our business means our engagement activities vary based on the level of complexity and customer interest in the matter at hand. We know that customers value our engagement approach, as it is evident in the feedback we receive (prompted and unprompted) and the ratings we achieve for trust and reputation in the community in the ESC's annual customer perception data.
To what extent has the business demonstrated that it provided appropriate instruction and information to customers about the purpose, form and content of the customer engagement?	3.75	The information and instruction we have provided to customers in both our foundational and targeted engagement activities has always been tailored to suit the form and purpose of the engagement. The examples provided in Appendix 3, and additional references listed below, show the level of thought and care we bring to developing these materials. We receive positive feedback from customers who participate in our engagement activities as a result.
To what extent has the business demonstrated that the matters it has engaged on are those that have the most influence on the services provided to customers and prices charged?	3.75	Based on feedback from our Customer Advisory Committee and broader customer base, we have reshaped our entire corporate strategy around delivery of the outcomes that matter most to our customers, as set out in our 2023 Price Submission. In doing so, we have fully explored all aspects of our business – and our aspirations as a business – to ensure that these are driven by enhancing customer value. We have considered a broad array of matters relating to services and prices in the design of our engagement – with activities specifically targeted for developers, recycled water customers, trade waste customers, financially vulnerable customers, etc. through to broader outreach activities that focused on our residential and business customers. Importantly, we have shared the problem of how to tackle the challenges we are facing with three key reference groups – our dedicated Customer Advisory Committee (8 x 2-hour sessions over 18 months), our broader Regional Forum (4 x 3-hour sessions over 4 years) and our deliberative Water for our Future Community Panel (9 x 8-hour sessions, 1 x 4-hour session and 1 x webinar over two years).
To what extent has the business demonstrated how its engagement with customers has influenced its submission?	3.75	We have built upon the engagement insights we gained during development of our 2018 Price Submission through five years of foundational engagement since October 2017, supplemented by targeted engagement on key aspects of our 2023 Price Submission over the past 12-18 months. Our 2023 Price Submission is backed by extensive customer engagement insights. As a result, 89% of surveyed residential and business customers are comfortable with the outcomes we are proposing, 78% of surveyed residential and business customers are comfortable with the bills we were proposing and 82% of surveyed residential and business customers considered that our proposals

		offered value for money when we were projecting a flat price path in July 2022[1]. Our finalised negative price path provides even greater value.
To what extent has the business demonstrated that its engagement was inclusive of consumers experiencing vulnerability?	3.75	We celebrate diversity, show respect and appreciate the unique perspectives that our customers and stakeholders possess. We know that diverse voices means different views and experiences help us find the best solutions to ensuring a prosperous region. In 2018, we partnered with 13 social support service organisations and local councils from across our region to develop our Customer Support Strategy, so that vulnerable customer insights and values could be reflected in how they wanted to be supported[2]. In early 2022, we engaged with social support organisations, customers who had trouble paying bills, customers living with disabilities, culturally and linguistically diverse (CALD) customers and customers who had recently settled in the region to better understand their needs, and how we service and support them[4]. We have been engaging with customers experiencing vulnerability through a variety of platforms. Since the start of the coronavirus pandemic, our dedicated outbound customer calling team has connected with more than 35,000 people (10% of our permanent population served) to offer support.
To what extent has the business demonstrated that its engagement was inclusive of First Nations people?	3.75	We are learning from Traditional Owners about how we can work with them to apply a Caring for Country approach to our land and waterways. Through our partnerships with Traditional Owners, we play a supporting role in their journey to self-determination. Our Bellarine Basin rehabilitation project and Porronggitj Karrong project are examples of how we are including and enhancing Aboriginal Values and tens of thousands of years of Traditional Owner knowledge in managing our sites. We also care for and support Aboriginal and Torres Strait Islander peoples living in our region. Our Environmental Advisory Committee has First Nation representation and the committee has been engaged throughout the development of our 2023 Price Submission. In addition and through our partnership with the Geelong Cats, we co-deliver a First Nations cultural connection program that engages Aboriginal and Torres Strait Islander young people from across our region in the exploration and celebration of Aboriginal culture. We also engaged with the Wathaurong Aboriginal Co-Operative through our targeted engagement to develop the 2023 Price Submission[4].
Average Score	**3.75**	**Leading**

4.5 Key reference materials

1. Barwon Water: Follow-up Draft 2023 Price Submission customer check in Research, EY Sweeney, August 2022 (A21905035)
2. Customer Support Strategy: Helping customers who experience hardship, 2018-23 price period (A21864551)
3. Customer Support Workshop (including Tenant Rebate Adjustment) slidepack, May 2022 (A20578668)
4. Barwon Water: Customer Vulnerability Research, Quantum Market Research, March 2022 (A20712412)
5. Belonging @ Barwon Water Inclusion Action Plan 2022-2025 (A20558449)
6. Aboriginal employment and retention strategy - Barwon Water | 2022 National Water Awards Winners List
7. *For example* – Regional Forum trade-off handouts (A21474137, A21474133, A21474135); Customer support and tenant workshop presentation (A20578668); Water for our Future Community Background Reports (A17210445, A17210424, A17860825)
8. Customer Advisory Committee (CAC) background materials (fA1117649)
9. ESC perception survey results (A21656522) How customers rate their water business | Essential Services Commission
10. *For example* – Barwon Water: Customer Willingness to Pay: Research Report, EY Sweeney, May 2022 (A20892460); Barwon Water: Customer Vulnerability Research, Quantum Market Research, March 2022 (A20712412); *Water for our Future* Community Panel: Process Report, Mosaic Lab, December 2021 (A20036031).
11. 2018 Price Submission survey – refer Page 6 of https://www.yoursay.barwonwater.vic.gov.au/22311/widgets/147063/documents/58463
12. *For example* – *Water for our Future* Community Panel: Process Report, Mosaic Lab, December 2021 (A20036031)

5 Outcomes

At a glance

- At the heart of our renewed Strategy 2030 – and this submission – is the delivery of four customer outcomes, each with 3-4 aspirations that we aim to achieve by 2030.
- These outcomes reflect the comprehensive engagement we have undertaken over the past five years. 89% of over 5,570 customers surveyed in July 2022 are comfortable with the outcomes we are proposing to deliver, with 82% of these customers confirming that they think proposals in our Draft 2023 Price Submission offered value for money when we were projecting a flat price path[1].
- We have developed 44 measures of success across our four customer outcomes. This comprehensive approach to measuring our performance will be reflected in quarterly performance reports given to our Board and annually communicated to our customers.
- We will improve beyond baseline performance for half of our measures of success, and will hold ourselves to account for delivery of key performance measures through continuation of our Performance Incentive Mechanism.
- Our PREMO self-assessment rating for Outcomes is **Advanced** (3.0/4).

5.1 How we derived our outcomes

Our four customer outcomes are the products of our comprehensive engagement program, which began once we presented our 2018 Price Submission to the ESC.

Consistent with this approach, our conversations with customers started with the five outcomes in our 2018 Price Submission. Over five years of foundational engagement, we heard from our customers time and time again how much they appreciated our genuine approach to engagement (refer to Section 4).

In light of this feedback, we decided to elevate our commitment to deeper partnerships with our community (Outcome 4 from 2018 Price Submission) to become part of *how* we work as an organisation. Strategy 2030 clearly sets our expectations about how our staff will work, underpinned by our values of being caring, safe, inclusive, accountable and courageous[2].

Figure 5-1 shows how two of these expectations – established in the "How" section of Strategy 2030 – now encompass our previous Outcome 4, and how our proposed four outcomes align with all of our other previous outcomes.

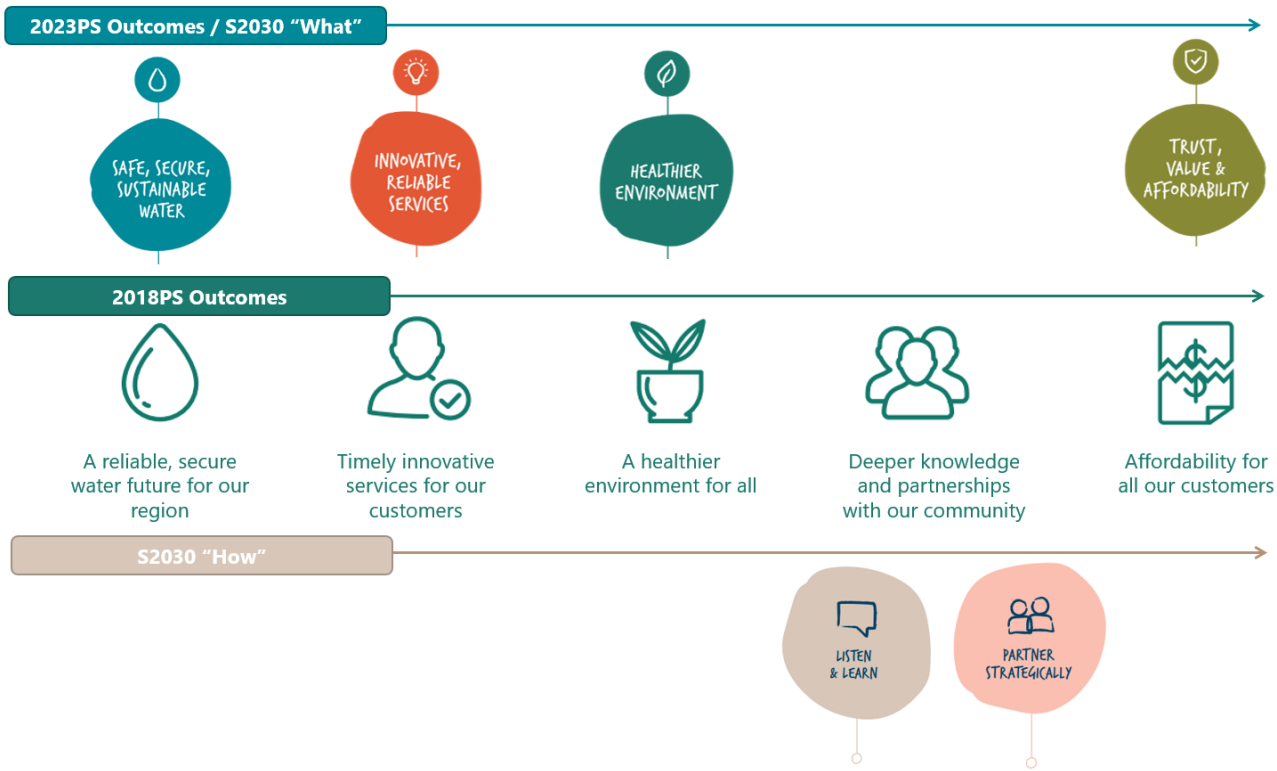
Our targeted engagement on key elements of the 2023 Price Submission allowed us to check-in and confirm our proposed four outcomes:

- **Phase 1** – High levels of support for the five customer outcomes from our 2018 Price Submission was evident in March and August 2020, ranging from 87% of surveyed customers supporting Outcome 1 (A reliable, secure water future for our region) through to 65% of surveyed customers supporting Outcome 5 (Bills that are as low as possible for all of our customers)[3].

- **Phase 2** – 94% of Customer Advisory Committee members supported our proposed change from five outcomes to four outcomes[4].
- **Phase 3** – High levels of support were evident for our proposed four outcomes in a short "pulse-check" survey undertaken over December 2021 to January 2022, with almost 80% of surveyed customers either comfortable or very comfortable with these outcomes[5]. There were also high levels of support for specific actions to deliver these four outcomes in February and March 2022, with 96% of surveyed customers considering actions to support Outcome 1 (Safe, secure, sustainable water) as very or fairly important through to 95% of surveyed customers considering actions to support Outcome 4 (Value, affordability and trust) as very or fairly important[6].
- **Phase 4** – Almost 90% of over 5,570 customers surveyed in July 2022 were comfortable with the four outcomes we are proposing to deliver[1].

From our comprehensive engagement program, we are confident that our outcomes align with what our customers have asked us to deliver.

Figure 5-1: Evolution of 2018 Price Submission Outcomes into 2023 Price Submission Outcomes & Strategy 2030



5.2 How we will deliver our outcomes

Figure 5-2 to Figure 5-5 show how we intend to deliver our outcomes over 2023-28 – setting out what we heard from customers, the actions we propose to take in response and the performance measures we have defined for successful delivery.

Actions we will take

Since our 2018 Price Submission, we have improved our identification and classification of our capital projects in line with both the nominated ESC drivers (growth, renewals, compliance, improved service) and our customer outcomes[7].

This means the actions we have identified in Figure 5-2 to Figure 5-5 apportion all of our proposed capital works program across our four outcomes. We have also acknowledged – as footnotes – the $111.7 million of projects that we propose to undertake but not charge customers for in the 2023-28 regulatory period, since these projects remain critical to our successful delivery of Outcome 3: Healthier Environment and Outcome 4: Affordability, Trust and Value.

Table 5-1 summarises our capital expenditure across our four outcomes (excluding the $111.7 million projects to be excluded from customer prices in 2023-28).

Table 5-1: Capital expenditure apportioned across Outcomes – in $2022-23 dollars

Outcome 1	Outcome 2	Outcome 3	Outcome 4	TOTAL
$199M	$303M	$45M	$2M	$549M

Figure 5-2 to Figure 5-5 also highlight key operating expenditure items that will help us to deliver our outcomes. All of the proposed forecast variations to baseline operating expenditure (or "step-changes") reflected in our price model have been highlighted to show the relevance of this expenditure to our outcomes (refer Section 6).

Our measures of success

The customer value that will be derived from our actions is described in our measures of success. We have defined 44 measures of success – between 1 to 6 measures for each of the 14 aspirations across our four outcomes.

96% of customers surveyed in March 2022 said they wanted to receive updates from Barwon Water across a variety of topics[6]. This feedback drove our comprehensive approach to performance monitoring.

Our performance measures have been derived from a thorough examination of the 33 performance measures we set ourselves in 2018, in light of the insights gained through our comprehensive engagement program over the past five years. Of our original 33 measures, 11 have been carried over, 11 have been modified, 11 have been removed and 20 have been added – to reflect what customers told us was most important to them[8].

Appendix 4 shows how we have defined units of measure, assessed our baseline performance and set annual targets for each of our 44 measures of success, to ensure accurate reporting and accountability for performance over the 2023-28 regulatory period.

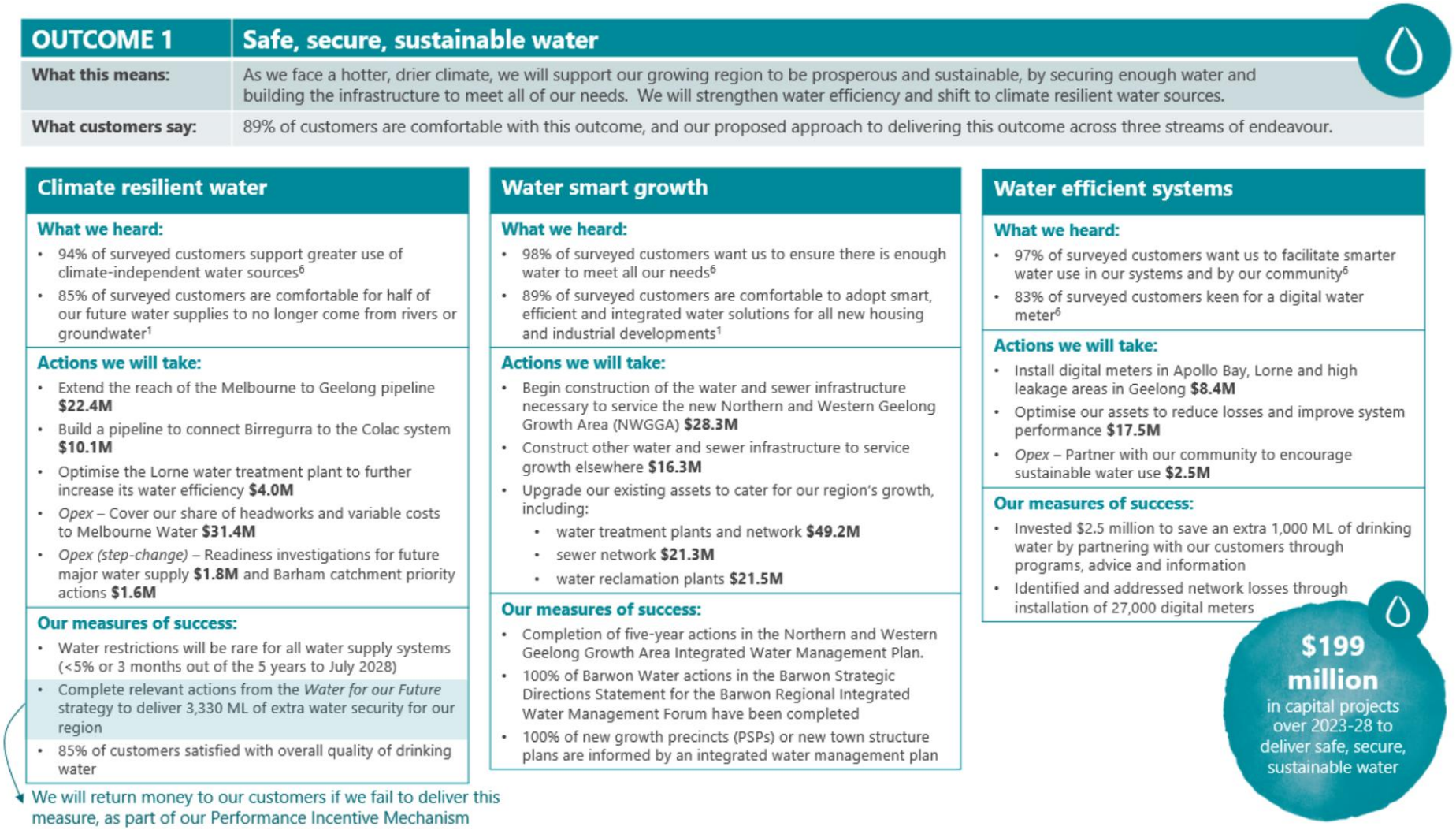
Our assessment of baseline performance in Year 4 and target performance in Year 5 of the 2018-23 regulatory period shows that customer value will be enhanced by improvements in performance for three out of 11 performance measures carried over from 2018, as well as for 19 out of 33 new or modified performance measures. This means we are improving performance for 22 of our 44 measures of success, or 50%, across almost all of our 14 aspirations. We are either maintaining our current high levels of performance, or monitoring new levels of performance, for all other measures of success[9].

We acknowledge that some of our measures of success reflect inputs, rather than outputs, in those instances where expected benefits are difficult to quantify or to apportion directly to an intervention.

For example, our measure of "$7.3 million expenditure to improve catchment and waterway health …" (Outcome 3) reflects our costs, rather than the expected benefits in improved catchment and waterway health, as incremental environmental improvements are extremely difficult to measure. Similarly, our measure of "identified and addressed network losses through installation of 27,000 digital meters" (Outcome 1) reflects our activity, rather than the expected reductions in water losses, as these can be difficult to estimate on a large-scale and more likely to be driven by exogenous factors like climate.

However, given our commitment to transparency and openness with our customers, we felt it was better to have some sort of performance measure to hold ourselves to account for delivery rather than none – particularly for those areas that we know are of interest to customers (like waterway health and digital meters). Notwithstanding, we estimate that 73% of our performance measures reflect outputs, rather than inputs[9].

Figure 5-2: Summary of Outcome 1 – in $2022-23 dollars



Note: *All $ shown are capital expenditure, unless indicated otherwise (i.e. as "Opex")*

Figure 5-3: Summary of Outcome 2 – in $2022-23 dollars

OUTCOME 2	Innovative, reliable services
What this means:	By listening to our customers and community, and by being forward thinking and technologically advanced, we will be innovative, continually improving, inclusive, caring and easy to deal with.
What customers say:	91% of customer are comfortable with this outcome, and our proposed approach to delivering this outcome across four streams of endeavour.

Positive customer experiences

What we heard:

- 89% of surveyed customers want us to provide a positive service experience because we care and listen to customers[1]

Actions we will take:

- Enhance customer experience through our digital and technology uplift **$8.8M**
  - improved, more channels of communications for ease of service
  - easier access to our services regardless of circumstances
  - more proactive customer contact to connect customers to the services and support they need earlier
- *Opex (step-change)* – Smart networks **$3.1M**

Our measures of success:

- 85% of customers who interact with us rate the *ease* of their experience as very good to excellent
- 85% of customers who interact with us rate the *satisfaction* of their experience as very good to excellent
- Consistently rated within top four Victorian water businesses for customer satisfaction

Beyond compliance

What we heard:

- 93% of surveyed customers say it is very important for us to prioritise safety of our people and community[6]

Actions we will take:

- Deliver a program of works to ensure the safety of the community and our employees and the accuracy of our equipment **$36.4M**
- *Opex (step-change)* – Cyber security uplift **$5.3M**
- *Opex* – Transition to the requirements of the new Environment Protection Act and ensure 100% compliance with EPA Licence Obligations **$3.8M**
- *Opex* – Deliver our Beyond Zero Safety Strategy to advance a generative safety culture **$0.9M**

Our measures of success:

- No more than two in 1,000 customers have complained about water quality each year
- 100% compliance with Safe Drinking Water Act
- 100% compliance with EPA licence conditions
- Delivered a research portfolio on emerging contaminants of concern
- Reach (at least) core maturity against the mandatory requirements of the Victorian Protective Data Security Standards
- 94% of staff agree that Barwon Water Group is "committed to supporting me to be healthy, safe and resilient"

Towards zero unplanned water interruptions

What we heard:

- 90% of surveyed customers want us to leverage data and technology to minimise interruptions to customer water supplies[1]

Actions we will take:

- Renew and increase the resilience of our water pipelines to maintain or improve water supply service levels **$64.9M**
  - across Highton, Leopold, 13th Beach, Jan Juc, Drysdale, Colac, Apollo Bay
- Renew our water treatment plants to maintain service levels **$16.2M**
  - across Geelong, Colac, Birregurra, Lorne, Apollo Bay, Gellibrand, Forrest
- Renew our water tanks, basins, dams and reservoirs to maintain service levels **$12.5M**

Our measures of success:

- Better than the Victorian industry average number of unplanned water supply interruptions per 1,000 connections

Towards zero sewer spills

What we heard:

- 91% of surveyed customers want us to leverage data and technology to reduce risk of raw sewage spilling from assets[1]

Actions we will take:

- Renew our sewer pipelines, maintenance access holes and storages to maintain or improve sewerage service levels **$104.3M**
- Roll out sewer sensors in strategic locations (17 suburbs with spill rates above 10 spills per 100km) and pressure sensors at all Sewage Pump Stations rated as extreme, high or medium **$6.1M**
- Renew our water reclamation plants to maintain service levels **$25.5M**

Our measures of success:

- 10% improvement in sewer spills performance per 100km of sewer main

We will return money to our customers if we fail to deliver this measure, as part of our Performance Incentive Mechanism

$303 million
in capital projects over 2023-28 to deliver innovative, reliable services

Note: *All $ shown are capital expenditure, unless indicated otherwise (i.e. as "Opex")*

Figure 5-4: Summary of Outcome 3 – in $2022-23 dollars

OUTCOME 3	Healthier environment
What this means:	We will apply a caring for Country approach to our land and waterways in partnership with Traditional Owners, other agencies and community members. We will strive for zero emissions and generate useful products from what we used to call "waste".
What customers say:	89% of customer are comfortable with this outcome, and our proposed approach to delivering this outcome across four streams of endeavour.

Care for Country

What we heard:

- Caring for Country in all our work is considered important by 79% of surveyed customers[1]

Actions we will take:

- Support Traditional Owners in developing and implementing their Country Plans and in their journey for self-determination
- Construction of new public open space, environmental and cultural assets, at Porronggitj Karrong, along the Highton pipe track & Bellarine Basin **$2.0M**
- *Opex (step-change)* – Deliver a Stretch Reconciliation Action Plan and strengthen relationship with Eastern Maar **$0.7M**
- *Opex (step-change)* – Prepare & implement decommissioning plan for Barwon Downs borefield **$0.8M**
- *Opex* – Continue to progress remediation & environmental protection plan for Boundary Creek, Big Swamp and surrounds **$2.9M**

Our measures of success:

- 100% of actions under Stretch Reconciliation Action Plan delivered
- Improvement in staff awareness, attitudes and perceptions towards Reconciliation (as measured by the Workplace RAP Barometer).

Healthy flows in rivers

What we heard:

- 97% of surveyed customers want us to collaborate to enhance waterway and catchment health[6]

Actions we will take:

- Support Traditional Owners to express their cultural values related to water, and achieve their goals for healthy flows in waterways
- *Opex* – Fund catchment and waterway health and quality improvement initiatives such as citizen science, Landcare, and other river restoration works **$5.6M** including
  - *(step-change)* – Upper Barwon river health initiatives **$0.9M**
- *Opex* – Pay the Environmental Contribution Levy to promote sustainable management of water or address adverse water-related environmental impacts **$45.2M**

Our measures of success:

- 3,700 ML/year long-term average equivalent entitlement returned to Moorabool River by 2025, to be shared between environment and Wadawurrung (subject to Ministerial approval)
- Spent $7.3M to improve catchment and waterway health and quality by funding initiatives such as citizen science, Landcare, willow removal programs and other river restoration works

Zero waste

What we heard:

- Residential and business surveyed customers agree that increasing recycled water is their top investment priority[6]

Actions we will take*:

- Begin construction of recycled water infrastructure to service the new Northern and Western Geelong Growth Area **$13.5M**
- Construct new assets to support further uptake of recycled water in other growth areas **$12.5M**
- Upgrade Portarlington water reclamation plant to supply higher quality recycled water **$13.6M**

Our measures of success:

- Extra 1,000 ML/year of recycled water allocated for productive use
- Completed feasibility assessment of large-scale alternative water grid (recycled water and treated stormwater)
- 85% of recoverable industrial waste reused or recycled
- 100% of biosolids put to beneficial reuse
- In collaboration with local councils, deliver an innovative design by July 2024 for an organic waste recycling facility

Zero emissions

What we heard:

- 84% of surveyed customers want us to work towards achieving 100% renewable electricity and zero net emissions by 2030[1]

Actions we will take:

- Establish a regional approach to carbon sequestration, to offset the emissions we generate from our operations **$3.2M**
- *Opex* – Purchase renewable electricity through partnerships across the water industry and in our region **$3.2M**

Our measures of success:

- Carbon sequestration program in place (implementation of projects complete), so on track for zero Scope 1 emissions (from direct emissions we generate) by 2030
- 100% renewable electricity by 2025, so zero Scope 2 emissions (from electricity we use)
- Plan developed by 2030, for addressing Scope 3 emissions (from our suppliers)

We will return money to our customers if we fail to deliver this measure, as part of our Performance Incentive Mechanism

$45 million in capital projects over 2023-28 to deliver a healthier environment

Additional actions – not funded through customer prices:

- Construct new assets to further support the productive use of recycled water including in the Surf Coast Hinterland $17.7M
- Build the third stage of the Colac Renewable Organics Network at the site of our Colac water reclamation plant $15.9M
- Build a Regional Renewable Organics Network at our Black Rock water reclamation plant $38.5M

Note: *All $ shown are capital expenditure, unless indicated otherwise (i.e. as "Opex")*

Figure 5-5: Summary of Outcome 4 – in $2022-23 dollars

OUTCOME 4	Trust, affordability and value
What this means:	We will respond to the diverse needs and values of our customers and community and aim to be a valued and trusted leader; contributing positively to our region. We will actively support customers, keep bills affordable and resolve issues fairly.
What customers say:	87% of customer are comfortable with this outcome, and our proposed approach to delivering this outcome across three streams of endeavour

Bills affordable for all

What we heard:

- 95% of surveyed customers want to care for those who need support[6]
- 86% of surveyed customers want us to ensure bills are affordable for all and contribute to our customers financial wellbeing[1]

Actions we will take*:

- Most prices will decrease, in real terms, for most customers
- Transitional Rebate Adjustment (annual payment designed to support renters) will be gradually replaced with a package of increased support measures for any customer who needs assistance, whether they rent or not:
  - *Opex (step-change)* – Boost financial assistance through customer support programs, including for our most vulnerable customers **$0.8M**
  - *Opex* – Upgrade customer contact centre and staff training to better support our customers **$2.0M**

Our measures of success:

- One of the lowest residential bills in Australia for a water corporation of our size
- Residential bills (home owner) do not increase beyond inflation and interest rate movements each year
- 96% of customers can pay, or are supported to pay, their bills before overdue notices issued (over 12-month period)
- Business customers agree or strongly agree that their water bill is affordable

We will return money to our customers if we fail to deliver this measure, as part of our Performance Incentive Mechanism

Community values us

What we heard:

- 86% of surveyed customers are comfortable with us working towards being a respected member of our regional community[1]

Actions we will take*:

- *Opex* – Leverage our learning and development budget to support competency uplift in inclusion and invest in diversity and inclusion activities **$2.5M**
- *Opex* – Educate, engage and work with our customers and community to build confidence and trust **$1.8M**
- Design a centralised wastewater system to service the town of Forrest, as existing onsite systems are unable to cope with peak tourism loads and cause odours, spills and discharges to sensitive receiving environments **$1.9M**

Our measures of success:

- Consistently rated within top four Victorian water businesses for value for money
- Consistently rated within top four Victorian water businesses for level of trust
- Community believes we contribute positively to the region
- 90% of our key regional stakeholders and major business / industrial customers trust us
- Our workforce represents the community we serve:
  - Aboriginal & Torres Strait Islander – BW 4%, BAS 7%
  - People with a disability – BW & BAS 17.5%
  - Cultural and linguistic diversity – BW 25%, BAS 16%
  - Gender balance – BW 43:57 BAS 25:75 (W:M)

Financially sustainable business

What we heard:

- Surveyed customers almost universally expect that we will manage our expenditure prudently while delivering on our commitments (96%) and that our charges will be designed and applied fairly (97%)[6]

Actions we will take:

- Cost-effectively resource our uplift in digital capability, capital delivery and community engagement by bringing expertise in-house and replacing consultants with staff
- Deliver all capital projects on time and on budget, yet exclude several strategic, innovative projects from the prices our customers pay

Our measures of success:

- Operating expenditure is within +/- 10% of 2023PS forecasts
- Capital expenditure is within +/- 10% of 2023PS forecasts
- Advanced cash interest coverage ratio of 2.5 times or greater per annum over 2023PS period
- Imputed an efficiency target of 1.95% per annum over the 2023PS period
- Achieved CAP efficiency target of $5.8M

$111.7 million on innovative capital projects without passing on the costs until after 2028

Additional actions – not funded through customer prices:

- Develop surplus land for improved use, including affordable & sustainable housing, to generate extra revenue to help keep prices low $10.6M
- Explore installation of Forrest wastewater system $24.5M

Note: *All $ shown are capital expenditure, unless indicated otherwise (i.e. as "Opex")*

5.3 How we will measure our performance

Internally

Our process of reporting performance internally will be streamlined now that our entire Strategy 2030 is centered on delivery of our four outcomes.

The quarterly performance reports presented to our Board will be structured around our outcomes, aspirations and measures of success.

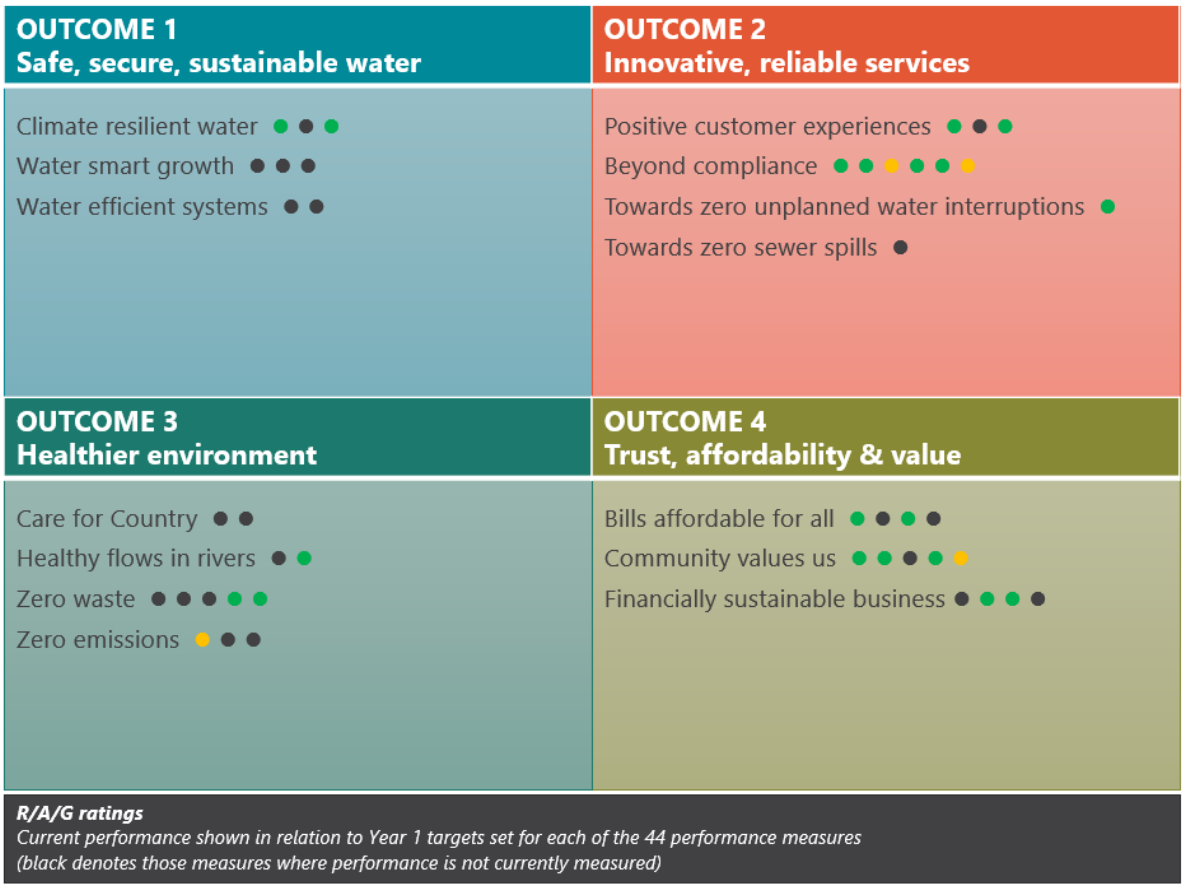
Externally

Our current process of reporting performance to customers includes publication of our annual customer scorecard on our website[10], detailing our performance against each outcome and service level as assessed by our Customer and Environmental Advisory committees.

We will continue to build on our existing approach over the next five years, and implement a robust communications and engagement strategy to capture further insights and feedback from our customers and key stakeholders on our performance.

Figure 5-6 provides an example of how we will report performance.

Figure 5-6: Example of performance reporting



5.4 How we will hold ourselves to account

Guaranteed Service Levels

Our Guaranteed Service Levels (GSLs) are a mechanism for compensating customers who receive a level of service that does not meet community expectations. They remain an important way of holding ourselves to account, in terms of delivering what our customers expect of us.

Customer engagement and feedback has reinforced the appropriateness of our existing GSLs, which we propose to maintain in the next regulatory period, because:

- these service levels align with the standards that customers indicate as most important to them – response times, restoration times and frequency of interruptions were rated as critically important service standards by almost 1,700 customers surveyed in February 2022[10]
- customers support the current service levels as the right balance between performance and investment – Customer Advisory Committee members said they support our current GSLs and like how they are clear, measurable and make sense as a customer[12], whilst 90% of 5,570 customers surveyed in July 2022 had high levels of comfort with the actions we proposed to deliver Outcome 2: Innovative, reliable services[1]
- our service levels, and associated compensation if we fail to meet them, compare favourably with that currently offered by our peers[13].

However, we propose an additional GSL in the next regulatory period, in recognition of the feedback we have received from customers about the significant impact of sewage spills should they occur *inside* a premises.

Our Customer Charter already commits us to investigate any sewer incident that affects a customer's residential property and, where there has been a failure of our sewer system, we will provide an ex-gratia sewer incident credit totalling 50% of the annual residential sewer service charge[14]. We also tailor our response to the consequence of the event, with customers supported to pursue clean-up and restoration works through their insurer or via specialist contractors. Fair consideration is given to both insured and un-insured customers for an additional ex-gratia payment to cover any out-of-pocket expenses.

While our response to an inundation event is generally considered caring and supportive by customers, there is a sentiment that customers prefer these events not to occur in the first place. Sewer odour and inundation complaints were our largest source of complaints in 2021-22[15]. Verbatim comments indicated "quite a stench and an awful site" and "there is matter all over walls, ceilings and floors"[16]. As such we are proposing to update the sewer spill investigation program provision in our Customer Charter to include an additional sewerage service reliability guarantee of $1,000 for any sewage spill inside a residential customer's built premises, where the spill is found to be caused by us or a failure in our system(s).

Our proposed new GSL is shown together with our existing GSLs in Table 5-2.

Table 5-2: Barwon Water's proposed GSLs for the next regulatory period – in $2022-23 dollars

Service attribute	Proposed guaranteed level of service	Payment in 2023-24^
Hardship	We will not restrict water supply or take legal action against a customer prior to making reasonable efforts to contact the customer and provide information about help that is available if the customer is experiencing difficulties paying a bill	$404
Water supply reliability	No more than five unplanned water supply interruptions per customer per year	$88
Sewerage service reliability	No more than three unplanned sewerage service interruptions to a customer's property per year	$88
Sewerage service reliability	No more than two sewer spills on a customer's property per year	$675
NEW: Sewerage service reliability	No incidence of sewage spills inside a residential customer's built premises, caused by Barwon Water or a failure in Barwon Water's system(s)	$1,000

^We will continue to annually adjust our GSL payments to reflect movements in the Consumer Price Index to ensure they do not decline in real terms.

Performance Incentive Mechanism

Our 2018 Price Submission proposed a new Performance Incentive Mechanism (PIM), whereby we put at risk approximately $2.3 million per annum (or $11.5 million over the five-year regulatory period) if we failed to deliver against a series of key performance measures that we considered best aligned with customer priorities against our outcomes[17]. The dollar amount we put at risk equated to the difference in our revenue requirement under an "Advanced" PREMO rating (as our 2018 Price Submission was assessed to be) compared to a "Standard" PREMO rating.

We propose to continue our PIM in the 2023 regulatory period. However, we have adjusted the performance measures to which it applies to better reflect updated customer priorities (as evidenced through our comprehensive engagement program over the past five years). We are again proposing to put at risk the difference in our revenue requirement that we would receive under an "Advanced" PREMO rating compared to a "Standard" PREMO rating – this equates to $15.6 million for our 2023 Price Submission.

Figure 5-7 provides further details of our proposed PIM. As in 2018, we propose to determine the total amount of revenue to be returned to customers at the end of the regulatory period, rather than on an annual basis, in recognition that some targets will take time to achieve.

Figure 5-7: Details of Performance Incentive Mechanism – in $2022-23 dollars

Outcome 1	PIM – Reimbursement trigger criteria
Safe, Secure, Sustainable Water	**$3.9M at risk** – over five-year regulatory period
Complete relevant actions from the *Water for our Future* strategy to deliver 3,330 ML of extra water security for our region	We commit that if we fail to deliver the target volume of additional water security, in the pricing period, we will reimburse customers up to $3.9M over the five-year regulatory period.

≥3,330ML	2,830 – 3,330ML	2,330 – 2,830ML	1,830 – 2,330ML	1,330 – 830ML	<830ML
$0.00M	$0.78M	$1.56M	$2.34M	$3.12M	$3.9M

Outcome 2	PIM – Reimbursement trigger criteria
Innovative, Reliable Services	**$3.9M at risk** – $0.78M per annum
85% of customers who interact with us rate the *satisfaction* of their experience as very good to excellent	We commit that if we fall below our target, we will reimburse customers $0.156M for each 5% below our target, up to $0.78M per annum if we fall below 65%.

≥83% (Yr 1-3) ≥84% (Yr 4) ≥85% (Yr 5)	80-83% (Yr 1-3) 80-84% (Yr 4) 80-85% (Yr 5)	75-80% (Yr 1-5)	70-75% (Yr 1-5)	65-70% (Yr 1-5)	<65% (Yr 1-5)
$0.00M	$0.156M	$0.312M	$0.468M	$0.624M	$0.78M

Outcome 3	PIM – Reimbursement trigger criteria
Healthier Environment	**$3.9M at risk** – over five-year regulatory period
3,700 ML/year long-term average equivalent entitlement returned to Moorabool River by 2025, to be shared between environment and Wadawurrung (subject to Ministerial approval)	We commit that if we fail to deliver the entitlement change by the end of 2025, or fail to arrange for transfer of an equivalent volume of water to the VEWH, we will reimburse customers $1.3M for each year beyond the due date that the entitlement change occurs, or volume is not transferred, up to $3.9M.

2023-24	2024-25	2025-26	2026-27	2027-28
-	$0.00M	$1.3M	$1.3M	$1.3M

*Additional detail: Should the entitlement transfer process be delayed beyond 2025, Barwon Water will work with relevant stakeholders to provide flows to the Moorabool River in accordance with the proposed 3,700 ML/year entitlement until the transfer process is complete. These voluntarily delivered flows shall be deemed to meet the target. * Noting - both the transfer of permanent entitlement and temporary volumes, are subject to approval by the Minister for Water.*

Outcome 4	PIM – Reimbursement trigger criteria
Trust, Value & Affordability	**$3.9M at risk** – $0.78M per annum
96% of customers can pay, or are supported to pay, their bills before overdue notices are issued (over 12-month period)	We commit that if we fall below our Customer Support target each year, we will reimburse customers $0.13M for each 4% below our target, up to the amount of $0.78M per annum if we fall below 74%.

≥94% (Yr 1-3) 95% (Yr 4) 96% (Yr 5)	90-<94% (Yr 1-3) 91-95% (Yr 4) 92-96% (Yr 5)	86-<90% (Yr 1-3) 87-91% (Yr 4) 88-92% (Yr 5)	82-<86% (Yr 1-3) 83-87% (Yr 4) 84-88% (Yr 5)	78-<82% (Yr 1-3) 79-83% (Yr 4) 80-84% (Yr 5)	74-<78% (Yr 1-3) 75-79% (Yr 4) 76-80% (Yr 5)	<74% (Yr 1-3) <75% (Yr 4) <76% (Yr 5)
$0.00M	$0.13M	$0.26M	$0.39M	$0.52M	$0.65M	$0.78M

5.5 PREMO assessment – Outcomes

For the outcomes component of PREMO, we have assessed ourselves to be **Advanced** rating overall (3.0 out of 4) as summarised in Table 5-3 below.

Table 5-3: PREMO assessment – Outcomes

Guiding Question	Score	Comment
Has the business provided evidence that the outcomes proposed have taken into account the views, concerns and priorities of customers?	3.25	We reshaped our five outcomes from our 2018 Price Submission in light of feedback received over five years of foundational engagement. Our targeted engagement on key elements of the 2023 Price Submission allowed us to check-in and confirm our proposed four outcomes. Almost 90% of 5,570 customers surveyed in July 2022 are comfortable with the outcomes we are proposing to deliver and 82% of these surveyed customers thought our proposals offered value for money when we were projecting a flat price path[1]. Figure 5-2 to Figure 5-5 provide specific examples of how insights from customers relate directly to the 14 aspirations across our four outcomes.
Has the business provided sufficient explanation of how the outcomes it has proposed align to the forecast expenditure requested?	2.75	The actions we have identified in Figure 5-2 to Figure 5-5 apportion all of our proposed capital works program across our four outcomes, and highlight key operating expenditure items (including all "step-changes" in our price model). We will continue to improve our financial management systems so that we can further enhance understanding of the drivers of our expenditure.
Has the business proposed outputs to support each of its outcomes, which are measurable, robust and deliverable?	3.0	We have defined 44 measures of success – between 1-6 for each of the 14 aspirations that sit under our four outcomes. We have defined units of measure, assessed our baseline performance and set annual targets for each of these measures of success, to ensure accurate reporting and accountability for performance over the 2023-28 regulatory period. We will deliver improvements to baseline performance for half of our 44 measures of success across almost all of our 14 aspirations.
Has the business provided evidence that the outputs it has proposed are reasonable measures of performance against stated outcomes?	2.75	We believe that our 44 measures of success are reasonable measures of performance against our stated outcomes, recognising that about 73% of these reflect outputs, with the remainder inputs in those instances where expected benefits are difficult to quantify or to apportion directly to an intervention. However, given our commitment to transparency and openness with our customers, we felt it was better to have some sort of performance measure (even if not ideal) rather than none – particularly for those areas that we know are of interest to customers. Further, we believe that the inputs we have chosen provide a reasonable approximation of performance in those instances where outputs are difficult to determine.
Has the business demonstrated a process to measure performance against each outcome and to inform customers?	3.25	Appendix 4 shows the work we have done to define units of measure, assess our baseline performance and set annual targets for each of our 44 measures of success, to ensure accurate reporting and accountability for performance over the 2023-28 regulatory period. Our process of reporting performance internally will be streamlined now that our entire corporate strategy is centred on delivery of our four customer outcomes. This streamlined reporting will enable early identification and rectification of any

		potential issues with performance, ensuring our entire business is focused on and able to successfully deliver outcomes. Our current process of reporting performance to customers will continue, reflecting feedback from our Customer Advisory Committee and incorporating a robust communication and engagement strategy.
Average Score	**3.0**	**Advanced**

5.6 Key reference materials

1. Barwon Water: Follow-up Draft 2023 Price Submission customer check in Research, EY Sweeney, August 2022 (A21905035)
2. Strategy 2030 (incorporating Draft 2023-28 Price Submission) – available online at Delivering the future | 2023 - 2028 Price Submission | Your Say at Barwon Water
3. Water for our Future: Community Preferences Report, InSync, September 2020 (A17221178)
4. Discussion Report, Customer Advisory Committee, 19 May 2021 (A18544953)
5. Customer values short survey: 2023-2028 Price Submission, Barwon Water, February 2022 (A20548979)
6. Barwon Water: Customer willingness to pay: Research report, EY Sweeney, May 2022 (A20892460) – only three actions that received less than 90% support, which were: Progressing towards zero waste by 2030 (87%), Achieving zero emissions by 2030 (82%) and Partnering with Traditional Owners and community to enhance the natural and cultural values of key Barwon Water sites (68%)
7. Capital Expenditure Alignment to Outcomes, August 2022 (A21826740)
8. Customer Advisory Committee: Discussion Report, February 2022 (A20196616)
9. Reporting metrics compilation (A21906357)
10. Annual performance scorecard for 2020–2021 (year 3) - Barwon Water
11. Barwon Water: Customer Willingness to Pay: Research Report, EY Sweeney, May 2022 (A20892460)
12. Customer Advisory Committee: Discussion Report, October 2021 (A19296784)
13. 2023 Water Price Review, Supporting Paper 1: Service Standards and GSLs, Barwon Water, September 2022 (A21817884)
14. Customer Charter - Barwon Water
15. Operations Voice of Customer Data 2021/22 (A21892721)
16. Verbatim complaints, Voice of Customer Data 2021/22 (A21892717)
17. Barwon Water: 2018 Price Submission, September 2017 – refer Section 9.2 (A12486731)

6 Forecast operating expenditure

At a glance

- We expect our annual operational expenditure to remain relatively flat over the coming regulatory period, while delivering on our proposed customer outcomes.
- Our proposed operating cost efficiency rate is a flat 1.95% per annum.
- We are sharing risk with our customers by absorbing expected increases in expenditure and not passing through these expected increases to customers.
- We are implementing an internal efficiency program to continually drive efficiencies within the business and keep prices affordable for our customer base.

The operating costs included in this submission are prudent and efficient, evidenced by relatively flat operational expenditure despite high forecast growth. Our efficiency rate of 1.95% is offset by strong growth forecasts compared to other areas of Victoria and our overall operating expenditure compares favourably to our peers, being one of the lowest in the state in terms of $/property, based on the 2020-21 National Performance Report[1].

The baseline controllable operating expenditure and forecast changes in expenditure over the 2023-28 regulatory period have been reviewed multiple times by the business to ensure the forecasts reflect our best offer for our customers.

6.1 Annual operating expenditure

We forecast total operating expenditure of $670.7 million over the upcoming regulatory period[2,3]. This includes $77.7 million of non-controllable operating expenditure for bulk water transfer and headwork costs via the Melbourne to Geelong pipeline (MGP), licence fees and the Environmental Contribution Levy.

Our actual and forecast operating expenditure is shown below in Figure 6-1. The expenditure up to and including the baseline year (2021-22) is actual spend, while the 2022-23 year is based on our budget from the 2022-23 Corporate Plan.

We are forecasting comparable expenditure relative to the baseline year.

Figure 6-1 Operating expenditure (actual and forecast) for 2018-28 – in $2022-23 dollars ($M)

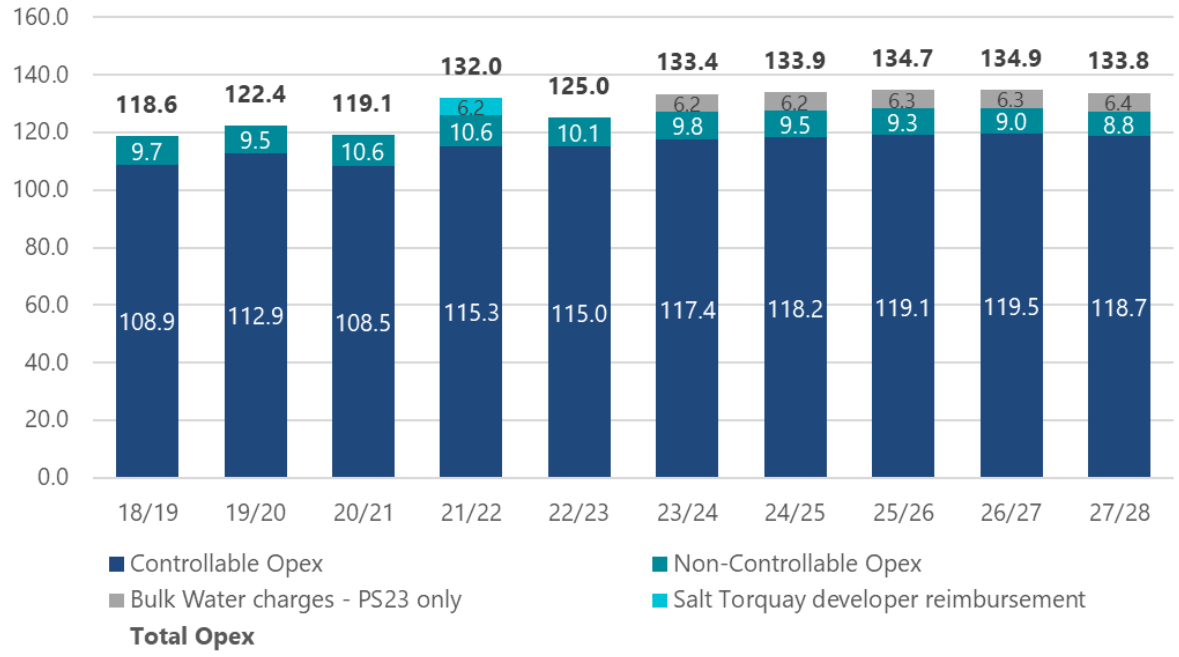
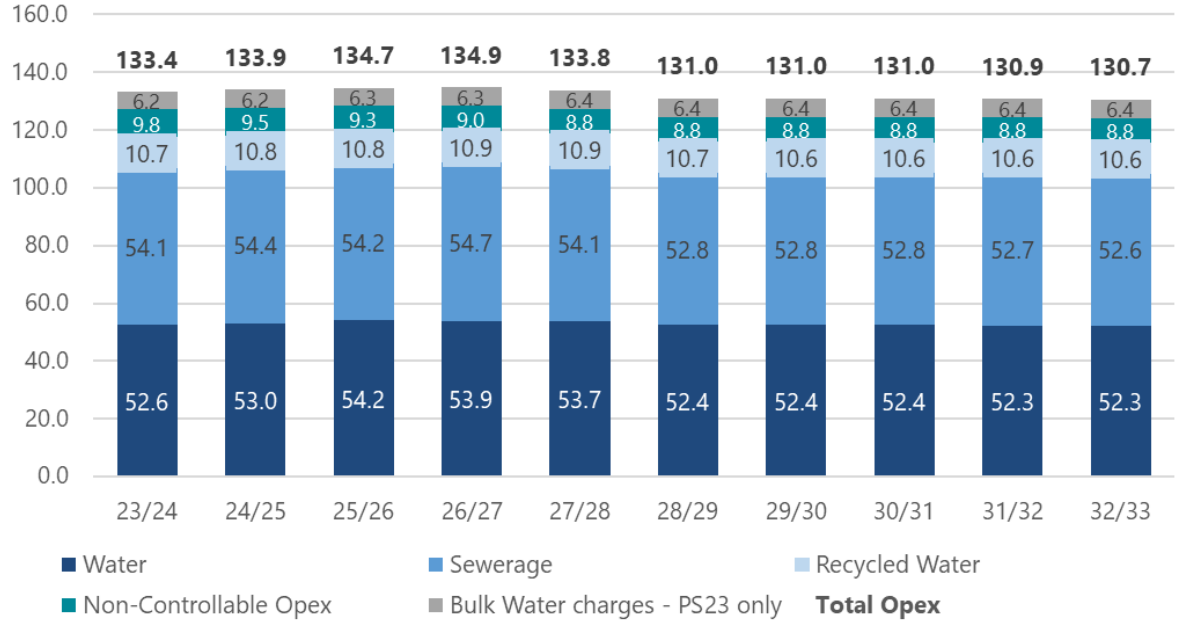


Figure 6-2 shows our forecast operating expenditure over the next two regulatory periods broken into the major service categories outlined in the Essential Services Commission guidance paper.

Figure 6-2: Ten-year forecast of operating expenditure by major service category – in $2022-23 dollars ($M)



6.2 Baseline controllable operating expenditure

Our baseline controllable operating expenditure profile for the 2023-28 regulatory period is $115.0 million. This was calculated by taking our total prescribed operating expenditure of $137.8 million for 2021-22 and adjusting by $16.3 million of non-controllable costs along with $6.4 million of one-off and non-recurring costs. Table 6-1 shows this calculation process.

Table 6-1: 2023-28 regulatory period baseline operating expenditure summary – in $2022-23 dollars ($M)

Baseline year - total prescribed operating expenditure in 2021/22 (2023 $ million):		**137.8**
Less bulk water charges excluded from 2018 PS opex		
External bulk water charges (excluding temporary purchases)		5.7
Total Opex		**132.0**
Less non-controllable expenditure items incurred in 2021/22:		
Licence Fees		0.5
Environment contribution		10.1
Total		**10.6**
Baseline year - total controllable operating expenditure in 2021/22 ($ million):		**121.4**
Adjustments for non-recurring expenditure items incurred in 2021/22 and any efficiency savings to be realised from 2021/22:		
Salt Torquay Developer reimbursement		6.2
Bore installation		0.1
Water for our future		0.1
Total		**6.4**
Baseline controllable operating expenditure 2021/22 ($ million):		**115.0**
Comparison with approved 2021/22 total controllable opex per 2018 determination model		
	2021/22	**Difference**	**%**
	99.1	15.9	16%

The largest of our non-recurring costs is a one-off payment to a developer that we partnered with to deliver our Salt Torquay project, which forms part of our Property Realisation program. Due to higher than anticipated sales proceeds from land held by Barwon Water, the terms of the contract stipulated $6.2 million be paid to the developer as a developer fee.

After removing non-recurring expenditure, the resultant controllable expenditure for 2021-22 is above the 2021-22 controllable costs approved in our 2018-23 price determination. This was driven by multiple factors, including:

- threats to water security (including the withdrawal of our application to renew our Barwon Downs groundwater extraction licence)
- emergence of coronavirus pandemic (contributing to higher than forecast customer growth – actual growth averaged 2.5% per year compared with 1.6% per year in our 2018-23 price determination)
- community and environmental health initiatives (such as a Ministerial Directive to remediate Boundary Creek and additional monitoring at Anglesea borefield)

- ageing infrastructure (extreme dry conditions followed by extreme wet conditions exacerbated existing problems with ageing infrastructure)
- capability uplift (strategic investments focused on improving our capacity and capability and to realise strategic opportunities)

These challenges and opportunities have been discussed in further detail in Figure 2-1 and Section 2 more broadly.

While these challenges have necessitated changes to our expenditure profiles compared to those expected in our 2018 Price Submission, our strategic responses have focused on ensuring customer value, consistent with the outcomes customers wanted us to deliver. Through our ongoing foundational engagement, we have also incorporated customer feedback in our responses to these challenges.

Despite this, we are proposing to reduce most prices in real terms (i.e. excluding CPI and CoD adjustments).

6.3 Increases in operating expenditure over 2023 Price Submission regulatory period

Customer growth rate

Table 6-2 shows the annual growth rate we have applied to our 2021-22 baseline controllable operating expenditure. The simple average is 2.1% per year.

Table 6-2 Annual growth rate applied to our baseline controllable operating expenditure

	FY23	FY24	FY25	FY26	FY27	FY28
Customer growth forecast per annum	2.2%	2.2%	2.1%	2.1%	2.1%	2.0%

Note: This table presents the customer growth forecast requested as part of the ESC's top-down operating expenditure calculation on the 'Opex_FO' sheet of the ESC price model template. Our top-down forecast operating expenditure is based on these annual growth rates having been applied equally to Barwon Water's water and sewerage connections for both residential and non-residential customers. See Section 9 for further detail relating to demand forecasts.

Additions to our controllable operating expenditure

The total additions to the baseline operating expenditure (not covered by the growth forecast) amount to $15.2 million over the five-year regulatory period. These initiatives, which involve substantive additional spend beyond baseline year to achieve our customer outcomes, are outlined in Table 6-3.

Table 6-3 Increases to controllable operating expenditure (and associated customer outcome) over the upcoming regulatory period – in $2022-23 dollars ($M)

Add-on	FY24	FY25	FY26	FY27	FY28	TOTAL
Outcome 1: Implementation of Barham Catchment priority actions	0.2	0.6	0.5	0.2	0.1	**1.6**

Outcome 1: Contribution to readiness investigations for future major water supply	-	-	0.7	0.7	0.5	**1.9**
Outcome 2: Smart networks	0.5	0.6	0.8	0.6	0.6	**3.1**
Outcome 2: Cyber security uplift	1.1	1.1	1.1	1.1	1.1	**5.3**
Outcome 3: Upper Barwon River Health initiatives (CCMA Living Barwon initiatives)	0.2	0.2	0.2	0.2	0.2	**0.9**
Outcome 3: Stretch RAP – including strengthening relationship with Eastern Maar	0.1	0.1	0.1	0.1	0.1	**0.7**
Outcome 3: Prepare and implement decommissioning plan for Barwon Downs borefield	-	-	-	0.8	-	**0.8**
Outcome 4: Increase to hardship program (direct customer support payments)	0.2	0.2	0.2	0.2	0.2	**0.8**
Total	**2.2**	**2.8**	**3.5**	**3.8**	**2.9**	**15.2**

Note: Totals may be different to the sum of their parts due to rounding.

Importantly, the purpose of incurring these additions to our baseline expenditure is to deliver on our customer outcomes, which are strongly supported by our customers. Further detail and the rationale for including each variation is provided below, under the relevant customer outcome. All expenditure values are provided in FY2023 dollars.

Added operating expenditure for Customer Outcome 1: Safe, secure, sustainable water

Implementation of Barham Catchment priority actions

This expenditure – totalling $1.6 million over five years – is to cover contractor costs associated with implementing catchment and environmental actions to protect and improve water quality for Apollo Bay. We expect this cost will continue in the next regulatory period at a similar rate to the expenditure forecast for FY27 (the baseline year for the next price submission). This will cover minor maintenance and waterway health works.

Contribution to readiness investigations for future major water supply

This expenditure – totalling $1.9 million over the last three years of the regulatory period – is to prepare ourselves to access a share of Melbourne's next major water supply augmentation, along with other augmentation options for our smaller systems in Lorne and Apollo Bay. Acknowledging future inflows and demand are uncertain, it is prudent to contribute to readiness investigations for major options that may be located within or require infrastructure to transfer water to our region. We plan to do this in the second half of the upcoming regulatory period. Incurring this cost will help ensure our planning for future supply augmentations is efficient.

Added operating expenditure for Customer Outcome 2: Innovative, reliable services

Smart networks

Following engagement with our community, we have committed to begin rolling out digital metering over the upcoming regulatory period. This necessitates some new operating

expenses such as development of a digital platform, and paying annual gateway fees and data management costs. We expect these will total $3.1 million over five years. If we decide to expand our smart network beyond FY28 (on the basis that it provides better value for our customers), associated operating expenditure would continue in the following regulatory period.

Cyber security uplift

Responding to cyber security risk is a major part of our Digital Strategy. Over the 2023 Price Submission period, we will implement initiatives to improve cyber security controls which we expect will amount to $5.3 million over the regulatory period. These initiatives include improving cyber awareness and our ability to respond to a cyber-security event with minimal business interruption (thereby avoiding a potentially significant economic cost to our customers).

Added operating expenditure for Customer Outcome 3: Healthier environment

Upper Barwon River Health Initiatives

We have agreed to implement river health initiatives under a shared arrangement with Corangamite Catchment Management Authority (CCMA). We have allocated $0.9 million of additional expenditure over five years to improve the health of the Upper Barwon River (which feeds our second largest reservoir). We expect these initiatives and associated expenditure to continue beyond FY28 in line with community expectations.

Stretch Reconciliation Action Plan (RAP)

Along with additional commitments that form part of our Stretch RAP and as part of a joint project between Eastern Maar, Barwon Water, Wannon Water, and Grampians Wimmera Mallee Water, we expect to incur an additional $0.7 million operating expenditure over five years. Acknowledging the strong community support for our stretch Reconciliation Action Plan (RAP), and reconciliation in general, we anticipate expenditure associated with our RAP to continue beyond FY28.

Decommissioning of Barwon Downs borefield

We have allocated $0.8 million of expenditure in FY27 to decommission the Barwon Downs borefield, which we have ceased using. The decommissioning activities (such as removing disused infrastructure) are necessary to return the site to a safe condition. The expenditure is a one-off occurrence; it will therefore be removed from our baseline expenditure for the next price submission.

Added operating expenditure for Customer Outcome 4: Trust, value and affordability

Increase to our hardship program

We have strong community support to provide hardship assistance to the customers that need it most. This includes early intervention initiatives and working with customers directly to assist with any hardship the customer may be facing. We expect to increase direct

financial support for vulnerable customers and those affected by family violence by at least $0.8 million to a total of $3 million over the regulatory period. However, we will absorb any further expenditure within our existing baseline controllable operating expenditure. We will review our expenditure on hardship assistance beyond FY28 as part of preparing our next price submission.

6.4 Savings in operating expenditure

We will continue to deliver operational savings to our customers throughout the 2023-28 regulatory period. These operational savings are primarily driven by:

- an efficiency rate of 1.95% per annum for the regulatory period
- absorbing real cost increases above our customer growth rate within the current base level of controllable operating expenditure
- taking a measured position on key risks that will require us to mitigate against potentially negative expenditure outcomes

For the 2023-28 regulatory period, we have incorporated an efficiency factor of 1.95% into our operating expenditure forecasts for the 2023-28 regulatory period. This efficiency factor has been derived through extensive analysis of the base-level of operating expenditure and the continuation of our Customer Affordability Pipeline (an internal efficiency program), designed to realise efficiencies throughout the upcoming regulatory period. This internal efficiency program will continue to drive efficiencies throughout the business and ensure an efficient and affordable service for our customers. Some examples of the types of initiatives that are expected to drive efficiencies across the regulatory period include:

- reduction in chemical usage (on a per volume basis) through optimisation of chemical use at treatment facilities
- implementing an energy efficiency program to reduce energy usage at key sites
- optimisation of sludge dewatering and transport to reduce sludge handling costs at water reclamation plants
- optimising the allocation of work within the field through the use of technology and data, thereby shifting from reactive to preventative measures
- fleet efficiencies through improvements in procurement and use.

These forecast efficiencies will help mitigate the cost impacts of an elevated rate of growth on our network. Investment in the efficiency programs (such as digital programs) will also help to enable continued efficiencies for the business and our customer base into the future.

In addition to the inclusion of 1.95% efficiency factor, we have also absorbed forecast cost increases over the regulatory period within our existing base level of operating expenditure. These include:

- expected price increases for chemicals in excess of our growth rate (despite efficiencies in chemical usage, we expect our chemical costs for drinking water treatment to increase by 50% over the regulatory period)

- additional costs not directly linked to customer outcomes, such as:
    - $2.7 million to review adjustments to executive remuneration under the Public Entity Executive Remuneration Policy (in accordance with the mandated remuneration framework by the Victorian Public Sector Commission effective from December 2019)
    - $1.2 million to improve our revenue collection function by implementing a new collection operating model

There is also considerable uncertainty (discussed in Section 3) within the broader industry that is likely to impact on the forecast expenditure for the regulatory period. This creates risk for us and the customer base that will need to be managed throughout the regulatory period. To ensure that we deliver value for our customers, our adopted risk posture results in conservative expenditure outcomes for our customer base (i.e. that we are taking on more of the risk).

Throughout the 2023-28 regulatory period we will continue to actively review our operational expenditure and seek out efficiencies and potential savings, while ensuring customer outcomes are met.

6.5 Key reference materials

1. National performance report 2020–21: urban water utilities, part A
2. ESC financial template model (A22066311)
3. 2023 Water Price Review, Supporting Paper 3: Operating Expenditure, Barwon Water, September 2022 (A16774177)
4. ESC financial template model (A22066311)

7 Forecast capital expenditure

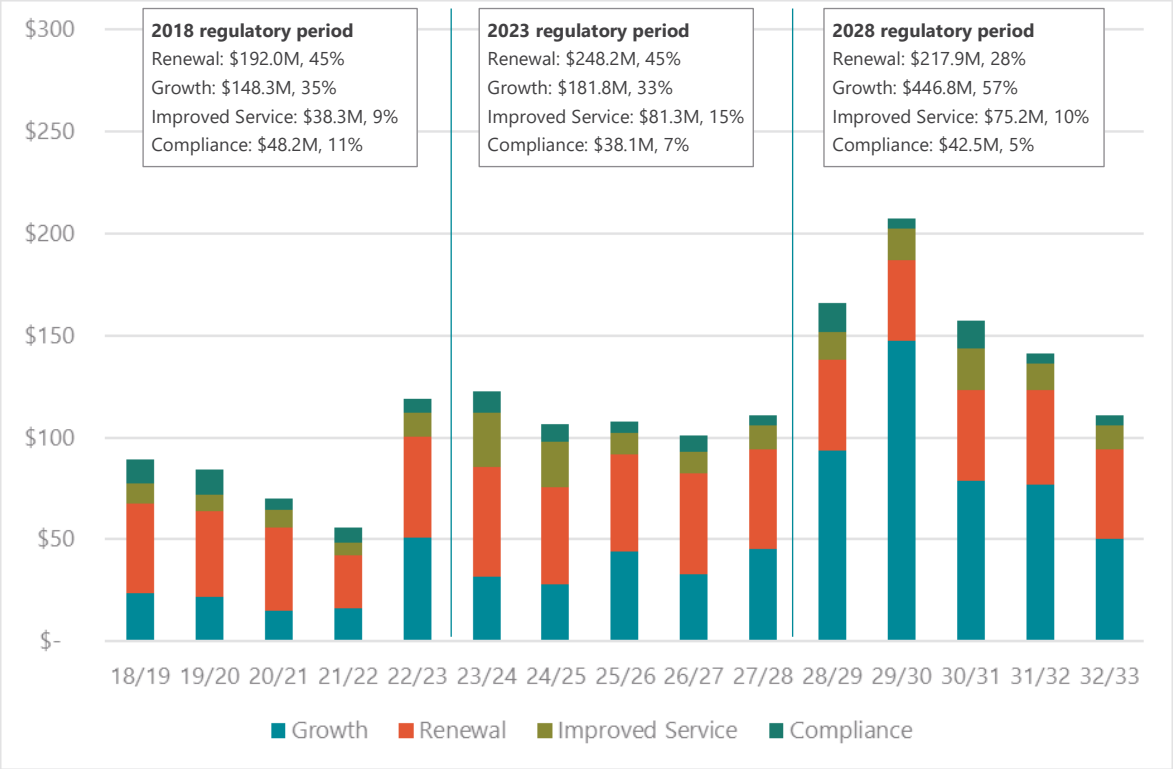
At a glance

- We propose a $549.4 million capital works program in the next period.
- This is a 29% increase on the current regulatory period, the main driver for increased investment is renewals (45%), alongside growth (33%).
- The ten largest projects by capital cost comprise 19% of proposed investment, while 43% is assigned to ongoing capital programs.
- Risk-based prioritisation has contributed to deferring approximately $50 million of planned investment.
- We also plan to invest a further $111.7 million in projects that customers will not pay for until after the next regulatory period (beyond 2027-28), consistent with our intent to maintain affordable prices by accepting risk and ensuring customers only pay for the services they receive.
- A capital delivery model that builds on the foundations strengthened in the current regulatory period will ensure we successfully deliver the increased capital program.

7.1 Summary of capital expenditure program

To deliver our customer outcomes in the next regulatory period – and meet the needs of growth, renewal, compliance and service improvements – we plan to invest $549.4 million over the five years[1]. As illustrated in Figure 7-1, this forecast is an increase of $122.6 million on the current period, but $233.1 million less than anticipated expenditure in the subsequent regulatory period (2028-29 to 2032-33).

Figure 7-1: Actual and forecast* annual gross capital expenditure by cost drivers – in $2022-23 dollars ($M)

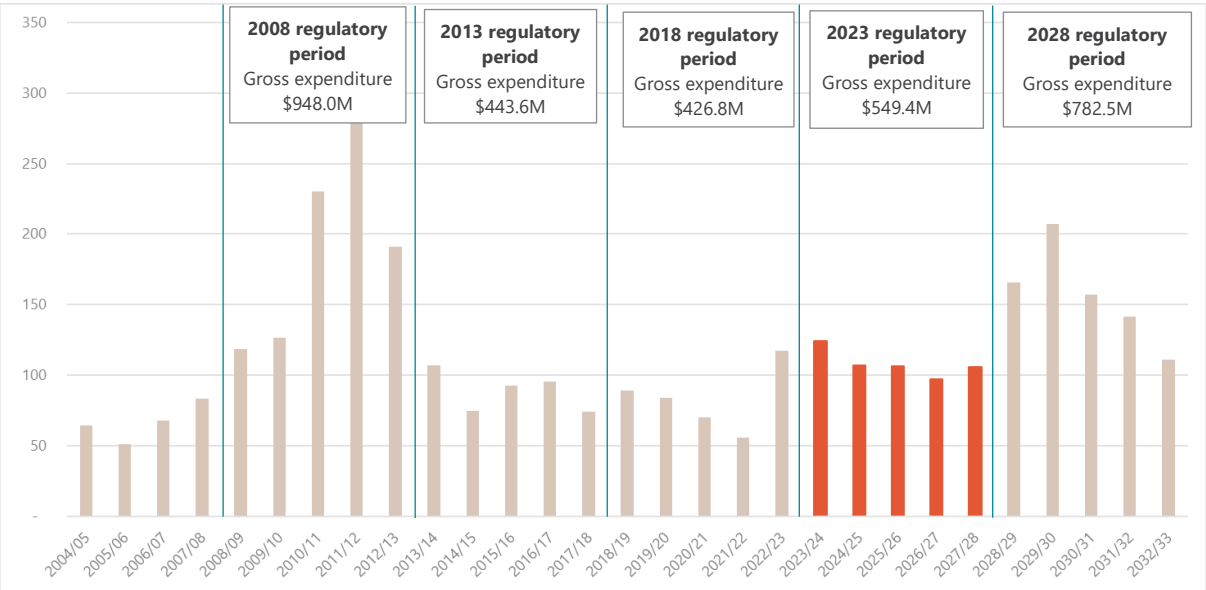


* Note - for the purposes of calculating the RAB and the revenue requirement in the ESC pricing template, we are using our 2018 Price Determination of $68.5 million as per ESC Guidance in 2022-23. However, this Section 7 is reflecting our updated 2022-23 capital expenditure forecast of $117.1 million, which more accurately reflects our forecast performance in the current 2018 regulatory period.

This trend reflects key drivers and challenges that planned investment must address, such as asset renewal (45% of expenditure in the next period) required to maintain the performance of ageing infrastructure, and new infrastructure to service high rates of growth (57% in the subsequent period). The comparison of expenditure across periods provides confidence that the level of expenditure proposed is reasonable.

Our forecast expenditure for the next period is also not without precedent. Figure 7-2 illustrates that we have successfully delivered a larger program of expenditure in the past. High levels of investment in the 2008 regulatory period were driven in part by the need to service new growth areas in Geelong at the time. We now face similar circumstances as the North-West Geelong Growth Area becomes the region's next major development corridor.

Figure 7-2: Historical and forecast gross prescribed capital expenditure – in $2022-23 dollars ($M)



Our capital expenditure forecast excludes $111.7 million of planned expenditure for several projects in our 'Customer pays later' (CPL) program. These are projects that we will pursue in the next period (to 2027-28), but not include in customer prices until the following period (to 2032-33). We are excluding these projects because we do not want customers to pay for projects that are either still to be finalised or are expected to generate their own revenue for new services. However, we are committed to progressing these projects in the next period because they are informed by customer engagement that demonstrates a willingness to pay for the outcomes they will deliver.

The composition of forecast capital expenditure by major service category and cost driver reflects the major drivers of planned investment in the next period as:

- renewals (45%) and growth (33%)
- water (44%) and sewerage (37%) services.

Trends in investment across each cost driver and service, including the projects and programs where expenditure is proposed, are further detailed in Supporting Paper 2[1]. This also sets out how proposed investment aligns with customer outcomes.

Figure 7-3 provides an overview of the composition of the Capital Works Investment Plan, with each type of expenditure further detailed below.

Figure 7-3: Composition of total capital expenditure forecast for the next regulatory period – in $2022-23 dollars ($M)

7.2 Major capital projects

An overview of each of the largest projects[2] (by total cost) in the next period is provided in Table 7-1. The business cases for each of our major projects has been subject to an independent review[3].

Table 7-1: Summary of top 10 major projects (by total cost) – in $2022-23 dollars

Project and alignment	Cost	Timing	Description
Melbourne to Geelong pipeline (MGP) booster pump station	$18.5 M	2023-2027	The first of a three-stage approach to increasing yield by optimising the capacity and reach of the MGP, this project will ensure the ability to provide enough water to meet the needs of customers across parts of Geelong, the Bellarine Peninsula, and the Surf Coast.
Pettavel Basin augmentation	$17.5 M	2023-2028	As the third of three stages to extend the capacity and reach of the MGP, this project will ensure that peak demands across areas within our largest water supply system can continue to be met.
Colac Water Reclamation Plant upgrade	$14.6 M	2023-2024	This upgrade to the Colac Water Reclamation Plant will address existing operational risks and service customer growth, while ensuring compliance with EPA licence obligations. It supports the growth of Bulla as a major customer and regional employer.
Recycled water on the Bellarine (Stage 3)	$13.6 M	2023-2025	The outcome of ongoing engagement with customers over more than two years, this project increases the productive use of recycled water by delivering secure, climate-independent and high-quality recycled water for high value agricultural production on the Bellarine Peninsula.
Colac Birregurra pipeline	$10.1 M	2023-2025	A new pipeline from Colac Water Treatment Plant will improve the resilience of Birregurra's water supply, avoid more costly upgrades to existing assets at Birregurra that have exceeded their life, and ensure customer service levels are reliably and efficiently met.
Bannockburn South pump station and rising main	$8.4 M	2023-2028	This project delivers a new sewerage pump station, emergency storage and rising main to service the significant development proposed in the Bannockburn Growth Plan as part of the region's sustained and high rates of growth. The town's growth will require upgrades to the sewer and water systems to cater for new customers and demand.
Clifton Springs tank upgrade	$7.2 M	2024-2027	The condition of the roof of Barwon Water's largest tank has been independently assessed as failing to meet design standards. Upgrade works will ensure the asset continues to support service reliability while meeting safety and structural standards.
Queenscliff Transfer Main replacement	$6.6 M	2023-2027	Water supply to Queenscliff is dependent on the integrity of the Queenscliff Transfer Main (QTM). Apart from the risk of pipeline failure on continuity of supply for Queenscliff, there is evidence that the pipeline cannot meet current peak demands. Replacement of the main will support safe and secure water supply to meet Queenscliff's growth.
Portarlington 6ML Tank improvements Stage 2	$5.1M	2023-2027	This project consists of bringing the current 6ML steel tank at Portarlington back online to provide additional storage to the Bellarine system. Restoration works are required to allow the restored tank to operate as part of the system and storage for the upgraded Portarlington HL pumping system.
Indented Head St Leonards Feeder Main Stage 3	$4.9M	2024-2028	Hydraulic modelling conducted by Barwon Water indicates the existing water main is currently close to capacity. Construction of the new Indented Head St Leonards Feeder Main will provide an important second feed to the township.

7.3 Capital programs and other capital expenditure

A significant proportion of planned investment is assigned to existing capital programs, most of which will continue to deliver essential renewal, replacement, and rehabilitation of existing assets, along with provision of new infrastructure to service growth. Expenditure for renewal-related programs is informed by Asset Renewal Plans[4] for all major asset classes. Our Asset Renewal Plans are underpinned by risk-based prioritisation, focusing investment in assets identified as higher risk to ensure service levels and regulatory compliance are achieved efficiently, while maintaining a consistent and acceptable level of risk over time.

A summary of our major capital programs is provided in Table 7-2. Each of our major capital programs has been subject to an independent review.

Beyond our major projects and programs, we will deliver $209.9 million of other capital expenditure, including:

- $110.9 million across other programs largely continuing from the current period, such as treatment plant and network minor renewals, growth assets, house connections, information technology programs and dam safety upgrades
- $99 million across smaller projects (outside the top 10)

Table 7-2: Major capital programs – in $2022-23 dollars

Program	Driver	Objectives	Average annual expenditure		Rationale for expenditure trend
			PS18	PS23	
Mains replacement and rehabilitation	R	Prevent sewage spills and property inundations, and manage pipe blockages within target	$4.0 M	$10.7 M	Increased expenditure is focused on improved performance against targets for blockages and spills, which are currently above the industry average. This aligns with customer expectations to reduce the frequency, severity and duration of service interruptions from sewer incidents, reflected in our aspiration for zero spills.
Water mains replacement	R	Manage unplanned water supply interruptions within target	$3.4 M	$4.7 M	Higher expenditure is driven by escalation in replacement costs with the objective of maintaining the same risk profile over time.
NWGGA assets (sewer)	G	Provide water, sewer and recycled water services to the first areas within the Northern and Western Geelong Growth Area (NWGGA) that are expected to be ready for development from 2024-25	Nil	$2.9 M	The NWGGA is the largest Greenfield planning project in regional Victoria with the capacity to accommodate more than 110,000 new Geelong residents. The Framework Plan for the areas was completed and approved in 2020.
NWGGA assets (water)	G		Nil	$2.8 M	
NWGGA assets (recycled water)	G		Nil	$2.7 M	
Sewer rising mains (portfolio)	R	Deliver reactive and risk-based planned maintenance of sewer rising mains	Nil	$2.7 M	Establishing this portfolio provides the ability to better track performance of this specific asset type, in support of related outcomes for reliable, secure services.
Sewer reticulation improvements	R	Avoid service interruptions, spills and odour complaints by replacing and renewing non-pipe sewer assets	$2.4 M	$2.4 M	Improvements in the quality of data collection have aided more targeted identification of higher risk assets, enabling a focus on asset renewal and rehabilitation that can improve the asset risk profile with the same level of funding.
Water channel renewals	R	Ensure serviceability of, and avoid leakage losses along water channels	$2.6 M	$2.2 M	The condition and performance of these assets will be maintained with a consistent level of funding.
Water main replace feeder main	R	Avoid water service interruptions through reactive and planned maintenance of water mains and ancillary assets	$0.8 M	$2.2 M	An uplift in asset condition assessment and in-depth performance analysis and risk review has identified more assets in need of replacement.
Main sewers lining	R	Avoid service interruptions and sewer spills by prolonging asset life to prevent failure	$3.5 M	$2.1 M	Budget brought forward to manage asset risks and obtain unit rate savings in the delivery of the works package.
Digital strategy	IS	Investment in customer experience, billing and metering, business tools, data capabilities and cyber security to deliver on Strategy 2030 outcomes.	$0.6 M	$3.7 M	An increase in expenditure is required to meet evolving customer needs, operational goals and increasing cyber security threats, and mitigate an escalation in risk in the absence of any action.

Program	Driver	Objectives	Average annual expenditure		Rationale for expenditure trend
			PS18	PS23	
Smart networks program - water	IS	Further trialing new technology in selected areas to further demonstrate the benefits to optimising operation, maintenance and renewal of water systems.	Nil	$1.7 M	Consistent with customer sentiment about embracing technology to support improved service levels, this program targets priority areas of the network to further demonstrate the benefits (and stage implementation) of new technology.
Sewer pump replacements	R	Avoid service interruptions by maintaining and renewing 123 sewer pumps as they exceed their useful life	$0.9 M	$1.6 M	A large proportion of sewer pumps have exceeded, or will soon exceed, their useful life. An increase in maintenance and renewal will be required to maintain service levels.
Colac pipeline	R	Continues the risk-based prioritised and staged replacement of sections of the Colac raw water supply pipeline.	$0.7 M	$1.5 M	The increased expenditure arises from the need to complete sections delayed during the current period when unforeseen changes in listed protected species triggered referral under the EPBC Act post-construction contract award.
Vehicles	R	Minimise total ownership cost and ensure driver safety by procuring new vehicles at optimum changeover threshold	$1.0 M	$1.5 M	Recent expenditure has been constrained by supply chain delays. The budget in the next period allows for continued fleet optimization commenced in the current period.
Smart networks program - sewer	IS	Building on the outcomes of a pilot trial in Lorne, continuing to trial new technology in selected areas to improve sewer system performance.	Nil	$1.2 M	Consistent with customer sentiment about embracing technology to support improved service levels, this program adopts a staged and prioritised implementation of new technology as part of further demonstrating benefits for optimising operation, maintenance and renewal of the sewer network.

Legend:

R - Renewals

G – Growth

IS – Improved Service

7.4 Methodology for developing the capital expenditure program

Barwon Water's 10-year Capital Works Investment Plan (CWIP) is reviewed annually by management and approved by the Board as part of our Corporate Plan process. Alongside our Portfolio Governance Framework – and supported by key strategies and plans – this underpins the development and adaptive management of our capital expenditure program.

The elements that contribute to robust forecasting, and prudent and efficient delivery of our capital expenditure include:

Portfolio Governance Framework

Largely aligned with the Victorian Government's *Investment Lifecycle and High Value and High Risk Guidelines* and *Investment Management Standard*, our Portfolio Governance Framework[5] describes the robust governance, principles, processes and practices we apply to investment decision-making to deliver better outcomes and value for money. This includes a Stage Gate (or gateway) process for business case development and approval.

Business cases

Investment approval processes include stage gates for *Business Needs Assessments* and Business Case approval. Business case development is aligned with the 16 key questions at the core of the Victorian Government's *Investment Management Standard*.

Business cases for our largest projects and programs have been independently reviewed as part of continuous improvement processes. The review helped provide insights to support the sustained rigour, consistency and high quality of our business cases.

Strategies and plans

Investment in new or upgraded infrastructure to service growth is driven by planning to meet developer activity in infill and greenfield areas. We prepare Infrastructure Sequencing Plans for growth areas, alongside plans for existing networks and treatment plants. The actions identified in our 2022 Urban Water Strategy – Water for our Future to ensure the future water needs of the region are met are also included in our capital program.

Our Asset Management System[6] is aligned with the requirements of ISO55000 and guides our asset management activities. Asset renewal and management is underpinned by a risk-based approach that is driven by the age, condition and performance of our assets. This is reflected in asset renewal plans across all asset types.

P50 cost estimates

Projects with capital costs greater than $3 million have all had cost estimates developed using a risk-based method, which describes forecast costs probabilistically. The resulting P50 cost estimates are the basis for our capital expenditure forecasts.

Despite increasing cost pressures in the construction industry, we have not escalated our estimates or contingencies to account for this uncertainty. We will accept this risk during the period to enable a transparent assessment of the implications as part of our next price submission.

Review of capital program

Staff from across our organisation contributed to a review of the capital program, including the feasibility of timeframes for approval, design and implementation. This also considered opportunities to smooth the program over the five-year period to ensure delivery requirements are within the resource constraints of the Barwon Water group.

Risk-based prioritisation

The capital program only includes projects that are deemed highly likely to proceed and are sufficiently well-scoped to support a robust cost estimate. A rigorous prioritisation process has identified projects that have been reduced in scope or deferred altogether, where we will accept the risk that service levels can be maintained by optimising existing operation without capital investment in the next period. The resulting reduction in capital expenditure is approximately $50 million.

Projects we expect to deliver but are excluding from customer prices

In addition to deferring some projects, we have also identified several strategic and innovative projects that we expect to pursue but will not seek to recover the costs of during the next period.

While some projects are excluded because they have elements or timing that remains uncertain, there are also others that have progressed to Board approval and we fully expect to deliver. Excluding these projects from cost recovery at this time means that we will bear the cost to fund them, without seeking to have customers pay until they are receiving the benefits of their implementation.

7.5 Capacity to deliver

Our Board has received regular updates on the actions being taken to ensure the business is best placed to deliver the increased capital program proposed in the next period. These actions span revised governance arrangements, realignment of the project delivery department, establishment of a project enablement function, levers for mitigating supply risks with engineering and project management resources, and market sounding activities for contractor preparedness[7].

The establishment of an Enterprise Portfolio Management Office during the current period – along with the implementation of a Portfolio Governance Framework – has strengthened the governance, strategic co-ordination and improved benefit realisation of our capital delivery.

We have built on this foundation to further develop a capital delivery model that can successfully deliver a growing capital program in the next period and beyond.

The model specifically aligns work to one of six delivery programs, based on assigning the type of project or program to the area of the Barwon Water Group that has the right skills and capability to deliver most efficiently. For example, Barwon Asset Solutions (BAS) has been proven[7] to provide efficient outcomes for smaller projects compared to Barwon Water's project delivery department, which is better placed to focus on larger, more complex projects.

To strengthen this capability, Barwon Water's project delivery department has been recently restructured to position itself to deliver the increased capital expenditure in the next period. This department now includes a program and enablement team that has a focus on program wide gains, as well as a continual improvement mechanism to create efficiencies within individual projects.

We have also recently appointed technical services partners to selected delivery programs, which establishes teams that have the capacity, capability and continuity to efficiently plan, design and prepare projects for delivery. Construction works will be competitively tendered on a project-by-project basis to ensure costs are minimised, under procurement and contractual arrangements approved under the Ministerial Directions and Instructions for Public Construction in Victoria.

7.6 Demonstration of prudent and efficient expenditure

The basis for our capital program demonstrates our planned investment is prudent and efficient, supported by elements such as:

- the use of P50 cost estimates
- accepting the risk that efficient costs in the next period may be higher than forecast because of exogenous factors (such as supply chain costs and labour constraints)
- adopting contract models approved by the Victorian Government and developed specifically for the water industry
- risk-based prioritisation of projects that has led to the reduction in scope or deferral of some major projects (reducing the program by $50 million), where we will accept the risk that service levels can be maintained without capital investment
- excluding $111.7 million of planned capital expenditure from cost recovery in the period, so that customers only pay for these projects once they are receiving the benefits
- building on improvements in the current period to establish a capital delivery model that leverages the skills and advantages of different areas of the Barwon Water group
- renewal expenditure that reflects an ongoing focus on efficiency through increasing sophistication in risk-based prioritisation, coupled with procurement and contractual arrangements that ensure that delivery costs are as low as possible.

7.7 Key reference materials

1. 2023 Water Price Review, Supporting Paper 2: Capital Expenditure, Barwon Water, September 2022 (A20269406)
2. Business cases for top ten projects (fA1066542)
3. Capital Project and Programs Review for PS23, KPMG, September 2022 (A22024591)
4. Asset Renewal and Management Plans for major programs (fA1066544)
5. Portfolio Governance Framework (A18414083)
6. Comprising the Corporate Asset Management Policy, Asset Management Strategy and Asset Management Improvement Plan (as described in 2023 Water Price Review, Supporting Paper 2: Capital Expenditure, Barwon Water, September 2022 (A20269406))
7. Board Report on project delivery arrangements, August 2022 (A21530218)
8. Master Services Agreement, Barwon Asset Solutions – Performance Review Report, Pitcher Partners, May 2022 (A20959946)

8 Building block revenue requirement

At a glance

- Our forecast revenue requirement for the next regulatory period is $1,141.3 million.
- The proposed revenue requirement is based on meeting legislative, regulatory and policy obligations and delivering the outcomes established with our customers.
- We propose an opening and closing Regulatory Asset Base (RAB) for our 2023 Price Submission of $1,550.4 million and $1,758.6 million respectively, with a return on equity of 4.5% based on an Advanced PREMO rating[1].

8.1 Regulatory depreciation

We have adopted a straight-line approach to depreciation, reflecting the ESC's preferred methodology with a summary in Table 8-1 below.

Our proposed regulatory depreciation allowance for existing assets has been calculated in accordance with the ESC's Guidance Paper. It reflects our 'rolled forward' RAB and apportionment based on our 30 June 2021 statutory revaluation asset classes, remaining asset lives and book values.

The remaining asset lives for some asset classes have been increased to reflect the latest revaluation, demonstrating our ongoing efforts to maximise the lives of our assets. The result is a reduction in our total regulatory depreciation at the end of 2022-23 compared with our existing assets in 2023-24. A detailed breakdown of our depreciation calculation is provided in the financial template[1].

Our new asset lives have been calculated in accordance with the ESC's Guidance Paper and the financial template. In addition to the top 10 major projects, we have also provided detailed calculations for each one of our 400+ capital projects, which determines the new asset depreciation[2]. Consistent with our 2018 Price Submission and continued efforts to maximise asset lives, most of our projects assume a regulatory asset life of 70 years.

Table 8-1: Regulatory depreciation on new and existing assets – in $2022-23 dollars ($M)

Regulatory depreciation	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Existing Assets	$42.1	$41.1	$45.0	$45.0	$45.0	$45.0	$43.8
New Assets	$7.5	$8.0	$1.3	$4.5	$8.3	$11.9	$15.1
Total	**$49.6**	**$49.1**	**$46.3**	**$49.6**	**$53.4**	**$56.9**	**$58.9**

8.2 Capital contribution forecasts

Forecast customer contribution revenue is based on connection growth of approximately 2.1% per annum (which is outlined in Section 0) as well as our proposed new customer

[1] All figures in this section are in $2022-23 dollars

contribution charges (described in Section 10.7). Government contributions are based on forecast revenue associated with recycled water initiatives. Table 8-2 shows these forecasts.

Table 8-2: Forecast government and customer contributions – in $2022-23 dollars ($M)

Capital contributions	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Customer contributions	$10.4	$10.9	$13.3	$13.4	$13.6	$13.6	$13.5
Government contributions	$3.5	$0.5	$3.4	$2.9	$0.0	$0.0	$0.0
Total	**$13.9**	**$11.4**	**$16.7**	**$16.3**	**$13.6**	**$13.6**	**$13.5**

8.3 Forecast regulatory asset base (RAB)

Table 8-3 sets out Barwon Water's forecast regulatory asset base (RAB) and depreciation for the 2023 regulatory period. It has been prepared in accordance with the ESC's Guidance Paper, with the supporting information provided in the completed ESC financial templates that form part of our submission[1].

The values for inputs used to calculate the RAB – such as gross capital expenditure, government and customer contributions, and proceeds from disposals are actual values for the 2018 regulatory period to 2021-22 and forecast for 2022-23 to 2027-28. The only exception is gross capital expenditure for 2022-23 in our pricing template is as per our 2018 Pricing Determination forecast of $68.5 million (which is lower than our current forecast).

It should be noted that our proposed opening RAB in 2022-23, as shown in Table 8-3, is lower than our RAB forecast in the 2018 Price Determination for the same year. This is because (a) our capital expenditure program tracked close to our 2018 Price Determination benchmarks to date; (b) customer contributions were higher than forecast due to strong growth in our region; and (c) due to significant proceeds received from property realisation sales, which is reflected in our 2023 Price Submission price path.

Table 8-3: Forecast regulatory asset base (RAB) – in $2022-23 dollars ($M)

Regulatory Asset Base	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Opening asset base	$1,571.8	$1,545.4	$1,550.4	$1,609.4	$1,649.2	$1,690.1	**$1,720.3**
plus Gross capex	$55.1	$68.5	$122.9	$106.6	$108.0	$101.1	**$110.8**
less Government contributions	$3.5	$0.5	$3.4	$2.9	$0.0	$0.0	**$0.0**
less Customer contributions	$10.4	$10.9	$13.3	$13.4	$13.6	$13.6	**$13.5**
less Proceeds from disposals	$18.0	$2.9	$0.9	$1.0	$0.2	$0.2	**$0.2**
less Regulatory depreciation	$49.6	$49.1	$46.3	$49.6	$53.4	$56.9	**$58.9**
Closing asset base	**$1,545.4**	**$1,550.4**	**$1,609.4**	**$1,649.2**	**$1,690.1**	**$1,720.3**	**$1,758.6**

8.4 Cost of debt

Our cost of debt allowance for the next regulatory period is set out in Table 8-4 below. The calculation[3] results in a 10-year trailing cost of debt of 1.51% (real) in 2023-24.

Table 8-4: Cost of debt allowance in next regulatory period

	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
$Nominal							
Cost of debt*	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%
Re-financing weightings - average 10 years	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Cost of debt – 10-year trailing average	4.97%	4.71%	4.56%	4.23%	4.07%	3.92%	3.80%
Forecast Inflation	-	-	**3.00%**	**3.00%**	**3.00%**	**3.00%**	**3.00%**
$Real							
Cost of Debt			1.51%	1.19%	1.04%	0.89%	0.78%
Return on Equity			4.50%	4.50%	4.50%	4.50%	4.50%
Gearing			60.00%	60.00%	60.00%	60.00%	60.00%
RRR (real)			**2.71%**	**2.52%**	**2.42%**	**2.33%**	**2.27%**

* Estimates

8.5 Return on equity

We have applied a real rate of return on equity of 4.50%, which reflects our self-assessed PREMO rating of 'Advanced'. As per the workings shown in Table 8-4 above this results in a Real Rate of Return (RRR) of 2.71% to 2.27% over the 2023 regulatory period.

8.6 Tax allowance

Table 8-5 shows our proposed tax allowance for the next regulatory period is $4.7 million, commencing in 2027-28. This is the estimate determined in the financial model (based on all relevant inputs) and assumes that the corporate tax rate remains at 30% for the duration of the next regulatory period.

We expect to transition into a full tax-paying position in the 2028-2033 regulatory period (after deducting accumulated losses over past regulatory periods).

Our most recent corporate forecasts for annual tax payments in the next regulatory period, from our 2022-23 Corporate Plan, are available in the Operating Expenditure Supporting Paper.

8.7 Revenue requirements in the next regulatory period

To deliver the outcomes identified, Table 8-5 sets out the forecast revenue requirement for the next regulatory period of $1,141.3 million.

Each component is based on the assumptions as outlined in other sections of our submission and in accordance with ESC Guidance Paper requirements. This includes a proposed total non-prescribed revenue offset of $2.6 million. This offset includes the net benefits of Barwon Asset Solutions to Barwon Water, the Performance Incentive Mechanism customer reimbursement and miscellaneous non-prescribed services. Barwon Asset Solutions is a wholly owned subsidiary of Barwon Water, which also provides services to, and generates revenue from, other customers.

Table 8-5: Forecast revenue requirement for the next regulatory period – in $2022-23 dollars ($M)

Revenue requirement - Building Blocks	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Operating expenditure	$133.4	$133.9	$134.7	$134.9	$133.8	**$670.7**
Return on assets	$42.8	$41.1	$40.4	$39.7	$39.5	**$203.5**
Regulatory depreciation of assets	$46.3	$49.6	$53.4	$56.9	$58.9	**$265.1**
Adjustments from last period	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Non-prescribed revenue offset of revenue requirement	-$0.9	-$0.3	-$0.3	-$0.5	-$0.6	**-$2.6**
Tax liability	$0.0	$0.0	$0.0	$0.0	$4.7	**$4.7**
Total revenue requirement	**$221.6**	**$224.2**	**$228.1**	**$231.0**	**$236.3**	**$1,141.3**

8.8 Revenue requirements over 10 years

Following on from the above section, Table 8-6 shows our forecast revenue requirement over the 2028 regulatory period for a 10 year view.

Noting the uncertainty of forecasting this far into the future we have used assumptions for key variables that are largely consistent to those of our 2023 regulatory period including:

- Use of forecast.id growth projection as the operating expenditure growth escalation factor and a 1.95% operating expenditure efficiency rate,
- A return on assets based on the current 'Advanced' rating,
- Existing and new capex depreciation consistent with the above,
- Continuing exhaustion of our brought forward tax losses putting us into a full tax paying position in the 2028 pricing period.

Table 8-6: Forecast revenue requirement for the 2028 regulatory period – in $2022-23 dollars ($M)

Revenue requirement - Building Blocks	2028-29	2029-30	2030-31	2031-32	2032-33	Total
Operating expenditure	$131.0	$131.0	$130.9	$130.8	$130.6	**$654.4**
Return on assets	$40.1	$41.6	$44.4	$46.7	$47.7	**$220.4**
Regulatory depreciation of assets	$59.9	$63.0	$66.9	$68.9	$70.4	**$329.0**
Adjustments from last period	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Non-prescribed revenue offset of revenue requirement	-$0.6	-$0.6	-$0.6	-$0.6	-$0.6	**-$3.1**
Tax liability	$8.3	$8.4	$8.7	$8.8	$9.1	**$43.3**
Total revenue requirement	**$238.6**	**$243.3**	**$250.3**	**$254.6**	**$257.1**	**$1,244.0**

8.9 Key reference materials

1. Financial model (RollForward_FO) (A22066311)
2. Financial model (Capex_FO input) (A22066311)
3. Financial model (KeyAssumptionsPriceControl_FO) (A22066311)
4. Financial model (Rev&RAV_FO) (A22066311)

9 Demand

At a glance

- The onset of the coronavirus pandemic contributed to record rates of growth in our region. While more recent results suggest this has stabilised, our region continues to experience a consistently high rate of growth.
- Demand forecasts are based on growth projections provided by forecast.id, which are very closely aligned with Victoria in Future but provide granularity that better reflects the different characteristics across our service area.
- Our demand forecasts were developed using well-established models that have been regularly reviewed. Extensive scenario analysis of forecast water demand was undertaken for our 2022 Urban Water Strategy – Water for our Future.
- Over the next regulatory period we are forecasting:
    - growth of around 2% per year for both residential and non-residential water and sewerage customers
    - a 10% increase in bulk water demand
    - an increase in recycled water demand of around 10%, consistent with our aspiration to continue to grow recycled water use.

9.1 Methodology for developing demand forecasts

We recently completed our 2022 Urban Water Strategy - *Water for our Future*[1], which sets out how we will meet the water needs of our customers over the next fifty years. Preparation of the strategy included detailed modelling of future water demand.

We use both short-term and long-term demand forecasting models, supporting different needs (from quarterly demand forecasting to planning over a 50-year horizon) as well as providing a useful cross check of assumptions and outputs. The short-term model was originally developed in 2011 by the Institute of Sustainable Future (ISF) and reviewed externally in 2015. The long-term model was built for Barwon Water in 2021 for the preparation of the 2022 Urban Water Strategy – Water for our Future. Both models are updated by Barwon Water regularly to ensure the models reflect the changes in our region.

Supporting Paper 4 further details our demand forecasting methodology, including the way price elasticity, water conservation measures, annual climate variability and other factors are considered[1]. Notwithstanding the impact of these factors on water demand, the rate of growth in customer connections remains the most material influence on demand forecasts.

9.2 Customer growth and connections

Regional migration triggered by the coronavirus pandemic contributed to some of the highest growth ever recorded in our service area during 2020-21, with connections increasing by 3.0%. The significant departure from forecast levels of growth prompted us to revisit whether the projections of Victoria in Future (VIF) would continue to be the best estimate of population change in the coming years.

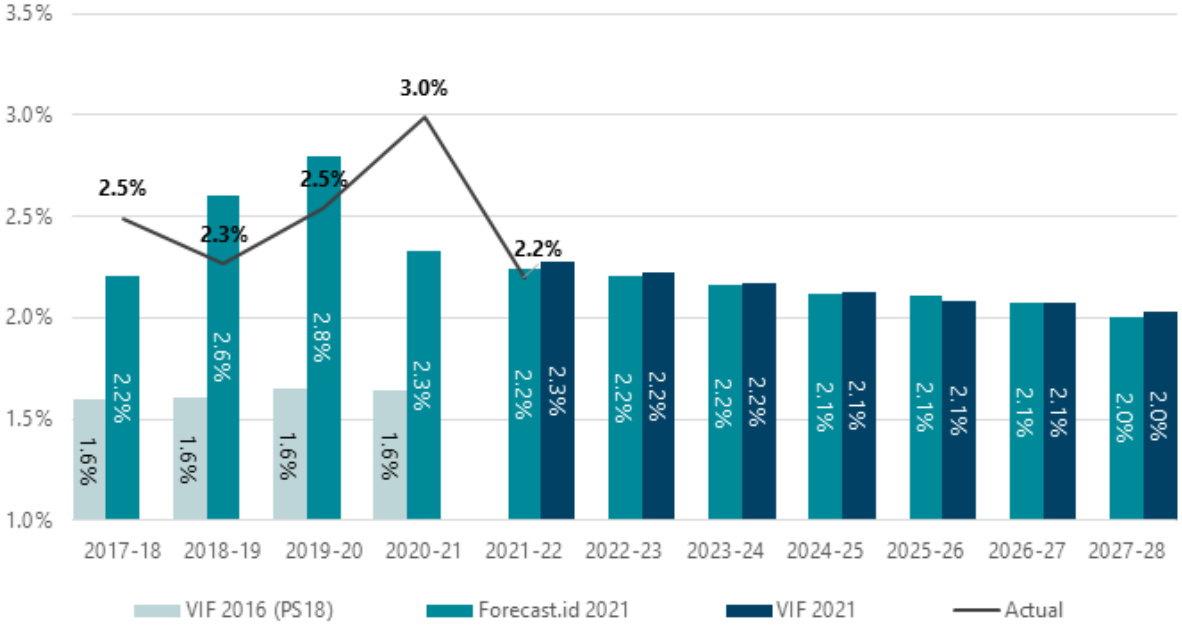
We sought external advice from forecast.id to help inform potential growth projections that might better reflect the emerging factors influencing our region. While this work enabled us to prepare an alternative, more assertive growth forecast than the one indicated by VIF at the time, we also remained committed to reviewing this once the latest actual growth results became available.

In the same way the onset of the coronavirus pandemic triggered a sudden uplift in growth, over 2021-22 it became apparent that other factors (such as rising inflation and the impact of supply chain disruption on construction) might contribute to suppressing the recent rates of higher growth. This was confirmed when the growth in connections in 2021-22 was recorded as 2.2%, which was the lowest rate of growth experienced in the preceding five years, and consistent with VIF projections.

The process of exploring the rapidly changing factors impacting growth in our region has confirmed a stabilisation from the peak experienced in 2020-21. This means that we now expect VIF continues to provide a reasonable representation of forecast population change.

However, we also know that our region is not homogeneous, with rates of growth varying significantly between Geelong and other areas. For this reason, we propose to use the projections of forecast.id, which includes forecasts at a more granular scale that are better suited to our region and help distinguish between different parts of our service area. As Figure 9-1 shows, the projections of forecast.id and VIF 2021 are very closely aligned when reflecting growth across our service area. It also shows how the projections of forecast.id have tended to be more reflective than VIF of actual growth in our region in recent years.

Figure 9-1: Historical and forecast levels of population growth



The change in customer numbers forecast over the next regulatory period is summarised in Table 9-1 below, reflecting the change in population growth projected by forecast.id.

Table 9-1: Actual and forecast customer numbers

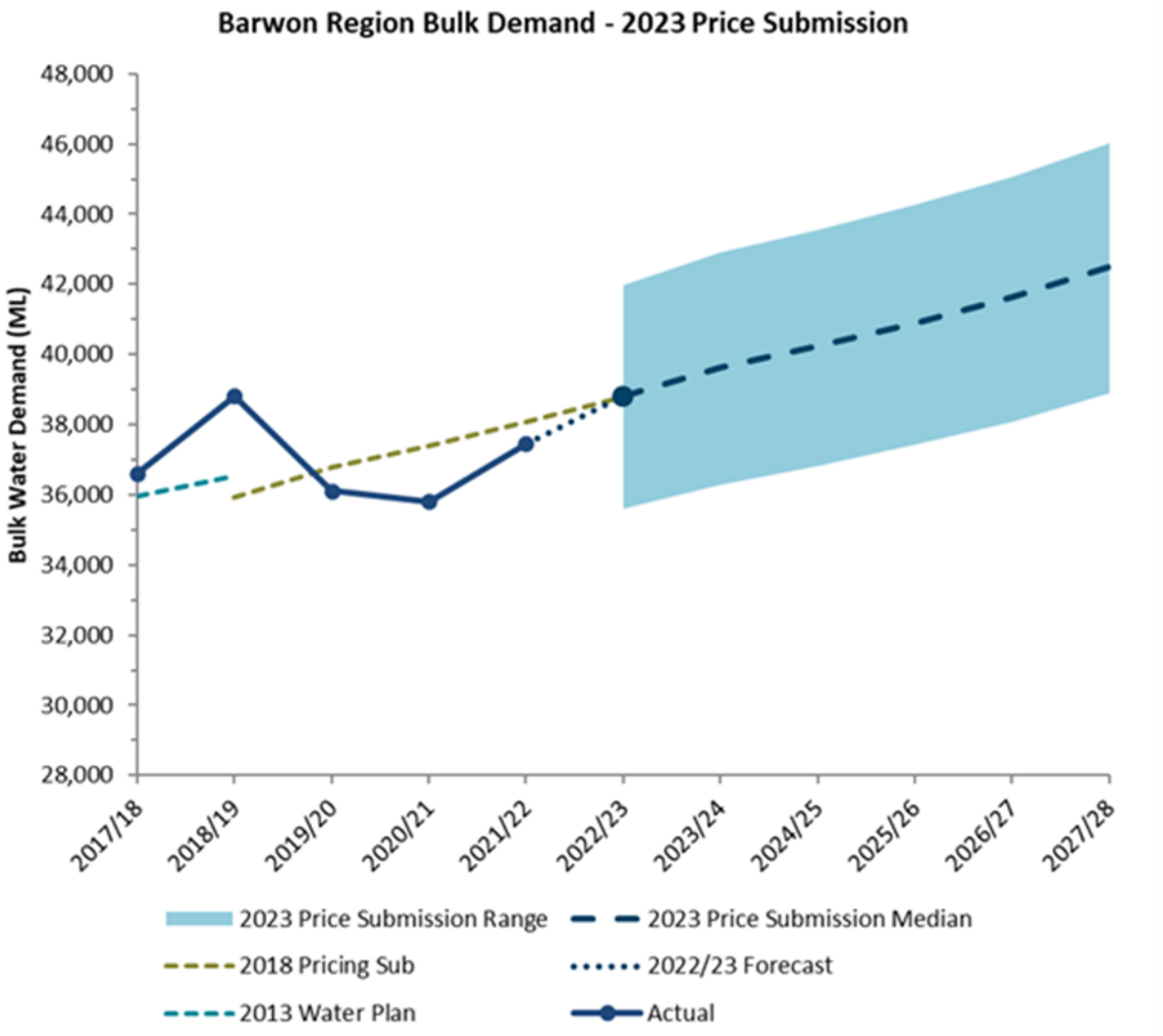
Year		Water customers				Sewerage customers			
		Residential		Non-residential		Residential		Non-residential	
		%^	Total	%^	Total	%^	Total	%^	Total
2018-19	Actual	2.3%	149,288	1.8%	12,407	3.6%	136,731	1.4%	9,541
2019-20	Actual	2.6%	153,167	1.9%	12,637	2.8%	140,622	2.7%	9,795
2020-21	Actual	3.1%	157,932	1.5%	12,827	3.3%	145,269	1.8%	9,969
2021-22	Actual	2.3%	161,592	0.7%	12,919	2.5%	148,836	0.7%	10,043
2022-23	Forecast	2.2%	165,158	2.2%	13,204	2.2%	152,121	2.2%	10,265
2023-24	Forecast	2.2%	168,722	2.2%	13,489	2.2%	155,404	2.2%	10,486
2024-25	Forecast	2.1%	172,297	2.1%	13,775	2.1%	158,696	2.1%	10,708
2025-26	Forecast	2.1%	175,930	2.1%	14,065	2.1%	162,042	2.1%	10,934
2026-27	Forecast	2.1%	179,572	2.1%	14,357	2.1%	165,397	2.1%	11,160
2027-28	Forecast	2.0%	183,173	2.0%	14,644	2.0%	168,713	2.0%	11,384

^Year-on-year actual or forecast change in customer numbers

9.3 Potable water demand

Recent actual and forecast potable water demand is illustrated in Figure 9-2. It shows the influence of annual climate variability on actual demand from year to year, including the higher demand in the particularly hot and dry conditions of 2018-19 and lower demand in the cooler and wetter conditions of 2020/21. Figure 9-2 also demonstrates the trend in demand within the range forecasted.

Figure 9-2: Actual and forecast bulk water demand



Recent actual and forecast bulk (and billable) water demand is provided in Table 9-2. This is consistent with the detailed modelling undertaken for our 2022 Urban Water Strategy – Water for our Future, which includes analysis of low, median and high scenarios (of both population change, and the impacts of climate change)[1]. Over the short-term five-year outlook, demand can vary +/-8% depending on the actual climate conditions experienced in any particular year.

Table 9-2: Recent actual and forecast bulk and billable water demand (ML)

	Bulk Water			Billable Water			Notes
	Low	Median	High	Low	Median	High	
2016/17	33,600			31,729			Actual
2017/18	36,608			33,486			Actual
2018/19	38,822			36,057			Actual
2019/20	36,104			34,053			Actual
2020/21	35,807			33,533			Actual
2021/22	37,457			34,817			Actual
2022/23	35,589	38,819	41,991	33,098	36,101	39,052	Forecast
2023/24	36,290	39,644	42,892	33,750	36,869	39,890	Forecast
2024/25	36,827	40,240	43,540	34,249	37,423	40,492	Forecast
2025/26	37,437	40,895	44,280	34,817	38,032	41,181	Forecast
2026/27	38,080	41,630	45,063	35,414	38,716	41,908	Forecast
2027/28	38,879	42,509	46,021	36,158	39,533	42,800	Forecast
2028/29	39,474	43,163	46,729	36,711	40,142	43,458	Forecast
2029/30	40,200	43,968	47,604	37,386	40,890	44,272	Forecast
2030/31	40,936	44,766	48,466	38,070	41,632	45,074	Forecast
2031/32	41,813	45,725	49,509	38,886	42,525	46,043	Forecast

9.4 Sewerage demand

Sewerage demand (the volume of sewerage reaching our water reclamation plants) is expected to increase by around 2% per annum in the next regulatory period. This reflects the forecast change in population that also underpins water demand, noting that infiltration during rainfall events also influences the volume of sewerage flowing into our water reclamation plants.

The capacity of each of our water reclamation plants to manage forecast growth in inflows was recently reviewed in the development of our 2022 Urban Water Strategy – Water for our Future[1].

The forecast inflows to each of Barwon Water's water reclamation plants is summarised in Table 9-3.

Table 9-3: Recent actual and forecast inflows to water reclamation plants (WRP) (ML)

	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Aireys Inlet WRP	143	188	200	205	209	214	218	221	224	227
Anglesea WRP	299	375	458	362	365	368	374	377	380	384
Apollo Bay WRP	478	468	450	452	456	461	465	470	474	479
Bannockburn WRP	193	211	227	232	237	242	248	249	250	251
Birregurra WRP	37	35	37	37	37	37	38	38	38	38
Black Rock WRP	21,784	25,039	26,059	26,656	27,243	27,828	28,423	29,023	29,626	30,237
Colac WRP	2,004	2,096	2,084	2,090	2,099	2,112	2,124	2,135	2,150	2,161
Lorne WRP	287	279	298	300	301	303	304	314	318	323
Northern WRP	2,810	2,810	2,810	2,810	2,810	2,810	2,810	2,810	2,810	2,810
Portarlington WRP	310	774	870	890	909	929	949	958	968	977
Winchelsea WRP	98	98	104	106	109	111	113	114	114	114
Total inflow	**28,443**	**32,373**	**33,598**	**34,140**	**34,775**	**35,415**	**36,066**	**36,708**	**37,352**	**38,001**

9.5 Recycled water

Consistent with our aspiration for zero waste within the outcome of supporting a healthier environment, customers continue to support efforts to increase the use of recycled water. Our goal to further increase productive recycled water use in the next period aligns with customers' strong feedback that we should do more to make best use of this resource. More than 70% of surveyed customers demonstrate willingness to pay more on their bills to support investment towards this outcome[3].

In the next regulatory period, recycled water demand will include:

- Class C recycled water used by commercial customers for irrigation purposes
- Class C recycled water used at our water reclamation plants as part of both plant operation and for irrigation purposes
- Class C recycled water used at the biosolids drying facility at Black Rock, under a separate commercial arrangement
- Class B recycled water used by customers on the Bellarine Peninsula upon completion of new recycled water treatment and delivery infrastructure
- Class A recycled water used at the VIVA refinery in North Geelong, under contractual arrangements with VIVA
- Class A recycled water supplied to customers in Armstrong Creek and Torquay North.

Forecast recycled water demand[4] for each of these applications is summarised in Table 9-4.

Table 9-4 Forecast recycled water demand (ML)

Use	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Class A: customer demand	471	530	591	653	708	756
Class A: Viva^	1,257	1,257	1,257	1,257	1,257	1,257
Class B: customer demand	-	-	-	450	450	450
Class C: customer demand	1,803	1,811	1,811	1,558	1,558	1,558
Class C: Biosolids drying facility^	995	995	995	995	995	995
Class C: Barwon Water operational use^	400	408	416	424	433	442

Total productive use	**4,926**	**5,001**	**5,070**	**5,337**	**5,401**	**5,458**
Class C: Barwon Water irrigation^	338	345	352	359	366	373
Total recycled water	**5,264**	**5,346**	**5,422**	**5,696**	**5,767**	**5,831**

^Excluded from financial template core tariffs and reflected under contract revenue (Viva and biosolids drying facility)

The total productive use of recycled water is projected to increase by 532 ML/year over the 2023 regulatory period, from 4,926 ML/year to 5,458 ML/year as shown in Table 9-4. This is less than our target of allocating an extra 1,000 ML/year of recycled water for productive use by the end of the regulatory period (see Section 5.2). Achieving this target relies on us delivering strategic projects that are included in the 'Customer pays later' program (see Section 7.6).

9.6 Key reference materials

1. *Water for our Future* (2022 Urban Water Strategy) (A20887284)
2. 2023 Water Price Review, Supporting Paper 4: Demand Forecasts, Barwon Water, September 2022 (A16774276)
3. Barwon Water: Customer Willingness to Pay: Research Report, EY Sweeney, May 2022 (A20892460)
4. 2023 Water Price Review, Supporting Paper 5: Recycled water tariff structure and prices, Barwon Water, September 2022 (A16774315)

10 Prices

At a glance

- Our core residential and non-residential prices will decrease by 1.4% per annum in real terms and excluding Cost of Debt.
- Appendix 5 contains our full Schedule of Prices for the 2023 regulatory period
- Customer feedback demonstrates a high proportion of surveyed owner/occupiers (79%), renters (75%) and businesses (76%) were comfortable with our prices when we were projecting flat prices in July 2022 – we are now proposing a price decrease[1].

10.1 Residential and non-residential water and sewerage tariffs

We propose a prescribed price reduction of 1.4% per annum for residential and non-residential water and sewerage tariffs during the next regulatory period[2], per Table 10-1 below. This price path is based on the expenditure and revenue forecasts detailed in this submission and our financial template.

Table 10-1: Prescribed price movement for water and sewerage tariffs

	2023-24	2024-25	2025-26	2026-27	2027-28
Prescribed Price Movement	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%

We are not proposing any changes to tariff structures for our water or sewerage services, following changes in the current period to increase the proportion of variable charges for water (in response to customer preferences to have greater control over their bills).

The resulting residential and non-residential water and sewerage tariffs over the next regulatory period are summarised in Table 10-2.

Table 10-2: Proposed residential and non-residential water and sewerage tariffs (excluding CPI and CoD adjustments) – in $2022-23 dollars

		2023-24	2024-25	2025-26	2026-27	2027-28
Residential	**Unit**					
Water volume charge	$/kL	$2.1976	$2.1671	$2.1370	$2.1073	$2.0780
Water service charge	$/year	$133.23	$131.38	$129.55	$127.75	$125.98
Sewer service charge	$/year	$576.25	$568.24	$560.34	$552.55	$544.87
Non-Residential						
Water volume charge	$/kL	$2.1976	$2.1671	$2.1370	$2.1073	$2.0780
Water service charge	$/year	$133.23	$131.38	$129.55	$127.75	$125.98
Sewer volume charge	$/kL	$1.9558	$1.9286	$1.9018	$1.8754	$1.8493
Sewer service charge	$/year	$348.67	$343.82	$339.04	$334.33	$329.68

10.2 Form of price control

Barwon Water is currently subject to a price cap form of control. We do not propose a change to these arrangements in the next regulatory period.

While provision for price adjustments can add some complexity to price control, the current approach is relatively uncomplicated and has the following benefits:

- it is easy to verify that proposed prices comply with the control requirements;
- there is no need for a correction factor to adjust for under or over-recovery of revenue in previous years; and
- it is easy to explain.

Retaining the current approach preserves these benefits and recognises that it has functioned effectively and is straightforward to apply. Customer engagement continues to emphasise the importance customers place on keeping prices as low as possible, so we cannot justify pursuing an alternative approach that might allow higher revenue if actual demand equals forecasts (such as under an autonomous demand model).

10.3 Price adjustments

Barwon Water's current price determination includes mechanisms that permit prices to be adjusted for uncertain and unforeseen events, as well as a benchmark cost of debt. We propose to maintain these existing mechanisms as consistent with current arrangements and prior guidance from the ESC.

By choosing not to propose additional price adjustment mechanisms, we are accepting the risk of the potential cost impact of some anticipated changes during the period, such as an increase to the Environmental Contribution Levy (currently represents 7% of our annual operating expenditure) that is due for review in 2023-24, or changes in bulk water headworks and transfer charges from Melbourne Water (currently represents 5% of our annual operating expenditure) arising from their 2026 Price Determination.

10.4 Tariffs for recycled water[3]

Consistent with past reductions in recycled water charges – supported by customers to encourage greater productive use of this resource – we propose further changes to simplify and, where possible, reduce our recycled water tariffs.

The changes proposed are consistent with pricing principles and reflect the following:

- identification of a reduction in the costs to provide Class C recycled water from the Black Rock Water Reclamation Plant (WRP), which we propose to pass through directly through to customer charges;
- a review of the incremental costs to deliver Class C recycled water to customers from several of our smaller water reclamation plants, which established that these costs have reduced in some cases and are also comparable across sites, supporting a transition to a common charge for simplicity; and
- a new tariff for Class B recycled water from the Portarlington Water Reclamation Plant (WRP), which will apply once this scheme is completed and is based on cost recovery and engagement with the scheme customers.

We do not propose any change to the approach to our Class A recycled water charge, which was reduced during the current period to 70% of the volumetric potable water charge as per a recommendation from our 2018 Price Submission deliberative community panel.

The resulting changes proposed to our recycled water tariffs are summarised in Table 10-3. These tariffs apply 'at the gate' of the respective water reclamation plants and do not include transfer fees for infrastructure provided by Barwon Water to transfer recycled water to customers. These transfer fees are included in individual contracts with recycled water customers where applicable.

Table 10-3: Proposed recycled water tariffs ($/ML) – in $2022-23 dollars

Recycled water service	Current tariff	Proposed tariff	Change
Black Rock Class C (pay for use)	$435	$387	-11.0%
Black Rock Class C (take or pay)	$336	$299	-11.0%
Anglesea Class C	$109	$109	Nil
Apollo Bay Class C	$109	$109	Nil
Bannockburn Class C	$97	$109	12.4%
Birregurra Class C	$271	$109	-59.8%
Winchelsea Class C	$257	$109	-57.6%
Portarlington Class C	$257	$257^	Nil
Portarlington Class B (low salinity)	N/A	$680^	N/A
Res and Non-Res Class A^^	$1,560	$1,538	-1.4% p/a^^

^Class C recycled water will no longer be provided from the Portarlington WRP once the upgrade to deliver low salinity Class B recycled water is completed at the end of 2024. Charges shown are the gate fee and exclude transfer costs of $200 per ML.

^^Aligned to the residential and non-residential Water Volume Charges at 70% and annual price adjustments. Excludes recycled water supplied to Viva under contract with that customer.

Recycled water supply to customers is an efficient means of wastewater management at our Bannockburn Water Reclamation Plant (WRP), which supports establishing a price based on willingness to pay. The proposed increase to the charge at Bannockburn WRP is based on shifting to a common price for a common product (Class C recycled water) across several WRPs, where the incremental cost to supply recycled water is comparable.

This results in either a decrease or no change in Class C recycled water charges for most customers. Consultation with customers of Bannockburn Class C recycled water demonstrated a willingness to pay the proposed increase in their charge to support this change.

Stage 3 of the Bellarine Recycled Water Scheme will deliver an improved recycled water product, enabling new and existing customers to reliably use more recycled water for a wider range of high value uses. Once the scheme is complete, the low salinity Class B recycled water will replace the existing provision of Class C. All existing customers of Class C recycled water from Portarlington WRP were consulted as part of the development of the scheme, support the transition, and have demonstrated a willingness to pay a higher price.

10.5 Tariffs for trade waste[4]

We propose to maintain the existing volumetric trade waste charge in real terms over the next regulatory period, which typically comprises 60% to 70% of customers' bills. We have revisited the basis for trade waste quality charges and propose changes that better align charges with the costs of managing the strength of the waste received in line with ESC cost recovery guidance paper principles. Although this includes an increase in some charges (especially to sustainably manage phosphorous at our Colac WRP), most charges are decreasing because of improvements or efficiencies that have been achieved at our water reclamation plants.

Most trade waste customers will experience reductions in their bills arising from the proposed change in tariffs. A small group of customers (for example, those with higher Chemical Oxygen Demand or Phosphorous loads) will experience a marginal increase, estimated at no more than 2%. All impacted customers were provided a sample of what the tariff movements would mean on their current bill, and we did not receive any objection to the changes proposed.

The trade waste quality charges proposed and the change from the current period are summarised in Table 10-4.

Table 10-4: Trade waste quality charges to apply from 1 July 2023 until 30 June 2028 – in $2022-23 dollars

Analyte	Geelong region ($/kg)	Change	Colac region ($/kg)	Change
Chemical Oxygen Demand charge greater than 1200 mg/L	0.3188	+6.9%	0.3516	-32.1%
Suspended Solids charge greater than 500 mg/L	0.1642	-26.3%	0.2387	-20.7%
Nitrogen charge greater than 60 mg/L	0.6230	-52.1%	1.6422	+4.8%
Sulphur charge greater than 50 mg/L	0.9820	-31.0%	N/A	N/A
Phosphorous charge greater than 14 mg/L	N/A	N/A	15.3662	+317.8%

10.6 Miscellaneous tariffs

We have updated and set prices for miscellaneous services according to actual cost calculated based on the aggregate of:

- direct third party or contractor invoice cost;
- direct marginal internal costs, including labour, materials and transport costs; and
- a fair contribution to overheads.

Table 10-5 below sets out our proposed top 10 core miscellaneous charges over the 2023-28 regulatory period ranked by revenue generated over the period.

It should be noted that several charges from the current period are no longer on this list because either:

- they no longer generate enough revenue to be ranked among the top ten because of changes in tariffs or quantities; or
- we no longer provide the service.

These include sewer application fee – alteration and repair (amended), special meter read, portable metered hydrant security deposit 25mm, portable metered hydrant security deposit, 65mm, and mandatory inspection of dual pipe recycled water residential.

We also update all non-core miscellaneous charges so that they reflect the pricing principles outlined above.

Table 10-5: Proposed top 10 core miscellaneous charges over the 2023-28 regulatory period – in $2022-23 dollars

# by revenue	Charge	Actual 2022-23	Proposed 2023-28	PS18 to PS23 movement
1	Information statement	$28.8	$28.3	-1.6%
2	Supply of meter & assembly (recycled) in a dual pipe area	$244.2	$301.0	23.3%
3	Supply of meter & assembly (potable) in a dual pipe area	$217.0	$245.4	13.1%
4	Sewer application fee - new	$114.8	$112.9	-1.6%
5	Installation of recycled meter in dual pipe area	$260.1	$229.5	-11.8%
6	Installation of potable meter in dual pipe area	$235.5	$209.8	-10.9%
7	Tenant meter read	$31.5	$29.0	-8.1%
8	Metered hydrants yearly service charge	$975.4	$1,091.8	11.9%
9	Dumping of effluent, per kL	$30.3	$30.3	0.0%
10	100mm detector check meter	$2,364.9	$2,457.9	3.9%

10.7 New customer contributions[5]

Consistent with current New Customer Contributions (NCC), we propose standard NCC charges across our region for 'greenfield' and 'infill' development respectively.

Retaining common charges across our service area, including for major greenfield development in the Northern and Western Geelong Growth Area, ensures that NCC charges are easy to understand and provide consistency across the region. Unit costs to service growth are similar across our service area, including integration to existing infrastructure (like the Melbourne to Geelong pipeline), meaning that separate NCC charges for different growth areas are not needed.

The only exception to this approach is the negotiated NCC that already applies in the Fyansford growth area. Development in this geographically separate development is approximately 70% complete, so there is no intent to change the existing charge that was previously resolved with the developer.

Our proposed NCCs are informed by the same modelling approach adopted in the current period, based on a version of the Capital Contribution Model provided by the ESC. The increase in charges in the next period is a function of increased capital and operating expenditure to service the forecast growth rate.

Engagement with developers about our forecast charges for the next period did not elicit any feedback or opposition to what we propose. Any feedback we have received has been focused on the implications of possible changes to the existing NCC model, which have been explored as part of an industry-wide review. From our participation in this review, and with the benefit of feedback from developers, we have elected not to substantively change our NCC model at this time.

We have adapted our model to have a longer-term outlook, incorporating the forecast capital costs, operating costs and revenue associated with servicing growth over a 30-year period. It also now excludes the (sunk) cost of legacy assets. This new approach removes inconsistencies arising from a shorter-term outlook and will minimise fluctuations in NCCs in the future.

Our proposed NCCs are outlined in the table below, together with the current NCCs for comparison.

Table 10-6: Standard new customer contribution (NCC) per lot (excluding CPI) – in $2022-23 dollars

	Current NCCs (per connection) **2018 - 2023**	**Proposed NCCs** (per connection) **2023 - 2028**	**% Change** in Year 1 only **0% for years 2-5**
Greenfield			
Water	$3,348	$3,680	9.9%
Sewer	$0	$539	n/a
Total	**$3,348**	**$4,219**	**26.0%**
Infill			
Water	$675	$736	9.0%
Sewer	$0	$108	n/a
Total	**$675**	**$844**	**25.0%**

10.8 Key reference materials

1. Barwon Water: Draft 2023 Price Submission customer check in Research, EY Sweeney, August 2022 (A21905035)
2. 2023 Water Price Review, Supporting Paper 8: Price and tariff structure, Barwon Water, September 2022 (A17268764)
3. 2023 Water Price Review, Supporting Paper 5: Recycled water tariff structure and prices, Barwon Water, September 2022 (A16774315)
4. 2023 Water Price Review, Supporting Paper 6: Trade waste tariff structure and prices, Barwon Water, September 2022 (A17114370)
5. 2023 Water Price Review, Supporting Paper 7: New customer contributions, Barwon Water, September 2022 (A17114354)

11 Financial position

At a glance

- Our forecast position for four key financial indicators demonstrates that our price submission is financially sound and supports Barwon Water's continued financial strength.

Our financial model provides the outcomes for the four key financial indicators and these are summarised in Table 11-1 below. All four key financial indicators meet the benchmark requirements for all years of the 2023 regulatory period.

Table 11-1: Financial indicators

	Benchmark	2023-24	2024-25	2025-26	2026-27	2027-28
Interest cover (times)	>1.5 times	3.51 ✓	3.51 ✓	3.95 ✓	3.75 ✓	3.51 ✓
Net debt / RAV (Gearing) %	<70%	31.5% ✓	32.2% ✓	32.0% ✓	32.0% ✓	32.1% ✓
Funds from operation / net debt (%)	>10%	14.3% ✓	13.7% ✓	14.2% ✓	12.5% ✓	11.4% ✓
Internal financing ratio (%)	>35%	72.0% ✓	84.4% ✓	84.9% ✓	81.7% ✓	67.9% ✓

Consistent with the requirement of the ESC to provide this information, since 1 July 2018, we have not obtained any ratings assessments conducted by an independent credit ratings agency. However, in July 2022, the Department of Treasury and Finance (DTF) undertook a desktop review of the financial positions of Government businesses. Based on this review, DTF provided us with a proxy rating of A- for the 2022-23 financial year, which is consistent with the previous financial year.

Appendix 1 – Performance

This appendix provides further information about challenges we have faced and opportunities we have realised, since 1 July 2018. Table A1-1 to Table A1-5 shows the impact of these challenges and opportunities on our expenditure, and how this expenditure has helped us to continue delivering customer value.

Threats to water security

In 2019 we withdrew our application to renew our groundwater extraction licence from the Barwon Downs borefield, near Colac. Technical work had confirmed the intermittent use and historical management of the borefield over the past 30 years – combined with the effects of a dry climate – led to environmental impacts in Boundary Creek and Big Swamp. Consistent with the strong preference of our community, we are focused on remediating these environmental impacts, in accordance with the directive received from the Minister for Water under section 78 of the *Water Act 1989*, in September 2018.

Without the Barwon Downs borefield, and in light of revised climate change and population forecasts, we assessed that demand could outstrip supply by 2027[1] across our Geelong, Golden Plains, Bellarine and Surf Coast system (our largest system, servicing >90% of our population) rather than 2044[1]. We had to accelerate planning for our region's water future, so that we were ready to act when needed. We did so in partnership with our community and regional stakeholders, through our industry-leading *Water for our Future* program.

At the same time, record hot dry conditions at the start of 2019 and below-average rainfall for six of the first nine months of 2019 meant water storage levels dropped rapidly across the region, reaching a low of 32.6% in Geelong. As a result, we needed to increase our take of water through the Melbourne to Geelong pipeline (MGP) and recommission the Anglesea borefield – our critical backup water supply – to supplement water supplies for customers across our Geelong, Golden Plains, Bellarine and Surf Coast system. The Anglesea borefield operated for seven months in conjunction with an extensive environmental monitoring program, which included community oversight through the Anglesea River Working Group[3].

Table A1-1: Impact of threats to water security on performance – in $2022-23 dollars

Item	Additional expenditure
2-year *Water for our Future* program	$2.4M – operating expenditure
Additional use of MGP	$4.6M – operating expenditure
Lovely Banks to Montpellier Pump Station (to extend reach of MGP)	$3.1M – capital expenditure
Recommissioning Anglesea borefield	$1.4M – operating expenditure

This additional expenditure helped us to deliver the following outcomes and performance measures from our 2018 Price Submission[10]:

- *Compliance with water security statement (will not run out of water in a drought and plan for water restrictions less than 5% of the time) – part of Performance Incentive Mechanism (PIM)*
- *Customer satisfaction with quality of drinking water*
- *Number of water quality complaints per year / 1,000 customers*

Emergence of coronavirus (COVID-19) pandemic

One implication of the pandemic has been a larger than expected increase in the number of people who call our region home. Geelong's population has been growing the fastest out of Australia's largest 20 cities, experiencing the highest 5-year and 1-year growth rates in both 2019-20 and 2020-21[4]. Population trends also indicated a clear migration from Melbourne to regional Victoria, with the Surf Coast having one of the strongest growth rates across all of regional Australia in 2020-21[5]. As a result, our assumed growth rate of 1.6% per annum in our 2018 Price Submission was far less than our actual growth rate, which has averaged 2.5% per annum – up to a peak of 3.0% in 2020-21 and down again to 2.2% in 2021-22[6].

The pandemic has also meant increasing our efforts to support customers who are struggling with their circumstances. Our region is socially and economically diverse, with some communities in our region amongst the most disadvantaged in Victoria[7]. Customers are feeling financial pressure from the pandemic, both directly through lost employment and indirectly through the subsequent rise in inflation and interest rates.

Table A1-2: Impact of emergence of coronavirus pandemic on performance – in $2022-23 dollars

Item	Additional expenditure
Increase in civil maintenance costs delivered by Barwon Asset Solutions (BAS), arising from regional growth impacts and coronavirus safety measures, as well as aligning BAS and Barwon Water Employment Agreement	$3.0M – operating expenditure
Additional customer experience and customer care programs, relating to unforeseen cost increases for afterhours call handling and new outbound customer call program to support customers through the impacts of coronavirus	$1.9M – operating expenditure
Increases in labour and on-costs due to coronavirus related working from home allowance	$0.5M – operating expenditure

This additional expenditure helped us to deliver the following outcomes and performance measures from our 2018 Price Submission[10]:

- *Number of customers engaged and supported through Barwon Water's hardship payment plans (PIM)*

- *Customer effort based on satisfaction, effort and would you recommend (PIM)*

- *Stakeholder perceptions (large customers / regional stakeholders / strategic partnerships*

Community and environmental health requirements

Emerging legal and regulatory requirements, and new government obligations, over the past five years have also required us to take action to ensure the safety of our community and environment.

We are legally obliged to deliver the requirements of the Ministerial directive issued to us under section 78 of the *Water Act 1989* to remediate environmental impacts in Boundary Creek and Big Swamp. Moreover, we have given our firm commitment to our community

that we will do so, in collaboration with them. To date, we have held 18 community reference group meetings and eight information sessions with local community members, along with extensive technical work[8].

Similarly, legal obligations pertaining to our use of the Anglesea borefield have created additional monitoring requirements, as a review of our bulk entitlement conditions is required every five years (and was last completed in 2019). We are providing full transparency about this monitoring to the local community, including via the Anglesea River Working Group, Friends of the Anglesea River and other key stakeholders[3].

With approval of Heritage Victoria, we have also been working to address a legacy public safety issue associated with our heritage-listed Ovoid Sewer Aqueduct in Geelong, and open up public access to the Barwon River and 66 hectares of surrounding land. Safety risks posed by falling concrete from the deteriorating 100-year-old structure have meant the area around the aqueduct has been closed to the public since 1995, although unauthorised access still occurs. A Community Reference Group has been appointed, in partnership with the Wadawurrung Traditional Owners Aboriginal Corporation, to meet quarterly and help guide the project[9].

State Government capital works also required us to make investments that we hadn't planned for, to respond to specific needs within our community. We brought forward planned investment in the Bellarine Transfer Main to enable Rail Projects Victoria to undertake duplication of the South Geelong to Waurn Ponds railway line, and we delivered an upgrade to water and sewer infrastructure to facilitate the Victorian Government's upgrade of the Bellbrae Primary School.

We have also worked to address the impact of historical planting of non-native trees (willow trees) along the East Barwon River, which are restricting environmental flows and limiting delivery of water to Geelong from the Otways in dry times and increasing flooding risks in wet times. We have also incurred additional costs in delivering our commitments to renewable energy and recycled water.

Table A1-3: Impact of protection of community and environmental health on performance – in $2022-23 dollars

Item	Additional expenditure
Remediation of Boundary Creek (Barwon Downs)	$7.5M – operating expenditure
Additional monitoring at Anglesea borefield	$0.9M – operating expenditure
Addressing imminent safety issues at the Aqueduct	$1.0M – operating expenditure
	$7.1M – capital expenditure
Bellarine Transfer Main – Stage 5B (to align with RPV timeframes)	$10.3M – capital expenditure
Bellbrae Primary School – water and sewer infrastructure	$4.1M – capital expenditure
East Barwon willow tree removal	$2.6M – operating expenditure
Recycled water investigations	$0.5M – operating expenditure
Recycled water on the Bellarine – Portarlington	$2.2M – capital expenditure
Renewable Organics Network	$2.3M – operating expenditure

Network Operations Depot security improvements	$2.1M – capital expenditure

This additional expenditure helped us to deliver the following outcomes and performance measures from our 2018 Price Submission[10]:

- *Volume of recycled water allocated to productive use by 2022/23 (PIM)*
- *Compliance with bulk entitlement and licence conditions*

- *Total emissions produced (tCO2e) (PIM)*
- *Progress towards 100% renewable energy by 2025*

- *New community green / open space provided*

Ageing infrastructure

Climate variability – as evident in extreme dry conditions during 2018-19 and extreme wet conditions from 2020 onwards – exacerbated problems associated with our ageing infrastructure, meaning additional investment was required. In other cases, project costs increased when highly complex works were undertaken on existing infrastructure and brownfields sites. Additional expenditure was partially offset through optimisation, risk-based reprioritisation or innovative delivery of other capital projects.

Table A1-4: Impact of ageing infrastructure on performance – in $2022-23 dollars

Item	Additional expenditure
Colac Water Reclamation Plant upgrade – expanded scope	$13.6M – capital expenditure
Black Rock Water Reclamation Plant sludge dewatering – complex	$11.3M – capital expenditure
West Gellibrand Reservoir upgrade – complex project	$5.2M – capital expenditure
Black Rock Water Reclamation Plant upgrades – expanded scope	$4.4M – capital expenditure
Sewer reticulation improvements – climate variability impacts	$4.1M – capital expenditure
Colac pump station and pipeline – complex	$2.1M – capital expenditure

This additional expenditure helped us to deliver the following outcomes and performance measures from our 2018 Price Submission[10]:

- *Compliance with EPA licence parameters*
- *% of population receiving drinking water that meets standards*

- *Number of customers who have more than 2 sewer spills per year*

Capability uplift

We have invested to improve the capacity and capability of our organisation, and to realise innovative and strategic opportunities, so that we can deliver greater value to our customers. These investments have increased our operating expenditure beyond that in our 2018 price determination, but as such have not been reflected in customer prices. Instead, customers are already reaping the benefit of these investments, with more benefits to be realised in years to come.

Table A1-5: Impact of capability uplift on performance – in $2022-23 dollars

Item	Additional expenditure
Labour costs – additional FTE and wage costs above inflation, which were not allowed for in the 2018 pricing determination, plus wage banding increases, have been required to support our response to the challenges outlined above and our delivery of Strategy 2030	$12.1M – operating expenditure
Infrastructure transformation – required to support multiple transformation initiatives across the business, such as our Smart Networks strategy, Renewable Organic Network opportunities and hydrogen opportunities	$5.0M – operating expenditure
Technology uplift – additional costs incurred to maintain information technology currency, ongoing investment in cyber security and the development of platforms for future efficiencies and uplifts in customer service using data and automation	$3.0M – operating expenditure $3.2M – capital expenditure
Business transformation – additional costs incurred to help drive continuous improvement advisory and support, assist in the delivery of key process improvement and efficiency projects (e.g. debt recovery redesign and cost control processes), manage our High Performance program, and to manage our Customer Affordability Pipeline	$2.6M – operating expenditure
Lead 2030 Program – additional investment in a leadership capability uplift program that enables the delivery of Strategy 2030 through a high performance workforce and culture	$1.2M – operating expenditure
This additional expenditure helped us to deliver across all of our outcomes from our 2018 Price Submission[10]:	

Key reference materials

1. *Water for our Future* Strategy (2022 Urban Water Strategy) (A20887284)
2. 2017 Urban Water Strategy (A12133358)
3. Anglesea borefield | Your Say at Barwon Water
4. The 50 largest cities in Australia | 2021 update | .id blog and The 50 largest cities and towns in Australia, by population | 2020 update | .id blog
5. Telling the local story of migration in the COVID era | .id blog
6. Project Control Board slidepack, 8 July 2022 (A21295252)
7. Customer Support Strategy: Helping customers who experience hardship, 2018-23 price period (A21864551)
8. Boundary Creek and Big Swamp remediation | Your Say at Barwon Water
9. Porronggitj Karrong and Aqueduct | Your Say at Barwon Water
10. Price submission 2018–2023 - Barwon Water

Figure A1-0-1 Top 12 capital projects over 2018-23 regulatory period: On track

Major project 2018 – 2023 Price Submission	Scheduled completion date	Revised completion date	Our comments ...
✓ Colac water treatment plant clear water storage upgrade	2019-20	2019-20	**Complete 100%** This project was completed on time in 2019-20.
✓ Black Rock renewable energy project stage 2	2019-20	2019-20	**Complete 100%** This project was completed on time in 2019-20.
✓ Black Rock water reclamation plant hydraulic capacity upgrade	2015-16	2019-20	**Complete 100%** Modifications were required for inlet screens, causing delays due to design deficiencies in the contractor's design (resolved at contractors cost).
✓ Property realisation (Thornhill Rd Highton)	2018-19	2020-21	**Complete 100%** Initial delays seeking council approval of engineering plans. No impact on customers because the revenue benefits that was expected to be realised in the scheduled completion year 2018-19 were locked into our 2018-23 prices.

✓ Completed Delayed Deferred

Figure A1-0-2 Top 12 capital projects over 2018-23 regulatory period: Delayed

Major project 2018 – 2023 Price Submission	Scheduled completion date	Revised completion date	Our comments ...
Telemetry RTU PLC HMI hardware & software	2021-22	2022-23 *	**Estimated completion: 100% (by June 2023)** Project underway and scheduled for completion by June 2023. Delivery of project underway with works to occur progressively throughout 2021/22 and 2022/23. There is no impact on customer service due to the delay.
Forrest water treatment plant upgrade	2022-23	2023-24 *	**Estimated completion: 80% (by June 2023)** Project reprioritised to balance cost impacts of other projects coming into capital works program, now scheduled for completion by December 2023. Design and construct tender closed, award of contract underway. There is no impact on customer service due to the delay.
Gellibrand water treatment plant upgrade	2021-22	2023-24 *	**Estimated completion: 50% (by June 2023)** Project reprioritised to balance cost impacts of other projects coming into capital works program, now scheduled for completion by April 2024. Design and construct tender closed, award of contract underway. There is no impact on customer service due to the delay.
Colac pipeline upgrade	2027-28	Beyond 2028	**Estimated completion: 50% (by June 2023)** A staged replacement of pipeline conducted with all priority 1 and 2 sections of the pipe to be replaced by June 2024 (up to 12 month delay due to change in the listed species EPBC Act and beyond our control – post construction contract award). Priority 3 and 4 sections are scheduled to be replaced over the next two pricing periods.

Completed Delayed Deferred

** Impacted by COVID*

Figure A1-0-3 Top 12 capital projects over 2018-23 regulatory period: Deferred

Major project 2018 – 2023 Price Submission	Scheduled completion date	Revised completion date	Our comments ...
Torquay West high level feeder main	2013-14	Beyond 2028	Deferred to align with when asset would be required based on delays in land use planning for this future growth area. Growth & land development has been different to what was expected - slower in Torquay and faster in Armstrong Creek, Lara West and Ocean Grove. Accordingly, expenditure has been reallocated to those growth areas to provide better value for customers in this price period.
Black Rock water reclamation plant effluent storage	2023-24	Beyond 2028	Through innovations in the configuration of existing infrastructure at the site, additional recycled water storage has been able to be efficiently achieved by utilising an existing effluent channel, enabling deferment of this project. This project has been deferred due to modifications to existing infrastructure allowing the planned project to be postponed.
Colac water reclamation plant sludge dewatering upgrade	2019-20	2024-25	Through innovation we have been able to meet the project objectives at a lower cost and defer additional expenditure to a later date with a better value outcome for customers. The Colac Water Reclamation Plant Centrifuge Upgrade is forecast to be completed by June 2025. There is no impact on customer service due to the deferment.
Property realisation (Scenic Rd Highton)	2020-21	2026-27	Change in Govt policy relating to surplus land and subsequent delays in obtaining agreement on the treatment of Crown Land component at this landholding. No impact on customers because the revenue benefits that was expected to be realised in the scheduled completion year 2020-21 were locked into our 2018-23 prices.

Appendix 2 – Risk

This appendix provides further details of eight material risks to customer prices and/or services and our assumptions and controls in relation to these risks.

The risk ratings given in each table show the residual risk to Barwon Water, given the controls that have been (or are able to be) implemented, as assessed in accordance with our Enterprise Risk Management Framework[1].

Table A2-1: Inflows – Further details of risk

Uncertainty of inflows over regulatory period and security of supply over long-term	
Description	Inherent climate variability means that supply from our traditional sources (inflows to reservoirs and rivers) is uncertain over the next five years, as the capacity of our systems to store inflows from one year to the next is limited. In addition, climate change means we must be prepared for a hotter, drier future, but uncertainty remains about the timing and extent of climate change impacts on future availability of our surface water supplies.
Assumptions	We have adopted a median climate scenario for both our short-term supply and demand forecasting over the regulatory period, including the availability of water from the Melbourne system. We have adopted a worst-case climate scenario for long-term supply-demand planning, as due to the length of time required for implementation of any infrastructure solution, we need to be prepared in the event that this worst-case transpires. We have assumed no material change in the cost of supply from the Melbourne system over the regulatory period, either as a result of Melbourne Water's 2026 Price Determination or any bulk entitlement reforms foreshadowed in the Central and Gippsland Region Sustainable Water Strategy.
Controls	**Short-term response mechanisms are ready if needed** If inflows are less than forecast, we have identified a set of controls that can be implemented for each of our five systems in our *Water for our Future* strategy[2]. For example, increasing supply from the Melbourne to Geelong pipeline (MGP) up from 3GL/year (as currently assumed) to 16 GL/year and/or re-activating the Anglesea borefield would enable us to continue meeting service levels for our Geelong, Golden Plains, Bellarine and Surf Coast system (almost 90% of our customers). Our experience in 2019 has shown that the benefit of increased revenue due to higher customer demand under dry conditions is lessened by these increased costs. **Long-term adaptive planning means action taken if and when required** Our adaptive planning approach allows for ready adjustment in response to new conditions or better information, with our *Water for our Future* strategy framing our controls over different time horizons and circumstances[2]. For example, our bespoke economic appraisal model (using real options analysis) showed us that taking action over the regulatory period to extend the reach of the MGP offered the largest net benefit.
Risk rating	Medium 3C – i.e. Possible (likelihood) / Major (consequence) (Finance)
Risk allocation	**Largely borne by Barwon Water**

Table A2-2: Ageing infrastructure and an uncertain climate – Further details of risk

Ageing infrastructure and an uncertain climate impacting on our ability to deliver services	
Description	The age and condition of infrastructure impacts our ability to deliver services and the quantum of expenditure that may be required. Infrastructure that is older is generally at greater risk of failure and replacement costs are higher when failure does occur. The impacts of climate change exacerbate the risk of failure for those assets and can place pressure on the network requiring an increase in capital expenditure to mitigate.
Assumptions	Renewals will account for 45% of our total capital expenditure over 2023-28. We propose $248 million of capital expenditure for renewals during 2023-28, up $56 million from our $192 million investment during 2018-23. Of this, we propose to increase capital expenditure on our sewer network because we have observed concerns in sewer network performance over the past five years. Key drivers for the increase in renewals include: • increase in construction costs of mains replacement programs • relining of extreme risk sewer pipes and poorer performing pipe groups (Reinforced Concrete and Vitreous Clay pipe materials) to reduce sewer blockages and spill rates • rehabilitation of two large sewer rising mains in Ocean Grove and Leopold, which have not reached end of design life, but material testing due to significant recent failures has identified a high risk of further high consequence of failures • investments in water tank upgrades based on a detailed condition assessment program across all tanks, which has enabled enhanced understanding of risk • ongoing works on the Colac pipeline that is in poor condition and high failure risk • increase in planned cathodic protection spending to extend the asset life of feeder and transfer mains as well as replacement of end of life mains • increase in water reclamation plant renewals as key process elements like belt presses, membranes, control systems, instruments and decanters reach end of life • dam safety upgrade to Marengo Basin after investigations identified improvements to meet engineering practices and consistency with the ANCOLD guidelines
Controls	**Risk based asset renewal plans** A risk-based approach has ensured efficient and effective Asset Renewal Plans[3]. A starting point is the consequence of failure based on service and environmental impacts. Some assets will run to fail, because the consequence of failure is low. Other assets will be subject to routine, ongoing maintenance or planned replacement – because the criticality of the asset and the consequence of any failure is high. Likelihood of failure is based on age, performance results, materials, location and condition. This informs the risk level that determines the most effective interventions required in the asset renewal plans. As part of this assessment of the likelihood of failure, the expected impact of climate change on the condition of the asset is taken into account. **Strategic technology uplift to improve understanding of asset performance** We propose to invest $6.1 million in sewer sensors at strategic locations across our sewer networks, so that we can better target future investment in improving performance of these assets. Our successful "smart sewers" trial project at Lorne in 2019 showed us how technology can help to prevent spills. Rather than invest in a full roll out of sensors across the entire sewer network, we are proposing a strategic roll-out that will focus on the 15-20 suburbs with the highest spill rates per 100km of sewer main, as well as all sewage pump stations assess as extreme or high risk[5]. We are also proposing to invest $8.4 million in the first stage of deployment of digital water meters across the network. These will not only improve customer experience through access to real-time water use and billing data but will also inform future planning decisions and proactively identify leaks[5].

	Learnings from our strategic roll-out of both water and sewer monitors will help guide future investment in technology in future regulatory periods, reducing the risk of customers paying up-front for technology that doesn't provide a net increase in value.
Risk rating	Low 3B – Unlikely (possibility) / Major (consequence) (Finance)
Risk allocation	**Shared – Barwon Water / Customer**

Table A2-3: Demand – Further details of risk

Forecast demand is materially different from actual demand	
Description	Demand forecasts are required to estimate the number of new connections and demand for services that is placed on our network. This informs our forecast program of works, but also how prices are calculated over the regulatory period.
Assumptions	We have adopted median climate scenario for short-term demand forecasting over the regulatory period. Climate has the largest influence on actual demand in the short-term, as the total volume of water used by our customers can vary by +/-8% in a dry or wet year respectively. We have adopted high population growth scenario for long-term infrastructure planning – due to the length of time required for implementation of any infrastructure solution, we need to be ready in the event that worse case transpires. These assumptions are consistent with our approach to inflows. We have adopted growth forecast for the 2023-28 regulatory period from forecast.id projections[6]. These projections align with the Victoria in Future (ViF) forecasts but provide a more granular level of information that is more appropriate for forecasting growth for our region. This results in growth projections of 2.2% in 2022-24; 2.1% in 2024-27; and 2.0% in 2027-28.
Controls	**Continuous reviews of demand information** We undertake regular reviews of our connection information to understand underlying trends in the information and incorporate this within any forecast estimates where required[7]. In addition to this, regular engagement with the non-residential sector of the customer base is undertaken to ensure accurate forecasts are developed for that segment of customers. **Independent advice on forecast population** We sought independent advice to verify the forecast growth in connections that were used as the basis for the demand forecasting[6]. This analysis was undertaken multiple times leading up to finalisation of this submission in order to ensure it was based on the most up-to-date growth information for the region.
Risk rating	Medium 3C – i.e. Possible (likelihood) / Major (consequence) (Finance)
Risk allocation	**Largely borne by Barwon Water**

Table A2-4: Increase in input costs from external factors – Further details of risk

Forecast expenditure does not adequately capture external market factors	
Description	External market factors can have a significant impact on the overall level of expenditure (both capital and operating) required to deliver the expected outcomes. It can therefore be difficult to forecast expenditure given the uncertainty of these external market factors.
Assumptions	For the 2023-28 regulatory period, Barwon Water is forecasting: • $549.4 million in capital expenditure – this represents a $122.6 million (29%) increase from the current regulatory period • $670.7 million in operating expenditure – this represents a $53.5 million (8.7%) increase from the current regulatory period We are not proposing to use the pass-through mechanism to deal with cost uncertainties within the latter part of the regulatory period, related to the Environmental Contribution Levy (currently represents 7% of our annual operating expenditure, and is due for review in 2023-24) or bulk water headworks or transfer charges associated with our share of water in the Melbourne system, (currently represents 5% of our annual operating expenditure, and is due for review via Melbourne Water 2026 Price Submission and via South-Central Market reforms being considered by the Department of Environment, Land Water and Planning (DELWP) in the Central and Gippsland Sustainable Water Strategy).
Controls	**Detailed review of historical expenditure** In deriving forecast expenditure for the period, we have undertaken a detailed review of past expenditure to determine whether the assumptions for previous expenditure are appropriate going forward. This included an assessment of unit rates for each project at the time of developing each business case. **Internal reporting processes** We have processes for regular internal reporting of actual (and forecast) expenditure against the budgeted expenditure. This is designed to: • identify any potential budgeting issues early • understand what is driving those changes in expenditure and • identify mitigation actions that can be implemented in order to control any potential over-spend in expenditure. **Robust approval and procurement processes** From a procurement perspective, we have reviewed our procurement processes to ensure that future cost estimates are appropriate and contracts are established with appropriate sharing of external market risks between ourselves, our suppliers and our contractors. These processes are continually reviewed as part of our approach to continuous improvement. From a capital perspective, our Portfolio Governance Framework[4] includes Stage Gate approval pathways, including business case development, aligned with the Department of Treasury and Finance's Investment Management Standard. This ensures that the approval pathway is informed by increasingly accurate cost estimates and final approval based on tendered costs. Our procurement processes are supported by delivery arrangements that assign the right projects to the right team, and contractual arrangements that are based on industry standards consistent with Victorian Ministerial direction. **Inclusion in RAB for 2023 Price Submission** Actual prudent and efficient capital expenditure can be assessed by the ESC for inclusion in our RAB via the 2028 Price Submission. Our robust approval and procurement processes increase the likelihood that this will occur, which would mean we only bear cost risks until 2028.
Risk rating	Medium 3C – i.e. Possible (likelihood) / Major (consequence) (Finance)
Risk allocation	**Largely borne by Barwon Water**

Table A2-5: Capital program delivery – Further details of risk

Ability to deliver increased capital program	
Description	External factors, such as the availability of materials and/or construction resources, may impact on our ability to deliver on our proposed capital program over the upcoming regulatory period.
Assumptions	For the 2023-28 regulatory period, Barwon Water is forecasting $549.4 million in capital expenditure. This represents a $122.6 million (29%) increase from the current regulatory period.
Controls	**Risk-based prioritisation of the capital program** In developing the capital program for the upcoming regulatory period, we undertook an assessment of deliverability and prioritisation of the program[8]. This process was designed to provide robust assurance internally that there was sufficient resourcing and processes in place to enable it to successfully deliver the capital program. We have also taken the decision to pursue several strategic, innovative projects over the next five years, which will total approximately $111.7 million, but will exclude these from customer prices at this time because elements of some projects are yet to be finalised (we don't want to charge customers unnecessarily based on preliminary options, cost estimates or timelines) and/or some projects will generate their own revenue via new customers for new services we will deliver (it will be better for customers to match costs with timing of new revenue from 2028 onwards). **Existing capabilities have increased within the current regulatory period** Our capital program has increased within the current regulatory period. This process has enabled us to better understand what is required to deliver larger capital programs and implement lessons learnt from the current period (such as improvements in governance and prioritisation). Through this increase in the program, we have restructured our delivery team to ensure an effective and efficient delivery of capital projects. An Enterprise Portfolio Management Office (EPMO) has been established during the current period. The EPMO operates at a strategic level to ensure that projects and portfolio activities are conducted to the benefit of the overall business. The EPMO partners with Project Sponsors and Project Managers to uplift capability and optimise benefits realisation. We have also developed a capital delivery program that assigns projects/programs to the area of the Barwon Water Group that has the right skills and capability to deliver most efficiently – for example, Barwon Asset Solutions has proven to provide more efficient outcomes for smaller projects and more uncertain capital programs (refer Section 7). A Portfolio Governance Framework[4] was introduced in 2020 that includes a clearly defined set of Stage Gates to govern projects through their lifecycle. In addition, Barwon Water has also implemented the new suite of VicWater construction contracts that are appropriately structured to ensure the risk of non-delivery will be managed by contractors and ensure that any potential risks are minimised. **Incorporating flexibility within the capital program** We have flexibility within the capital program to enable (where appropriate) projects to be able to be moved within the period to enable an efficient delivery of the overall program of works. This will be combined with regular internal reporting to track the progress of expenditure against the outcomes to ensure the program is delivered within the regulatory period.
Risk rating	Low (3B) – Major (consequence) / Unlikely (likelihood) (Service Delivery)
Risk allocation	**Shared – Barwon Water / Customer**

Table A2-6: Cyber-attack or digital failure – Further details of risk

Essential services cannot be delivered due to cyber-attack or digital failure	
Description	We provide essential water and sewerage services that, increasingly, are controlled by and reliant upon technology. The rate of technological progress within, and external to, the water industry and the increasing prevalence of cyber-criminal activity within society creates risk in terms of our continued ability to deliver these essential services if we are subject to a cyber-attack or digital failure.
Assumptions	We have proposed an uplift in digital and cyber expenditure to better manage this risk of $5.3 million in operating expenditure and $0.2 million of capital expenditure. This uplift has been driven by the development of a Digital Strategy[5] and a more comprehensive understanding of the technological risks we are facing.
Controls	**Audit of digital controls and practices** We recently undertook an audit of the digital controls and practices currently in place to mitigate the threat of external cyber-attacks[8]. This audit highlighted areas for improvement within our organisation and key steps to undertake as part of forward-planning. **Development of a Digital Strategy** We have developed a five-year roadmap, to deliver against our long-term Digital Strategy to uplift digital capabilities[5.] The roadmap is aimed at establishing digital foundations, uplifting core capabilities and continuous improvement in the digital-space. The development of the roadmap focused on a prioritisation process to ensure the roadmap will effectively deliver key outcomes such as cyber security, customer experience, and asset management.
Risk rating	Medium 3C – i.e. Possible (likelihood) / Major (consequence) (Service Delivery)
Risk allocation	**Largely borne by Barwon Water**

Table A2-7: Meeting community expectations – Further details of risk

Inability to deliver customer outcomes or enhance customer value	
Description	There is a risk that Barwon Water is unable to meet community expectations by failing to deliver the desired customer outcomes within the regulatory period and/or by failing to keep pace with changing community expectations. **Potential impact on customers –** Due to existing equity divides across our socially and economically diverse region being exacerbated by current economic factors - particularly in light of the coronavirus pandemic - we may not strike the right balance between affordable bills and meeting community expectations, resulting in customers either paying too much (due to over expenditure on items that fail to deliver customer value) or receiving poor quality service (due to failure to meet expectations).
Assumptions	We developed our proposed expenditure and actions for the upcoming regulatory period with reference to comprehensive customer and community engagement, then repeatedly tested and refined our proposals, based on customer and community feedback. We therefore assume that our proposed prices and actions will deliver customer value and meet community expectations.
Controls	**We have rigorously tested our proposals** Outcome Leads have met regularly since early 2021 to shape and test our proposals, to ensure their viability. More importantly, however, we have continually checked in with our community to ensure that our proposals will meet their expectations (refer Section 4). For example, over 90% of attendees at our Regional Forum were supportive of our proposed approach to meeting community expectations[10] and 82% of 5,570 customers surveyed in July 2022 confirmed that they think proposals in our Draft 2023 Price Submission offered value for money when we were projecting a flat price path[10]. **Mechanisms to hold ourselves to account are in place** We have proposed the continuation of our Performance Incentive Mechanism (PIM) to compensate customers if outcomes are not delivered within the regulatory period (refer to Section 5.4). We have revised the performance measures that will be subject to the PIM to better reflect what is important to our customers. This will ensure we remain focussed and accountable for delivery of the outcomes we have promised in this submission. We have reshaped our corporate strategy – *Strategy 2030* – in parallel with development of our 2023 Price Submission, to ensure they are fully aligned and we are fully focussed on delivering the outcomes our customers want (refer Section 1). We have overhauled our performance reporting framework accordingly (refer Section 5.3).
Risk rating	Medium 3C – i.e. Possible (likelihood) / Major (consequence) (Reputational)
Risk allocation	**Largely borne by Barwon Water**

Table A2-8: Customers unable to pay bills – Further details of risk

Customers unable to pay water bills due to external financial pressures	
Description	Increasing external financial pressures, such as cost of living increases (e.g. increasing interest rates and CPI), on customers may result in a higher number of customers unable to pay their water bills. This will impact on the revenue available to us over the upcoming regulatory period.
Assumptions	We propose to boost financial assistance through our customer support programs and upgrade our customer contact centre and staff training to better support our customers. We assume an average of $220K of revenue is not collected each year, due to customer inability to pay and sundry debt not expected to be recovered.
Controls	**Increasing levels of customer support** We ran three workshops incorporating deliberative principles with 13 hardship support agencies and local councils to develop a new Customer Support Strategy[12]. Using insights and analytics to understand vulnerability, we now proactively call up to 400 customers per week to offer customer support. We are proposing to increase our customer support programs over the regulatory period to help them manage the evolving economic situation and assist customers in paying their bill. This includes increasing direct financial support for vulnerable customers and those affected by family violence by at least $0.8 million, resulting in a total of $3 million direct customer support payments. 95% of customers surveyed in March 2022 told us that it is important for us to provide support to those in our community who need it[13]. **Scrutiny to ensure expenditure is prudent and efficient** We have applied a high level of internal and independent scrutiny to ensure our proposed expenditure over the regulatory period is prudent and efficient, so that our bills remain as affordable as possible (refer Sections 6 and 7).
Risk rating	Low (2C) – Possible (likelihood) / Moderate (consequence) (Finance)
Risk allocation	**Largely borne by Barwon Water**

Key reference materials

1. Enterprise Risk Management Framework (A21292292)
2. *Water for our Future* Strategy (2022 Urban Water Strategy) (A20887284)
3. Asset Management and Renewal Plans for major programs (fA1066544)
4. Portfolio Governance Framework (A18414083)
5. Barwon Water Digital Strategy, August 2022 (A21654954)
6. ForecastID projections, December 2021 (A21110438)
7. Regular review of connections (A699115)
8. 2023 Water Price Review, Supporting Paper 2: Capital Expenditure, Barwon Water, September 2022 (A20269406)
9. Cyber Security Strategy and Plan - Dec 2021 (A19781241)
10. Barwon Water: Regional Forum #4, Summary notes ('What was said' report), Mosaic Lab, July 2022 (A21893366)
11. Barwon Water: Follow-up Pricing Research, EY Sweeney, August 2022 (A21905035)
12. Customer Support Strategy: Helping customers who experience hardship, 2018-23 price period (A21864551)
13. Customer Willingness to Pay: Research Report, EY Sweeney, May 2022 – refer page 23 (A20892460)

Appendix 3 – Engagement

This appendix provides examples of information provided as part of our foundational and targeted engagement program.

It also provides further details of key insights from our foundational and targeted engagement, which shaped our 2023 Price Submission.

Examples of engagement materials (Inform to Involve)

Regional Renewable Organics Network animation:
https://youtu.be/dHYI1XVzTFs

Standalone website pages for projects

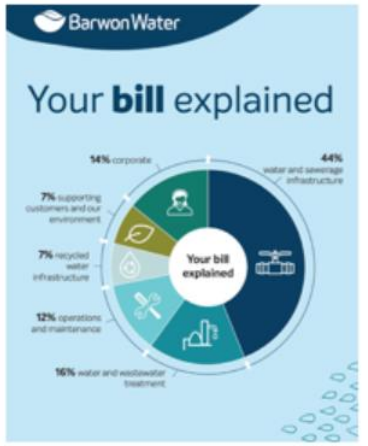
Radio

Fact sheets

Social media

Infographics

Community pop-ups



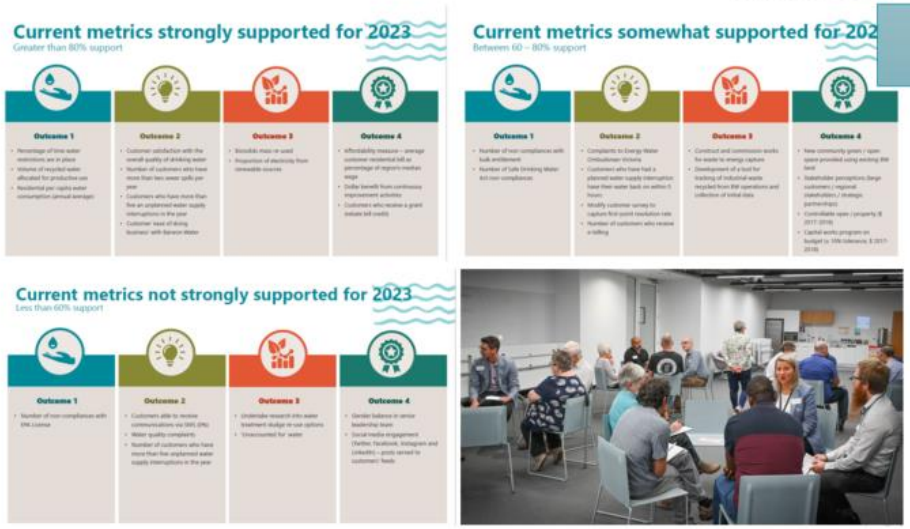
Help shape our five year promise to customers

Q1: How has life changed for you in the last year? Has that changed your water use at all, or the way you pay your bills?

"Pulse-check" surveys

Examples of engagement materials (Collaborate to Empower)

Regional Forum



Customer Advisory Committee

Water for our Future Community Panel

Further details of key insights from engagement

Protect and enhance our precious natural environment

What we heard	What we propose to do
"A fixed minimum environmental flow in rivers regardless of climate impacts is important" *Customer & Environmental Advisory Committees*[1]	**Outcome 3 –** 3,700 ML/year long-term average equivalent entitlement returned to Moorabool River by 2025, to be shared between environment and Wadawurrung Traditional Owners
97% of surveyed customers wanted us to collaborate to enhance waterway and catchment health *2022 Willingness to Pay Research*[2]	**Outcome 3 –** Spend $7.3 million to improve catchment and waterway health and quality by funding initiatives such as citizen science, Landcare, willow removal programs and other river restoration works
"We'd like to continue to build the strong and meaningful partnership we have with Barwon Water where nothing happens behind closed doors and we can self-determine in the partnership" *Wadawurrung Traditional Owners*[3]	**Outcome 3 –** Support Traditional Owners to express their cultural values related to water, and achieve their goals, aspirations and outcomes for healthy flows in their waterways by returning water to them

Partner with me so that I can be more sustainable

What we heard	What we propose to do
"Help us understand how we are currently using water" *Customer & Environmental Advisory Committees*[1]	**Outcome 4 –** Invest in water literacy, education and efficiency programs ($2.5 million over 5 years)
Overall positive sentiment towards Barwon Water (75% positive during 2022) across a range of interactions *Voice of Customer insights Jan – Jun 2022*[4]	**Outcome 4 –** Educate, engage and work with our customers and community to build confidence and trust
63% of surveyed customers prioritised programs to support changed water behaviour *2022 Willingness to Pay Research*[2]	**Outcome 1 –** Invest $2.5 million to save an extra 1,000 ML of drinking water by partnering with our customers through programs, advice and information
97% of surveyed customers want us to facilitate smarter water use in our systems and by our community & 83% keen for digital water meters *Draft 2023 Price Submission research*[5]	**Outcome 1 –** Install digital meters in Apollo Bay, Lorne and hot spots in Geelong $8.4 million

Help us drive a clean and green regional economy

What we heard	What we propose to do
94% of surveyed customers said it was important to encourage greater use of climate independent water sources (like recycled water) *2022 Willingness to Pay Research*[2]	**Outcome 3 –** Upgrade the Portarlington water reclamation plant to supply higher quality (lower salinity) recycled water for recreation, agriculture and horticulture on the Bellarine Peninsula $13.6 million
21% of surveyed customers thought we weren't currently doing enough in recycled water investment, while 46% thought we had the balance "about right" *2022 Willingness to Pay Research*[2]	**Outcome 3 –** Construct new assets to support further uptake of recycled water in other growth areas, such as Torquay North and Armstrong Creek, and the productive use of recycled water at Deakin University and Winchelsea $12.5 million
"Invest in sustainable development and look to implement smarter water designs" *Water for our Future Panel*[7]	**Outcome 2 –** Begin construction of the water and sewer infrastructure necessary to service the new Northern and Western Geelong Growth Area (NWGGA) $28.3 million
One third of surveyed businesses (66%) want Barwon Water to partner with them to solve challenging regional problems such as climate change, waste and rising energy costs *2022 Willingness to Pay Research*[2]	**Outcome 3 –** Establish a regional approach to carbon sequestration, to offset the emissions we generate from our operations $3.2 million

I appreciate your support being there when I need it most

What we heard	What we propose to do
"It was one of the hardest periods of my life. I found myself having to explain over and over to people what the circumstances were … all I wanted was to be understood and supported" *2022 Customer Vulnerability Research*[6]	**Outcome 4 –** Upgrade customer contact centre and staff training to better support customers
"I really value that they contact me, and we have an open conversation. It means I don't have to do the degrading task of asking." *2022 Customer Vulnerability Research*[6]	**Outcome 4 –** Continue to build our outbound calling program and invest in predictive analytic software to proactively support those who need it most
95% of surveyed customers said it was important to care for customers who need support *2022 Willingness to Pay Research*[2]	**Outcome 4 –** Invest an additional $2.8 million to boost financial assistance through customers support programs
86% of surveyed customers were comfortable with our approach to ensure bills remain low, and our additional investments for those who need it most *Draft 2023 Price Submission Research*[5]	**Outcome 4 –** Ensure we remain one of the lowest residential bills in Australia for a water corporation of our size

Keep making our taps and toilets work, without any issues

What we heard	What we propose to do
"We need to ensure water and sewerage services are available 99.99% of the time and is good quality" *Customer & Environmental Advisory Committees*[1]	**Outcome 2 –** Renew and increase the resilience of our water pipelines to maintain or improve water supply service levels across Highton, Leopold, 13th Beach, Jan Juc, Drysdale, Colac, Apollo Bay $64.9 million Renew our sewer pipelines, maintenance access holes and storages to maintain or improve sewerage service levels $104.3 million
1 in 4 customers rank "faster response time" as their most important service standard, and 6 in 10 rate it within their top three *2022 Willingness to Pay Research*[2]	**Outcome 2 –** Enhance customer experience through our digital and technology uplift and increase our renewals program
60% of surveyed customers want us to do more with technology to enhance performance and services *2022 Willingness to Pay Research*[2]	**Outcome 2 –** Leverage data and technology to minimise interruptions to customer water supplies and reduce the risk of raw sewage spilling from our assets
98% of surveyed customers said it was important to ensure there is enough water to meet all of our needs *2022 Willingness to Pay Research*[2]	**Outcome 1 –** Extend the reach of the Melbourne to Geelong pipeline so that it can supply more of Greater Geelong, the Bellarine Peninsula and the Surf Coast $22.3 million
"Our water future is a secure water future where our rivers flow, our foods grow and our impact is low." *Water for our Future Community Panel Vision*[7]	**Outcome 1 –** Complete relevant actions from the Water for our Future strategy to deliver extra 3,300ML of extra water security for our region

Provide me with a service that is reliable, personable, responsive, accessible & knowledgeable

What we heard	What we propose to do
"I have had contact with the trade waste department and water supply. They have been able to fairly quickly direct and resolve the issue." *2022 Willingness to Pay Research*[2]	**Outcome 2 –** Achieve measure of success that 85% of customers who interact with us rate the *ease* of their experience as very good to excellent
Keep customers informed - customers want to know what Barwon Water is doing, and the progress towards reaching goals. *2022 Willingness to Pay Research*[2]	**Outcome 2 –** Provide updates to customers on current work being done and progress made. This can include updates via bills (especially for customer support programs), newsletters, website and/or at community events.
"[I like] a direct person to speak to, so one person managing the whole incident instead of moving you around to several people and having to discuss the situation over and over again." Small business customer *2022 Willingness to Pay Research*[2]	**Outcome 2 –** Achieve measure of success that 85% of customers who interact with us rate the *satisfaction* of their experience as very good to excellent
Customers felt that Barwon Water offered good contact options and that being local, they were more available –if absolutely necessary they 'could go into the office', which gives a sense of empowerment. *2022 Customer Vulnerability Research*[6]	**Outcome 2 –** Provide easier access to our services regardless of circumstances
90% of surveyed customers said it was important to remove barriers to enable customers access to services and support their needs *2022 Willingness to Pay Research*[2]	**Outcome 2 –** Enhance customer experience through our digital and technology uplift $4.8 million

Key reference materials

1. CAC folder (fA1112584)
2. Barwon Water: Customer Willingness to Pay: Research Report, EY Sweeney, May 2022 (A20892460)
3. Excerpt from video shown at Regional Forum #4, July 2022 (https://vimeo.com/manage/videos/731235597/transcript?ts=9900)
4. VoC insights (A1118556)
5. Barwon Water: Follow-up Pricing Research, EY Sweeney, August 2022 (A21905035)
6. Barwon Water: Customer Vulnerability Research, Quantum Market Research, March 2022 (A20712412)
7. *Water for our Future* Community Panel #1 report, November 2020 (A17590519)

Appendix 4 – Outcomes

Outcome	Aspiration	ID	Description	Detail	Units	2023-24	2024-25	2025-26	2026-27	2027-28
Outcome 1 - Safe, Secure, Sustainable Water	Climate resilient water	1a.	Water restrictions will be rare for all water supply systems (<5% or 3 months out of the 5 years to July 2028)	For each separate water supply system, calculate the % of time on restrictions over 5 years from 1 July 2023 to 30 June 2028 = cumulative days on restrictions from 1st July 2023 divided by 1825 days. Select highest % of all systems.	% of time (days)	<5%	<5%	<5%	<5%	<5%
		1b.	Complete relevant actions from the WFOF strategy to deliver 3,330ML of extra water security for our region.	Volume of additional water security, cumulative (interim targets for years 1-4) - overall target by year 5.	ML	0	50	3,306	3,330	3,330
		1c.	85% of customers satisfied with overall quality of drinking water.	Customer satisfaction with the overall quality of drinking water, percentage of survey respondents answering "Satisfied" or "Extremely Satisfied", measured via Water Services Association of Australia (WSAA) National Survey every second year.	%	85%	-	85%	-	85%
	Water smart growth	1d.	Completion of five-year actions in the Northern and Western Geelong Growth Area Integrated Water Management Plan.	Status of actions to be completed.	Status	On track	On track	On track	Complete	Complete
		1e.	100% of Barwon Water actions in the Barwon Strategic Directions Statement for the Barwon Regional Integrated Water Management Forum have been completed.	The percentage of the total number of Barwon Water led actions in the Barwon Strategic Directions Statement (SDS) for the Barwon Regional IWM Forum that are completed.	%	0%	25%	37%	63%	100%
		1f.	100% of new growth precincts (PSPs) or new town structure plans are informed by an integrated water management plan.	% of new growth precinct (PSPs) or new town structure plans developed in PS2023 that are informed by an IWM plan.	%	100%	100%	100%	100%	100%
	Water efficient systems	1g.	Invested $2.5 million to save an extra 1,000 ML of drinking water by partnering with our customers through programs, advice and information.	Volume of water saved, cumulative (interim targets for years 1-4) - overall target by year 5.	ML	200	400	600	800	1,000
		1h.	Identified and addressed network losses through installation of 27,000 digital meters.	Digital meters installed, cumulative.	No.	300	5,000	8,500	15,000	27,000

Outcome	Aspiration	ID	Description	Detail	Units	2023-24	2024-25	2025-26	2026-27	2027-28
Outcome 2 - Innovative, reliable Services	Positive customer experiences	2a.	85% of customers who interact with us rate the ease of their experience as very good to excellent.	Customer 'ease of doing business' with us, percentage of survey respondents giving 8, 9 or 10 out of 10.	%	83%	83%	83%	84%	85%
		2b.	85% of customers who interact with us rate the satisfaction of their experience as very good to excellent.	Customer 'satisfaction' with us, percentage of survey respondents giving 8, 9 or 10 out of 10.	%	83%	83%	83%	84%	85%
		2c.	Consistently rated within top four Victorian water businesses for customer satisfaction.	Ranking in ESC survey for customer satisfaction.	Ranking position	Top 4	Top 4	Top 4	Top 4	Top 4
	Towards zero unplanned water	2d.	Achieved better than the Victorian industry average number of unplanned water supply interruptions per 1,000 connections.	Barwon Water's unplanned water supply interruptions per 1,000 connections compared to the Victorian industry average, reported retrospectively.	No. is below Vic average	TRUE	TRUE	TRUE	TRUE	TRUE
	Towards zero sewer spills	2e.	Achieved 10% improvement in sewer spills performance per 100 kilometres of sewer main.	Sewer spills rate.	No. per 100km sewer main	<16	<16	<15	<15	<14.4
	Beyond compliance	2f.	No more than two in 1,000 customers have complained about water quality each year.	Water quality complaints.	No. per 1,000 customers	≤2	≤2	≤2	≤2	≤2
		2g.	100% compliance with Safe Drinking Water Act.	% compliance with Safe Drinking Water Act.	%	100%	100%	100%	100%	100%
		2h.	100% compliance with EPA licence conditions.	% compliance with EPA license conditions.	%	100%	100%	100%	100%	100%
		2i.	Delivered a research portfolio on emerging contaminants of concern.	Research portfolio on emerging contaminants of concern completed.	Project status	On-track	On-track	On-track	On-track	Complete
		2j.	Reach (at least) core maturity against the mandatory requirements of the Victorian Protective Data Security Standards.	Assessed level of maturity against the Victorian Protective Data Security Standards.	%	Basic / Core Maturity	Basic / Core Maturity	Basic / Core Maturity	Basic / Core Maturity	Core Maturity
		2k.	94% of staff identify that Barwon Water Group is committed to supporting me to be healthy, safe and resilient.	% of staff who identify the BW Group is committed to supporting their health, safety and resilience, measured in annual survey.	%	78%	82%	86%	90%	94%

Outcome	Aspiration	ID	Description	Detail	Units	2023-24	2024-25	2025-26	2026-27	2027-28
Outcome 3 - Healthier Environment	Zero emissions	3a.	100% renewable electricity by 2025, so zero Scope 2 emissions (from electricity we use).	Percentage of electricity consumption from renewable sources.	%	43%	100%	100%	100%	100%
		3b.	Carbon sequestration program in place (implementation of projects complete), so on track for zero Scope 1 emissions (from direct emissions we generate) by 2030.	Carbon sequestration program implementation status.	Project status	On-track	On-track	On-track	On-track	Complete
		3c.	Plan developed by 2030, for addressing Scope 3 emissions (from our suppliers).	Status of plan development for addressing Scope 3 emissions.	Project status	On-track	On-track	On-track	On-track	On-track
	Zero waste	3d.	Extra 1,000 ML/year of recycled water allocated for productive use.	Volume of recycled water allocated for productive use, cumulative. *Allocations for productive use include new or additional volumes in Recycled Water Agreements, volumes committed in funding agreements for implementation of recycled water projects and volumes supplied to new dual pipe recycled water connections calculated based on 140L/new connection/day.	ML	60	150	345	650	1,000
		3e.	Completed feasibility assessment of large-scale alternative water grid (recycled water and treated stormwater).	Feasibility study of large scale alternative water grid.	Project status	On-track	On-track	Complete	Complete	Complete
		3f.	85% of recoverable industrial waste reused or recycled.	Recoverable industrial waste that is reused or recycled, percentage of total industrial waste able to be treated with current technologies.	%	63%	68%	75%	80%	85%
		3g.	100% of biosolids put to beneficial reuse.	Biosolids re-used.	%	100%	100%	100%	100%	100%
		3h.	In collaboration with local councils in our region, deliver an innovative design by July 2024 for an organic waste recycling facility.	Design of organic waste facility.	Project status	On-track	Complete	-	-	-

Outcome	Aspiration	ID	Description	Detail	Units	2023-24	2024-25	2025-26	2026-27	2027-28
	Healthy flows in rivers	3i.	3,700 ML/year long-term average equivalent entitlement returned to Moorabool River by 2025, to be shared between environment and Wadawurrung.	Water entitlement returned to the Moorabool River, long-term average equivalent. *Deemed to be completed when the entitlement is transferred. If this entitlement transfer process is not complete by the end of 2025, then any voluntarily release flow consistent with the Sustainable Water Strategy action by Barwon Water until such a time that the entitlement is transferred will be deemed to meet this target. (subject to Ministerial approval).	ML	0	0	3,700	3,700	3,700
		3j.	Spent $7.3 million to improve catchment and waterway health and quality by funding initiatives such as citizen science, Landcare, willow removal programs and other river restoration works.	Investment in catchment & waterway health.	$	$1.5M	$2.9M	$4.4M	$5.8M	$7.3M
	Care for Country	3k.	100% of actions under Stretch Reconciliation Action Plan delivered.	Number of Stretch Reconciliation Action Plan (RAP) actions delivered, as a percentage of total actions.	%	25%	50%	100%	100%	100%
		3l.	Improvement in staff awareness, attitudes and perceptions towards Reconciliation (as measured by the Workplace RAP Barometer).	Staff awareness, attitudes and perceptions towards reconciliation, measured by the RAP Barometer every two years.	%	-	Target being developed	-	Target being developed	-

Outcome	Aspiration	ID	Description	Detail	Units	2023-24	2024-25	2025-26	2026-27	2027-28
Outcome 4 - Trust, Affordability & Value	Bills affordable for all	4a.	One of the lowest residential bills in Australia for a water corporation of our size.	Barwon Water annual residential bill based on 200 kL per annum ranked nationally against businesses of a similar size.	Ranking position	Top 5	Top 5	Top 5	Top 5	Top 5
		4b.	Residential bills (home owner) do not increase beyond inflation and interest rate movements each year.	% change in the average residential homeowner bill (based on 160kL per annum).	%	≤CPI + CoD	≤CPI + CoD	≤CPI + CoD	≤CPI + CoD	≤CPI + CoD
		4c.	96% of customers can pay, or are supported to pay, their bills before overdue notices are issued (over a 12-month period).	The number of all bills issued (all customer types) compared to the number of overdue notices issued (all customer types), calculated as a rolling 12 month total and expressed as a percentage at the end of each months.	%	94%	94%	94%	95%	96%
		4d.	Business customers agree or strongly agree that their water bill is affordable.	Percentage of business customers who agree or strongly agree that their bill is affordable, measured in annual survey.	%	70%	75%	80%	85%	90%
	Community values us	4e.	Consistently rated within top four Victorian water businesses for value for money.	Ranking in ESC survey for value for money.	Ranking position	Top 4	Top 4	Top 4	Top 4	Top 4
		4f.	Consistently rated within top four Victorian water businesses for level of trust	Ranking in ESC survey for level of trust.	Ranking position	Top 4	Top 4	Top 4	Top 4	Top 4
		4g.	Community members believe we contribute positively to the region	Community members who agree or strongly agree that we contribute positively to the region, measured in annual survey.	%	70%	75%	80%	85%	90%
		4h.	90% of our key regional stakeholders and major business / industrial customers trust us.	Through an annual online survey with key regional stakeholders and major businesses, Barwon Water will ask a series of questions to gauge levels of trust, satisfaction and value for money.	%	70%	75%	80%	85%	90%
		4i.	Our workforce represents the community we serve: • Aboriginal & Torres Strait Islander – BW 4%, BAS 7% • People with a disability – BW & BAS 17.5% • Cultural and linguistic diversity –	Workforce represents the community we serve: • Aboriginal & Torres Strait Islander (min) • People with a disability (min) • Cultural and linguistic diversity (min)	% Staff Ratio	BW 3.5%, BAS 6.5% BW 15%, BAS 15% BW 22.5%,	BW 4%, BAS 7% BW 17.5%, BAS 17.5% BW 25%, BAS 16%	TBC post 30 June 2025 Workplace Gender Audit per Gender Equality Act 2020	TBC post 30 June 2025 Workplace Gender Audit per Gender Equality Act 2020	TBC post 30 June 2025 Workplace Gender Audit per Gender Equality Act 2020

Outcome	Aspiration	ID	Description	Detail	Units	2023-24	2024-25	2025-26	2026-27	2027-28
			BW 25%, BAS 16% • Gender balance – BW 43:57 BAS 25:75 (W:M)	• Gender balance (W:M) (+/- 10percentage tolerance)		BAS 14% BW 41.5:58.5, BAS 23.5:76.5	BW 43:57, BAS 25:75			
	Financially sustainable business	4j.	Operating expenditure is within +/- 10% of Price Submission forecasts (total across 5 years to July 2028).	Total opex on budget (+/- 10% tolerance), cumulative.	$ 2022-23 million	$133.4M	$267.3M	$402.0M	$536.9M	$670.7M
		4k.	Capital expenditure is within +/- 10% of Price Submission forecasts (total across 5 years to July 2028).	Capital works on budget (+/- 10% tolerance), cumulative.	$ 2022-23 million	$122.9M	$229.5M	$337.5M	$438.6M	$549.4M
		4l.	Advanced cash interest coverage ratio of 2.5 times or greater per annum over Price Submission period (5 years to July 2028).	Cash interest cover ratio.	Ratio	≥ 2.5	≥ 2.5	≥ 2.5	≥ 2.5	≥ 2.5
		4m.	Achieved an efficiency savings target of at least $5.8 million over the Price Submission period (5 years to July 2028).	Dollar benefit from continuous improvement activities, cumulative.	$ 2022-23 million	$0.8M	$2.2M	$3.6M	$5.1M	$5.8M

Appendix 5 – Schedule of Prices

Excluding CPI and CoD adjustments – in $2022-23 dollars

Tariff	Unit	2022-23 Tariff	2023-24 Tariff	2024-25 Tariff	2025-26 Tariff	2026-27 Tariff	2027-28 Tariff	*2023-24 change*	*2024-25 change*	*2025-26 change*	*2026-27 change*	*2027-28 change*
1.1 Residential water tariff												
Water volume charge	$/kL	2.2286	2.1976	2.1671	2.1370	2.1073	2.0780	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
Water service charge	$/year	135.11	133.23	131.38	129.55	127.75	125.98	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
1.2 Non-residential water tariff												
Water volume charge	$/kL	2.2286	2.1976	2.1671	2.1370	2.1073	2.0780	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
Water service charge	$/year	135.11	133.23	131.38	129.55	127.75	125.98	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
1.3 Residential sewerage tariff												
Sewer service charge	$/year	584.37	576.25	568.24	560.34	552.55	544.87	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
1.4 Non residential sewerage tariff												
Sewer volume charge	$/kL	1.9834	1.9558	1.9286	1.9018	1.8754	1.8493	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
Sewer service charge	$/year	353.58	348.67	343.82	339.04	334.33	329.68	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
1.5 Residential & non-residential fire tariff												
Sewer Service charge	$/year	271.77	267.99	264.27	260.59	256.97	253.40	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
1.6 Residential & non-residential Recycled Water - Class A tariff												
Class A recycled water	$/kL	1.5600	1.5383	1.5170	1.4959	1.4751	1.4546	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
1.7 Non-residential Recycled Water Volumetric Charge												
Class A	$/kL	1.5600	1.5383	1.5169	1.4958	1.4750	1.4545	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
Class C - Black Rock	$/ML	434.91	299.00	299.00	299.00	299.00	299.00	*-31.25%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Class C - Black Rock (take or pay)	$/ML	336.35	387.00	387.00	387.00	387.00	387.00	*15.06%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Class C - Portarlington	$/ML	257.11	257.00	257.00	0.00	0.00	0.00	*-0.04%*	*0.00%*	*n/a*	*n/a*	*n/a*
Class B - Portarlington	$/ML	*n/a*	*n/a*	*n/a*	680.00	680.00	680.00	*n/a*	*n/a*	*n/a*	*0.00%*	*0.00%*
Class C - Winchelsea	$/ML	257.11	109.00	109.00	109.00	109.00	109.00	*-57.61%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Class C - Anglesea	$/ML	109.07	109.00	109.00	109.00	109.00	109.00	*-0.06%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Class C - Apollo Bay	$/ML	109.07	109.00	109.00	109.00	109.00	109.00	*-0.06%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Class C - Bannockburn	$/ML	*n/a*	109.00	109.00	109.00	109.00	109.00	*n/a*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Class C - Birregurra	$/ML	*n/a*	109.00	109.00	109.00	109.00	109.00	*n/a*	*0.00%*	*0.00%*	*0.00%*	*0.00%*

Tariff	Unit	2022-23 Tariff	2023-24 Tariff	2024-25 Tariff	2025-26 Tariff	2026-27 Tariff	2027-28 Tariff	*2023-24 change*	*2024-25 change*	*2025-26 change*	*2026-27 change*	*2027-28 change*
1.8 Geelong region — Trade waste tariffs												
Trade waste volume charge	$/kL	1.9834	1.9558	1.9286	1.9018	1.8754	1.8493	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
COD > 1200mg	$/kg	0.2981	0.3188	0.3188	0.3188	0.3188	0.3188	*6.94%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
SS > 500mg	$/kg	0.2229	0.1642	0.1642	0.1642	0.1642	0.1642	*-26.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
TKN > 60mg	$/kg	1.3016	0.6230	0.6230	0.6230	0.6230	0.6230	*-52.14%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
S > 50mg	$/kg	1.4228	0.9820	0.9820	0.9820	0.9820	0.9820	*-30.98%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
1.9 Colac region – Trade waste tariffs												
Trade waste volume charge	$/kL	1.9834	1.9558	1.9286	1.9018	1.8754	1.8493	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
COD > 1200mg	$/kg	0.5178	0.3516	0.3516	0.3516	0.3516	0.3516	*-32.10%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
SS > 500mg	$/kg	0.3009	0.2387	0.2387	0.2387	0.2387	0.2387	*-20.67%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
TKN > 60mg	$/kg	1.5676	1.6422	1.6422	1.6422	1.6422	1.6422	*4.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
S > 14mg	$/kg	3.6775	15.3662	15.3662	15.3662	15.3662	15.3662	*317.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
1.10 Application Fees												
Trade waste permit (per application)	$/app	143.70	143.70	143.70	143.70	143.70	143.70	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Trade waste agreement (per application)	$/ app	518.95	518.95	518.95	518.95	518.95	518.95	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
1.11 Annual Fee (per annum)												
Category 5 - Very high risk	$/year	2,395.40	2,395.40	2,395.40	2,395.40	2,395.40	2,395.40	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Category 4 - High risk	$/year	962.94	962.94	962.94	962.94	962.94	962.94	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Category 3 - Moderate risk	$/year	434.32	434.32	434.32	434.32	434.32	434.32	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Category 2 - Low risk	$/year	245.89	245.89	245.89	245.89	245.89	245.89	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Category 1 - Very low risk	$/year	183.59	183.59	183.59	183.59	183.59	183.59	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
1.12 Re-Sampling & Analysis of Non-Compliant Trade Waste	$/item	359.25	359.25	359.25	359.25	359.25	359.25	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
1.13 Asset Protection Fee	$/item	1,224.81	1,224.81	1,224.81	1,224.81	1,224.81	1,224.81	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
1.14 Reassessment of Risk Ranking	$/item	159.65	159.65	159.65	159.65	159.65	159.65	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
1.15 Contravention Charges												
Unpermitted discharge – category 1	$/item	798.42	798.42	798.42	798.42	798.42	798.42	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Unpermitted discharge – categories 2-5	$/item	1596.90	1596.90	1596.90	1596.90	1596.90	1596.90	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Reporting violation – category 1	$/item	319.33	319.33	319.33	319.33	319.33	319.33	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Reporting violation – categories 2-5	$/item	798.42	798.42	798.42	798.42	798.42	798.42	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Monitoring violation – category 1	$/item	319.33	319.33	319.33	319.33	319.33	319.33	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Monitoring violation – categories 2-5	$/item	638.73	638.73	638.73	638.73	638.73	638.73	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Discharge violation – type 1, category 1	$/item	798.42	798.42	798.42	798.42	798.42	798.42	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Discharge violation – type 1, categories 2-5	$/item	1596.90	1596.90	1596.90	1596.90	1596.90	1596.90	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Discharge violation – type 2, category 1	$/item	399.20	399.20	399.20	399.20	399.20	399.20	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Discharge violation – type 2, categories 2-5	$/item	798.42	798.42	798.42	798.42	798.42	798.42	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Treatment violation – category 1	$/item	399.20	399.20	399.20	399.20	399.20	399.20	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Treatment violation – categories 2-5	$/item	798.42	798.42	798.42	798.42	798.42	798.42	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*

Tariff	Unit	2022-23 Tariff	2023-24 Tariff	2024-25 Tariff	2025-26 Tariff	2026-27 Tariff	2027-28 Tariff	*2023-24 change*	*2024-25 change*	*2025-26 change*	*2026-27 change*	*2027-28 change*
1.16 New Customer Contributions												
Water (incl. Recycled Water) - greenfield	$/lot	3,347.50	3,680.00	3,680.00	3,680.00	3,680.00	3,680.00	*9.93%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Water (incl. Recycled Water) - infill	$/lot	675.11	736.00	736.00	736.00	736.00	736.00	*9.02%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Sewer - greenfield	$/lot	*n/a*	539.00	539.00	539.00	539.00	539.00	*n/a*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Sewer - infill	$/lot	*n/a*	108.00	108.00	108.00	108.00	108.00	*n/a*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
1.17 Water by Agreement - customers not in a declared service area												
Untreated Water, service charge (70 per cent of water tariff service charge)	$/year	94.58	93.26	91.97	90.69	89.43	88.18	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
Untreated water - volume charge (70 per cent of water volume charge)	$/kL	1.5600	1.5383	1.5170	1.4959	1.4751	1.4546	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
Treated Water, service charge (85 per cent of water tariff service charge)	$/year	114.84	113.25	111.67	110.12	108.59	107.08	*-1.39%*	*-1.38%*	*-1.39%*	*-1.39%*	*-1.39%*
Treated water - volume charge (parity with water volume charge)	$/kL	2.2286	2.1976	2.1671	2.1370	2.1073	2.0780	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*	*-1.39%*
1.18 Miscellaneous fees and charges												
Information statement	$/item	$28.77	$28.32	$28.32	$28.32	$28.32	$28.32	*-1.56%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Supply of meter & assembly (recycled) in a dual pipe area	$/item	$244.19	$301.04	$301.04	$301.04	$301.04	$301.04	*23.28%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Supply of meter & assembly (potable) in a dual pipe area	$/item	$217.02	$245.40	$245.40	$245.40	$245.40	$245.40	*13.08%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Sewer application fee - new	$/item	$114.76	$112.90	$112.90	$112.90	$112.90	$112.90	*-1.62%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Installation of recycled meter in dual pipe area	$/item	$260.10	$229.46	$229.46	$229.46	$229.46	$229.46	*-11.78%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Installation of potable meter in dual pipe area	$/item	$235.54	$209.82	$209.82	$209.82	$209.82	$209.82	*-10.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Tenant meter read	$/item	$31.50	$28.95	$28.95	$28.95	$28.95	$28.95	*-8.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Metered hydrants yearly service charge	$/item	$975.41	$1,091.75	$1,091.75	$1,091.75	$1,091.75	$1,091.75	*11.93%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Dumping of effluent, per kL	$/year	$30.31	$30.31	$30.31	$30.31	$30.31	$30.31	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
100mm detector check meter	$/item	$2,364.94	$2,457.90	$2,457.90	$2,457.90	$2,457.90	$2,457.90	*3.93%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*