Hunter Water

2024 Pricing Proposal

Acknowledgement of Country

Hunter Water acknowledges the Traditional Countries of the Awabakal, Gaewegal, Darkinjung, Wonnarua and Worimi peoples on which we operate and the Countries beyond where our water flows.

We recognise and respect their cultural heritage, beliefs and continuing connection to the lands and waters of our Traditional Custodians and pay respect to their Elders past, present and emerging.

Artwork by Tyson Jolly

Attachments

Providing essential services at a reasonable cost

A message from the Hunter Water Board of Directors

Geoff Crowe
Chair

Darren Cleary
Managing Director

Welcome to our 2025-30 pricing proposal, which sets out how we'll deliver on the expectations and priorities of our customers, community, and stakeholders to create a sustainable water future for all.

We aspire to keep our customers and community at the heart of all we do. Our proposal is grounded in recent insights about what matters most to you. Our proposal reflects input from nearly 9,000 customers, community members and stakeholders, gathered through a comprehensive engagement program spanning several years.

We understand that many of our customers are struggling with cost-of-living pressures. Between a quarter and a third of our community have told us that they have struggled to pay their water bill, or another bill, on time over the last year. This has roughly doubled since 2021.

Customers want us to keep bills as low as possible. To do this we are proposing to:

- focus on the outcomes that are most important to customers
- invest where it's essential to meet our statutory and regulatory obligations
- dig deep and challenge ourselves to be as efficient as possible.

However, it's a challenging time for our business.

We are experiencing similar rising costs to our customers. This means our prices will need to rise substantially, even for us to deliver the same quality of service that we currently do.

For many years we have operated with a water supply system that is highly susceptible to drought. Water storages could fall from typical operating levels to critically low levels in around three years during a severe drought. This is due to our current water supply system having small storages relative to demand, high natural losses and a complete reliance on rainfall.

The 2017-20 drought was one of the worst on record and demonstrated we need a better plan that provides us time to respond in a severe ongoing drought.

We have heard loud and clear that providing safe and reliable water supply is our most important job. Reflecting our community's preference, we are putting additional effort into reducing leakage from our system and helping our customers save water. We are also tackling this challenge by investing in a new permanent desalination plant to reduce our reliance on rainfall and help secure our region's water supply for generations to come as the climate changes.

We are also responding to a range of other challenges. Population growth, ageing assets, and climate change are driving investment needed to continue to provide safe water, protect the environment, and meet our compliance obligations.

To keep bills as affordable as possible, we have prioritised expenditure, and deferred some projects, which means we are taking on additional risks rather than asking you to pay more. We will remain agile and adapt our plans as needed during this pricing period to make sure our service quality and environmental performance does not suffer.

We are also improving several aspects of our services.

Our community believes in fairness and supports our efforts to address systemic service failures affecting customers who repeatedly experience low water pressure, or encounter issues with wastewater overflows in wet weather, or odours from our wastewater system.

We will continue to do our part to mitigate climate change, and transition towards net zero carbon emissions.

Although we are proposing price increases, these will vary across our services.

To give customers more control over their bills, we plan to recover most of the

We'll implement these price increases gradually in five small steps instead of one large increase. This phased approach allows time for adjustment, though we understand some customers may find it challenging to pay.

We're committed to helping customers who are struggling with their water bills and ensuring everyone has access to affordable, safe water and wastewater services. To fulfill this commitment, we'll increase our assistance programs by about 25% and stay flexible to meet evolving needs.

We worked closely with our community to set clear, measurable customer outcomes for the upcoming pricing period. These are our commitments to you, and we'll openly share our progress to remain accountable. The outcomes are included in Miromaliko Baato: our corporate strategy, to help ensure we maintain your trust by delivering what we say and what matters most to you.[1]

We believe this proposal is in the best long-term interests of our community. We have tried to strike the right balance between meeting the expectations of our community and keeping bills as low as possible. And we have pushed Hunter Water to be as efficient as possible.

We sincerely thank everyone who participated in our community engagement program to help us make this pricing proposal. Moving forward, we'll apply these insights across all our activities, maintaining our focus on your priorities and principles over the next five years. We'll continue to engage and listen as your perspectives evolve.

We encourage you to stay involved by registering for future engagements focused on specific areas and projects.

Geoff Crowe
Chair

Darren Cleary
Managing Director

In accordance with the *Water Regulation Handbook*, July 2023 of the Independent Pricing and Regulatory Tribunal of New South Wales, the directors of Hunter Water, having made such reasonable inquiries of management as we considered necessary (or having satisfied ourselves that we have no query), attest that, to the best of our knowledge and for the purpose of proposing prices for the Independent Pricing and Regulatory Tribunal's review of Hunter Water's prices:

- The pricing proposal would best promote the long-term interests of its customers
- The pricing proposal:
  - Is the business's best customer value proposition and is consistent with our customer engagement strategy.
  - Would deliver services at the lowest sustainable cost and is consistent with our cost efficiency strategy.
- The information provided in the pricing proposal submitted on 30 September 2024 is the best available information of the financial and operational affairs of Hunter Water and has been checked in accordance with the Water Regulation Handbook; and
- The pricing proposal has been subject to a quality assurance check, which certifies the accuracy and consistency of all data, including confirmation of the following:
  - Information in the pricing proposal is consistent with the business's information return (AIR and SIR), the business's financial accounts, and reports against output measures, as relevant.
  - Figures in the business's pricing proposal are accurate and correctly sourced.
  - The pricing proposal includes proposed prices for all the business's regulated services.
- There are no circumstances of which we are aware that would render the information provided to be misleading or inaccurate.

On behalf of the Board by the Chair and Managing Director:

Geoff Crowe

Chair

26 September 2024

Darren Cleary

Managing Director

26 September 2024

Proposal overview

Our proposal will deliver an advanced level of customer value

IPART's new framework for regulating water businesses is built upon the 3Cs: Customers, Costs, and Credibility. It is centred on delivering customer value through 12 guiding principles. The principles seek to ensure we actively engage with our customers to develop a set of outcomes aligned to their preferences and propose expenditure that delivers these outcomes as efficiently as possible.

IPART's role is to *ensure customers get safe and reliable water services at a fair price.*

IPART's 3Cs framework aims to incentivise water businesses to demonstrate that their proposal has been developed with customers and community at the heart, and by doing so, achieved the aim of delivering safe and reliable services at a fair price.

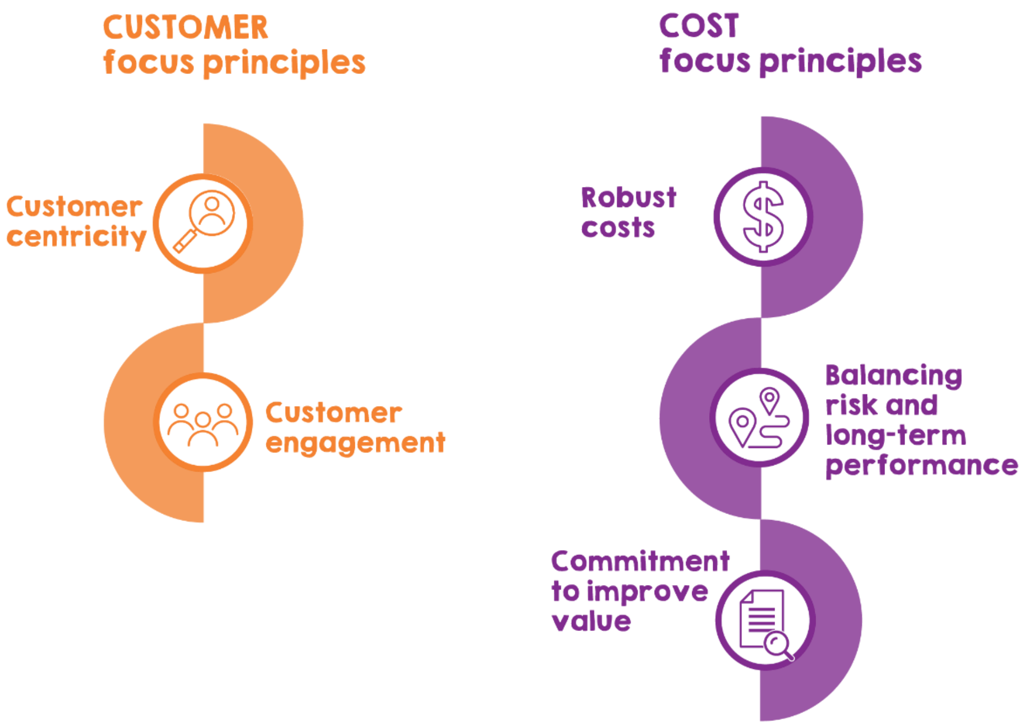
We've welcomed IPART's changes to its regulatory framework, and we are putting forward what we consider to be our best proposal.

We've listened to our customers, made difficult trade-off decisions, and struck the right balance between risk, long-term service performance, and affordability, to make a proposal that's in our customer's best long-term interests. We believe our proposal commits to delivering an advanced level of customer value.

We provide evidence that our proposal is credible and achievable, supported by our strong performance track record. The proposal demonstrates how we will remain accountable, and how we will adapt and evolve during the pricing period to respond to inevitable change and new challenges.

In developing this proposal, we have focused on the guiding principles shown in Figure 1. Our focus principles were informed by insights gained through community engagement. We have provided these principles additional weight when deciding to self-grade our proposal as advanced.

Figure 1: Hunter Water's focus principles



It is a challenging environment to be proposing new prices

While all price reviews take place under unique circumstances, the context in which we are making this proposal is more challenging than when our prices were last set in 2016 and 2020. In the 2020 price review, falling interest rates and weighted average cost of capital (WACC) protected customers from material potential bill increases. This time, interest rates have risen, and we forecast the WACC to be higher, putting upward pressure on customer bills.

Customers in the Lower Hunter tend to experience a higher degree of socio-economic disadvantage, and are more reliant on government benefits, compared to those in Greater Sydney.

An increasing number of customers are telling us they are struggling to pay their water or other bills, and that they are either just, or not, meeting basic expenses. Throughout our pricing proposal engagement program, we have heard that it's essential we keep bills as low as possible.

At the same time, our business is also facing cost pressures. The costs of constructing and renewing infrastructure have outpaced consumer inflation (CPI) during the current pricing period. Costs are increasing across our supply chain, in contracted maintenance and operational activities, and to attract and retain employees.

Trends such as a more variable and changing climate, growing population, digital disruption, evolving customer and stakeholder expectations, and an ageing network of water, wastewater and stormwater assets are some of the other challenges we are grappling with.

We must continue to comply with regulations and meet customer, community and stakeholder expectations. This environment is driving the need to innovate and solve problems as efficiently as possible.

We have major service challenges to address across several areas – water security, water quality, environmental protection, and safety – to ensure we comply, and customers receive reliable services.

On the other hand, the timely phased reintroduction of developer charges will place some downward pressure on customer bills in the upcoming pricing period and will have an increasing impact over time as the infrastructure costs of servicing new development will no longer be recovered from existing customers.

We must act now to improve our water security

Our community has made it clear that providing a secure water supply is essential. Our water storages could fall from typical operating levels to critically low levels in around three years during a severe drought.

It's crucial we make a step change improvement in water security by continuing to reduce the leakage from our network, to continue to work our community to conserve water and delivering a new desalination plant in Belmont. This will reduce our dependence on rainfall and help ensure a secure water supply for our region as the climate continues to change and we experience more variable and extreme weather.

We've done all we can to keep bills affordable for our customers, pushing ourselves as a business and making difficult trade-offs

We have developed long-term investment plans that helped us identify the capital and operating expenditure needed to ensure we respond to the trends and challenges we face, comply with regulations and meet customer expectations over the next ten years and beyond.

The investment planning process resulted in projected expenditures with real average bill increases (before inflation) of about 10 per cent per year for a typical house. This investment scenario was comprised of justifiable, prudent projects, primarily to address compliance obligations and stakeholder expectations, with only modest strategic improvement in some areas – this scenario was not a gold-plated wish list.

We understand our customers are struggling with cost-of-living and they have told us its essential to keep bills as low as possible. We've taken this seriously – the entire development of our pricing proposal and the decisions we've made, have been built around ensuring we achieve that goal.

With rising costs, a challenging operating context, and the need to improve water security, we've had to defer justifiable investments and slow our ambition in other areas. To keep bills as low as possible, we are proposing a level of expenditure that:

- Focuses on compliance and protecting public health, safety, and essential service outcomes for customers and the environment; achieving only targeted improvements our customers said are important to them.
- Is heavily prioritised, demonstrating the difficult trade-offs we have made, and meaning Hunter Water will take on more risk in some areas by deferring investment, instead of asking customers to pay more.

  We are taking additional risks in areas where we can monitor our service performance and changing risk positions, where we can put contingencies or mitigations in place, and where we will be able to adapt and respond as needed if risks eventuate. We will need to be flexible and adapt our plans as necessary to ensure success.
- Includes ambitious cost efficiency targets (about 1 per cent per year) across capital and operating expenditure that puts downward pressure on prices and incentivise us to be as efficient and innovative as possible.

Despite our best efforts, rising costs mean we need to propose higher prices and bills for customers – real increases of 5.7 per cent per year for a typical house receiving water, wastewater and stormwater services.

We understand some customers who are already feeling cost-of-living pressures may have further difficulty making ends meet. It's not a decision we take lightly, but higher prices are essential to protect services and prices for future generations.

We are providing increasing support for customers experiencing vulnerability or financial hardship.

The services we provide and area we serve

We provide water, wastewater, stormwater and recycled water services across a broad area of operations reaching into seven local government areas (Lake Macquarie, Maitland, Newcastle, Dungog, Cessnock, Port Stephens and parts of Singleton) and five traditional countries (Awabakal, Wonnarua, Worimi, Geawegal, Darkinjung), as shown in Figure 2.

Figure 2: Our area of operations

We developed our proposed services and prices with our community

We have an essential role to provide safe and reliable water services to the region. Our customers don't have a choice in service provider, therefore it's crucial for us to listen to them, and deliver the services they expect and value at the right price.

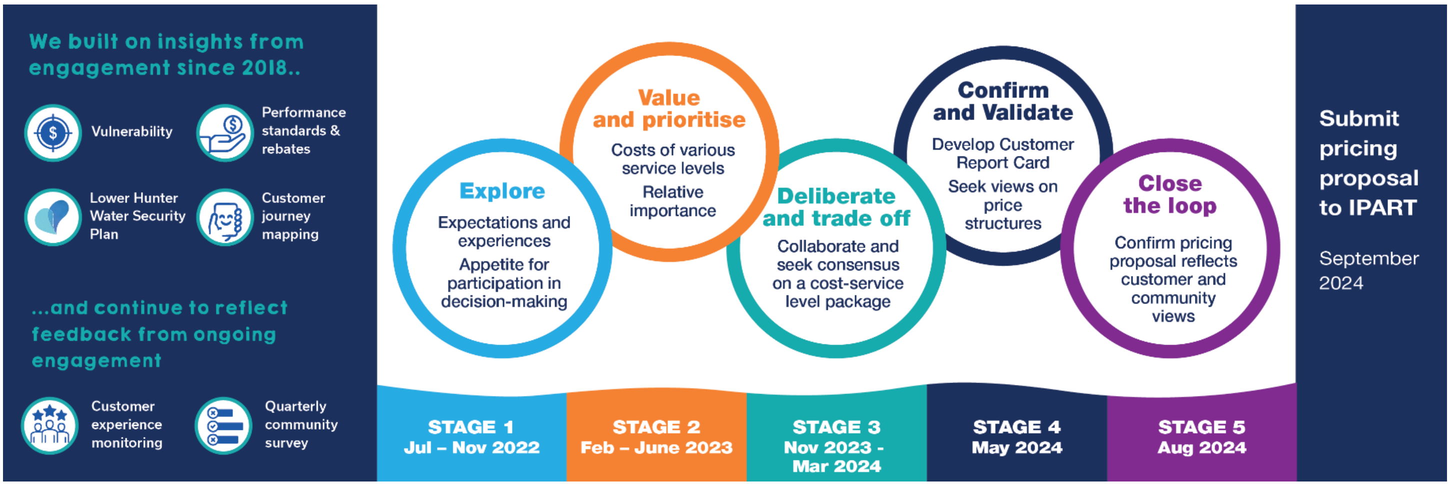
This pricing proposal is based on a thorough understanding of what matters most to our customers – their values, needs, and priorities.

Our multi-stage engagement program, shown in Figure 3, started with insights from our regular interactions with customers and recent targeted engagement. We then built on that understanding through extensive and in-depth engagement to inform this proposal.

The insights we've gained from conversations with customers, our community and stakeholders have directly shaped this pricing proposal and our long-term corporate strategy.

An independent forum of experts – our Community Engagement Advisory Panel (CEAP) – has reviewed and constructively challenged how we listened and learned from our community in developing our price proposal.

Figure 3 Our pricing proposal customer and community engagement program



Key insights we learnt with our customers

- Our community see delivering clean, safe, reliable water services as Hunter Water's number one job.
- With current cost-of-living pressures, keeping bills as low as possible is crucial.
- The community consider equity important and believe it's unacceptable for some customers to experience ongoing issues with wastewater overflows, odours, or low water pressure.
- We need to do more to reduce leakage to help improve the region's water security.
- We should continue to do our part in mitigating climate change, by reducing carbon emissions
- While price increases are not preferred, if necessary, they should be gradual and mainly through higher variable charges to allow customers the opportunity to lower their bills by conserving water.

Our customer outcomes reflect what our customers want us to focus on

The customer outcomes are our commitment to our community in this pricing proposal. Insights we gained from listening to our customers since 2018 have shaped these outcomes (shown in Figure 4).

We will improve our performance for three out of six key outcomes: *High quality water services, water security, and environmentally sustainable.* This aligns with our community's priority to minimise bill increases while concentrating on the targeted improvements summarised in Table 1.

Figure 4 Proposed customer outcomes

Table 1 Areas of improvement

Area of improvement	How we will improve
Repeat service problems (hotspots)	We will fix at least 1,000 repeat service issues for customers. This compares with our baseline of addressing hot spots affecting 40 customers each year, on average over the last four years.
Leakage from our system	We will reduce leaks in our system. Our leakage performance will improve by nearly 40%, likely placing us among industry leaders in leakage.
Greenhouse gas emissions	We will reduce our emissions by at least 80%, compared to a 2020-21 baseline. This means we will exceed minimum government targets by 2030.
Rainfall-independent water supply	Delivery of a permanent desalination plant which will provide a rainfall-independent water source and add up to 30 million litres per day of water supply into the Lower Hunter system.

We will be accountable for customers receiving what they paid for

The key mechanisms we are putting in place to ensure we are accountable are:

- transparent and accessible performance reporting via a customer report card
- the ongoing involvement of a Community Committee tasked with assessing our performance rating for each outcome on our customer report card annually
- rebates for when we don't meet service expectations, including a new rebate for customers affected by repeat service problems if we don't resolve these by 2030
- IPART's financial incentive schemes: the Efficiency Benefit Sharing Scheme (EBSS), Capital Efficiency Sharing Scheme (CESS), and an Outcome Delivery Incentive (ODI) for water leakage.

Our proposed investment focuses on compliance and targeted improvements

We will invest $1.55 billion capital expenditure in 2025-30 to maintain and improve our services. We have prioritised this down from about $2.1 billion to keep bills as low as possible.

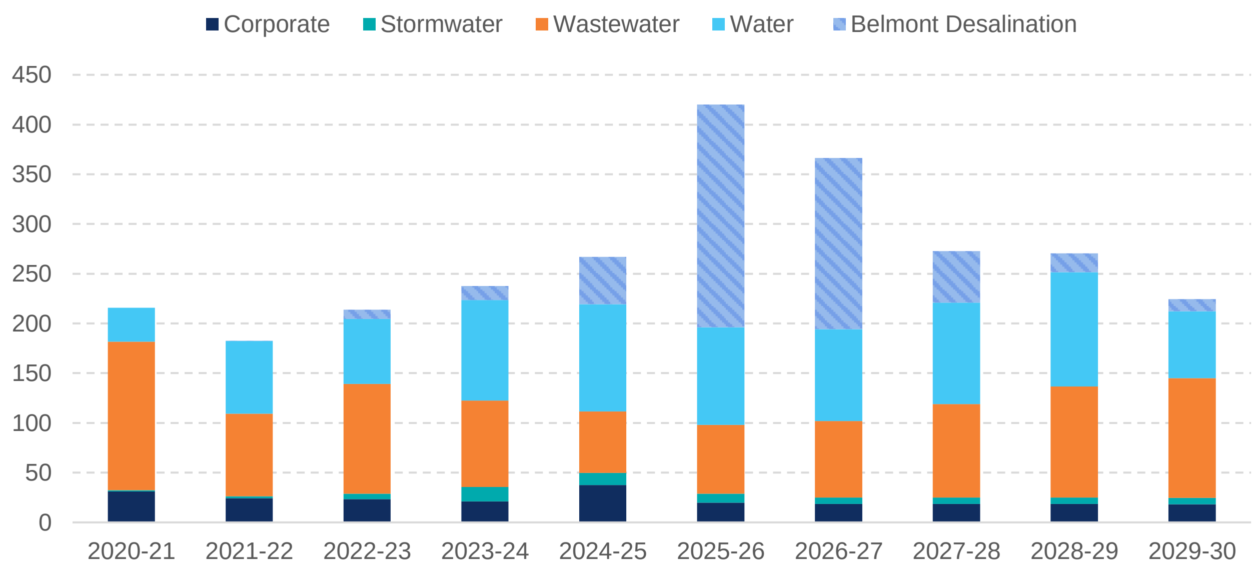
The product breakdown in Figure 5 shows that during the current pricing period, we predominantly invested capital expenditure in our wastewater system. This included several wastewater treatment plant upgrades. In the upcoming pricing period, most (61 per cent) of our expenditure is on our water services.

The new desalination plant at Belmont is a key element of our investment program, as shown in Figure 6; however, we also require considerable investment to protect the quality and reliability of our water supply.

Belmont desalination represents nearly one-third of our total proposed investment for the upcoming pricing period. Accommodating such a large investment, while keeping bills as low as possible, means we have needed to reduce investment in other areas.

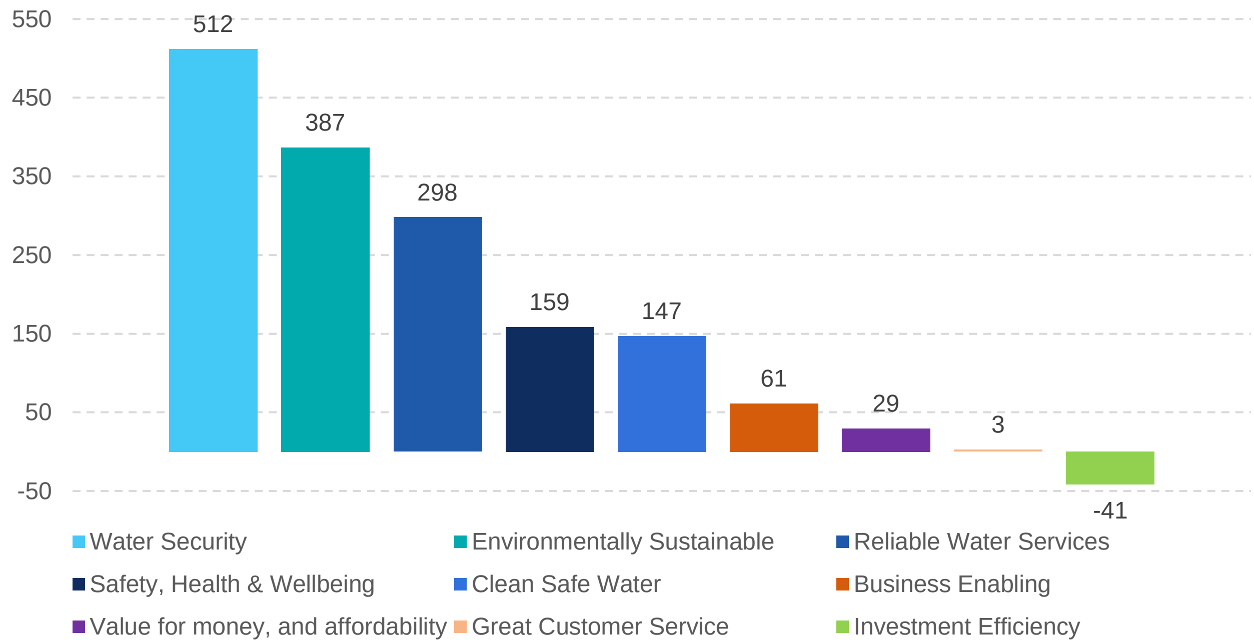
Figure 5 highlights that without Belmont desalination our proposed level of expenditure in the upcoming pricing period is similar to the level of expenditure in the current pricing period. Given the supply chain and construction cost inflation experienced in the water industry in recent years, this demonstrates a restrained level of proposed future investment. Our focus is on customer affordability, and we have prioritised and deferred investments, and are prepared to assume additional business risks to achieve this goal.

Figure 5 Capital expenditure in 2020 to 2030, by product ($million, $2024-25)



Source: Figure 4.1

Figure 6 Proposed capital expenditure in 2025-2030, by outcome ($million, $2024-25)



Source: Figure 4.3

We are confident in our ability to deliver our proposed investment portfolio

We've assessed deliverability risk and have a credible plan to deliver the proposed expenditure within the 2025-30 period. Our proposed investments will be delivered through our mature and robust, asset management, procurement, and investment governance and assurance processes.

The current market presents challenges, including high demand for infrastructure construction, resourcing and supply chain constraints, and contractors showing a lower tolerance for risk. We are actively engaged in the market and are leveraging long-term strategic partnerships to strengthen our capability and capacity. These partnerships drive efficiencies and help us to secure the necessary skilled resources while maintaining flexibility in project timing and scope.

Our procurement approach focuses on value-for-money outcomes, supported by optimising sourcing activities and engaging the right suppliers. Many of our key investments, including the Belmont Desalination Plant, are underway or ready to commence, providing confidence and certainty that we have the capacity and capability to deliver complex projects within the period.

Excluding Belmont desalination, our investment levels remain similar to previous pricing periods – where we have demonstrated the capacity and capability deliver.

We have a strong history of delivering projects and fulfilling our commitments earning credibility with both customers and stakeholders. In the previous pricing period (2020-24) we delivered our capital investment to within 2 per cent of the determination allowance, despite unprecedented challenges such as COVID-19 and increased wet weather from repeated La Niña events. This proven track record, combined with our proactive approach to managing market challenges, gives us confidence in our ability to successfully deliver on our proposal.

Higher levels of capital expenditure will need to continue in the 2030-35 pricing period to address important strategic issues

Our investment planning takes a long-term view, and we have determined $1.6 billion in capital investment is required to comply with regulatory requirements in the subsequent 2030-35 pricing period. We revisit our plans regularly and expect to adapt over time.

The need to resolve a variety of important issues, necessitating major projects, dominates our capital expenditure outlook in 2030-25 including: managing the biosolids produced by our wastewater treatment plants, addressing dam safety issues, finishing the renewal of the critical Chichester trunk gravity main water pipeline, and upgrading wastewater treatment plants to meet existing Environment Protection Licence requirements at Kurri Kurri, Morpeth and Raymond Terrace.

The investment outlook shows that the challenges we face keeping bills as low as possible in the upcoming pricing period will continue into the 2030s as we seek to resolve these important issues.

We propose higher operating costs for the upcoming pricing period

Benchmarking shows that we have historically, and continue to be, one of the lowest cost service providers of all major Australian water utilities, and we're projecting that operating costs per property will decline even further over the upcoming pricing period.

We've driven substantial efficiencies over the current period, particularly in maintenance delivery and energy costs. This has helped offset a variety of cost pressures.

We have adopted the Base-Trend-Step methodology to forecast our future operating expenditure. Total proposed operating expenditure in the upcoming pricing period (see Table 2), is $978.8 million, an average of $195.8 million per year – this is 1.6 per cent higher than IPART's average allowance for the current period.

Operating expenditure is increasing due to:

- Dwelling growth of 1.3 per cent per year [1]
- upward price trends relating to electricity, chemicals and fuel excise, treatment operations, and recently retendered maintenance contracts
- step changes in operating expenditure required to deliver customer outcomes, test the Belmont desalination plant, increased investment to manage cybersecurity risks and the ongoing shift of digital solutions from capital expenditure to operating expenditure.

We forecast that operating expenditure in the subsequent (2030-35) pricing period will see substantial step-change increases including the operation of the Belmont desalination plant and replacing the end-of-life enterprise resource planning platform we rely on for asset management, customer services, procurement, finance and human resources functions.

Table 2 Operating expenditure, by base-trend-step component ($2024-25, $millions)

Component	2025-26	2026-27	2027-28	2028-29	2029-30	5-year total
Base	175.2	175.2	175.2	175.2	175.2	**875.9**
Trend – Growth	4.7	7.1	9.5	11.9	14.3	**47.4**
Trend – Price	4.5	4.8	4.7	4.7	4.7	**23.4**
Trend – Efficiency	(4.0)	(5.7)	(7.1)	(8.9)	(10.7)	**(36.4)**
Trend – Subtotal	5.2	6.2	7.1	7.7	8.3	**34.4**
Step changes	7.0	7.3	9.2	9.4	7.9	**40.7**
Controllable expenditure	187.4	188.6	191.4	192.2	191.3	**951.0**
Non-controllable	5.6	5.6	5.6	5.6	5.6	**27.9**
Total operating expenditure	**193.0**	**194.2**	**197.0**	**197.8**	**196.9**	**978.8**

Source: Table 5.2

[1] We have used forecast dwelling growth to trend increase our operating expenditure. We have used forecast billable connection growth to set prices. 'Billable connections' differ slightly from the number of 'dwellings'. Billable connection numbers have several rules applied in their calculation to enable the calculation of service charge revenue as used in setting our proposed prices.

Required revenues will need to increase in the upcoming pricing period

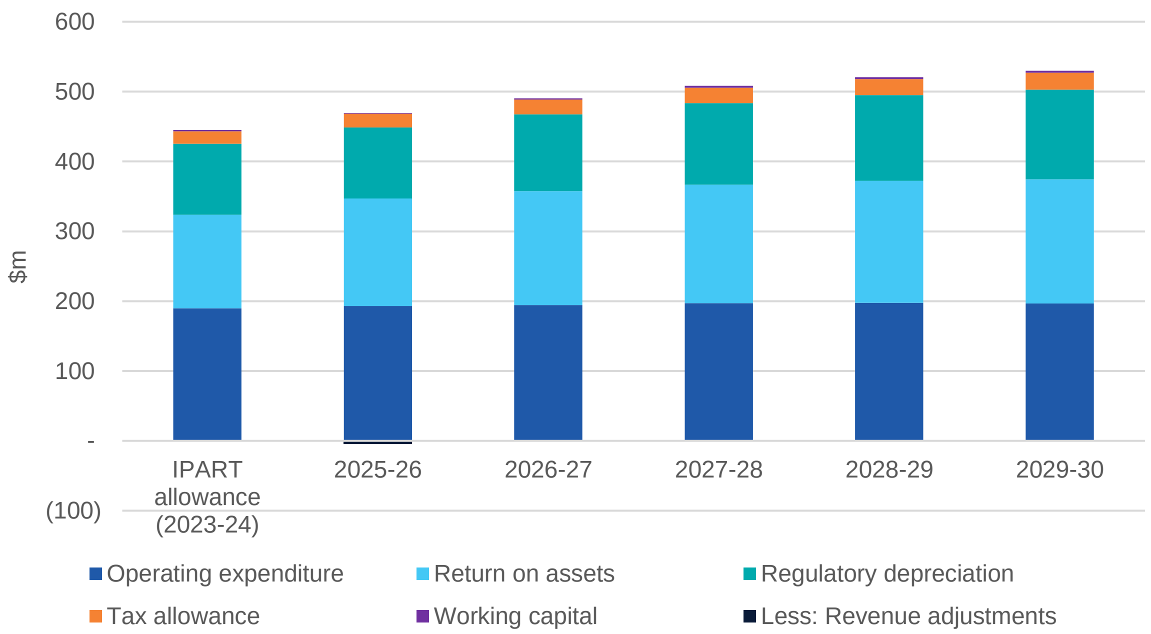
We have used IPART's building block methodology to forecast the revenues required to recover our efficient costs.

Revenues will increase across the upcoming pricing period, as shown in Figure 7, placing upward pressure on prices. Across all products, the growing return on assets and regulatory depreciation building blocks are the main drivers of the increase. The Regulatory Asset Base (RAB) continues to grow as capital expenditure added outpaces regulatory depreciation.

To calculate regulatory depreciation, we have weighted our asset lives by depreciation. This method results in average lives that are at the shorter end of a possible range, supporting intergenerational equity by ensuring the challenges of today are not unduly deferred to future pricing periods where other challenges already await.

We have forecast a weighted average cost of capital (WACC) of 3.6 per cent for the upcoming pricing period. This is 0.2 per cent higher than the 3.4 per cent applied in the current pricing period.

Figure 7 Proposed revenue requirements, Total ($2024-25, $millions)



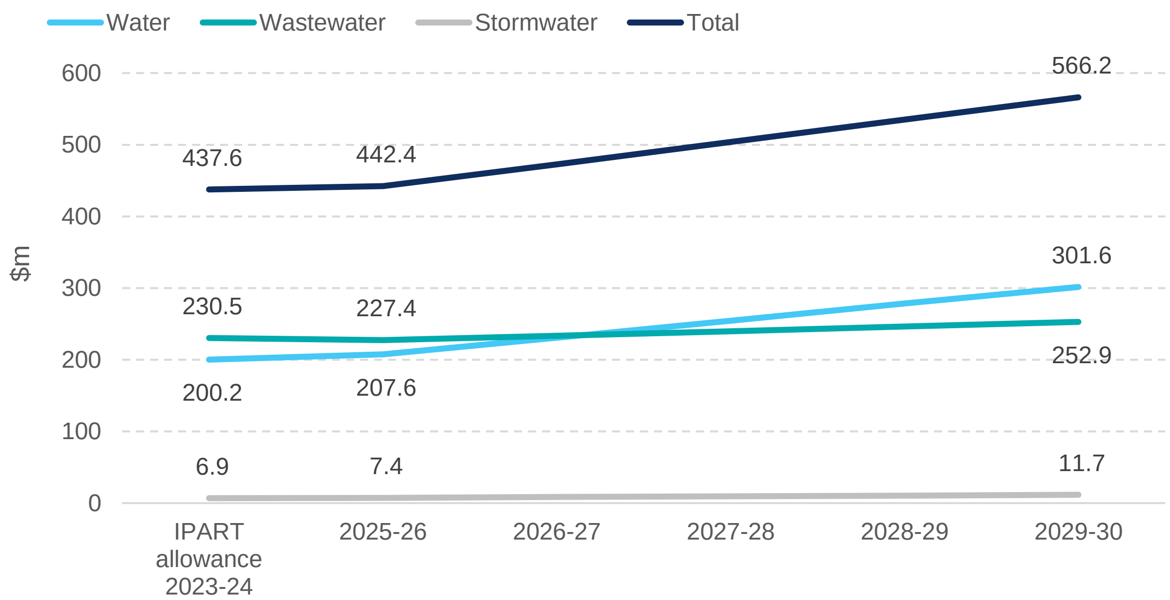
Source: Table 6.5

Figure 8 shows proposed target revenue by product and highlights that the largest increase is in the revenue required to deliver our water services – due to higher proposed expenditure to safeguard water security, quality, and reliability.

Required stormwater revenues are increasing materially in percentage terms. This is driven by the relatively small opening stormwater RAB, and an increase in recent capital renewals and maintenance to manage our ageing stormwater assets.

Proposed target revenues pass IPART's financeability test demonstrating our proposal is financially sustainable.

Figure 8 Proposed target revenues, by product ($2024-25, $millions)



Source: Figure 6.3.

The reintroduction of developer charges puts downward pressure on bills for residential and non-residential customers

This pricing proposal assumes the continued phased reintroduction of developer charges, which commenced on 1 July 2024.

Developer charges are location-specific, upfront charges that help to recover the costs of providing or upgrading infrastructure for new development. Developer charges provide a price signal to the development community of the different costs to deliver services in various locations across our region.

Hunter Water and Sydney Water developer charges were set to zero in 2008 in response to the Global Financial Crisis. Since 2008, Hunter Water and Sydney Water's existing customers have been required to fund the costs of servicing new development.

The NSW Productivity Commission's 2020 Infrastructure Contributions Review recommended the reintroduction of developer charges to address immediate and long-term challenges faced by state and local governments.[1] These challenges include a growing and ageing population, rising infrastructure demand, increasing costs, housing undersupply, and environmental issues.

Former Treasurer Kean directed Hunter Water and Sydney Water to begin a phased reintroduction of developer charges over two years from 1 July 2024. Full charges for new development will apply from 1 July 2026 and were calculated under IPART's developer charges methodology.[2,3]

Economic feasibility analysis undertaken in response to the reintroduction of the charges indicated that there will be negligible impacts on house prices and the reintroduction of developer charges will lead to more efficient growth by sending price signals to the market about where it is more cost effective to deliver water infrastructure.

The reintroduction of developer charges will, over time, result in water and wastewater bills for residential and non-residential customers that are materially lower than if these charges were not in place.

We will experience growth in connections and population, but expect water demand to remain relatively steady

We expect total billable water connections to grow at a rate of about 1.4 per cent per year over the upcoming pricing period[4]. We can usually forecast overall connection growth across our area of operations well, although the economic and demographic effects of the COVID-19 pandemic created some surprises.

Residential connection growth has been above long-term historical averages, and we expect this to continue across the upcoming pricing period. Apartments comprise a growing proportion of our residential connection growth.

In the upcoming pricing period, we forecast total potable water demand to increase by only 0.2 per cent per year, despite higher population and connection growth. We expect growth will largely be offset by lower average household water use due to increasing water efficiency, and lower non-residential water demand, influenced by increasing water efficiency and the eventual closure of Eraring power station – one of the largest water users in our region.

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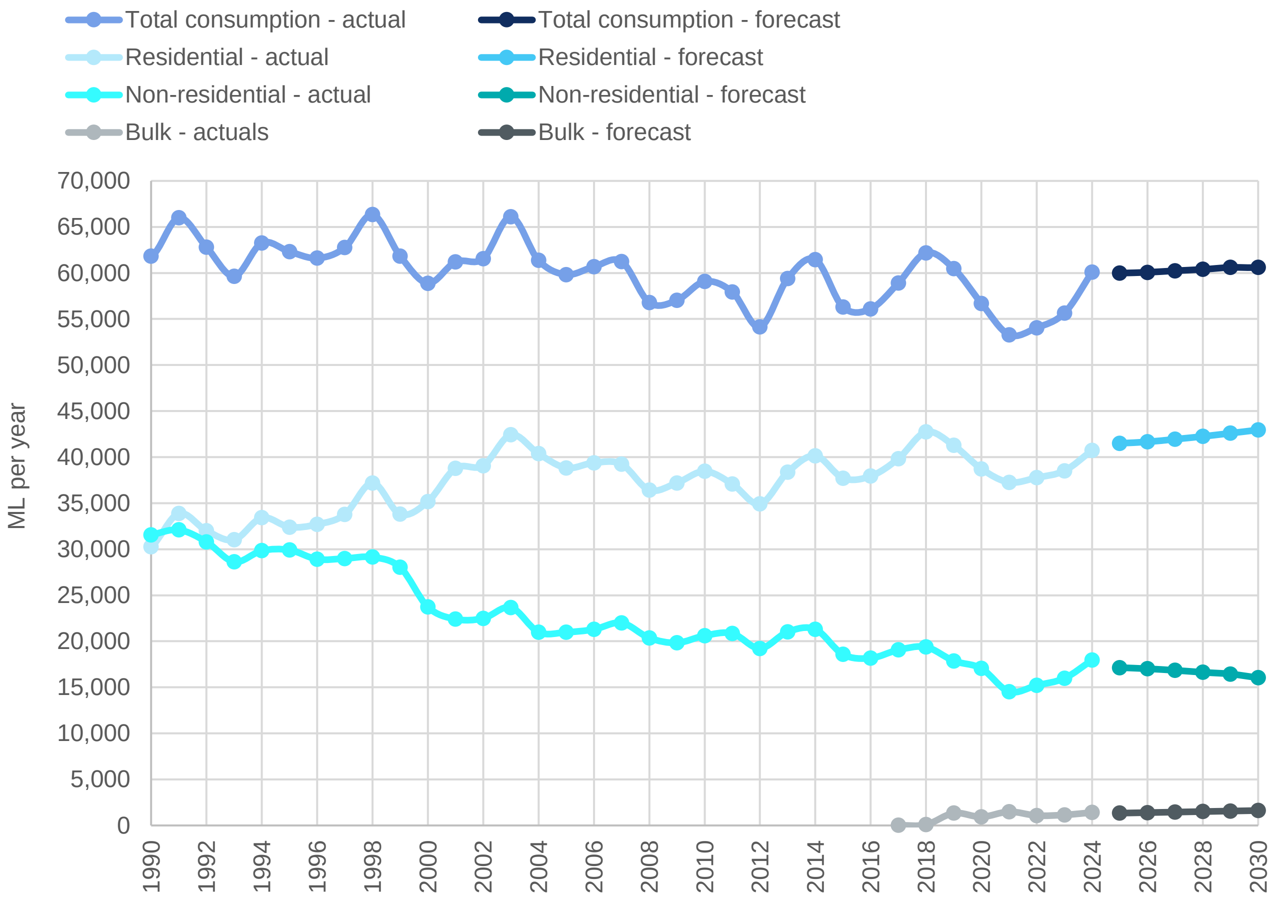
[1] NSW Productivity Commission, 2020, Review of infrastructure contributions in NSW: https://www.productivity.nsw.gov.au/infrastructure-contributions-review

[2] NSW Treasurer, 2022: https://www.ipart.nsw.gov.au/sites/default/files/cm9_documents/Letter-from-Treasurer-to-Hunter-Water-Phase-in-of-Developer-Charges-19-October-2022.PDF

[3] IPART 2018, Maximum prices for connecting, or upgrading a connection, to a water supply, sewerage, or drainage system https://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Metro-Pricing/Developer-charges-and-backlog-sewerage-charges-for-metropolitan-water-agencies-2018

[4] We have used forecast billable connection growth to set prices. We have used forecast dwelling growth to trend increase our operating expenditure. 'Billable connections' differ slightly from the number of 'dwellings'. Billable connection numbers have several rules applied in their calculation to enable the calculation of service charge revenue as used in setting our proposed prices.

Figure 9 Historic and forecast water sales volumes, 1990 to 2030



Source: Figure 7.3

Our prices will need to rise to recover our costs

Rising costs and revenue requirements will result in higher prices for customers.

Our current price structures are cost-reflective, efficient and fair, having evolved through previous price reviews. We are not proposing any major changes to our price structures.

The views of our customers have helped shape our proposed prices

During our customer and community engagement process, our customers told us that price structures were an important issue and something they wanted to influence. We adapted our engagement plans and asked them three key questions:

Should prices increase with a large one-off step in year one of the upcoming pricing period, or be phased in gradually?

Customers expressed a strong preference for increasing prices as five smaller steps – this will minimise the impact on customers struggling with cost-of-living pressures as much as possible. We have adopted this approach in all our proposed water, wastewater and stormwater prices.

Should the increases in water prices be passed on to customers in fixed charges, in variable charges, or a mix of both?

Customers supported a mix of both, but with most of the increase in the water usage charge. This demonstrated a preference to have a high degree of control over water bills and encourage water conservation but showed consideration to the impacts on specific customer groups (e.g. tenants and large households). Our proposed balance between variable water usage, and fixed water service charges, aligns with our customer's preference.

Should we continue with a 100% fixed wastewater charge (based on deemed usage) or (re)-introduce an explicit variable component based on estimated discharge volume for each customer?

We asked our customers about this complex topic. The results showed mixed support for reintroducing an explicit residential wastewater usage charge. A majority favoured the change; however, we don't consider the level of support compelling enough to shift to what we consider to be a more complicated and less equitable charging approach.

The water usage charge will rise, but fixed charge will remain relatively low

In the early 1980s, we were the first utility to introduce user-pays water pricing – a variable usage charge – to promote more efficient water use and reduce waste. This move was influenced by the preceding periods of severe drought.

To meet our current drought and water security challenges, we must deliver Belmont desalination plant, reduce water leakage, and support customers to use water more efficiently. We have calculated the current long-run marginal cost of our water supply as $4.70 per kL – that means the cost of permanently supplying an additional unit of water over the long term. Water has rarely been as precious in our region as it is now.

In that context, it's appropriate to send an efficient price signal by applying most of the required increase in a higher variable water usage charge, as opposed to the fixed charge, as shown in Table 3. This approach is also preferred by our customers and provides some opportunity for customers to mitigate the bill increase by reducing their water use, where possible.

We currently have the lowest fixed charge of all large and major Australian water utilities, and we will continue to provide a high level of bill control to customers.

Table 3: Proposed water usage and service charges ($2024-25)

Connection type and size	Current pricing period 2024-25	Upcoming pricing period 2025-26	2026-27	2027-28	2028-29	2029-30
Water usage price ($/kL)	2.89	3.19	3.49	3.80	4.10	4.40
Residential water service charge ($ per year)						
All	27.58	42.52	57.47	72.41	87.36	102.30
Non-residential water service charge ($ per year)						
20mm	27.58	42.52	57.47	72.41	87.36	102.30
25mm	43.10	66.44	89.80	113.15	136.50	159.85
32mm	70.62	108.86	147.12	185.38	223.64	261.89
40mm	110.33	170.10	229.88	289.65	349.43	409.21
50mm	172.40	265.78	359.18	452.58	545.99	639.39
80mm	441.34	680.39	919.50	1,158.61	1,397.72	1,636.83
100mm	689.59	1,063.11	1,436.72	1,810.33	2,183.94	2,557.55
150mm	1,551.38	2,392.00	3,232.62	4,073.25	4,913.87	5,754.49
200mm	2,758.00	4,252.44	5,746.88	7,241.32	8,735.77	10,230.21
250mm	4,309.38	6,644.44	8,979.51	11,314.57	13,649.64	15,984.70
300mm	6,205.50	9,567.99	12,930.49	16,292.98	19,655.47	23,017.97
350mm	8,446.38	13,023.10	17,599.83	22,176.56	26,753.29	31,330.01

Source: Table 8.3 and Table 8.4

We propose a modest increase in wastewater prices

As shown in Table 4, residential apartments will continue to pay slightly less for their wastewater services than houses. This is due to assumptions about the level of wastewater that apartments and houses are deemed to discharge to our wastewater system. Ahead of our next price review, we will review this difference and the setting of residential sewer discharge factors.

Table 4: Total residential wastewater charge - adjusted service charge plus deemed usage ($2024-25)

	Current pricing period			Upcoming pricing period		
Property type	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
House	789.18	804.84	816.51	828.22	840.00	851.83
Apartment	730.00	768.25	780.80	793.39	806.02	818.68

Source: Table 8.15

Non-residential customers pay a wastewater service charge that is adjusted by a discharge factor specific to the type of business activities undertaken. The unadjusted wastewater charge for non-residential customers is shown in Table 5.

Non-residential customers also pay a wastewater usage charge based on their estimated wastewater discharge. We have recently estimated catchment-specific wastewater long-run marginal costs, with an estimated weighted average area-wide long-run marginal cost of $0.69 per kL.

We propose to maintain our current wastewater usage price of $0.77 per kL in nominal terms. This means it will gradually reduce in real terms over the pricing period, approaching our estimated long-run marginal cost.

Table 5: Proposed non-residential unadjusted wastewater service charges ($2024-25)

	Current pricing period			Upcoming pricing period		
Connection type & size	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
20mm	929.04	947.65	966.26	984.87	1,003.49	1,022.10
25mm	1,451.63	1,480.70	1,509.78	1,538.86	1,567.95	1,597.03
32mm	2,378.35	2,425.98	2,473.63	2,521.27	2,568.93	2,616.58
40mm	3,716.17	3,790.60	3,865.04	3,939.48	4,013.96	4,088.40
50mm	5,806.52	5,922.81	6,039.13	6,155.44	6,271.81	6,388.13
80mm	14,864.68	15,162.40	15,460.16	15,757.92	16,055.84	16,353.60
100mm	23,226.07	23,691.25	24,156.50	24,621.75	25,087.25	25,552.50
150mm	52,258.66	53,305.31	54,352.13	55,398.94	56,446.31	57,493.13
200mm	92,904.27	94,765.00	96,626.00	98,487.00	100,349.00	102,210.00
250mm	145,162.50	148,070.31	150,978.13	153,885.94	156,795.31	159,703.13
300mm	209,034.00	213,221.25	217,408.50	221,595.75	225,785.25	229,972.50
350mm	284,518.50	290,217.81	295,917.13	301,616.44	307,318.81	313,018.13

Source: Table 8.13

Stormwater prices need to rise

Stormwater prices will increase materially in proportional terms, as shown in Table 6. This is necessary to recover the efficient ongoing costs of managing our assets and providing stormwater services. We service about 72,000 stormwater customers (about 25 per cent of all customers) and any stormwater expenditure has a greater impact on prices than it would on our water or wastewater services.

In recognition of the variability of stormwater impact across individual properties, eligible customers can apply to have their property designated as 'low impact' and may receive a lower stormwater drainage charge. The low impact designation is for customers who go above and beyond to manage the stormwater on their property to ensure any runoff has a low impact on our stormwater infrastructure.

Table 6: Proposed stormwater charges ($2024-25)

Property type	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Residential						
House	97.04	111.79	126.55	141.30	156.05	170.81
Apartment	35.91	41.37	46.83	52.29	57.75	63.21
Non-residential						
Small property area (≤1,000 m^2)	97.04	111.79	126.55	141.30	156.05	170.81
Medium property area (1,001m^2 to 10,000m^2)	316.94	365.13	413.31	461.50	509.68	557.87
Large property area (10,001m^2 to 45,000m^2)	2,015.70	2,322.15	2,628.61	2,935.06	3,241.51	3,547.97
Very Large property area (>45,000m^2)	6,404.36	7,378.03	8,351.71	9,325.38	10,299.06	11,272.73

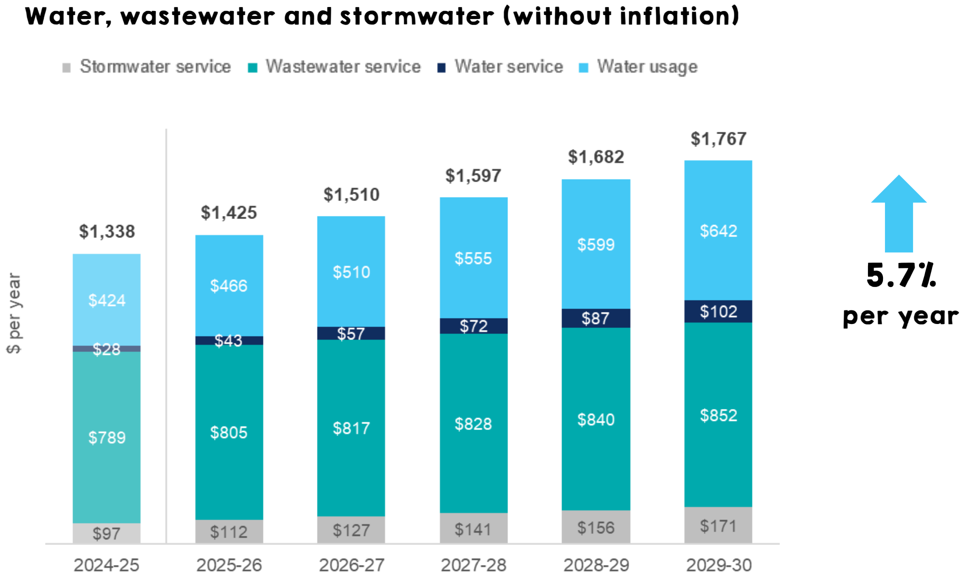
Note: Table does not include all property types.
Source: Table 8.17

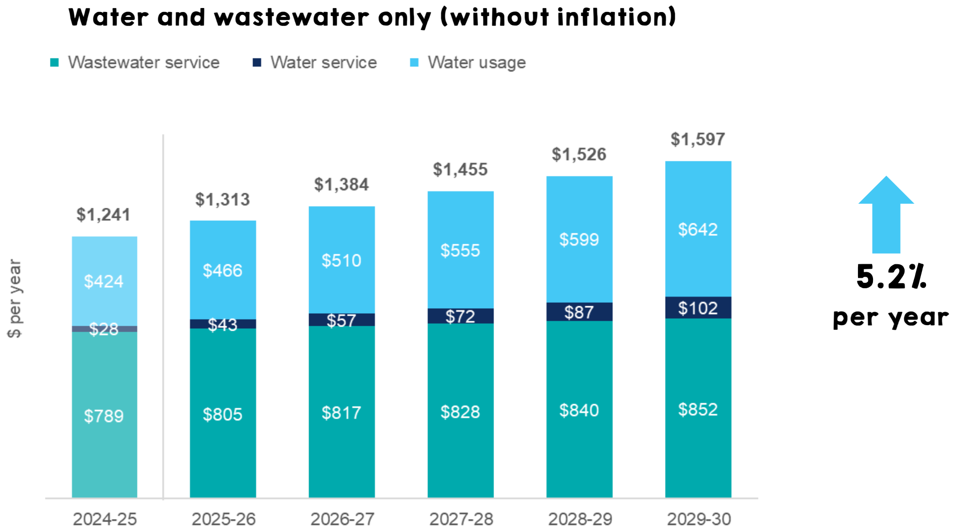
Typical residential customer bills will need to increase

With rising costs, and proposed prices, our customers will face higher bills in the upcoming pricing period. The annual bill for a typical house receiving water, wastewater and stormwater services will rise by $86 or 5.7 per cent per year. Most of the increase is in the water component of the bill. Below we show the estimated bill impacts for indicative residential customer archetypes.

Typical household

Household of three or four people who own their own home, live in a house and have mid-range water use (146 kL per year)[1]



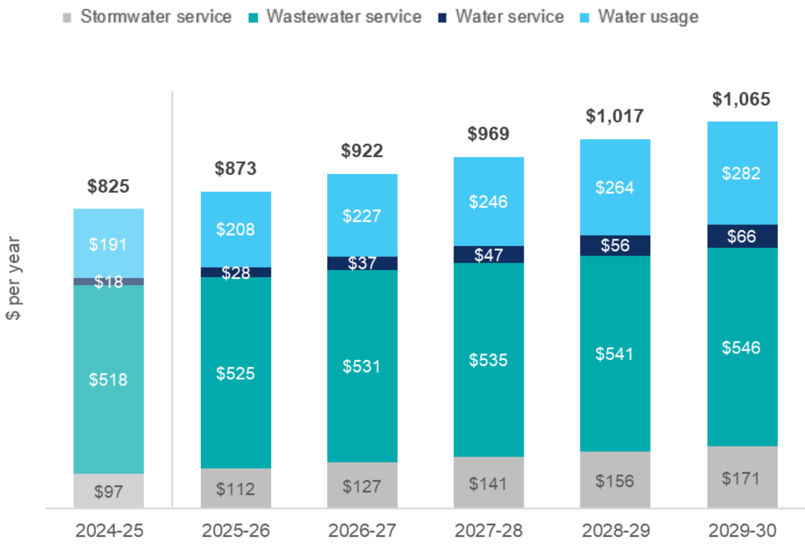


[1] Water use for a typical household is based on an approximated median of forecast water demands

Pensioner household

Household of one or two people who own their own home, live in a house, have relatively low water use (100 kL per year), and receive a concession in the form of pensioner rebate.

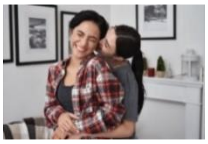
Water, wastewater and stormwater (without inflation)



5.2% per year

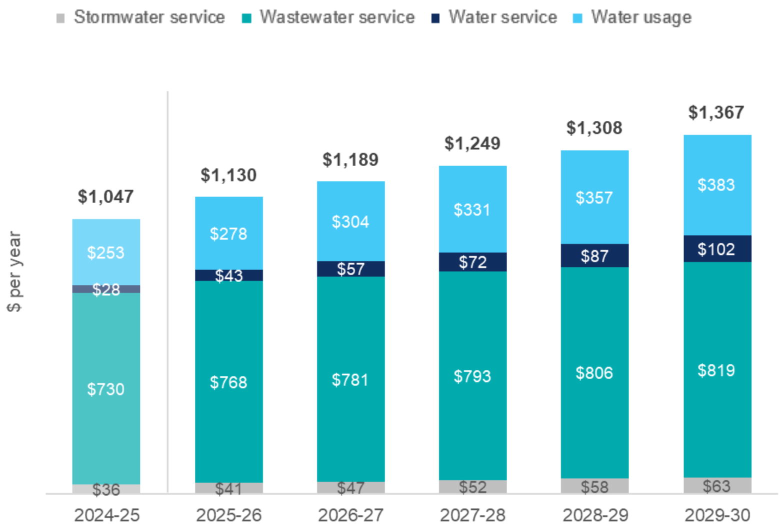
NB: Pensioner rebate is applied proportionally across water and wastewater charges

Small household



Household of one or two people who own their own home, live in an apartment and have relatively low water use (87 kL per year).

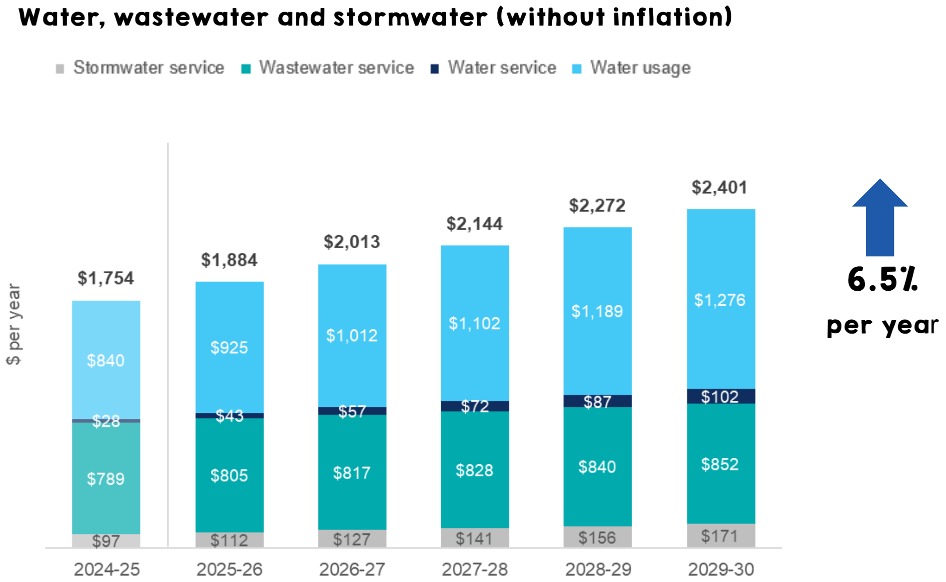
Water, wastewater and stormwater (without inflation)



5.5% per year

Large household

Household of five or more who live in a house with a big garden and/or pool, who own their own home and have high water use (290 kL per year)



Source: Figure 9.1

Drivers of bill increase for a typical residential household

The key drivers of higher prices and bills for customers are: new capital expenditure including delivery of the Belmont desalination plant, a higher weighted average cost of capital, a modest increase in operating expenditure, and the impact of the extension of Hunter Water's current price determination by one year, through 2024-25.

Extending the current pricing period is influencing prices for the upcoming period in two ways:

- Prices for 2024-25 were not escalated with inflation. This means they went down in real terms to the benefit of customers. Our costs and RAB continued to increase with inflation over 2024-25 while our prices remained constant. Bill increases in the upcoming period are with reference to an artificially lower 2024-25 customer bill – one that did not grow with inflation.
- We invested capital expenditure in 2024-25 to continue delivering our services. This investment must now be added to the regulatory asset base (RAB) and we are effectively trying to recover (a proportion of) six years of new capital expenditure over the five years of the upcoming pricing period.

Given these factors, even with zero proposed new capital expenditure or without any higher operating expenditure for the upcoming pricing period, customer bills would need to rise. Of the $86 average yearly bill increase for a typical residential customer, $36 (42 per cent) is driven by the deferral year and higher WACC.[1]

[1] Considering the reductions from developer charges revenue and a refined price structure.

Non-residential customer bills will need to increase

In Table 7, we present estimated bill impacts for a range of indicative non-residential customer archetypes.

Table 7 Summary of non-residential archetype total bill impacts, $2024-25

Non-residential property archetype	Water kL / year	Total bill $ 2024-25	Total bill $ 2029-30	Total bill impact over pricing period		Yearly total bill impacts	
Service station	70	$1,303	$1,651	$349	26.8%	$70	4.9%
Small shop	150	$1,349	$1,717	$368	27.3%	$74	4.9%
Small/medium shop	165	$1,959	$2,509	$550	28.1%	$110	5.1%
Large licenced club	8,450	$49,641	$65,325	$15,684	31.6%	$3,137	5.6%
Medium licenced hotel	1,200	$6,803	$9,175	$2,372	34.9%	$474	6.2%
Regional shopping centre – with high strength trade waste	73,100	$293,540	$405,394	$111,854	38.1%	$22,371	6.7%
Large office – Newcastle	3,600	$17,804	$23,898	$6,094	34.2%	$1,219	6.1%
Regional office – Maitland	230	$3,725	$4,601	$877	23.5%	$175	4.3%
Small industrial business	50	$1,691	$2,098	$407	24.0%	$81	4.4%
Medium industrial business	73,300	$264,581	$375,125	$110,544	41.8%	$22,109	7.2%
Large industrial business – no sewer	190,000	$550,762	$842,164	$291,402	52.9%	$58,280	8.9%
Large industrial business – with sewer	243,300	$818,494	$1,183,426	$364,932	44.6%	$72,986	7.7%
Plant Nursery	5,500	$16,941	$25,551	$8,611	50.8%	$1,722	8.6%
Fast food outlet	1,450	$8,403	$10,988	$2,585	30.8%	$517	5.5%
Shopping centre – with high-strength trade waste	7,800	$44,896	$54,075	$9,179	20.4%	$1,836	3.8%
Large industrial business – with high strength trade waste	42,000	$152,704	$219,561	$66,858	43.8%	$13,372	7.5%

Source: Table 9.2

We will provide more support to customers experiencing financial hardship

We recognise it is sometimes difficult for customers to find the money to cover all their household bills. Our proposed price increases will be challenging for some customers to afford.

We offer a range of assistance measures to support, and we engage proactively with customers and consumers at risk of experiencing financial vulnerability.

We will increase our account assistance spend by almost a million dollars over the pricing period – an increase of about 25 per cent.

We propose to continue with most of the existing regulatory settings

We propose the following regulatory settings for the upcoming pricing period:

- Retaining the maximum price-cap approach. Prices determined for a five-year period.
- Retaining an end-of-period demand volatility adjustment mechanism with a 5 per cent materiality threshold to true-up water sales revenues if actual sales differs materially from forecast.
- Retaining a drought water usage price, triggered in periods of low water storage, to pass through prudent and efficient drought-response costs. The price uplift (above the base water usage price) would reduce from the $0.50 per kL in 2024-25 to $0.44 per kL for the upcoming pricing period. The NSW Government would maintain the ability to override this price if considered appropriate.

We forecast the cost of debt to rise materially during the upcoming pricing period, and we expect to face increasing refinancing risk. We propose to set a WACC true-up approach following IPART's draft price determination that suitably balances Hunter Water's financial health with the customer benefits of setting predictable, stable, and simple prices.

We propose to cap IPART's financial incentive schemes at 1 per cent of the notional revenue requirement

The efficiency benefit sharing scheme, capital expenditure sharing scheme, and outcome delivery incentives work in concert. We propose to adopt all three schemes as we are a self-rated advanced business and support IPART's intent to drive improved long-term performance and efficiency.

We continue to have some reservations about the schemes. In particular, the capital expenditure sharing scheme, and whether deviations in actual expenditure from a pre-determined level necessarily reflect efficiency gains or losses.

As this is the first application of the schemes, we seek to cap the schemes at 1 per cent of the notional revenue requirement. We also urge IPART to retain its regulatory discretion in applying the schemes, if unintended consequences arise.

PART ONE:

Customers at the heart

1 Approach to our pricing proposal

Key points

- Customers and community are at the heart of our pricing proposal and long-term corporate strategy. The people of the Lower Hunter need good water and wastewater services and, in general, have no choice about who provides those services. Understanding customer and community preferences helps us to plan and deliver value, in their long-term interests.
- Almost 9,000 people helped to shape our services and prices over our two year, five stage engagement program. We also built upon customer insights drawn from ongoing interactions, and recent targeted engagement, equalling over 50,000 interactions since 2018.
- We publicised our 2025-2030 pricing proposal engagement plan on our website to encourage participation and share a summary of findings from each stage of engagement. Our engagement design was iterative, meaning we could learn and adapt the process as we went.
- We were inclusive, offering people a range of ways to get involved such as surveys, one-on-one interviews, focus groups, and workshops.
- At all stages of our engagement program, we have aimed to use effective methods, unbiased explanations, inclusive opportunities for participation, and been clear on the level of public participation in decision-making that we offered (i.e. how the findings will be used).
- We provided a high level of public participation in decision-making on topics that matter most to the community and could have a material impact on bills.
  - In stages one and two, the community helped to choose three topics that were then deliberated on by a Community Panel across five and half days.
  - The Community Panel had access to all prior engagement findings and could ask questions from experts within or outside of Hunter Water. As promised, we have followed almost all their recommendations in this pricing proposal.
- We have an independent forum of experts, called the Community Engagement Advisory Panel (CEAP), to constructively challenge us on how we listen to and learn from our customers and community in developing our price proposal. CEAP members participated in 10 meetings, provided input into three draft surveys, and observed more than 60 hours of focus group meetings and deliberative forums. They've had input at each step along the way.
- Our Board and Executive Management Team have been actively involved in the 2025-2030 pricing proposal engagement program, approving the engagement plan, receiving regular progress updates, and listening to and observing community representatives across more than 200 hours of workshops, focus groups, and deliberative forum sessions with the Community Panel.
- This pricing proposal focuses on five out of the possible twelve principles that IPART uses to assess customer value under its new 3Cs framework. Two customer principles (customer centricity and customer engagement) and three cost principles (robust costs, balancing risk and long-term performance, and commitment to improve value). These reflect the top priorities for our customers right now.
- Across all stages, customers told us they are concerned about affordability and want us to keep any increase in bills as low as possible. They are also worried about the future and don't want us to delay addressing big issues for future customers or leaving problems for future generations to deal with.
- To keep bills affordable, we have challenged ourselves by prioritising and deferring investment and focusing on improving in the areas that are most important to our customers, community, regulators

and stakeholders, taking on more risk as a business rather than asking customers to pay more now, and committed to an ambitious cost efficiency target. We believe our proposal is in the best long-term interest of customers.

1.1 We developed our proposed services and prices with customers and our community

1.1.1 Our 'always on' approach continually identifies customer insights for action now, and to help shape our future

This pricing proposal is based on a thorough understanding of what matters most to our customers – their values, needs, and priorities. Our Board-approved 2025-2030 pricing proposal engagement plan builds on prior insights and sets out a five-stage process over two years. It is available in the "have your say" area on our website, along with a call for participation, and summaries of findings from each stage of engagement.[1] We describe it in more detail in Section 1.1.2.

Our 2025-2030 pricing proposal engagement plan supports *Miramaliko Baato: Our Corporate Strategy*, which includes the aspiration *'Customers and community at the heart of all we do'*. It also fits within the context of two organisation-wide supporting strategies that complement our corporate strategy by providing additional guidance on how customer and community insights inform our decision-making, specifically our: *customer experience strategy* and *community engagement strategy*:

- Our customer experience strategy aims to improve how we interact with customers and make their experience with us better; by making it easy, respecting them and their time, and resolving problems.
- Our community engagement strategy provides a framework of how we listen to our customers and community and outlines what we've heard.[2] It describes our approach to community engagement and alignment with the International Association of Public Participation (IAP2) spectrum and provides a roadmap of how we consult with our customers and community to help inform our strategic direction and future investment priorities.

Our community engagement strategy is supported by our customer, consumer and community consultation procedure, which describes our regular, meaningful, unbiased and representative consultation with our customers and community.[3]

Our 'always on' approach means every interaction we have is an opportunity to listen, learn and respond. With over 50,000 touchpoints with customers since 2018, our ongoing customer experience research and community engagement programs continually feed insights for action and improvement opportunities. We used the sources of customer insights shown in Figure 1.1 in developing our pricing proposal.

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[1] https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal

[2] Our community engagement strategy and our customer, consumer and community consultation procedure are available on our website: https://www.hunterwater.com.au/community/community-engagement/community-engagement-strategy

[3] Our 2022-2027 Operating Licence, Section 29, requires us to articulate to our customers, consumers and community, via a procedure, our consultation methods, activities and the outcomes we intend to achieve.

Figure I.1: Ongoing customer and community engagement and research

ONGOING CUSTOMER AND COMMUNITY ENGAGEMENT AND RESEARCH

REGULAR ACTIVITIES

Customer experience monitoring surveys

- Online survey distributed to participants who have had an interaction with our customer service team on any topic per month. The survey is also sent to all customers when they experience an outage (planned or unplanned) or make a complaint
- 2018 onwards
  13,165 people

Water Services Association Australia bienniel customer perceptions surveys

- Representative national online survey with Hunter-specific participants covering reputation, trust, ease of foing business, satisfaction, affordability, literacy and community expectations
- 2019, 2021, 2023
  1,204 people

Developer surveys

- Monthly outbound telephone surveys to developer customers gauging ease, sentiment and satisfaction
- 2018 onwards
  1,091 people

Quarterly community surveys

- Representation survey distributed to online panel and via an open link for the wider community covering similar topics to the WSAA survey plus ad hoc project-based questions
- Aug 2022 onwards
  1,917 people

Home visits

- Home visits by our customer care team to support customers who may be experiencing vulnerability to offer financial support options
- Oct 2022 onwards
  624 people

Corporate reputation tracking survey

- Monthly robopoll, now replaced with quarterly community surveys
- 2018-2022
  26,477 people

TARGETED ACTIVITIES

Willingness to pay survey

- Representative online survey on environmental services such as carbon emission reduction, liveability, and recycled water
- 679 people

Communications and engagement preferences

- Community and business survey on preferred methods of receiving different types of communications, and on preferred engagement methods
- 539 people

Service levels

- Representative surveys, depth interviews, and online bulletin board to understand expectations, perceptions of performance, relative importance and cost-service level trade-offs
- 1,842 people

Understanding customers experiencing vulnerability

- Focus groups and interviews with at-risk customers and service providers to understand triggers, perceptions and opportunities
- 73 people

Lower Hunter Water Security Plan

- Community drop-in sessions, co-design process, surveys, workshops, focus groups, public exhibition of draft plan
- ~3,000 people

1.1.2 Our pricing proposal engagement program

As shown in Figure 1.2, our multi-stage engagement program built on our ongoing customer and community engagement and research, including insights from our regular interactions with customers and more recent targeted engagement. This was followed with extensive and in-depth engagement to inform our proposal.

Figure 1.2: Our pricing proposal customer and community engagement program

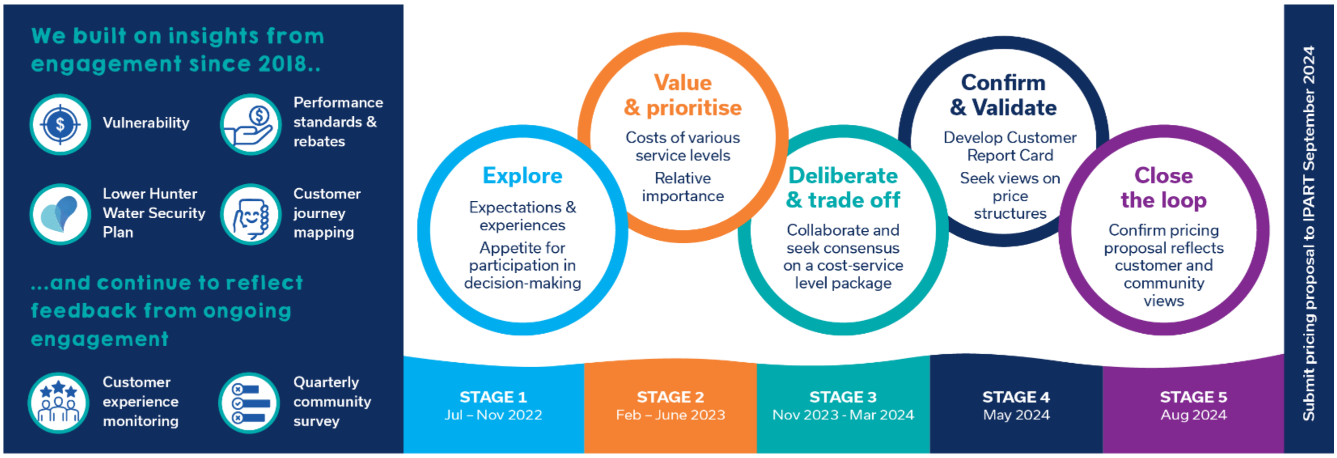


Figure 1.3: Our engagement methods

We offered a range of ways to get involved over five stages, allowing people to engage in the manner that suited them best (see Figure 3). This approach ensured the feedback we received was unbiased by our methods of engagement.

We found it challenging to recruit business customers, young people, renters and Aboriginal and/or Torres Strait Islander people. We will focus on improving representation in these areas moving forward.

Early on, we identified topics of interest to customers, where their input could influence material investment decisions and bill impacts. Stage 2 onwards focused on these key topics.

In Stage 3, we asked a Community Panel made up of a diverse and representative group of everyday people, to help us tackle our challenge.

We provided extensive information and opportunities for in-depth, deliberative engagement spanning over five and a half days.

Our promise was to collaborate – incorporating the community's recommendations to the maximum extent possible and transparently explaining constraints where we couldn't. Section 1.2.2 provides further details about the deliberative process, Community Panel recommendations and our responses.

1.2 Customers' influence on this proposal

The insights we've gained from discussions with our customers, community and stakeholders have directly shaped our pricing proposal and long-term corporate strategy. Across all stages, our customers told us that they're concerned about affordability and want us to keep any increases in bills as low as possible. However, they are also worried about the future and don't want us to just 'kick problems down the road' for future customers or future generations to deal with.

Some examples of tangible ways we've incorporated feedback:

- Prioritising and deferring expenditure and investment in our services where we can.
- Committing to save as much money and be as efficient as possible.
- Adding $0.9 million to assist customers experiencing financial vulnerability and needing help with managing their bills.
- Investing $1.2 million to run the Belmont desalination plant on renewable energy, reducing our carbon emissions.
- Investing $12.6 million to help customers use water more wisely and efficiently, and to reduce their leaks (water efficiency).
- Investing $25.5 million to reduce leaks from our water system.
- Investing $30.7 million to help the small group of customers affected by ongoing problems with wastewater overflows onto their property during wet weather, bad smells from our wastewater system, or low water pressure. We also committed to giving bigger rebates to affected customers if we don't fix their ongoing issues by 2030.
- Promising to deliver the outcomes that best reflect our customers' and community's expectations. Our outcome measures are designed with community input. We will provide annual progress reports on these outcomes and include a mechanism for community participation in assessing our performance through our customer report card.
- Proposing increasing water prices partly in the fixed charge and mostly in the variable charge. We heard this was a balanced, fair and equitable approach that provides customers the best opportunity to reduce the impact on their bills.
- Introducing price increases as five small steps, rather than one big step, to give customers time to adjust to the changes.

1.2.1 We engaged on the issues that are important in driving customer value

Our rolling program of customer and community engagement, where each stage fed into the next, enabled us to involve customers in setting priorities that matter most for deeper engagement, and gave us opportunities to periodically reconfirm priorities. Each stage of engagement deepened our understanding of what's important to our customers and community, and their priorities.

In stages one and two, the community helped to choose the topics that were deliberated on by a Community Panel in stage three.

What we did in stage one

We heard from about 900 customers, community members, stakeholders, and customer representatives about the experiences they value, their concerns, and expectations. We summarise our engagement activities in stage one in Figure 1.4.

Figure 1.4: Stage one customer and community engagement activities

Participants were asked to describe experiences where Hunter Water has delighted them and disappointed them in the past, as well as the kinds of things they expect from us now and by 2030.

The results highlight that the same experiences were likely to delight (if done well) or disappoint (if done poorly). In particular:

- Fast or slow response to interruptions and service faults
- Billing support (eBills, informative bills, support for customers struggling to pay) as a delight vs billing and payment issues/high cost of bills as a disappointment
- Frontline customer contact centres were more likely to delight (responsive, knowledgeable, local) than disappoint (slow response to queries, information hard to find).

The top five expectations of Hunter Water related to:

- Providing a reliable, efficient service through maintaining and improving infrastructure
- Providing high quality, safe drinking water
- Ensuring future water security, including recyling and water conservation
- Fair and affordable bills
- Water literacy

What we did in stage two

We heard from more than 5,500 customers and community members via the activities shown in Figure 1.5.

Figure 1.5: Stage two customer and community engagement activities

The topics for the stage two activities were chosen based on what we learned from our customers and community in stage one, and the materiality of potential bill impacts. Two of the six topics were then dropped for stage three as they were lower priority due to either: the costs involved, the current economic conditions, or the benefits of adopting a more flexible approach through trials.

The topics and services that we sought feedback on in Stage 2 were:

Carbon reduction

Customers experiencing frequent problems (hot spots)

Water conservation:

- **Alternative water sources for business and industry**
- **Recycled water for community greening**

Topics not carried into stage three due to customer preferences:

- **Digital meters**
- **Stormwater amenity**

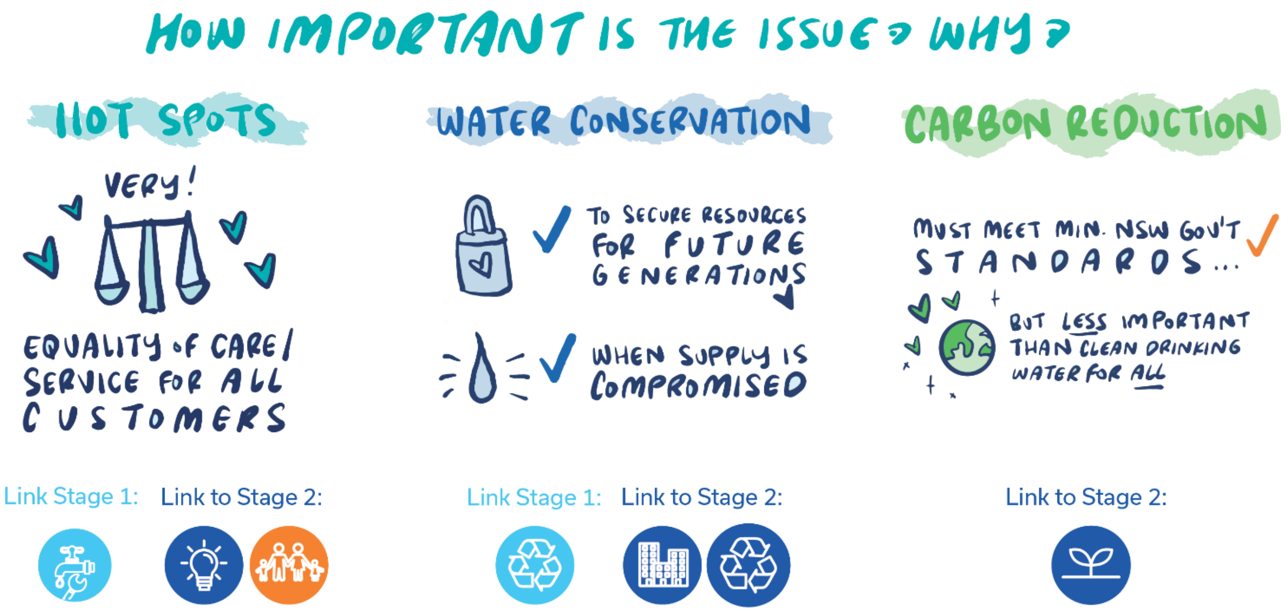
Insights from the stage two focus groups, surveys and in-depth interviews indicated that:

- Affordability and cost of living pressures are of real concern to our communities. This concern extended to other people less fortunate. There's less appetite for bill impacts for things that people see as 'nice to haves'.
- Fairness or equity remains important despite cost of living pressures. There's some support for resolving sub-standard service issues, particularly as the affected customers pay the same amount as those unaffected.

What we did in stage three

In stage three, the Community Panel deliberated on topics based on what we heard in stages one and two, including topics where customers and the community were divided in their views. We also confirmed the importance of the topics with the panel.

Figure 1.6: Stage three - the importance of key topics

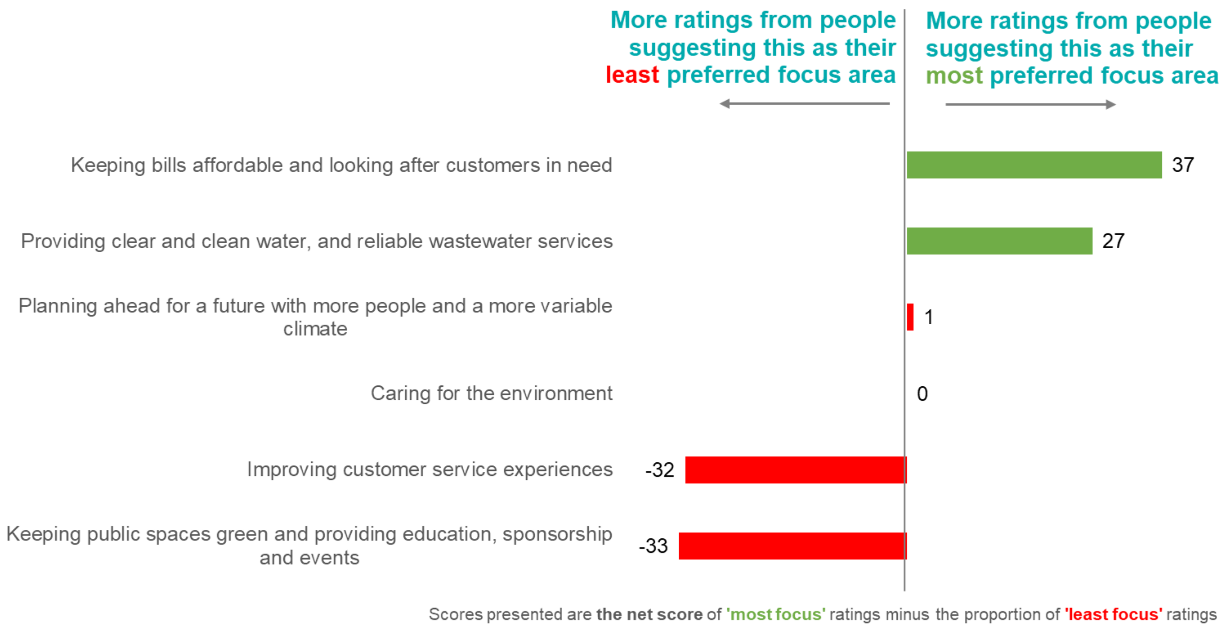


In stages two and three, we also used our quarterly community surveys to get an indication of the relative importance of customer outcomes (see Figure 1.7). Participants were asked to select the outcome most important and least important to them. We heard the most preferred focus areas are:

- keeping bills affordable, and looking after customers in need
- providing clear, clean water, and reliable wastewater services. This links to the stage three topic of 'hot spots' (ongoing service issues).

We provide further details on customer outcomes in Chapter 2.

Figure I.7 Relative importance of customer outcomes



Source: Quarterly Community Survey, August 2023 (218 participants)[1].

I.2.2 Deliberative process with Community Panel

A representative group of approximately 30 customers and community members were selected for the Community Panel, to deliberate over the following challenge:

Our challenge

Hunter Water's costs of providing water services are increasing.
These higher costs will be passed on to customers through increased prices.
We are also faced with some important decisions that will impact customer bills.

How do we balance providing reliable, high-quality services while protecting the environment, and creating a positive legacy for future generations, and keeping prices affordable?

The Community Panel was asked to make recommendations on three topics about what is best for the whole community, including those who are already struggling to make ends meet. We explain these in Table 1.

[1] Available online at: https://hunter-water.s3-ap-southeast-2.amazonaws.com/assets/src/uploads/resources/Quarterly-Community-Survey-Report-Aug-2023.pdf

Table 1.1: Stage three - key topics for deliberation

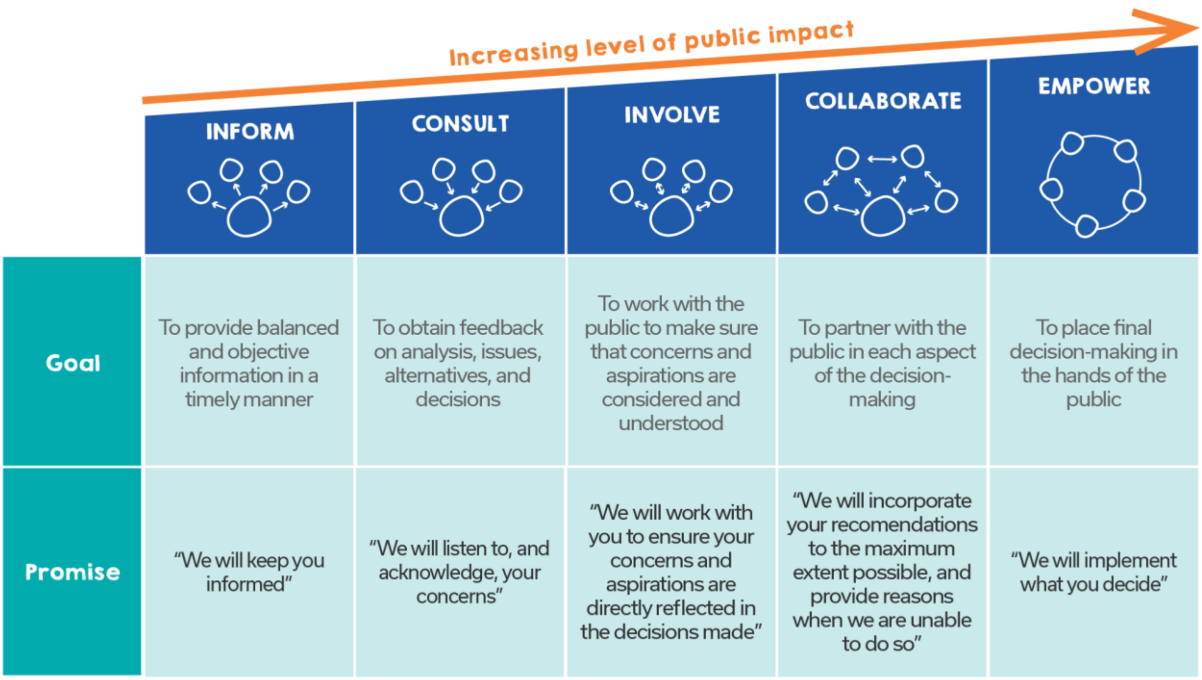
Topic	Link to challenge	Description / sub-topic
Hot spots (ongoing service issues)	Our challenge of providing reliable, high-quality services	Ongoing issues that affect a small number of customers: persistent low water pressure, frequent or ongoing wastewater overflows and persistent bad odours
Carbon reduction	Our challenge of protecting the environment	Reducing carbon emissions
Water conservation	Our challenge of providing reliable services by making sure there is enough water for today and tomorrow	Four ways of conserving water for drinking purposes: A. Encouraging customers to use less water and reduce their leaks. B. Reducing leaks from Hunter Water's system. C. Using recycled wastewater or stormwater for industry instead of drinking quality water. D. Using recycled wastewater or stormwater for community greening (parks and sporting fields) instead of drinking quality water.

The panel was invited to "Collaborate" with us on all three topics. Collaborate is the second highest level on the IAP2 levels of public participation, as shown in Figure 1.8. We made a promise to the panel to:

> *"Look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible."*

The panel was observed by members of Hunter Water's Board of Directors, Executive Management, and independent members of the Customer Engagement Advisory Panel.

Figure 1.8 IAP2 Spectrum of Public Participation



Source: Based on IAP2, 2018. Retrieved from https://iap2.org.au/wp-content/uploads/2020/01/2018_IAP2_Spectrum.pdf

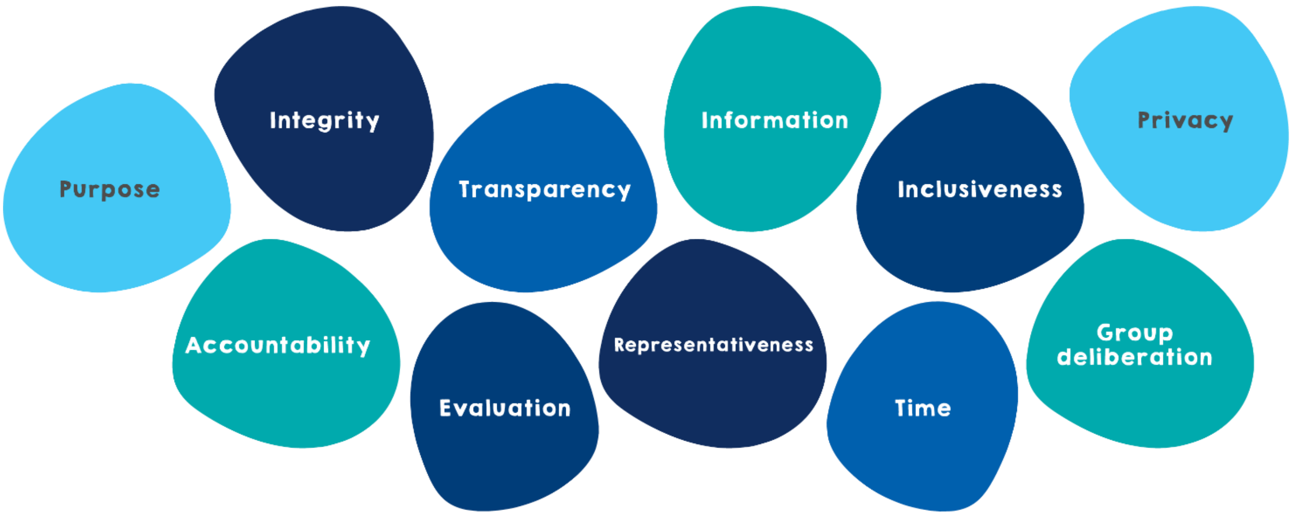
What is a deliberative forum?

A deliberative forum enables community members to participate in a democratic decision-making process that will have a real public impact. It is comprised of a diverse and broadly representative group of customers and community members, selected through an independent process to ensure fair representation of demographics.

Participants are not expected to have an expert understanding of the subject matter. Their role is to meet over multiple days to build knowledge and understanding, and to consider and weigh up the identified issues. Participants are given time, access to information, the chance to learn from others, and a clear level of authority to deliberate successfully.

We adopted the Organisation for Economic Co-operation and Development's (OECD) international *"Good Practice Principles for Deliberative Processes for Public Decision-Making"* (Figure 1.9).[1] The OECD, a key international standard-setting organisation, has collected a wealth of evidence about how deliberative processes work across different countries, and has created a set of guidelines that we used for our sessions.

Figure 1.9 Good Practice Principles for Deliberative Processes for Public Decision-Making



Source: Organisation for Economic Cooperation and Development (OECD), 2020, Good practice principles for deliberative processes for public decision-making, page 4.

[1] See our website for a summary of how we applied the OECD guidelines at https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal under the heading Stage 3.. The guidelines are available online: https://www.oecd.org/gov/open-government/good-practice-principles-for-deliberative-processes-for-public-decision-making.pdf or https://doi.org/10.1787/b40aab2a-en

Our Community Panel members represented the diversity in our region

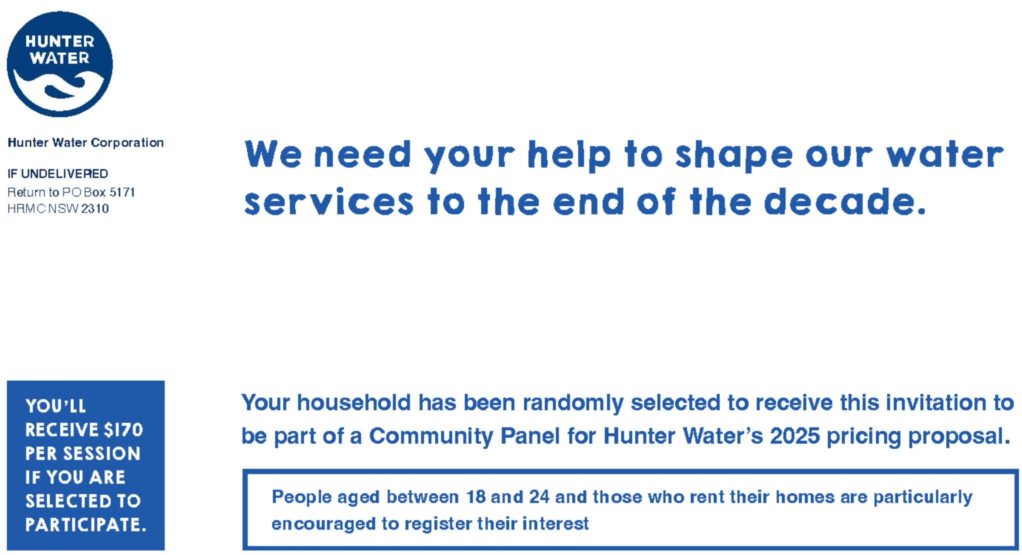
Our Community Panel members were selected using a fair, independent, random, stratified process that was independent from Hunter Water and the facilitators. The 44 people selected to participate were broadly representative of our customer base in terms of age, gender, geography, and residential/non-residential customers (see Figure 1.11).

Some natural attrition did occur. Overall, 39 participants attended the orientation event, then 25 to 35 participants attended the five full day sessions. The attrition rate was slightly above 30%, which is just outside the typical range for deliberations of this length. Most of the attrition for our panel was due to illness (including COVID) and changes to participant availability.

There was no representation from people under the age of 29. We put extra effort put into promoting expressions of interest from this cohort, as shown in Figure 1.10. We endeavoured to fill this gap by: [1]

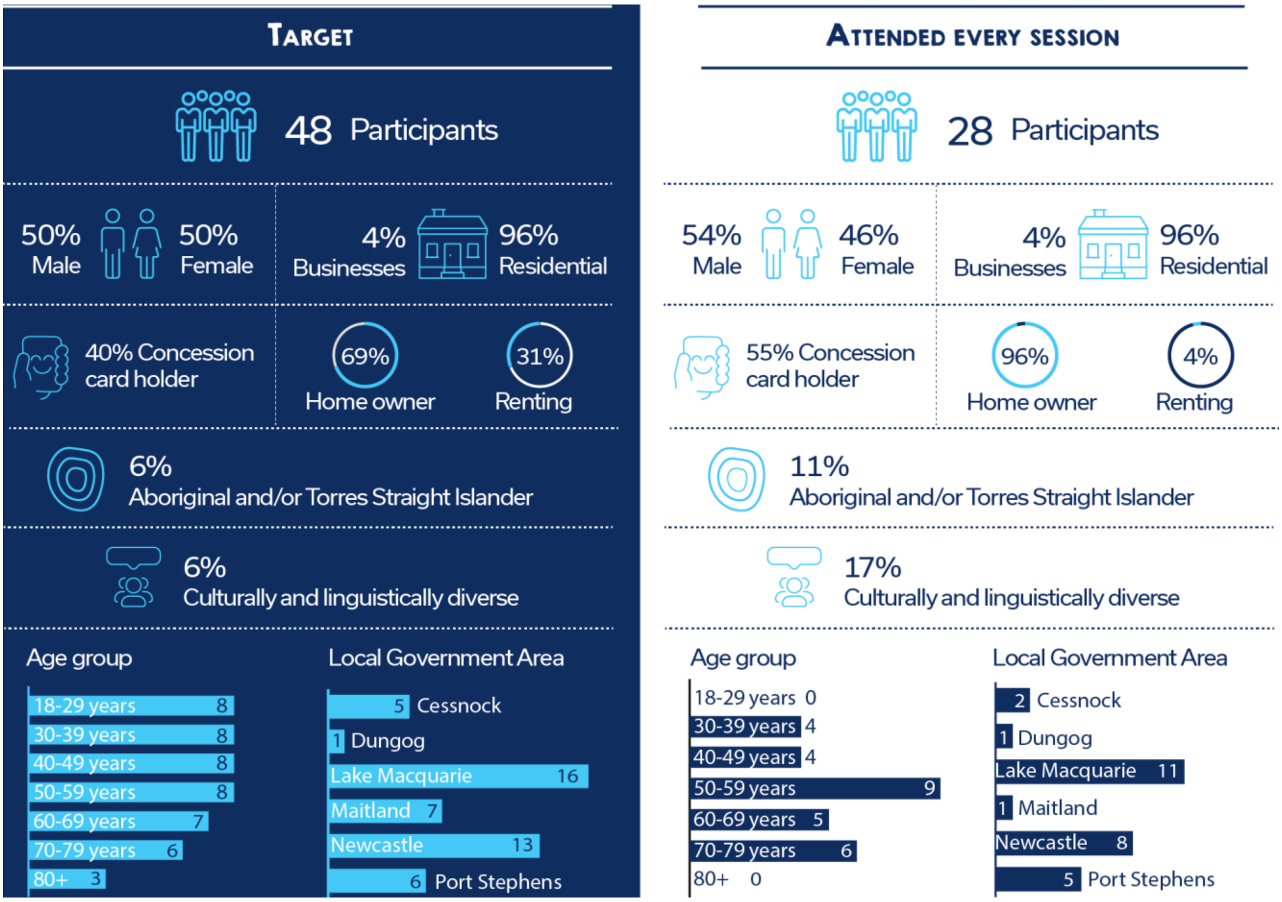
- Highlighting the views of younger customers in the prior research findings provided to the panel in the engagement report.
- Organising for two panel members to attend the Youth Perspectives Forum highlighting the results of the Hunter Insights Survey, conducted by the Institute of Regional Futures at the University of Newcastle. The two participants were asked to report back to the broader group on day four about their key takeaways (as they related to the three topic areas).
- Reminding the panel to discuss their draft recommendations with younger people in their network and seek their feedback.
- Organising a former Newcastle Young Citizen of the Year and youth representative from a grassroots climate group to attend the community panel as a guest contributor on day four for the carbon reduction topic, at the request of panel members.

Figure 1.10: Envelope containing invitation to register interest for the Community Panel



[1] See Section 1.2 of Insync, March 2024, Hunter Water Community Panel: Deliberative forum report. Available online at https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal under the heading Stage 3.

Figure I.11 Demographic breakdown of panel members who attended all sessions



Source: Based on Insync, March 2024, Hunter Water Community Panel: Deliberative forum report, page 12.

Further details on the Community Panel are available on our website.[1] This includes the information we provided and reports we gathered – such as the Panel's verbatim recommendations, and a short video with participants and presenters. As referenced in Section 1.1.2, we found it difficult to recruit young people and renters. We took steps to maximise representation from these groups, including a call-out box on the front of each deliberative forum invitation envelope. Increasing representation from these groups in ongoing engagement is a future focus for us. The deliberative forums had appropriate representation of Aboriginal and/or Torres Strait Islander customers.

[1] See https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal under the heading Stage 3.

Baseline (unavoidable) bill increase

As early as possible in the deliberations, we explained to Community Panel members that there would be a baseline bill increase that was unavoidable. That is, estimated new bills would need to be higher than current bills, even before including any of the Community Panel's recommendations.

Hunter Water's Chair and Managing Director explained the reasons for the baseline bill increase, materiality of topics able to be influenced, and were available to answer questions. We explained that we had tried to keep the increases as small as possible by challenging ourselves to find savings. The panel understood the increase and agreed to continue their deliberations.

At all sessions where the panel was asked to consider cost-service level trade-offs, we reiterated:

- the bill impact amounts on deliberated topics would be added to the baseline (unavoidable) increase
- bill impacts were shown for year one, so that in year five the bill impacts would be five times bigger e.g. $1 each year every year is $1, $2, $3, $4, $5 (total of $15 over five years)
- inflation is typically added on top
- their recommendation was on behalf of the community and should consider all types of customers, including those less able to pay
- the bill impacts were our best estimates at the time, and that any changes above inflation still needed to be reviewed and approved by IPART.

Community Panel recommendations

Our Community Panel made an invaluable contribution to shaping our services and prices, making 13 final recommendations across three topics based on what is best for the whole community.

Each recommendation was drafted, revised and refined a total of five times, across multiple days and in differing small work groups, before the final 'walk through'. This process enabled panel members to consider and balance any divergent views, as well as potential trade-offs.

The final 'walk through' was used to assess the level of support for each recommendation. A recommendation was only adopted if a supermajority of at least 80 per cent of panel members could stand by it.

Hot spots (ongoing service issues)

The panel made five key recommendations about ongoing service issues. They expressed a strong sense of equality and fairness, despite current cost-of-living challenges. They said it's important to fix these problems affecting about 1 per cent of our customers, even though resolving these issues isn't required by regulations.

The panel said it's unfair for people with ongoing issues to pay the same as those without issues. They want us to prioritise fixing the worst problems first, even if they're harder and more expensive to solve. However, they also see the need to be cost-effective. For cases that can't be resolved, they believe bigger rebates are warranted. Finally, they stressed the importance of stopping new problem areas from developing.

Water conservation

The panel made four recommendations about water conservation. They consider conservation as crucial for securing water resources for future generations and managing water availability during periods of scarcity (e.g. drought or another emergency).

We are required by regulations to invest in water conservation when the cost is equal to, or less than, the value of the water saved (from a whole-of-community perspective). We heard that, in some circumstances, it is appropriate to pay more to save water than the water is worth. The panel preferred that we focus on fixing leaks in our system first, with improving water efficiency as the next priority. In forming this preference, the panel considered the cost-effectiveness and certainty of achieving water savings.

There was some support for using recycled wastewater or stormwater to conserve drinking water. However, there was little interest in asking households to pay more for projects that cost more to save water than the water is worth, especially when the benefits mainly go to businesses or industries.

Carbon emissions

There were mixed opinions about reducing carbon emissions. The panel agreed we should at least meet NSW Government targets, since this is a global environmental issue affecting future generations. They also noted that our services are vulnerable to a more variable and changing climate.

Opinions differed on whether we should go beyond reducing our scope 1 and 2 carbon emissions by 75% by 2030, which we would achieve based on decisions made before the panel's deliberations. Based on the final recommendations, we've included expenditure in our pricing proposal to run the desalination plant on renewable energy over the upcoming pricing period, which is projected to achieve an 80% reduction in carbon emissions.

We understand that customers are facing financial pressures, and the panel suggested a net zero target by 2050 to help ease this burden. We will revisit the relative priority, costs, and affordability of our net zero target with our community as part of our planning ahead of the subsequent pricing period (2030-2035). Our current proposal does not include any additional expenditure in 2025-30 to achieve net zero faster than the panel recommended.

The following pages present the panel's final recommendations and the results of the 'walk through' process in visual storyboard format, along with preliminary responses that we provided on the day.

Implications

We have incorporated actions to address the Community Panel's 13 recommendations into our pricing proposal to the maximum extent possible. A full description of how we have actioned, or intend to action, each of the recommendations is available on our website.[1]

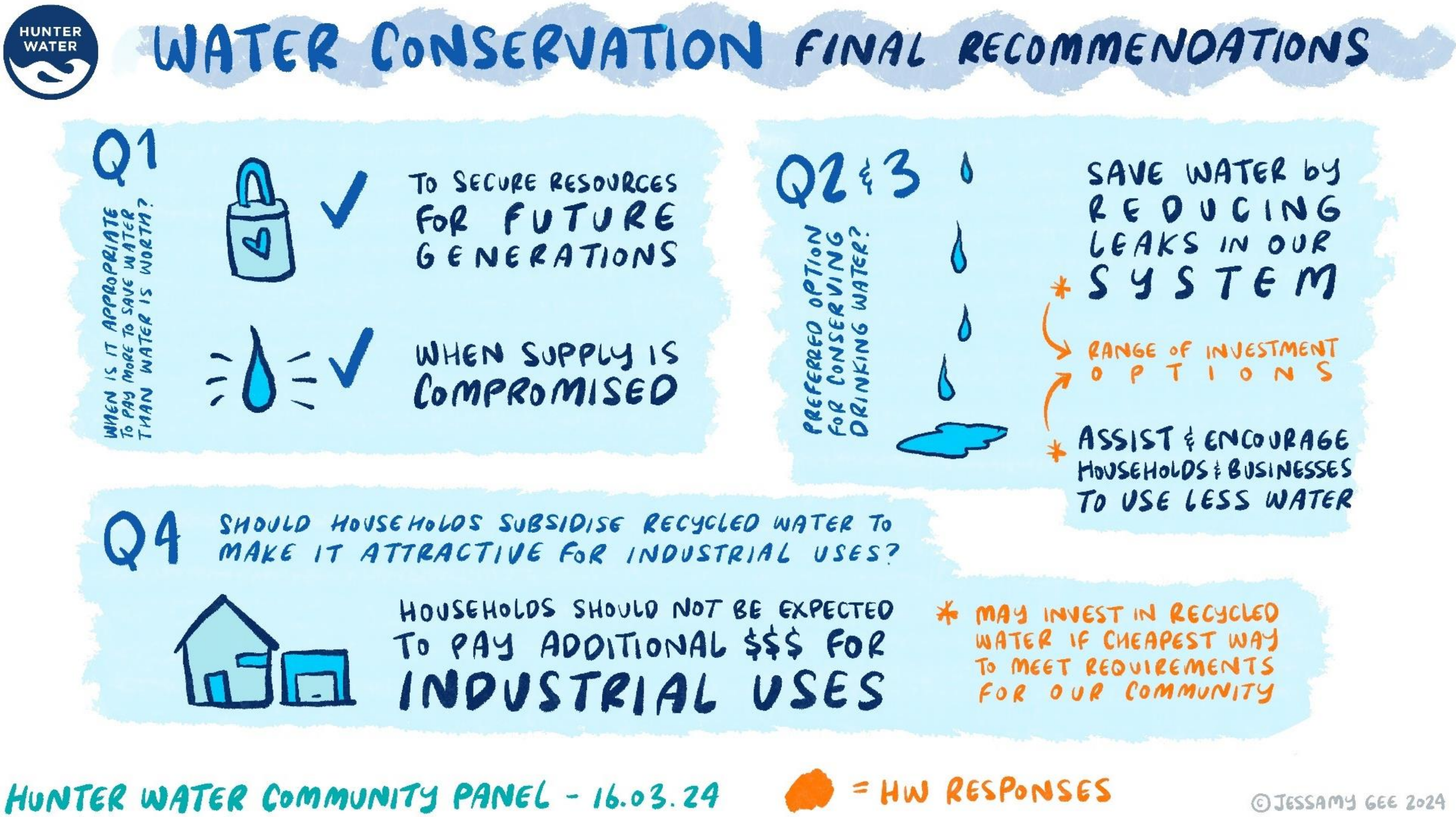
Our responses to the Community Panel's recommendations require an increase of around $36 million of expenditure over the pricing period. This adds $1.90 per year, every year to a typical household bill (without inflation):

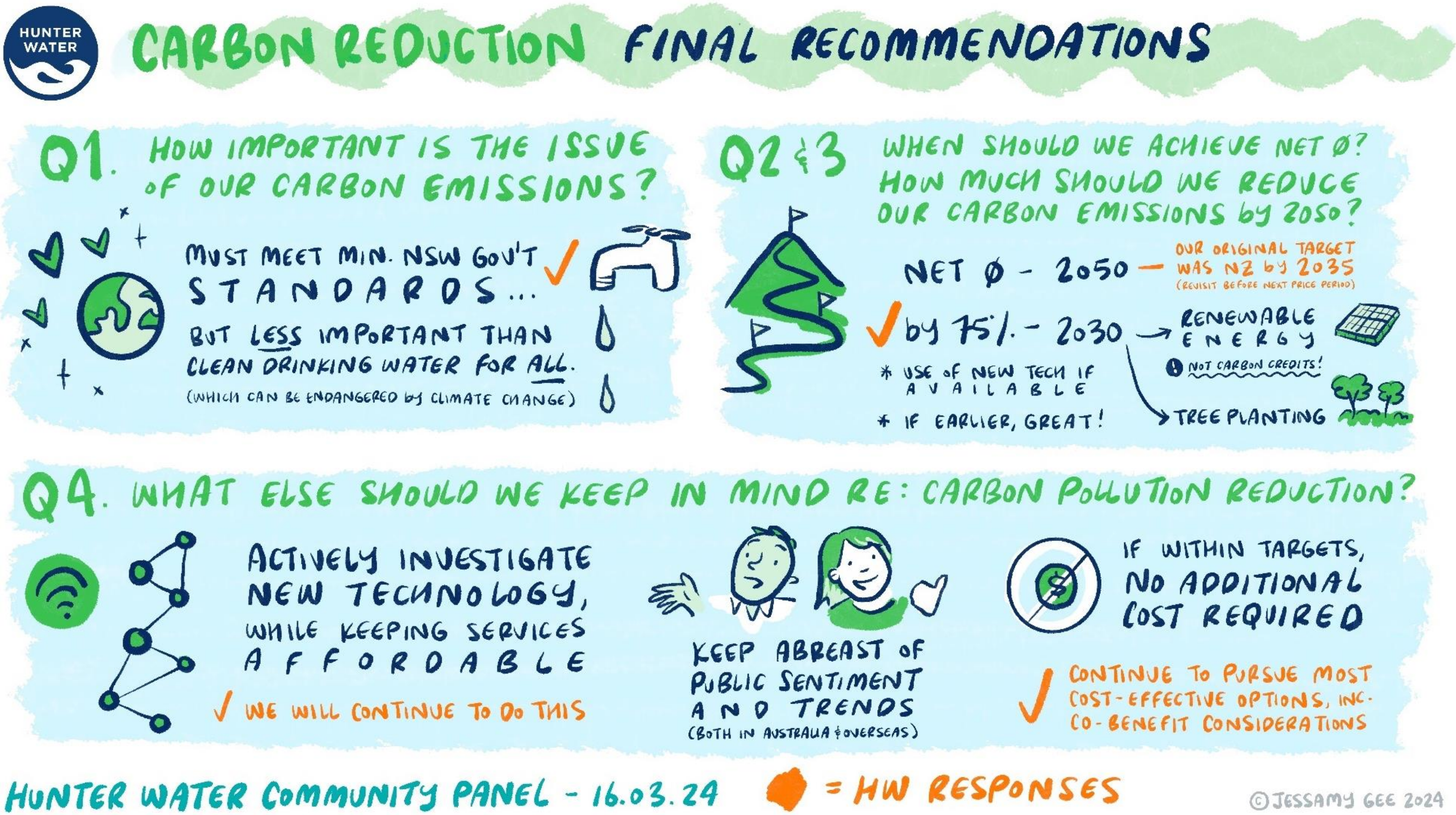
- Carbon reduction $0.26 per year, every year
- Conserving water $0.94 per year, every year
- Hot spots $0.70 per year, every year

The $1.90 increases year-on-year reaching $9.50 by 2030. That's a total bill impact of $28.50 per typical household over the five years.

[1] See https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal under the heading Stage 5.


HUNTER WATER
HOT SPOTS FINAL RECOMMENDATIONS
Q1
HOW IMPORTANT IS THE ISSUE? WHY?
VERY!
EQUALITY OF CARE/ SERVICE FOR ALL CUSTOMERS
PRIORITISE HOTSPOTS ACCORDING TO MEDICAL/PHYSICAL IMPACTS AND COST EFFECTIVENESS
Q2
HOW DO WE PRIORITISE? CHEAPEST or WORST?
1
2
3
HELP CUSTOMERS IN PRIORITY ORDER
P1 - WET WEATHER WASTE WATER OVERFLOWS, FOLLOWED BY REMAINING P1 ISSUES
P2&3 - CONSIDERED IN ORDER OF PRIORITY WITH MOST IMPACT FOR LOWEST COST
* REFINE PRIORITY CRITERIA TO INCLUDE LONGEVITY
Q3
WHAT DO WE DO WHEN COST to FIX = PROPERTY VALUE?
FIX THE PROBLEM
IN A TIMELY MANNER
Q4
WHAT SHOULD HW KEEP IN MIND?
MAKE INFO PUBLICLY AVAILABLE
✓ DE-IDENTIFIED
REBATE WHERE UNRESOLVED
IF UNSATISFACTORY MAY OFFER TO PURCHASE PROPERTY
* COMPENSATE IF NOT FIXED by 2030, WITH LEVEL OF COMPENSATION LINKED TO PRIORITY
FUTURE-PROOF NEW DEVELOPMENTS
* STRENGTHEN DEVELOPER ASSET PROCESSES (FOCUS ON PRIORITY 1s)
STRENGTHEN & ENHANCE FEEDBACK TO CONVEYERS & PROSPECTIVE PURCHASERS
* IT'S A COMPLEX ISSUE
- COULD DEVALUE HOUSES
- CURRENT OWNER MAY BE UNAWARE
- PRIVACY CONSIDERATIONS
HUNTER WATER COMMUNITY PANEL - 16.03.24
= HW RESPONSES
©JESSAMY GEE 2024


HUNTER WATER
WATER CONSERVATION FINAL RECOMMENDATIONS
Q1
WHEN IS IT APPROPRIATE TO PAY MORE TO SAVE WATER THAN WATER IS WORTH?
TO SECURE RESOURCES FOR FUTURE GENERATIONS
WHEN SUPPLY IS COMPROMISED
Q2 & 3
PREFERRED OPTION FOR CONSERVING DRINKING WATER?
SAVE WATER BY REDUCING LEAKS IN OUR SYSTEM
RANGE OF INVESTMENT OPTIONS
ASSIST & ENCOURAGE HOUSEHOLDS & BUSINESSES TO USE LESS WATER
Q4
SHOULD HOUSEHOLDS SUBSIDISE RECYCLED WATER TO MAKE IT ATTRACTIVE FOR INDUSTRIAL USES?
HOUSEHOLDS SHOULD NOT BE EXPECTED TO PAY ADDITIONAL $$$ FOR INDUSTRIAL USES
MAY INVEST IN RECYCLED WATER IF CHEAPEST WAY TO MEET REQUIREMENTS FOR OUR COMMUNITY
HUNTER WATER COMMUNITY PANEL - 16.03.24
= HW RESPONSES
©JESSAMY GEE 2024


HUNTER WATER
CARBON REDUCTION FINAL RECOMMENDATIONS
Q1. HOW IMPORTANT IS THE ISSUE OF OUR CARBON EMISSIONS?
MUST MEET MIN. NSW GOV'T STANDARDS...
BUT LESS IMPORTANT THAN CLEAN DRINKING WATER FOR ALL.
(WHICH CAN BE ENDANGERED BY CLIMATE CHANGE)
Q2 & 3 WHEN SHOULD WE ACHIEVE NET Ø? HOW MUCH SHOULD WE REDUCE OUR CARBON EMISSIONS BY 2050?
NET Ø - 2050
OUR ORIGINAL TARGET WAS NZ BY 2035
(REVISIT BEFORE NEXT PRICE PERIOD)
BY 75% - 2030
RENEWABLE ENERGY
NOT CARBON CREDITS!
TREE PLANTING
* USE OF NEW TECH IF AVAILABLE
* IF EARLIER, GREAT!
Q4. WHAT ELSE SHOULD WE KEEP IN MIND RE: CARBON POLLUTION REDUCTION?
ACTIVELY INVESTIGATE NEW TECHNOLOGY, WHILE KEEPING SERVICES AFFORDABLE
WE WILL CONTINUE TO DO THIS
KEEP ABREAST OF PUBLIC SENTIMENT AND TRENDS
(BOTH IN AUSTRALIA & OVERSEAS)
IF WITHIN TARGETS, NO ADDITIONAL COST REQUIRED
CONTINUE TO PURSUE MOST COST-EFFECTIVE OPTIONS, INC. CO-BENEFIT CONSIDERATIONS
HUNTER WATER COMMUNITY PANEL - 16.03.24
= HW RESPONSES
©JESSAMY GEE 2024

1.2.3 We validated and closed the loop

We completed our multi-stage engagement program by:

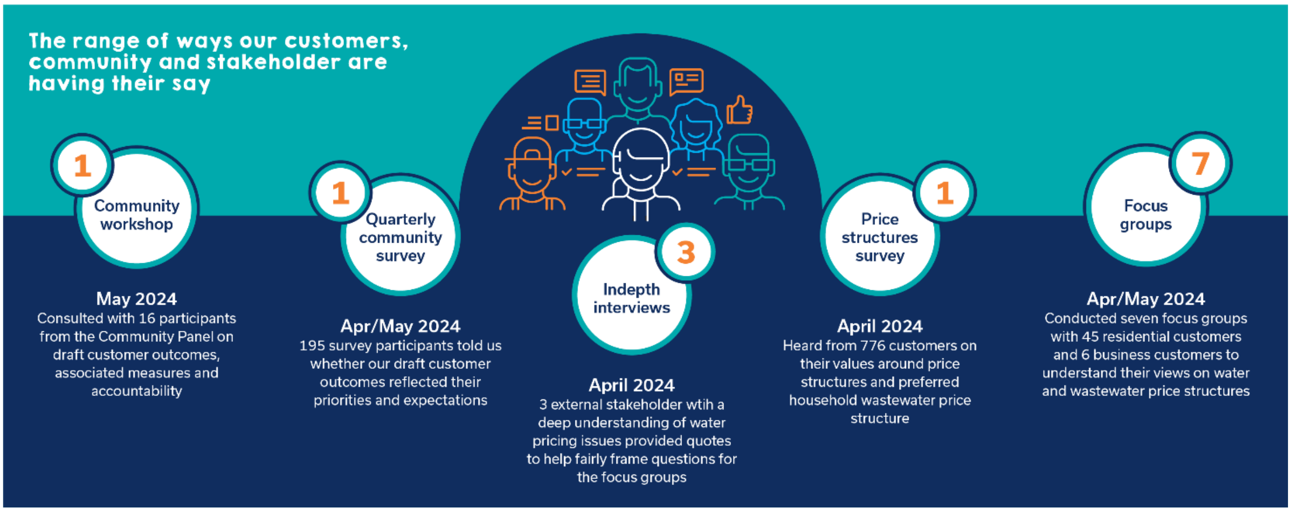
- confirming what we'd heard, consulting on what, how and when we'd report to help customers and community to answer the question *"are we getting what we paid for?"* (stage 4).
- checking-in with the Community Panel that we'd fulfilled the promise we made to incorporate their recommendations to the maximum extent possible and provide reasons where we are unable to do so (stage 5).

We also adapted our planned engagement program to talk to our customers about price structures, in response to feedback from the Community Panel.

What we did in stage four

We heard from over 1,000 customers, community members, and stakeholders: 211 people on customer outcomes, and 830 on price structures, through the activities summarised in Figure 1.12.

Figure 1.12: Stage four customer and community engagement activities



For stage four, we invited members of our (stage three) Community Panel to help us design a 'customer report card' that the community could use to find out whether they were getting what they were paying for. The participants were highly informed and engaged members of the public from all walks of life. They had spent five-and-a-half days digesting a comprehensive engagement report and participating in the deliberative process. They'd told us what was important to customers, and how much customers were willing to pay for services that made up a proportion of the overall bill and that would provide the greatest value.

As a result, these people were ideally positioned to design the report card.

We consulted on the draft customer outcomes, possible measures, how to communicate progress and demonstrate we are accountable for our promises over the pricing period. At the workshop participants:[1]

- agreed they had been told about the customer outcomes, how they were developed, and that they were confident the outcomes represented customer priorities

[1] Insync, June 2024, Community workshop summary report, Hunter Water. Available at https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal

- indicated their preferred measures, after being shown between one and nine potential measures for each customer outcome and the process we used for short-listing
- expressed enthusiasm for an ongoing role for customers in rating our performance.

We provide detailed findings in Chapter 2.

Our pricing proposal engagement program did not initially include consultation on price structures as we'd recently consulted on this topic for our 2019 pricing proposal.

This previous engagement found that, in general, respondents preferred minimising their own bill rather than considering social outcomes, like the impacts on low-income households or providing the right incentives for saving water. Also, customers with lower water usage preferred a higher usage charge. Renters preferred a lower water usage charge, which is not surprising given renters only pay the usage component of the bill. Similar insights resulted from questions about wastewater charges for houses and apartments.

However, during the first three stages of our engagement program, our customers expressed a strong interest in discussing prices structures. We listened, and let customers add to our engagement agenda by consulting on three key pricing issues: the mix of fixed and variable charges for water, residential wastewater charges, and the pace of transition to higher price levels.[1]

These questions are relatively complex. They require value judgments and trade-offs, and the options affect stakeholders differently. To overcome the limitations we had experienced in 2019 using a more conventional survey approach, we adopted a mix-methods approach: online customer surveys, interviews with subject matter experts, and several focus group discussions with our customers. This enabled us to use numerical examples of different options, explore trade-offs across a spectrum of values or principles, explore more fully who may be better or worse off under different price structure options and use probing questions to understand the reasons why certain preferences were held and how tightly they were held.

In Chapter 8, we provide further details about our price structures engagement, the insights gained, and how we used these to shape our proposal.

What we did in stage five

We reconvened the Community Panel, bringing together 16 members to share highlights of this pricing proposal in a half-day, in-person session. Members were:

- updated on progress since the end of their deliberations
- provided with our response to their recommendations
- asked to confirm that their recommendations were evident in our response document.[2]

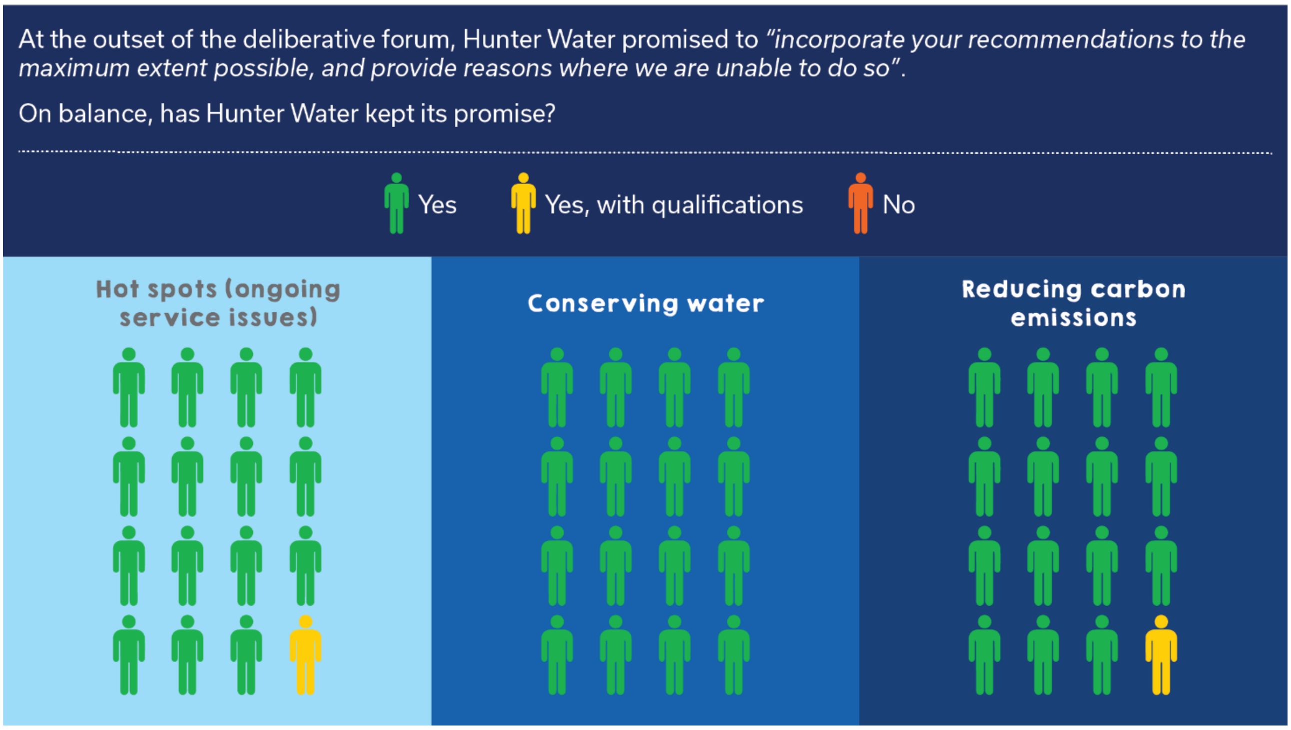
The Community Panel members present unanimously confirmed that we had kept our promise to collaborate with them through the deliberative process. Two of the 16 participants had qualified support for the carbon reduction and hot spots topics,

Through the deliberative process we built significant trust, with 75 per cent of respondents to a post-event survey saying they would be more likely to be involved in government decisions that might affect them. The remaining 25 per cent of respondents said there had been "no change".

[1] Insync, June 2024, Tariff design research, Hunter Water. Available at https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal

[2] Our response document is available at https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal under Stage 5.

Figure 1.13 Stage 5 poll results about whether we effectively collaborated



1.2.4 Quality assurance

Customer Engagement Advisory Panel

We formed an independent panel of experts, called the Community Engagement Advisory Panel (CEAP), to constructively challenge us on how we listen to and learn from our customers and community in developing our price proposal.

The CEAP's purpose was to:

- constructively challenge Hunter Water on the design and implementation of pricing proposal customer engagement activities, and use of customer insights in decision-making about our proposal
- assure customers, the community, stakeholders and IPART of the quality of engagement work and integration of customer insights into the pricing proposal.

While we have a longstanding Customer and Community Advisory Group (CCAG) that enables two-way, open communication between Hunter Water and local councils, customer representatives, environmental groups and community organisations, we thought it was important to distinguish between the functions of assuring the robustness and validity of the process (the *'how'*) and seeking views on the content from stakeholders and community representatives (the *'what'*).[1]

[1] More information about the CCAG is available on our website: https://www.hunterwater.com.au/haveyoursay/customer-and-community-advisory-group

The CEAP was intended to complement, rather than replace, our CCAG. The CEAP's role was one of expert constructive challenge and assurance of methodologies and processes (the *'how'*). The CCAGs role is to provide advice and feedback on emerging issues, performance, strategies, programs and projects (the *'what'*) as a representative of the broad range of needs and interests of the local community and other stakeholders in our area of operations. We consciously decided to separate the two roles, which is the Justice and Equity Centre's (formerly the Public Interest Advocacy Centre) preferred approach:[1]

> *PIAC considers separate roles for ongoing community representation and advice, and independent oversight of engagement, to be best practice and a more enduring and effective approach.*

The CEAP has met with us 10 times across almost two years. In addition, members have reviewed three draft surveys, and observed more than 60 hours of community focus groups and deliberative forum sessions with the Community Panel.

Figure 1.15 provides details about the CEAP members. Members bring to the CEAP experience in:

- economic regulation and regulatory issues within the utilities sector
- designing, implementing, analysing and applying the findings of customer research and engagement using a range of qualitative and quantitative methods beyond an academic context
- advocacy or support for customers experiencing financial vulnerability or other circumstance that create barriers to using our services
- advocacy for, and engagement with, the business community in the Lower Hunter region.

Following their oversight and involvement in the engagement process, the CEAP provided a formal attestation about the process and customer insights gained (Figure 1.14). The attestation was supported by a detailed explanatory document that highlighted the following:

- At all times, engagement was authentic, with a genuine openness to participant views, potential criticism, confusion, and conflict.
- Adapting to changing circumstances and building on the previous findings was a strong feature of the overall engagement process.
- There was an opportunity for CEAP members to question any concerns with the process, content, and structure, and Hunter Water responded to input regarding improvements to strengthen the impartiality of content and processes.
- Although specific cohorts were underrepresented (including tenants and young people) in the engagement, Hunter Water put processes in place to address this (refer to section 1.2.2 for further details). Any gaps in representativeness in the deliberative panel processes did not materially impact the findings.
- Hunter Water is undertaking steps to ensure longer-term relationships are developed with Aboriginal and/or Torres Strait Islander communities to build trust to facilitate ongoing engagement.

The CEAP's review and attestation, helped support Hunter Water's Board's attestation of this pricing proposal.

[1] Public Interest Advocacy Centre, 15 September 2023, Submission to IPART's Sydney Water Operating Licence review 2023-24 Issues Paper, pages 14-15. Retrieved from: https://www.ipart.nsw.gov.au/review/water-licensing-sydney-water-corporation/sydney-water-operating-licence-review-2023-24

Figure 1.14 CEAP attestation

For the period during which CEAP was engaged in the process, we attest that the process was thorough, fair and transparent and conducted in good faith, resulting in valid customer views being incorporated into Hunter Water's Pricing Proposal.

Despite some limitations with regard to customer representation, CEAP confirms that Hunter Water's engagement with the community was genuine and comprehensive, addressing important issues and reflecting community priorities being meaningfully used as the basis for incorporating those views into Hunter Water's decision making regarding the IPART pricing proposal process.

The members feel CEAP had a meaningful influence on the process.

Professor Roberta Ryan

Chair, Hunter Water Customer Engagement Advisory Panel

13th September 2024

Figure 1.15: Our Customer Engagement Advisory Panel

Professor Ryan is a political sociologist who works on the intersection between communities and the built and natural environments. She has collaborated extensively with water, land use planning and environment agencies across all levels of government with an emphasis on community sentiment, education, behaviour change, and understanding the social license for regulation.

Roberta Ryan (chair)

Mr Anicich AM is a retired partner of Sparke Helmore, a national law firm with origins in Newcastle. He is chair of the Committee for the Hunter, a past president and life member of Business Hunter, chair of Hunter Primary Care Ltd and of Healthy Communities Foundation Australia Ltd, a member of Venues NSW Hunter Advisory Committee and an Honorary Professor in the School of Law & Justice at Newcastle University.

Richard Anicich

Ms Lavery is an economics, finance and governance professional with a particular focus on customer-centric investment decision-making. She was a member of the inaugural Consumer Challenge Panel of the Australian Energy Regulator, advising on consumer perspectives on electricity and gas network regulatory proposals. A former non-executive Director of Hunter Water, she also had many years' experience at a senior level IPART.

Ruth Lavery

Mr McCloskey is a public policy and economics professional with extensive experience across policy, government, and community and social service advocacy. He has also worked and volunteered in youth development in Australia and Europe. In his former role for the NSW Council of Social Service, his policy and advocacy work included the focus areas of disability, housing, planning and transport.

Douglas McCloskey

Mr Webb is the CEO of Castle, a non-government provider of NDIS and Disability Employment Services in the Hunter and Central Coast region. He is also a Director of the NSW Council of Social Services and the Committee for the Hunter. His focus is ensuring that the voice of community members from disadvantaged, vulnerable or marginal backgrounds is kept at the forefront of decision-making and consultation.

Brad Webb

How we implemented IPART's principles for good practice customer engagement

At all stages in our customer and community engagement we have aimed to use effective methods, unbiased explanations, inclusive opportunities for participation and been clear on the level of public participation in decision-making that has been offered (i.e. how the findings will be used).

In Attachment A, we assess our program against IPART's examples of principles for good practice customer engagement.

1.3 Engaging with customers and our community is a constant, intertwined with long-term planning

As stated in Section 1.1.1, we value the input of our customers and community, and our 'always on' approach means that every interaction we have is an opportunity to listen, learn and respond. Customer and community research and engagement is embedded in Miramaliko Baato: our corporate strategy, our customer experience strategy, sustainability strategy, and community engagement strategy and guided by our customer, consumer and community consultation procedure.

With an average of 10,000 touchpoints with customers each year, our ongoing customer experience research and community engagement programs, as well as our embedded approach to major project engagement, continually feed insights for action and improvement.

However, new matters of mutual priority to us and our community will arise, and once-off or periodic deeper engagement is necessary. This also helps spread the load – the number of topics that can be concurrently explored with the community is limited, due to both availability of sufficient input information and the capacity of participants to meaningfully engage. We therefore deliberately deferred some topics for future engagement, and defined triggers to revisit these over the medium term.

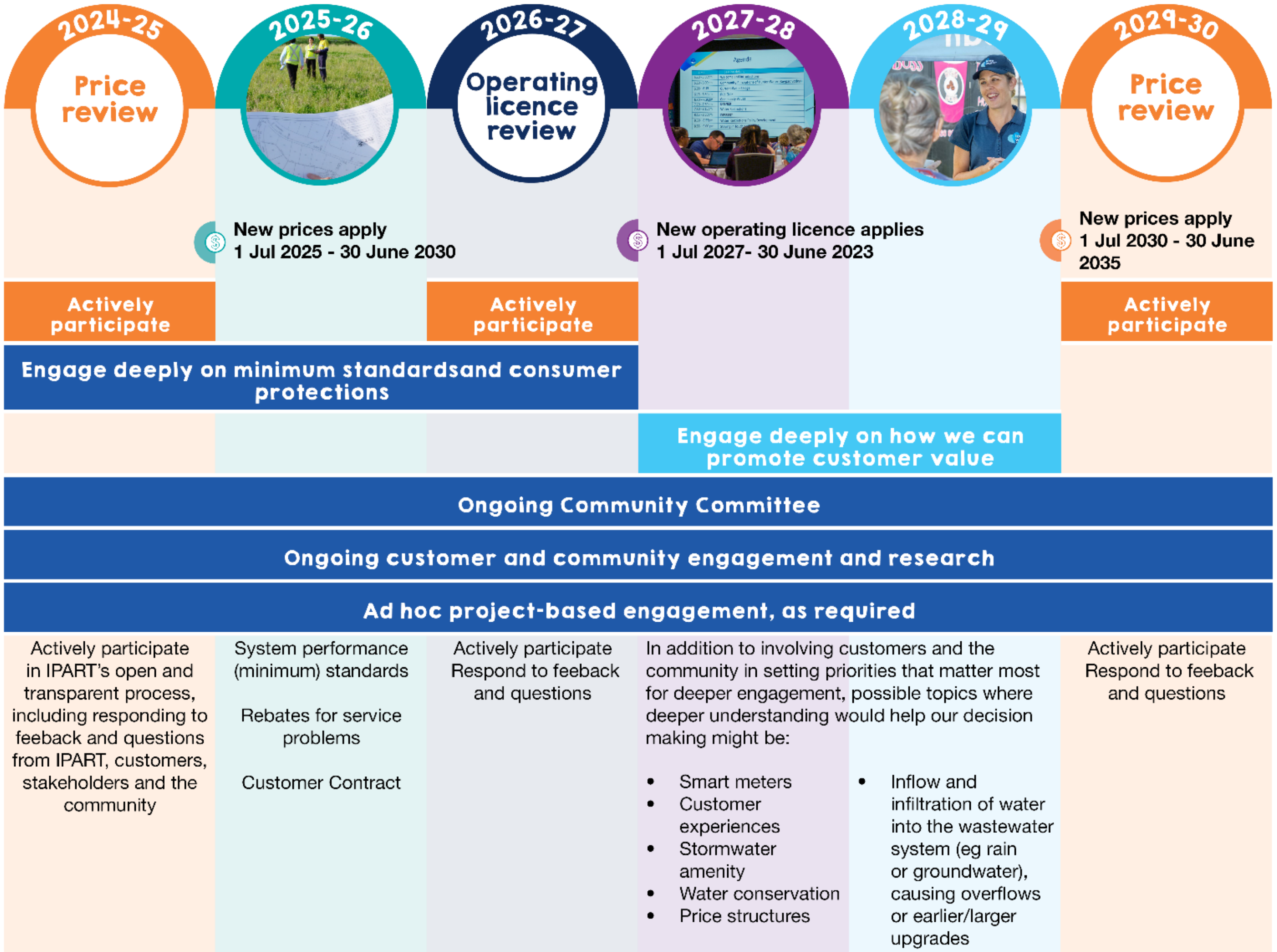
It's also important to revisit past insights with our community – preferences change as the community changes, as does the context that underpinned their preferences. For example, the cost-of-living pressures that have been top-of-mind for customers recently will hopefully ease in the future.

We have developed an outline for future engagement over the medium term (see Figure 1.16). This will allow customers to continue to influence our long-term plans. The end of term operating licence review and subsequent price review are well sequenced for near-continuous engagement. Each review fits into the broader planning processes of the business, meaning we will continue to reflect a contemporary understanding of our customers in decisions and as we adapt our long-term plans.

Price reviews provide an ideal opportunity to 'bring it all back together' and understand what preferences expressed on individual issues, and insights gained over time, mean in totality for customer bills and whether that changes the outcomes customers want or where they recommend we spend their money.

In the next section, we talk about how the insights we have heard from the community through our engagement activities have shaped the focus principles that underpin our pricing proposal.

Figure 1.16 Planned future customer and community engagement



Source: Hunter Water.

Notes:

See Section 2.3.1 for further details on the ongoing customer committee.

See Section 1.1.1 for further details on our ongoing customer and community engagement and research.

1.4 Focus principles that underpin our proposal

IPART's new framework for regulating water businesses is built upon the 3Cs. It is centred on delivering customer value through 12 principles that balance 'what customers get' with 'what customers pay'. This depends on how much we propose to spend, what we propose to achieve, and the level of confidence that we can deliver against our proposal. The 3Cs and 12 principles are shown in Figure 1.17.

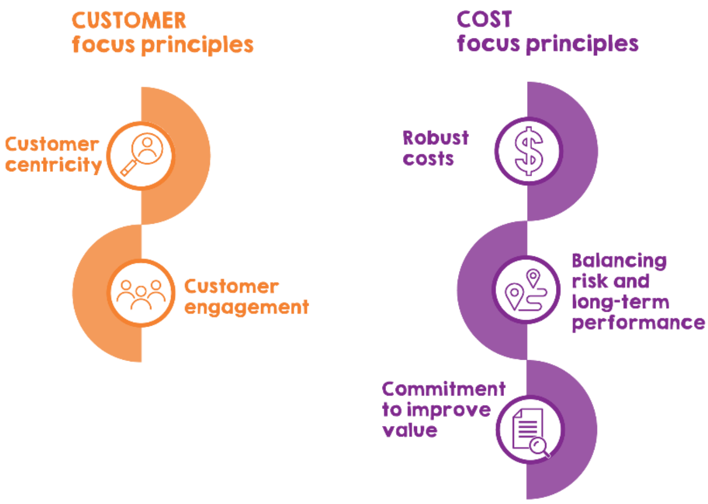
Figure 1.17: IPART's 3Cs framework and 12 guiding principles

Source: IPART, November 2022, *Delivering customer value: our water regulatory framework*, page 3.

We have focused our pricing proposal on the five principles we think reflect the most important current priorities for our customers: two customer principles and three cost principles.

This has been informed by a strong understanding of our customers – gained from our ongoing customer and community engagement and specific engagement for this pricing proposal. In the following pages we describe the reason for choosing these focus principles.

We placed greater emphasis on these focus principles in our self-assessed grade (see Chapter 11).



The key insights that lead us to choose these principles are:

- Overall, we are seen as a reputable provider of quality services: essential, effective, experts, accessible and easy to deal with.
- Water supply, wastewater management and customer service are all important to customer satisfaction and areas the community perceives as our strengths.[1]
- Customers prefer their water and wastewater services to be seamless and problem-free. We aren't 'top of mind' for most households since their expectations are being met.
- Providing a reliable service is the main driver of customer perceptions of competence in a water utility, and ultimately a key driver of trust. Being efficient, well managed, having excellent customer service, being easy to deal with, and caring for customers having trouble paying their bills are also drivers of trust.
- Many aspects of customer service are considered a 'given' (expected of every organisation). Responding to customers, and resolving problems and enquiries quickly, are the most important.
- Customers are aware of our monopoly position and their lack of choice. Most surveyed customers were comfortable with this given the high satisfaction levels, but there was some association with profit-making and slow responsiveness (particularly for ongoing issues).
- We heard that keeping bills as low as possible was a top priority (see Section 3.2.6), so focusing on cost is essential.
- The community expects us to
  - ensure good value for money and focus on affordability (providing this essential service at a price that is accessible to all in the community, with financial support offered where needed)
  - be accountable (transparency of reporting and reviewing of processes and infrastructure)
  - provide high quality service delivery (respectful, consultative, prompt and effective… getting it right, first time).
- External stakeholders conveyed the importance of talking and listening to customers, with comments such as:
  - *"Would like to see Hunter Water having wider community conversations, not just with advocates and peak bodies"*
  - *"When customers appreciate the complexity of situations, the more sympathetic they will be, and the more resilient the relationship becomes"*
  - "*Customers should participate a lot"*
  - *"What works well in energy (which is more complex), they do engagement in areas you might not expect. They educate customers and then ask the questions and get very sensible answers".*
- In every stage of our pricing proposal engagement, we received positive feedback from participants about the opportunities we provided for public participation in decision-making and encouraged us to continue to listen and learn with our community.

[1]High relative importance in terms of impact on overall satisfaction rating and high performance. Relative importance is measured in terms of its impact on overall satisfactions using the Kruskal driver analysis method that measures how much each service area contributes to the total variation in overall satisfaction. Performance level based on the proportion of survey respondents who rated Hunter Water's performance as 'extremely high' for that service.

Customer centricity

Our proposal has customers and the community at the heart of all we do, both in how we developed the proposal and our ambitions for improvements over this pricing period and beyond.

Elements of our current service offering delights customers. We recognise that more can be done with technology to provide better experience for customers and in the upcoming pricing period we will improve how we interact with customers and make their experience with us better and respond to their changing needs.

Our customers have high expectations for us to integrate their needs and preferences into our planning and service delivery, which we have done through our six customer outcomes and associated commitments (described in Chapter 2).

> Don't ever close the local call centre and front counter (so we can go there in person)
>
> Community listening post workshop participant

We are supporting our customers experiencing vulnerability and working together with customers at risk. Over the pricing period we will increase our support by about 25 per cent, in acknowledgement that unavoidable increases to our prices may exacerbate cost-of-living pressures.

Customer engagement

We have embraced the change in regulatory framework to make a step change improvement to our customer engagement for our pricing proposal, with five stages each building on prior stages. Our engagement design was iterative, meaning we could learn and adapt the process as we went. As an example, we added the topic of price structures into stage four engagement based on customer feedback.

Our engagement has been deep, robust and aligned with best practice. It reflects community and stakeholder expectations of involvement, including the NSW government's priority for us to *"build trust with the community and stakeholders, including through transparent, meaningful and timely engagement"*.[1]

> Continue to listen to customers using whatever means are suitable e.g. activities like tonight and those that have been happening since 2018. It's really important to have conversations with the people who use their services.
>
> Community listening post workshop participant

> Would like to see Hunter Water having wider community conversations, not just with advocates and peak bodies
>
> Stakeholder interviewee stage 1

> I value good in-depth research that puts the feelings of people – the community – first. This experience tonight definitely put Hunter Water in a glowing light for me.
>
> Residential focus group participant

[1] Statement of Expectations for Hunter Water Corporation issued by the NSW Government It is available on our website under the sub-heading "governance": https://www.hunterwater.com.au/about-us/publications/policies

Robust costs

Our customers expect us to be efficient and to deliver services in a way that minimises costs, now and into the future. We have strong investment governance and assurance processes, prudent expenditure, and have challenged ourselves to deliver regulatory requirements and the outcomes customers want at the lowest possible cost. Our proposed expenditures are supported by evidence that it promotes customer value, including minimising net life cycle costs, or maximising net benefits on projects. Our proposed spend aligns with performance targets reflecting customer preferences (Chapter 2).

> I wish Hunter Water would not waste customer money and be inefficient. Be a clever, efficient provider of services.
>
> Community listening post workshop participant

Balancing risk and long-term performance

The community told us that ensuring future water security, providing a reliable, efficient service by maintaining and improving infrastructure; and fair and affordable bills are amongst their top five expectations.

Our long-term performance is also important. During engagement for the development of the Lower Hunter Water Security Plan (LHWSP), we heard it was important to consider future customers and community members (see Attachment D for further details). We are delivering a step change in improvement in water security with the Belmont desalination plant – a rainfall independent water supply that can withstand drought.

Prioritisation has been a major focus in developing our proposal. We think we have struck the right balance between risk, long-term service performance, and affordability (as described in Chapter 3).

> Continue to provide a decent and affordable service, especially as the region grows
>
> Community listening post workshop participant

Commitment to improve value

Our customers told us that affordability and cost-of-living pressures are of the highest concern to them. They expect us to be efficient and to deliver our services at lowest cost to customers, now and into the future. Our cost efficiency strategy incorporates an ambitious cost efficiency target above measured economy-wide productivity performance, to improve value for our customers and to help keep bills affordable.

We've set challenging performance targets for each customer outcome (see Chapter 2). We will improve on our baseline performance for three outcome performance measures that directly reflect our Community Panel's recommendations (see Chapter 2).

> I expect Hunter Water to be financially responsible. Make sure they're spending money on appropriate projects and not wasting our money. Be efficient.
>
> Community listening post workshop participant

Attachments related to this chapter

Attachment A – Assessment against IPART's good practice principles for engagement

Attachment L – Self-assessment against the 3Cs framework

2 Customer outcomes

Key points

- We are committed to delivering six outcomes that will create long-term value for our customers, community and the environment. The outcomes articulate a desired change or benefit and reflect what our customers want us to deliver over the long term.
- We have developed measures with our community, to indicate progress towards achieving the outcomes. The measures intentionally maintain flexibility in how the outcomes are achieved, so we can adapt our approach across the pricing period in response to efficiency improvements or new solutions becoming available.
- We have set challenging, yet achievable, performance targets for each measure. We commit to improving three out of ten outcome performance measures and maintaining the remaining seven. This approach:
  - aligns with our community's priority to minimise bill increases while concentrating on targeted improvements
  - improves in areas that directly reflect our Community Panel's recommendations
  - provides community benefit through a step change in water security with delivery of the Belmont desalination plant.
- We will provide several ways for customers, the community and stakeholders to hold us to account:
  - Publishing an annual customer report card showing progress against the outcomes. We consulted with the community about the most transparent and accessible ways to report.
  - Establishing a Community Committee, to help 'mark' our report card.
  - Providing rebates set out in our Customer Contract to customers affected by occasional service problems.
  - Introducing a new rebate if we fail to resolve the ongoing service problems that have the highest impacts on customers.
  - A new regulatory approach will further incentivise us to save water by fixing leaks in our system.
  - Integrating customer outcomes directly into our corporate strategy.

2.1 Our proposed outcomes reflect the priorities of our community

Our customer outcomes are the foundation of our proposal and seek to deliver on what our customers and community have told us they value. We're committed to delivering six outcomes (Figure 2.1) that will create long-term value for our customers, community, and the environment.

Our customer outcomes reflect what our customers want us to deliver over the long term. They are shaped by the insights we have gained from listening to 15,763 customers since 2018. We have continued to review and refine the outcomes throughout development of our pricing proposal based on what we have heard from customers (Figure 2.2).

We will improve on our baseline performance for three out of six key outcomes. This aligns with our community's priority to minimise bill increases while concentrating on targeted improvements.

Figure 2.1: Our customer outcomes

Outcome	We heard....
High quality water services	I expect my water to be safe and clean. My water and wastewater services should be reliable so that I can depend on them year-round.
Value for money, and affordable	I expect Hunter Water to keep bills as low as possible by being efficient and looking for ways to save money. I want Hunter Water to deliver valued services. I expect Hunter Water to treat consumers experiencing vulnerability with dignity and make it easy for them to get assistance.
Water security	I expect Hunter Water to plan ahead and ensure water resources are used wisely so that we have enough water to support the health and prosperity of our region, now and in the future, no matter the weather.
Great customer service	I expect to be able to use Hunter Water's services and interact with Hunter Water easily, in the channel I choose. I want to be treated with respect, kept informed with clear and timely communication, and I trust Hunter Water will always try to resolve my issue first time, and in a timely manner.
Us being Environmentally sustainable	I expect Hunter Water to care for the environment: protecting it during our operations, 'treading lightly on the planet' and being fair to future generations by acting on big challenges like climate change.
Us being Community-focused	I expect Hunter Water to listen and use community feedback in its decision-making, support the community through grants and partnerships, deliver educational activities and participate in community events.

Figure 2.2: Evolution of our customer outcomes

Draft set of outcomes developed using all existing customer insights from 2018-2023

Draft outcomes tested and refined over the course of our customer engagement program

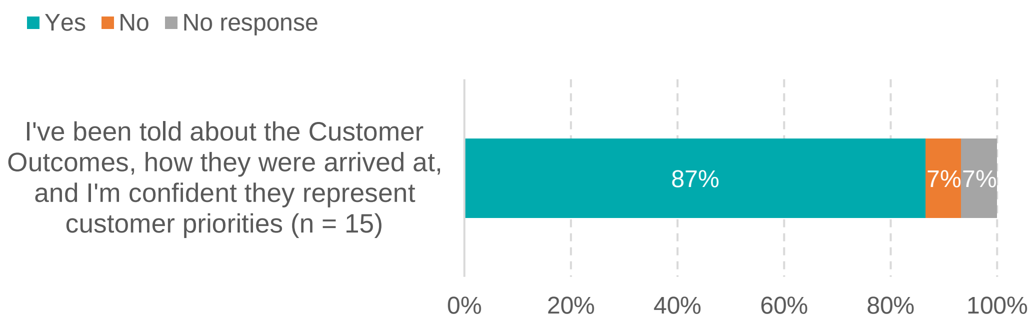
Confirmation from our customers and community that proposed outcomes reflect what they value most

2.1.1 Confirming our outcomes reflect customer priorities

We're confident these outcomes reflect the expectations and priorities of our customers and community.

In May 2024, in stage four of our pricing proposal engagement program, we held a community workshop with 15 members of our deliberative Community Panel. We presented our proposed outcomes to participants and asked them to confirm whether they were confident that the outcomes reflected the priorities of the broader customer base. A clear majority of the participants endorsed these outcomes – 13 out of 15 respondents agreed that they reflected customer priorities, with one participant abstaining from voting (Figure 2.3).

Figure 2.3: Community Panel - confidence that customer outcomes represent customer priorities

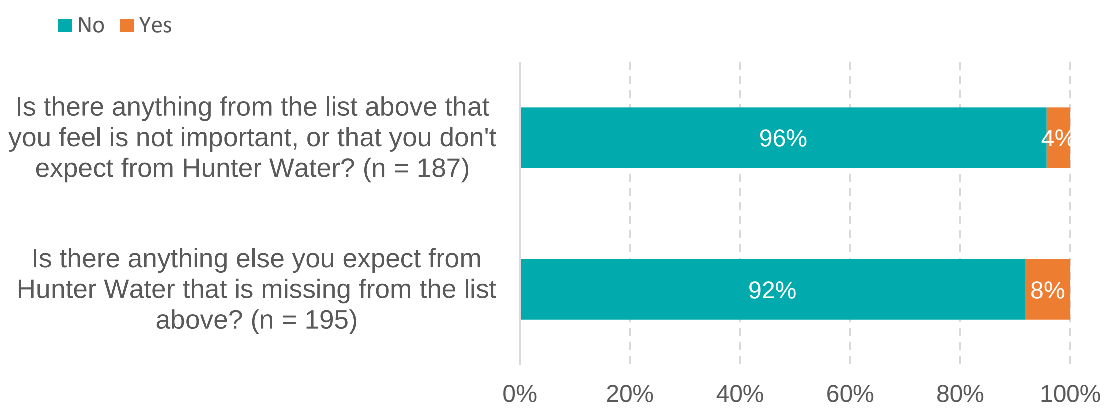


Source: Insync, June 2024, Community workshop summary report, Hunter Water. Available at https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal

We also tested our outcomes with the broader community in May 2024 quarterly community survey.

Over 90 per cent of respondents indicated that the proposed outcomes reflected their priorities (Figure 2.4).

Figure 2.4: Quarterly survey - confidence that customer outcomes represent customer priorities



Source: Quarterly Community Survey, May 2024. Available at https://www.hunterwater.com.au/haveyoursay/quarterly-community-survey

2.2 We will deliver six customer outcomes and track our progress using performance measures

We've set challenging, yet achievable, performance targets for each outcome. We will improve on our baseline performance for three out of ten outcome performance measures, and also achieve a step change improvement in water security by delivering the Belmont desalination plant (Table 2.1).

For the other seven performance measures, we will invest to maintain our current performance, helping keep bills as low as possible. This demonstrates the challenging environment we face to comply with regulatory obligations, continue meeting customer and stakeholder expectations, and our customers' priority to keep bills as low as possible. The areas we are committing to improve directly reflect our Community Panel's recommendations. We described our engagement process in detail in Chapter 1.

In this section, we provide an overview of the customer outcomes – what we have heard from customers, examples of what we plan to do to deliver these outcomes, and our measures for success. We provide a summary of measures and targets for 2025-2030 in Table 2.2.

Table 2.1 Key areas for improvement driven by our community

Outcome	Area of improvement	Why we're improving (what customers have told us)	How we will improve
High quality water services	**Repeat service problems (hotspots)**	Equity of care and service for all customers is important. We should fix as many repeat service issues as possible.[1]	We will fix at least 1,000 repeat service issues for customers. This compares with our baseline of addressing hot spots affecting 40 customers each year, on average over the last four years.
Water security	**Leakage from our system**	Water conservation is important. We have direct control over leakage in our system and should invest to improve our performance.[1]	We will reduce leaks in our system. Our leakage performance will improve by nearly 40 per cent, likely placing us among industry leaders in leakage.
Environmentally sustainable	**Greenhouse gas emissions**	We should meet government reduction targets at a minimum. We should power our desalination plant with renewable energy if it's the most cost-effective option.[1]	We will reduce our emissions by at least 80 per cent, compared to a 2020-21 baseline. This means we will exceed minimum government targets by 2030.
Water security	**Rainfall-independent water supply**	We should plan for the future to ensure we have a safe, reliable water source regardless of changes in weather or climate.[2, 3]	Delivery of a permanent desalination plant that will provide a rainfall-independent water source and add up to 30 million litres per day of water supply into the Lower Hunter system.

[1] Insync, July 2024, Hunter Water Community Panel Deliberative Forum Report

[2] Insync, September 2022, Hunter Water Stage One Engagement Summary Report

[3] Hunter Water, April 2022, Lower Hunter Water Security Plan

High quality water services

Customers have told us:

- Clean, safe water is the highest priority. It's a basic, essential service necessary for health and hygiene. Customers expect their water to be clean, tasteless, odourless, clear and accessible.[1]
- When our wastewater systems overflow, a quick response to fix the issue and clean-up is important.[1]
- Unplanned interruptions to water supply are twice as bad as planned interruptions and long interruptions are twice as bad as short interruptions.[2]
- Equity is important, and customers want persistent problems with low water pressure, wastewater overflows or wastewater odours to be fixed even if all customers pay more.[4]

Opex
$451 million

$445 million
Capex

Clean, safe water

Examples of what we plan to do

- Maintain a robust multiple-barrier approach to managing water quality risks
- Operate six water treatment plants (WTP)
- Immediately investigate any sampling, alarms or complaints that indicate a possible risk to water quality, rectifying and reporting to NSW Health where required
- Upgrade our largest WTP at Grahamstown, and continue to renew assets at our WTPs as their condition deteriorates over time as they get older
- Plan management strategies and monitor for emerging contaminants
- Protect raw water quality by helping to improve the management of our water catchments in built areas
- Maintain effective disinfection and integrity in our distribution system to ensure water quality
- Maintain backflow prevention to stop substances entering (or re-entering) the water network at the point of water supply

Our measures of success:

≥99.75% compliance with Australian Drinking Water Guidelines (ADWG)

Reliable water services

Examples of what we plan to do

- Undertake ongoing preventative maintenance for mechanical and electrical assets across the water supply network
- Repair or renew water pipes and reservoirs where they no longer provide a reliable service to customers
- Reduce the risk of critical water pipes failing and causing widespread water outages for customers
- Maintain hydrants, valves and pump stations that could impact water availability for customers
- Increase the capacity of our water network as growth occurs to continue to meet our Operating Licence requirements relating to water pressure and water continuity
- Improve water flows available for urban firefighting in areas where our pipes are older or no longer meet modern pressure standards
- Address localised and severe persistent low-pressure issues that disproportionately impact a small group of customers

Our measures of success:

≥88% of service delivery issues raised by customers addressed within target timeframes

See also "reliable wastewater services"

Reliable wastewater services

Examples of what we plan to do

- Undertake a proactive wastewater pipe cleaning program to reduce the chance of repeat blockages that could cause overflows onto customer's properties
- Repair or renew wastewater pipes where they no longer provide a reliable service to customers
- When overflows occur, fix them as quickly as possible and clean up customer's properties when affected
- Operate 19 wastewater treatment works (WWTW) – one large, 12 moderate-sized and six small
- Address persistent wastewater odours affecting a small group of customers
- Address persistent wastewater overflows onto customers' properties odours affecting a small group of customers in wet weather
- Continue to renew assets at our WWTWs as their condition deteriorates over time
- Increase capacity to service growth

Our measures of success:

≥1,000 customers removed from our repeat service issue register (low pressure, odour or wastewater overflow issues)

See also "reliable water services"

[1] Insync, September 2022, Hunter Water Stage One Engagement Summary Report.
[2] The Centre for international Economics, Sep 2021, Customer willingness to pay: Water and wastewater system performance, Final Report: https://www.thecie.com.au/publications-archive/customer-willingness-to-pay-water-and-wastewater-system-performance. [3] Insync, Hunter Water Engagement Report, November 2023, available at: https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal

Value for money, and affordable

Customers have told us:

- Keeping bills as low as possible is a priority for customers, especially with the impact of the cost-of-living pressures. It's more important than almost any type of improved service or experience.[1]
- Customers expect us to play our role in keeping bills as low as possible by being prudent and efficient.[1]
- Over the last two years, between 60% and 75% of surveyed customers want us to help customers who struggle to pay their water bills. More recently, it has been the number one community expectation of customers.[2]
- Only 27-33% of surveyed customers were aware of support programs that Hunter Water offers fo customers who are struggling to pay their bill, across the last two years.[2,3]
- Customers rate Hunter Water 6.4/10 on delivery of value for money, which is in line with water utility averages.[3]
- The proportion of surveyed customers who have struggled to pay a water, or other bill over the past 12 months has been steadily increasing over the past two years reaching 40% in February and May 2024.[2,3]

Opex
$12 million

$78m savings

$29 million
Capex

Bills as low as possible

Examples of what we plan to do

- Prioritise our expenditure to focus on: protecting people (e.g. public health, worker and community safety, and our customers' data), regulatory compliance and the outcomes that are most important to our customers, community and stakeholders
- Defer investments and take on more risk as a business, rather than asking customers to pay now to prevent performance issues that may occur in the future
- Continue robust internal investment processes to make sure we deliver value for money
- Publish and deliver our cost efficiency strategy setting out how we plan to make your money go further. This includes:
  - $8.4m of savings from things we've already put in place or committed to do, such as:
    - energy efficiencies
    - best practice maintenance job assessment
    - using technology to automate processes and identify problems
    - implementing a new billing system including eBilling
    - improving our developer self-service portal to automate processes
    - competitive procurement resulting in favourable pricing for banking and financial services, telecommunications, postage, energy and concrete products
  - $78m in additional savings (cost reductions, avoided costs and productivity improvements)

Our measures of success:

Maintain the percentage favourable (agree or strongly agree) responses to Quarterly Community Survey question: *"How strongly do you agree or disagree that Hunter Water delivers value for money?'*

Support for vulnerable customers

Examples of what we plan to do

- Continue to provide a range of support programs for customers experiencing financial hardship, such as:
  - Easy Pay (bill smoothing instalments)
  - payment extensions
  - Payment Assistance Scheme (PAS) credit
  - Easy English documents
  - application for assistance with limited eligibility requirements
  - home visits
  - attending targeted events across the region to promote accessibility and inclusion for support options
- Make it easy for our customers to access short term payment support across digital and non-digital channels
- More frequent home visits to help our customers potentially experiencing vulnerability get help with their bill
- Almost double the number of water audits to help find leaks and provide advice on ways to save water, providing support to customers earlier and reducing the potential for bill shock
- Additional outreach and other awareness raising activities, to ensure vulnerable customers are aware of our support offerings

Our measures of success:

Maintain the percentage of customers who, having accessed our support programs, believe we help customers experiencing difficulty paying for their water and wastewater services

[1] Insync, September 2022, Hunter Water Stage One Engagement Summary Report. [2] Hunter Water Quarterly Community Survey, August 2022 to May 2024.[3] Water Services Association of Australia, National Customer Perceptions Study 2023.

Water security

Customers have told us:

- We should increase supply to ensure the availability of a clean, reliable and sustainable source of water into the future.[1, 2]
- We need to plan now to reduce the risk of requiring an emergency response during drought.[1, 2]
- We should seek to reduce demand for drinking water by encouraging customers to use less water[3]
- Fixing leaks to make the most of what we already have is a priority. We should fix leaks in our system as we have direct control over them.[2, 3]
- Advising and supporting industrial customers to use recycled water supply options is important but should not be funded by residential customers.[3]

Opex
$25 million

$512 million
Capex

Water resources used wisely

Examples of what we plan to do

- Help customers to save water and reduce leaks on their property. Together we could save around four billion litres of drinking water over the five years
- Reduce leakage in our water system, which we estimate could save around two billion litres of precious drinking-quality water over five years and place us amongst the best in the water industry at this type of water conservation
- Continue to supply around five billion litres of recycled wastewater each year for non-drinking purposes
- Invest in new recycled wastewater or recycled stormwater projects for non-drinking purposes if it saves drinking water for less than the cost of increasing the drinking water supply, or if it helps disposal of treated wastewater in a way that protects the environment, or if it is fully paid for by the end user
- Continue to advise and support industrial customers to implement recycled water supply options

Our measures of success:

Reduce real losses - the average volume of leakage and overflow from our supply mains and service reservoirs - from 71 to ≤50 L/connection/day by 2030

Water in drought and for the future

Examples of what we plan to do

- Build a new desalination plant at Belmont, providing a rainfall-independent water supply that can help us withstand a prolonged and severe drought
- Continue to explore alternative and additional supply options as described in our Lower Hunter Water Security Plan

Our measures of success:

Construct the Belmont desalination plant by 2028 [4]

[1] Insync, September 2022, Hunter Water Stage One Engagement Summary
[2] Hunter Water, April 2022, Lower Hunter Water Security Plan
[3] Insync, July 2024, Hunter Water Community Panel Deliberative Forum Report
[4] This measure is not included on the customer report card

Environmentally sustainable

Customers have told us:

- We should be environmentally responsible but mindful of affordability with any proposed initiatives or investments that go beyond compliance.[1, 3]
- Reducing the impacts of wastewater (including overflows) on creeks and waterways is important because the pristine environment and recreational opportunities are key liveability features of the '
- Being environmentally friendly and sustainable was among the top four most frequently cited then that the community would like to see us doing more by 2030.[4]
- Recycling wastewater and reducing greenhouse gas emissions are amongst the community's highes priorities us in the area of sustainability.[2]
- We should meet government emissions reduction targets as a minimum and use renewable energy to reduce our carbon footprint, where possible, rather than purchasing carbon offset credits.[1]

Opex
$68 million

$387 million
Capex

Care for the environment

Examples of what we plan to do

- Comply with 17 licences issued by the Environment Protection Authority (EPA) that set environmental standards for our wastewater network and treatment plants
- Continue to renew assets at our treatment plants, pump stations and pipe network for reliable operation
- Upgrade our largest wastewater treatment plant at Burwood Beach, to reduce the impact of our discharges on the environment
- Progress towards stopping discharge of treatment process waste to the ocean off Burwood Beach
- Reduce wastewater overflows to the environment
- Land restoration at sites we own at Shortland and Stockton

Our measures of success:

100% existing regional Beachwatch sites graded good, or grading unaffected by Hunter Water activities

Be sustainable for future generations

Examples of what we plan to do

- Long-term planning for sustainability, including reducing our impacts on waterways that may occur from problems with our infrastructure
- Reuse or recycle spoil from construction activities
- Divert solid waste from landfill (reduce, reuse, recover or recycle where possible and net beneficial)
- Reuse the biosolids produced by our wastewater treatment plants
- Actively protect and rehabilitate ecosystem biodiversity on property we own

Our measures of success:

" See "respond to climate change"

Respond to climate change

Examples of what we plan to do

- Continue to install solar panels at our treatment plants and pump stations where it is economically viable to do so. The program is projected to supply around 20-25% of our energy demands by 2030
- Continue to transition towards net zero carbon emissions by using green energy, including to power our new desalination plant at Belmont
- Continue to actively investigate new technologies and keep abreast of market trends to reduce or offset carbon emissions
- N.B. Climate change adaptation activities are included under the outcome *High quality water services.* The actions enable us to remain resilient to the future impacts of climate change in providing our primary services

Our measures of success:

80% reduction in Scope 1 (including fuel and wastewater treatment fugitives) and, Scope 2 (electricity) carbon emissions (CO_2e) compared with 2020-21 levels, by 2030

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[1] Insync, July 2024, Hunter Water Community Panel Deliberative Forum Report. [2] Insync, Hunter Water Engagement Report, November 2023.
[3] Hunter Water, April 2022, Lower Hunter Water Security Plan. [4] Insync, June 2023, Hunter Water Stage One Engagement Summary

Great customer experience

Customers have told us:

- We should provide responsive, knowledgeable and local customer service.[1]
- Our bills should be easy to pay and information is easy to find.[1]
- When asked to tell a story about when we have delighted or disappointed participants in Community Listening Post Workshops, the same customer experiences were likely to delight (if done well) or disappoint (if done poorly).[1]

  In particular:
  - speed of response to interruptions and service faults (first delight = done quickly; second disappoint = done slowly).
  - frontline customer contact centres were more likely to delight (responsive, knowledgeable, loc than disappoint (slow response to queries, information hard to find).
  - billing support (eBills, informative bills, support for customers struggling to pay) as a delight vs billing and payment issues/high cost of bills as a disappointment.
- Many aspects of customer service are considered a 'given' (expected of every organisation). While customers rate two aspects of customer service as most important (solve problems/enquiring in a timely way, and respond to customers, consumers and the community quickly), most aspects were rated as relatively important by a sizeable proportion of the community.
- Having excellent customer service and being easy to deal with are drivers of trust and perceptions of competence.

Opex

$79 million

$3 million

Capex

Make it easy for me

Examples of what we plan to do

- Continue to provide a contact centre with local, knowledgeable and friendly staff, supported by various telephone and online methods of contact
- Continue to provide a range of bill payment options and channels
- Maintain a customer-friendly website that has the typical functionality customers expect of any business
- Maintain on our self-service portal that makes life easier for our customers when they need to interact with us
- Continue trialling digital water meters, which will inform whether we proceed with a full-scale roll-out to all customers
- Periodically refresh our bill design to ensure it provides clear and accessible information

Our measures of success:

See "respect me, respect my time"

Respect me, respect my time

Examples of what we plan to do

- Minimise customer inconvenience by providing residential customers with two days' notice and non-residential customers with seven days' notice of a planned interruption to your services (e.g. to connect a new customer or planned maintenance of our infrastructure)
- Continue to provide an interpreter service for people from non-English speaking backgrounds; and teletypewriters, Speak and Listen, and internet relay for customers who have a hearing or speech impairment
- Focus on customer privacy and cyber security
- Roll out additional customer centricity training for our people

Our measures of success:

Maintain the % surveyed customers who are satisfied with their most recent interaction with us

Resolve the situation

Examples of what we plan to do

- Continue our 24-hour emergency assistance phone line for a suspected leak or burst water main, a wastewater overflow, an unplanned interruption, a water quality or low drinking water pressure problem
- Provide an online faults map, providing real time information about water outages
- Continue to offer ways for customers to easily provide feedback and have their complaints addressed
- Establish the technological foundations for proactive notifications and alerts
- Centralise customer interaction records, enabling seamless and personalised responses

Our measures of success:

See "respect your time, respect you"

Community-focused

Customers have told us:

- The community values us listening to them and using their feedback during decision-making a strategic planning.[1]
- The outcomes delivered through community grant funding are valued.[1]
- The delivery of educational activities and the opportunity to connect with us at community eve is expected by the community.[1] Almost six in 10 customers have an expectation that we educa the community about water efficiency, what to flush and alternative sources of water. [2]

Opex
$11 million

$0 million
Capex

Listen and learn

Examples of what we plan to do

- Continue to take an 'always on' approach to engagement by continuing to listen to our customers through a variety of channels, including targeted surveys, events and feedback provided by customers to our staff and Have Your Say section of our website (see Section 1.1.1 for further examples)
- Provide engagement sessions for specific projects or initiatives, to ensure two-way communication opportunities are available for our customers and community
- Regularly consult with customer and community groups on key issues, including our Customer and Community Advisory Group (CCAG) and our new Community Committee
- Embed the voice of customers in decision-making to ensure customers are at the heart of all we do
- Continue education, literacy and behavioural change programs, such as:
  - Love Water and Smart Water Choices to raise awareness of our region's permanent water conservation measures and help our community continue to save water for future dry periods
  - Respect the Throne encouraging customers to only only flush the three Ps - poo, pee and (toilet) paper – as non-flushables clog pipes and cause problems with our wastewater system

Our measures of success:

Maintain % favourable responses to Quarterly Community Survey question *"I trust Hunter Water"*

Contribute to our community

Examples of what we plan to do

- Ongoing delivery of education programs in pre-schools and schools
- Love Water community grants program: water conservation, sustainability and liveability projects are eligible
- Continue to sponsor and contribute to local community events
- Provide free water bottle refill stations throughout our area of operations and at community events
- Provide career pathways to our community, through work experience programs, our disability scholarship program and our Aboriginal and/or Torres Strait Islander scholarship program
- Implement actions from our Reconciliation Action Plan to meet our commitment to creating improved economic, health and social outcomes for Aboriginal and Torres Strait Islander peoples

Our measures of success:

See "listen and learn"

[1] Insync, September 2022, Hunter Water Stage One Engagement Summary. [2] Hunter Water Quarterly Community Survey, August 2022 to May 2024. Available at: https://www.hunterwater.com.au/haveyoursay/quarterly-community-survey.

[1] Insync, June 2023, Hunter Water Stage One Engagement Summary.

Table 2.2: Summary of measures and targets 2025-2030

Outcome	What we're measuring	How we're measuring it	Our current performance	Target for					Trend
				2025-26	2026-27	2027-28	2028-29	2029-30	
High-quality water services	Drinking water safety	Percentage compliance with Australian Drinking Water Guidelines	99.95%	≥99.75%	≥99.75%	≥99.75%	≥99.75%	≥99.75%	Stable
	Our response time to rectifying service issues	Percentage of service delivery issues raised by customers addressed within target timeframes	88%	≥88%	≥88%	≥88%	≥88%	≥88%	Stable
	Customers who are repeatedly affected by a service issue (low water pressure, bad odour and/or wastewater overflows)	Cumulative number of customers removed from our repeat service issue register (low pressure, odour and wastewater overflow issues)[1]	40 per year	≥80	≥180	≥320	≥550	≥1000	Improve
Value for money, affordable	Value for money	Percentage of survey respondents that agree Hunter Water delivers value for money (via survey)	51%	≥51%	≥50%	≥50%	≥50%	≥50%	Stable
	Support for vulnerable customers	Percentage of customers who are accessing, or have accessed, our support programs that agree the program is effective (via survey)[2]	TBC	TBC	TBC	TBC	TBC	TBC	Stable
Water security	Leakage in our supply system	The average volume of leakage and overflow from our supply mains and service reservoirs.[1] Expressed in a daily volume (litres, per service connection, per day)	83 L/connection /day	≤70 L/connection/day	≤65 L/connection/day	≤60 L/connection/day	≤55 L/connection/day	≤50 L/connection/day	Improve
Environmentally sustainable	The impact of our activities on the swimming quality of beaches	Percentage of Beachwatch sites graded as good, or grading unaffected by our activities	100%	100%	100%	100%	100%	100%	Stable
	Greenhouse gas emissions	Percentage reduction in carbon dioxide equivalent emissions compared to a 2020-21 baseline[1]	30%	≥40%	≥50%	≥60%	≥70%	≥80%	Improve
Great customer service	Customer satisfaction with our customer service	Percentage of customers that are satisfied with their most recent interaction with us (via survey)[2]	TBC	TBC	TBC	TBC	TBC	TBC	Stable
Community-focused	Community trust	Percentage of survey respondents that agree they trust Hunter Water (via survey)[2]	TBC	TBC	TBC	TBC	TBC	TBC	Stable

1. This measure directly tracks our progress in delivering against a recommendation from our Community Panel (see Section 1.2.2).
2. This is currently shown as 'to be confirmed' (TBC) as we are in the process of introducing new survey methodology with a new service provider and don't yet have enough baseline data to confirm future targets. We intend to maintain our existing performance (stable) and provide these targets once sufficient baseline data is available in early 2025.

Why we haven't set targets yet for some performance measures

We took a comprehensive, open-minded approach to developing performance measures, acknowledging the considerable extent of current reporting, and experience from other jurisdictions in Australia and the United Kingdom. We applied a suite of principles to short-list measures and sought community feedback on their preferred measures (see Section 1.2.3).

Through this process, we recognised there were opportunities to improve our current performance measurement frameworks. This prompted us to review our existing customer experience monitoring service, resulting in changing to a new service provider and associated changes to the survey methodology. With this change, it means that for three of the proposed performance measures, we have less than 12-months of comparable data.

In early 2025, once a baseline data set is available, we will set quantitative performance measures for these three outstanding targets. As indicated in the table above:

- We have signalled our intent for our performance to remain stable against these three outstanding measures, based on our proposed level of expenditure. We expect that holding our ground may be challenging, given our proposed price increases and the potential for the cost-of-living pressures on our community to continue.
- We have started tracking our performance against these measures. In early 2025, once more baseline data is available, we will provide our current performance along with targets across the upcoming pricing period.

2.3 We will be accountable for customers receiving what they paid for

It is important to provide ways for customers and the community to answer the question *"are we getting what we paid for?"*. This section describes our proposed approach to performance reporting, which involves publishing an annual customer report card showing progress against outcomes, at least annually. We also intend to establish a Community Committee, comprised of a balance between continuing members of the Community Panel that deliberated with us and new members. The Community Committee will 'mark our report card' by getting together and recommending our performance ratings.

We already have in place some forms for redress if customers are not getting what they paid for. The main form of redress is the rebates system for occasional service problems, which is enshrined in our operating licence. We also intend to introduce a new rebate, and an incentive to reduce leakage in our water system.

2.3.1 Transparent and accessible performance reporting

Customer report card

We want our customers, community and stakeholders to be confident that their values and preferences are driving our priorities and that we are delivering on our promises. We will publish a customer report card describing progress against each measure and outcome annually.

At a community workshop held in May 2024, we consulted on the most appropriate communication channels and methods to best reach our customers, to maximise accessibility and visibility. We showed an example traffic light report (red, amber, green) from Greater Western Water and part of a community report video by Gippsland Water for context.[1]

Feedback from the community included the need for transparent reporting that is available in various formats and appeals to a range of customers. We agree it is important to make our report visually appealing, easy to find, and easy to read for people with varying information needs. We aim to adopt more innovative and engaging communication methods across the pricing period, such as short videos or social media reels.

We will publish our performance via existing channels, such as:

- our website
- in enewsletters such as 'The Stream', which is distributed to any community member or stakeholder who registers interest
- social media
- annually with bills
- internal enewsletters, as it maintains our focus on customers and the community at the heart, and many of our employees also live in the region and receive our services.

Publishing performance with bills, either in hard copy or electronically, may seem the ideal way to communicate in the customer's preferred method. However, different bill cycles across our region means not all customers would receive annual performance information in a timely manner. Instead, we will advertise a web address for the customer report card in (or with) customer bills, with hard copies available on request.

We propose to remain flexible and evolve our approach over the pricing period based on the cut-through of reporting in various formats and channels.

[1] Traffic light report example: https://www.gww.com.au/sites/default/files/2024-02/Customer_Outcomes_2023-2024_Mid-year_Report_2024.pdf . Video example: https://youtu.be/g5APt211WU8?si=0s5-KL9a4jtvalrl

An ongoing Community Committee

We will establish a Community Committee to help keep us accountable for the delivery of customer outcomes and to have a say on our annual performance assessment. This will help ensure transparency and keep customers and the community at the heart of all we do throughout the pricing period.

The Community Committee will serve the following functions:

1. **To recommend a performance rating for each outcome on our customer report card**

   In addition to quantitative performance, the Committee may consider qualitative factors such as the degree to which any target was missed, the impact of external factors on performance, actions taken (effort) toward achievement of a target, and the number of targets achieved per outcome.

2. **To be consulted if mid-period changes are necessary to the report card measures, or targets during the pricing period**

   We envisage this would only be triggered in exceptional circumstances such as where a measure can no longer be reliably measured due to a change in a service provider or discontinuation of a measure adopted from a third party. In such circumstances the Committee may consider an appropriate replacement measure and/or safeguards to ensure transparency. The Committee's feedback will be used to inform discussions with IPART.

We will formally constitute the Committee under our customer, consumer, and community procedure,[1] with:

- a balance between continuing members of the Community Panel that deliberated with us and new members; to ensure ongoing representativeness and enough participants throughout the pricing period
- term limits to ensure ongoing representativeness and objectivity
- independent facilitation, to ensure transparency, objectivity and fair opportunities for participation
- a meeting frequency at least once per year, to help mark the customer report card.

The Committee will be offered an opportunity to engage with us ahead of the subsequent 2030-35 pricing period. We may also use it to test and verify our approach to delivering customer outcomes is consistent with recommendations from the Community Panel's deliberative forum recommendations.

[1] Our 2022-2027 Operating Licence, Section 29, requires us to articulate to our customers, consumers and community, via a procedure, our consultation methods, activities and the outcomes we intend to achieve. The procedure is available on our website: https://www.hunterwater.com.au/community/community-engagement/community-engagement-strategy.

2.3.2 Holding ourselves to account for our performance

Existing rebates for customers affected by service lapses

We aim to provide great services, but some customers occasionally receive poor service. Most customers understand that problems can happen and accept being inconvenienced infrequently. We provide rebates as a discount on bills to affected customers to show that we are 'playing fair'. These rebates are set out in our 2022-2027 Customer Contract and summarised in Table 2.3.[1]

Rebates range from $58 to $1,232 depending on the type, and severity, of service disruption or failure experienced and are applied as a discount to customers' bills.

The amount that customers receive as a rebate is linked to water usage charges, which means that our rebates flow through to tenants and automatically increase when water usage charges increase. As we are proposing to increase the water usage charge from $2.89 per kL in 2024-25 to $4.40 per kL in 2029-30 (plus inflation), as described in Chapter 8, the level of rebate would also increase.

Table 2.3: Our rebates for service lapses

Event category	Event number (per financial year)	Equivalent water usage (kilolitres)	2024-25	2025-26	2029-30
			($2024-25, without inflation)		
Planned water interruption (> 5 hrs)	1st event	No rebate	No rebate	No rebate	No rebate
	2nd event	No rebate	No rebate	No rebate	No rebate
	3rd event	20	57.80	63.80	88.00
	4th event onwards	No rebate	No rebate	No rebate	No rebate
Unplanned water interruption (> 5 hrs)	1st event	20	57.80	63.80	88.00
	2nd event	20	57.80	63.80	88.00
	3rd event	32	92.48	102.08	140.80
Wastewater overflow (dry weather)	1st event	40	115.60	127.60	176.00
	2nd event	80	231.20	255.20	352.00
	3rd event	280	809.20	893.20	1,232.00
Low water pressure	Once per year	20	57.80	63.80	88.00
Boil water alert		20	57.80	63.80	88.00
Dirty water: taste or odour	Ad hoc, on request	5	14.45	15.95	22.00

Note: Rebates shown for 2029-30 only reflect proposed changes in the water usage charge. The way that rebates are calculated, and/or eligible events, may change as part of our 2027-2032 Operating Licence.

[1] You can see a summary of our customer service delivery rebates at https://www.hunterwater.com.au/home-and-business/managing-your-account/customer-service-delivery-rebates. A full copy of our Customer Contract is available online at https://www.hunterwater.com.au/about-us/publications/customer-contract or by telephoning or visiting our Contact Centre.

We updated our rebates for occasional service problems in 2022, following extensive customer and community engagement, as part of IPART's five-yearly review of our Operating Licence.[1] We intend to refresh our rebates again as part of the next review in 2026.

We note that Victorian water utilities update their rebates, called guaranteed service levels, as part of their price reviews. For completeness, in developing this pricing proposal we did a desktop review to understand:

- the similarities and differences between our Customer Contract rebates and guaranteed service levels (GSLs) in the Victorian water sector
- whether there are significant gaps in our approach to rebates for service level events
- if the benefits of exploring changes to our customer rebates before our next Operating Licence review are likely to outweigh the costs.

In general, across the Victorian water industry, UK water industry, Australian energy and telecommunications sectors, customer rebates are the most widely used mechanism for demonstrating accountability for achieving service levels or customer outcomes, particularly when the impact of a failure is felt at the individual customer level, or by a specific cohort of customers.

The review found that the current customer rebates in our Customer Contract operate in much the same way as the guaranteed service level (GSL) scheme in Victoria. There are no significant gaps that would warrant changes to our service-related rebate arrangements prior to the next review of our Operating Licence.

New rebates for customers affected by the worst repeat service issues

In Chapter 1, we described how a small number of customers, often in clusters, are repeatedly affected by a service problem, and the recommendations of our Community Panel about this topic. They told us it is important to attempt to fix these problems, as all equal paying customers should receive equal service.

They recommend we try to improve the experience for the worst affected customers over the pricing period and provide reasonable compensation if we are not able to fix the problems. We plan to introduce a new rebate for the worst affected customers, equivalent to all fixed water and wastewater charges for a house no later than 2030 (estimated to be $957 per year plus inflation). We will revisit this as part of our next Operating Licence review.

Introducing a shadow price for leakage

Over many years we have heard that providing safe and reliable water supply is our most important job. Our supply remains susceptible to drought and our storages can quickly deplete. We are responding to this challenge by investing in a new permanent desalination plant to reduce our reliance on rainfall and help secure our region's water supply for generations to come as the climate changes.

Reflecting our community's preference, we will also put increased effort into water conservation – helping our customers to save water, and fixing leaks in our system. In addition to reporting our performance in reducing leaks in our water system as part of our customer report card, we will introduce a 'shadow price' for leakage, so that we face the same incentives to save water from leaks in our water system as the incentives to save water faced by our customers. However, instead of being penalised or rewarded immediately (like customers), any adjustments would be made at the end of the pricing period from 2030. We describe this mechanism in more detail in Chapter 12.

[1] For further details see Hunter Water, October 2021, Hunter Water Operating Licence Review: Response to IPART's Issues Paper, pages 31 to 47. Available at: https://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Licensing-Hunter-Water-Corporation/Hunter-Water-Operating-Licence-Review-2021

3 Balancing risk and long-term performance

Key points

- Macro trends such as a more variable climate, growing population, rising costs, and cost-of-living pressures create a challenging environment for this pricing proposal.
- Our region faces an unacceptable risk of running out of water. We need to act now by building new climate-independent water supplies that ensures we are more resilient to drought – the Belmont desalination plant will secure our water supply now and for future generations.
- It’s essential that we keep bills as low as possible:
  - Customers in the Lower Hunter tend to experience a higher degree of socio-economic disadvantage than those in metropolitan areas like Sydney
  - An increasing number of customers are telling us they are struggling to pay their water or other bills, and we are seeing more requests to assist customers with paying their bills.
  - We have seen a shift in priorities, with customers telling us affordability is their top priority.
- We have listened and focused our pricing proposal on minimising expenditure and keeping bills affordable. With rising costs in our supply chain along with the need to deliver the Belmont desalination plant, this means we’ve really had to challenge ourselves as a business. We have:
  - Made uncomfortable trade-off decisions and prioritised expenditure to deliver our core services at as low a cost as possible. We’ve focused on meeting minimum compliance obligations, and making the targeted improvements our community said are most important.
  - Taken on greater risk as a business by deferring investments, rather than passing all costs onto our customers now. We are taking on more risk in areas where we can monitor our service performance, put contingencies or mitigations in place, and where we will be able to adapt and respond as needed if risks do eventuate.
  - Proposed an ambitious cost efficiency target across capital and operating expenditure that puts downward pressure on prices for customers. This target means Hunter Water and our shareholder will bear more financial risks, rather than customers facing even higher prices.
- While we expect to comply with all regulations and deliver on customer outcomes in the upcoming pricing period, we will need to be flexible and adapt our plans as necessary to ensure success. We will also need to deliver innovative solutions that address problems as efficiently as possible.
- We believe our proposed expenditure is in the best long-term interest of customers and strikes an appropriate balance between affordability, risk reduction and customer-driven service improvements.

3.1 Introduction

The urban water sector is facing a range of challenges. Climate change, population growth, and changes in customer, community and stakeholder expectations are placing pressure on our water resources and infrastructure, necessitating investment.

The water industry is not insulated from economy-wide inflation and the costs to deliver our investments, and to operate and maintain our services, are materially increasing.

Hunter Water, as a monopoly essential service provider, has the responsibility to ensure our customers pay no more than they need to for the products and services they require. We must meet these challenges, while ensuring affordable bills for customers.

While recent years have been characterised by relatively flat customer bills (in real terms), the need to replace ageing assets, cater for growth, manage current and emerging risks, and accommodate emerging macroeconomic cost pressures, will make these pricing outcomes hard to maintain. It is inevitable that customer bills will need to rise in the upcoming pricing period, and potentially subsequent periods.

It is true that our customers, community and others would prefer to see our prices falling or flat than rising rapidly, however this will only be efficient if the prices are consistent with the long-term interest of our customers. We are determined to hold our proposed prices as low as they can possibly be, while ensuring we are maintaining and investing in the assets necessary to provide the services that our customers require.

We undertook an extensive investment prioritisation process by focusing on key issues and investments that deliver the highest valued benefits.

Learning with our customers, Water Services Australia Association (WSAA), other water businesses, industry experts, and other stakeholders, we adopted the following principles in our investment prioritisation:

- Being led by the long-term interests of our customers (listen, learn, do). This included an extensive five-stage customer engagement program.
- Adopting an approach that justified the proposed investment or expenditure as the best means of addressing identified problems and objectives, with evaluation of potential alternatives. This included developing nine Strategic Cases and 24 Investment Plans, which proceeded through investment governance and assurance processes.
- Consideration to both prudency and efficiency of investments and expenditure to provide assurance that we are doing the right things; and doing those things as efficiently as possible.
- Clearly linking expenditure and outcomes.

3.2 Our operating context

3.2.1 Comprehensive and robust regulatory environment

Hunter Water Corporation is a commercial trading enterprise that is wholly owned by the NSW Government.

We deliver monopoly water, sewer and drainage services to the Lower Hunter region, which means our existing customers do not have a choice in their service provider. So, it’s crucial we listen to them, and deliver the services they expect and value at the right price.

Hunter Water's activities are overseen by an independent Board and informed by the NSW Government's Statement of Expectations, alongside the objectives and functions set out in our Operating Licence, the *State-Owned Corporations Act* 1989 (NSW) and *Hunter Water Act* 1991 (NSW).

Hunter Water operates within a comprehensive regulatory environment, administered through several regulatory bodies and instruments. Some of the key instruments that may have a material impact on future investment are shown in Table 3.1.

Table 3.1 Regulatory instruments influencing Hunter Water's investment

Instruments	Description
Customer Contract	Set by the Governor and Minister for Water on the advice of IPART and contains customer service obligations.
Operating Licence	Set by the Governor and Minister for Water on the advice of IPART and includes a range of requirements including maintaining and implementing drinking water and recycled water quality management systems, asset, environmental and quality management systems, stakeholder and customer relations, and system performance standards
Wastewater system licences	Set by the Environment Protection Authority (EPA). The *Protection of the Environment Operations Act* 1997 regulates performance of wastewater treatment discharges (including Biosolids), wastewater network overflows, excessive odours and chemical pollution incidents.
Drinking water quality	Managed through a Memorandum of Understanding (MOU) with the NSW Ministry of Health. The *Public Health Act* 2010 regulates the drinking water quality performance, and we are required to maintain a management system consistent with Australian Drinking Water Guidelines.
Work health and safety	The *Work Health and Safety Act* 2011 regulates our workers physical and mental health and safety, and community safety which may be impacted by our asset operation.
Dams safety	The *Dams Safety Act* 2015 regulates the operation and management of Dams
Development applications	Are administered in accordance with the *Hunter Water Act* 1991 and the *Environmental Planning and Assessment Act* 1979.
Water access and management licences	The *Water Management Act* 2000 regulates the extraction of water from the Williams, Paterson and Allyn Rivers and our groundwater sources, under licences issued by the Natural Resources Access Regulator and specify conditions for water access and management
Other legislation	For example: The *Security of Critical Infrastructure Act* 2018 for national security and the *Privacy and Personal Information Protection* Act 1998 for customer, workers and partners private information.

The Statement of Expectations seeks to clarify the NSW Government's key priorities relevant to the work of Hunter Water, while we continue to operate our business in a commercial manner.[1] These expectations are currently under review by the incumbent Government. The current expectations are:

- align with the Government's strategic planning (Lower Hunter Water Security Plan (LHWSP), NSW Water Strategy, Drought Plan)
- strive for excellence in customer service and experience

[1] The Statement of Expectations for Hunter Water Corporation was issued by the Shareholding Ministers and Portfolio Minister in April 2022 and remains in effect. It is available on our website under the sub-heading "governance": https://www.hunterwater.com.au/about-us/publications/policies.

- build trust with the community and stakeholders (be transparent, meet commitments) and maintain high standards of public accountability and corporate governance
- focus on the environmental outcomes (integrated water cycle management, net-zero by 2050, report sustainable and climate risk performance)
- minimise cost of living pressures (business efficiency)
- ensure the Government's investment of its capital is used efficiently (optimise business performance, realise underutilised or surplus assets)
- deliver services safely.

Our independent Board sets Hunter Water's strategic direction and ensures we achieve our customer and regulatory commitments. Deciding how much, and which risks to take in pursuit of our strategic direction is a key part of their role.

The 'Risk Appetite Statements' are a written articulation of the Board's position concerning risk-taking, risk mitigation and risk tolerance, with consideration to our customer, community, regulatory commitments, and available resources. The Risk Appetite Statements contain category-specific risk positions and provide a tool to guide decision-making and monitoring of Hunter Water's risk-taking activities.

3.2.2 We are a vertically integrated service provider

Hunter Water's water and wastewater services are vertically integrated, meaning we own and operate assets across the full value chain from source water (dams and groundwater) to water treatment plants, a water distribution network to customers, wastewater transportation system, wastewater treatment plants, and recycled water supply systems.

Owning and operating our own water sources creates additional responsibilities including protecting source (raw) water quality, meeting dam safety requirements, and ensuring water security for the region.

3.2.3 Our extensive networks serve a low-density population

Our water and wastewater networks extend across this broad area; however, the population density is low compared to other major water utilities (see Figure 3.1), as demonstrated in the National Performance report (NPR). The NPR is an annual performance analysis of 86 water service providers across Australia.[1] Our performance is typically compared to other 'major' utilities with more than 100,000 connected properties.

Low-density means we don't have many customers, given the relative scale of our assets. For example, Figure 3.1 shows Hunter Water has the fourth lowest number of properties per km of water main of major water utilities; and the second lowest number of properties per km of sewer main.

This creates challenges for keeping our costs low. Compared to serving a high-density region, we have less opportunity to achieve economies of scale. We have higher maintenance and capital renewal needs per customer, and higher costs to transport water and wastewater over long distances.

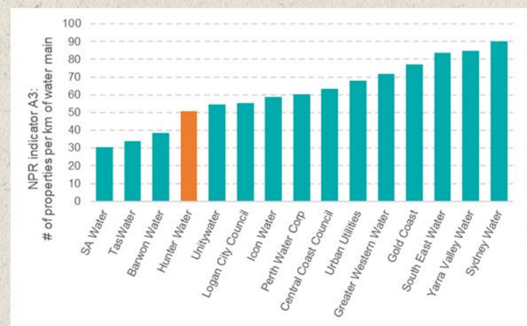
Our wastewater system is also highly decentralised. We have 19 plants across our area, many quite small. There are limited opportunities to consolidate the plants due to the significant distances and relative topography between plants. Decentralised treatment means we have more plants to operate, maintain, and renew as assets age, and more plants to upgrade as growth occurs to ensure we meet our environmental obligations. This can make it challenging to delivering our services at low prices.

[1] The latest published dataset is 2022-23.

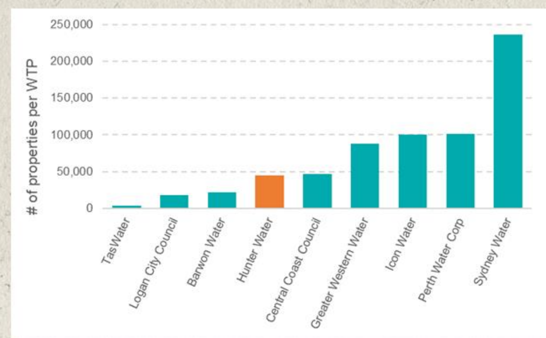
Figure 3.1: Low density water and wastewater systems

We provide water services to...

...the fourth lowest number of properties per km of water main

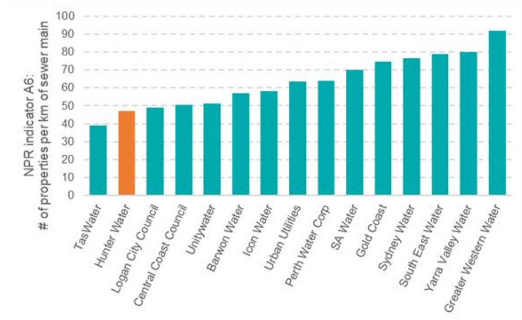


...the fourth lowest number of properties per water treatment plant

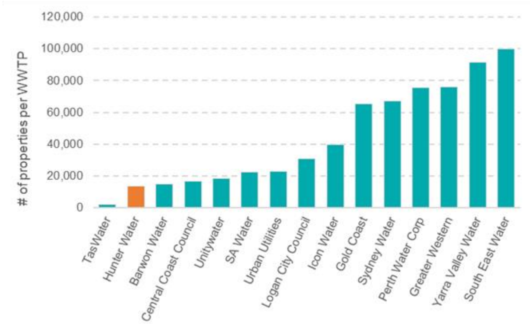


We provide wastewater services to...

...the second lowest number of properties per km of sewer main



...the second lowest number of properties per wastewater treatment plant



3.2.4 We currently perform well and meet expectations

Hunter Water has provided high quality water services and met its regulatory compliance obligations during the current pricing period.

In Attachment B, we outline our service performance, focusing on key areas including environmental management, water quality, and operating licence compliance. Overall, our service performance is good. Investment is required to maintain this performance, and in some areas, additional risk could be taken to reduce investment and thus reduce customer bill increases.

3.2.5 The macro environment makes this proposal challenging

The external environment is changing at a faster rate than ever before. There are several macro trends shaping how we deliver our services and are influencing the key elements of this pricing proposal, as summarised in Table 3.2.

These macro trends are driving higher business expenditure at a time when our customers are experiencing cost-of-living pressures. How we are navigating this challenge is a key theme in our proposal.

Table 3.2: Key macro trends influencing this proposal

Cost of living	More variable climate	A growing community
Many of our community members are struggling with cost-of-living pressures. This has influenced their priorities, and it means it's not a good time to need to raise the price of an essential service like water.	Our services and many of our critical assets are susceptible to the impacts of a more variable and changing climate. We need to adapt to this greater climate variability, become more resilient, and consider reducing our carbon footprint.	Our population is forecast to grow by more than 20% over the next 20 years. Housing growth and affordability is a key government priority. It's essential we deliver the right water and wastewater solutions at the right time to support this growth.
Changing expectations	**Escalating costs**	**Digital disruption**
We've been talking with our customers, community and stakeholders to understand what's important. Their views are changing, and expectations are increasing. We will continue to listen and adapt our plans to focus on what they value most.	Asset-intensive businesses are grappling with costs escalating at a faster rate than consumer inflation. The price of materials and labour for construction, energy prices, operations and maintenance contracts have been rising. This is not yet showing signs of abatement.	The fast pace of digital adoption brings opportunities to improve customer experience, productivity, and transform how we work. Digital services are increasingly costly to deliver and maintain, and also present risks such as cybersecurity and data privacy.

3.2.6 It's essential that we keep bills affordable

Our community has a higher degree of relative socioeconomic disadvantage than Sydney and other metropolitan areas

The socioeconomics of the Lower Hunter provide insight into our customer's capacity to pay, and potential affordability of, higher water bills. The Lower Hunter has:

- Several areas of significant relative socioeconomic disadvantage
- A higher proportion of relatively disadvantaged, and far lower proportion of relatively advantaged, postcodes than in Greater Sydney.
- A higher proportion of the population receiving Government benefits than in Greater Sydney.
- Generally lower gross household incomes than in Greater Sydney.

This means more of our customers may find an increase in their water bill difficult to manage. It sets the scene for just how imperative it is that our pricing proposal limits bill increases as much as possible. In Attachment C, we provide further detail on the relative socioeconomics of our area.

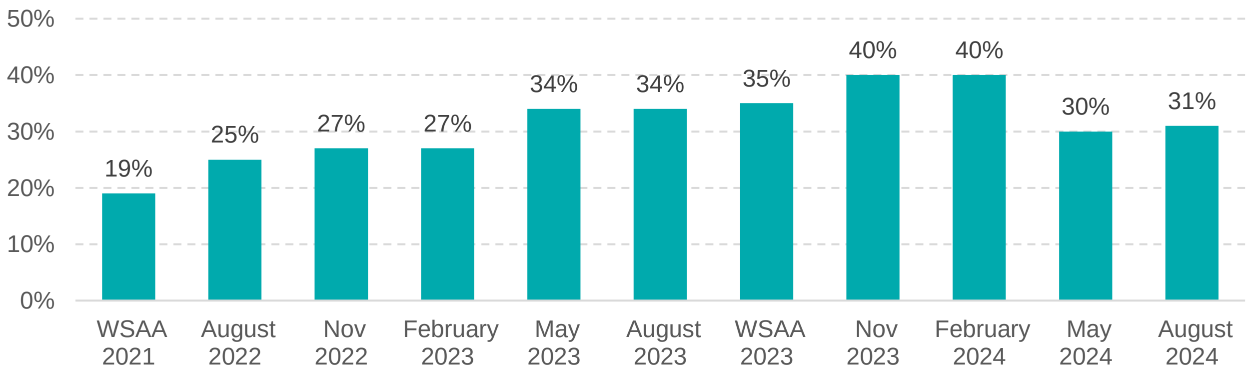
Our customers are finding it increasingly difficult to pay their bills; cost-of-living pressures are hitting hard

As part of our 'always-on' approach to engagement, we hear from our customers regularly through our Quarterly Community Survey. You can see a summary of what we've heard on our website.[1]

In the last couple of years, an increasing proportion of our customers are telling us that they are struggling to pay their water, or another, bill on time (Figure 3.2). This increased from 25 per cent in August 2022, to 40 per cent in February 2024, easing to 31 per cent in August 2024.

We also ask customers to describe their financial situation. An increasing number self-describe as either not, or just, having enough to meet basic expenses (Figure 3.3). In August 2024, 43 per cent placed themselves in one of these two categories.

Figure 3.2: Customers struggling to pay their water bill, or another bill, on time



Question: Did you struggle to pay either your water bill or another bill (electricity, gas, phone/internet, mortgage or rent) on time over the past year? [2],[3]

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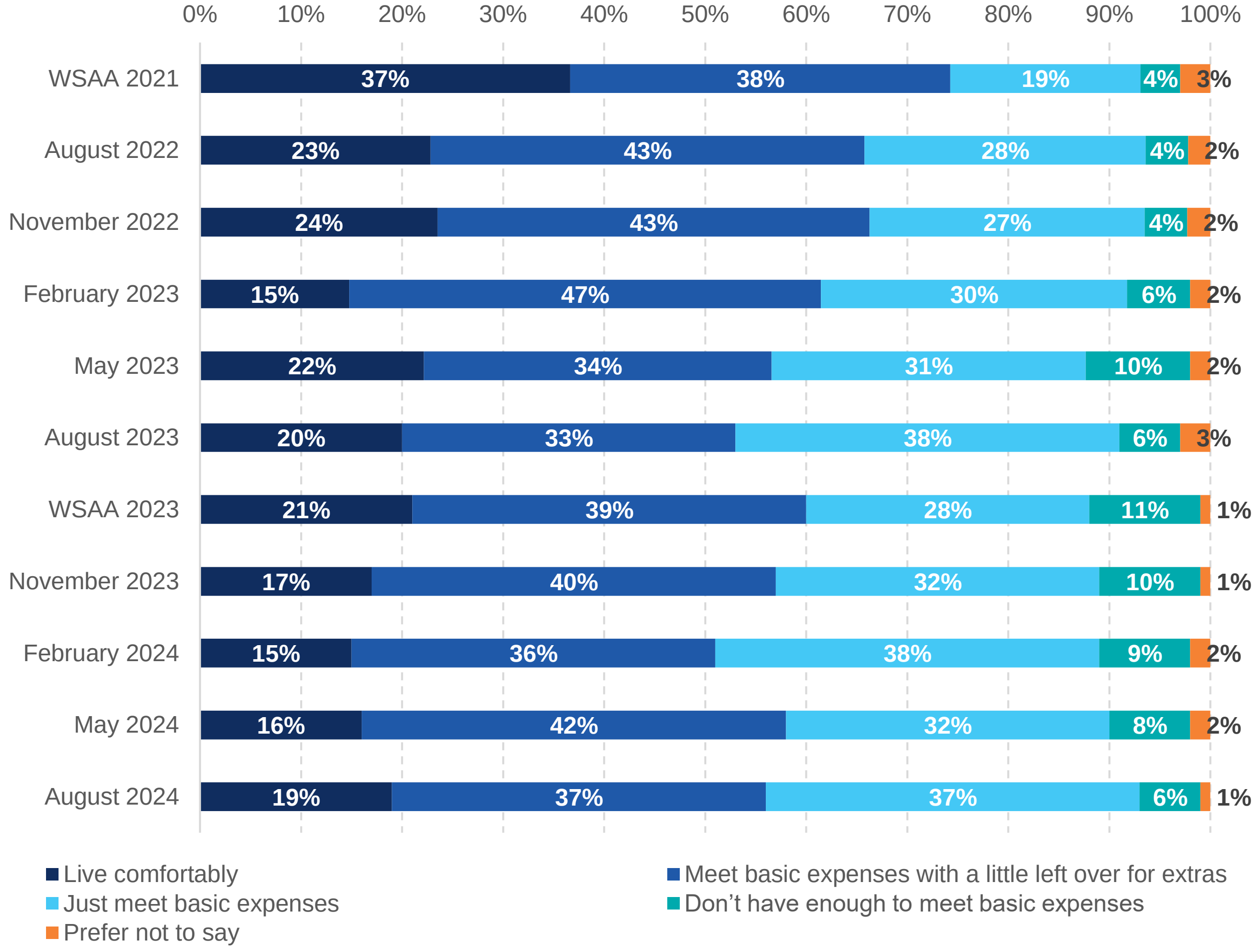
[1] https://www.hunterwater.com.au/haveyoursay/quarterly-community-survey

[2] Hunter Water Quarterly Community Survey, August 2022 to August 2024,

[3] Water Services Association of Australia National Customer Perceptions Survey, 2021 and 2023

Figure 3.3: Percentage of survey respondents self-described financial situation



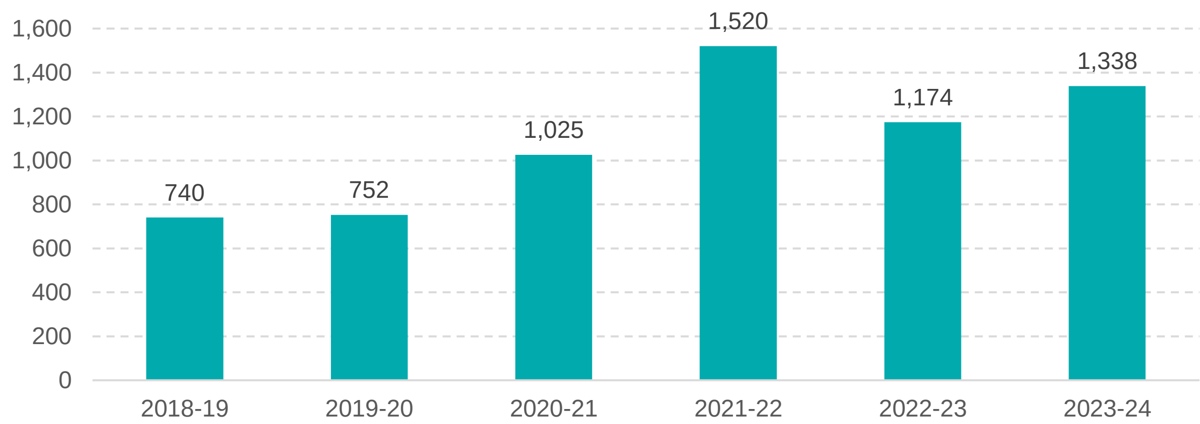
Question: Which of the following best describes your financial situation?[1],[2]

We've seen a considerable increase in the number of our customers seeking assistance, as presented in Figure 3.4. In 2018-19, the number of customers in our assistance programs was 740. This accelerated to 1,520 during the height of the COVID-19 pandemic in 2021-22, easing to 1,174 in the following year. Increasing cost-of-living pressures have resulted in this number rising again in 2023-24 to 1,338 customers.

[1] Hunter Water Quarterly Community Survey, August 2022 to August 2024,

[2] Water Services Association of Australia National Customer Perceptions Survey, 2021 and 2023

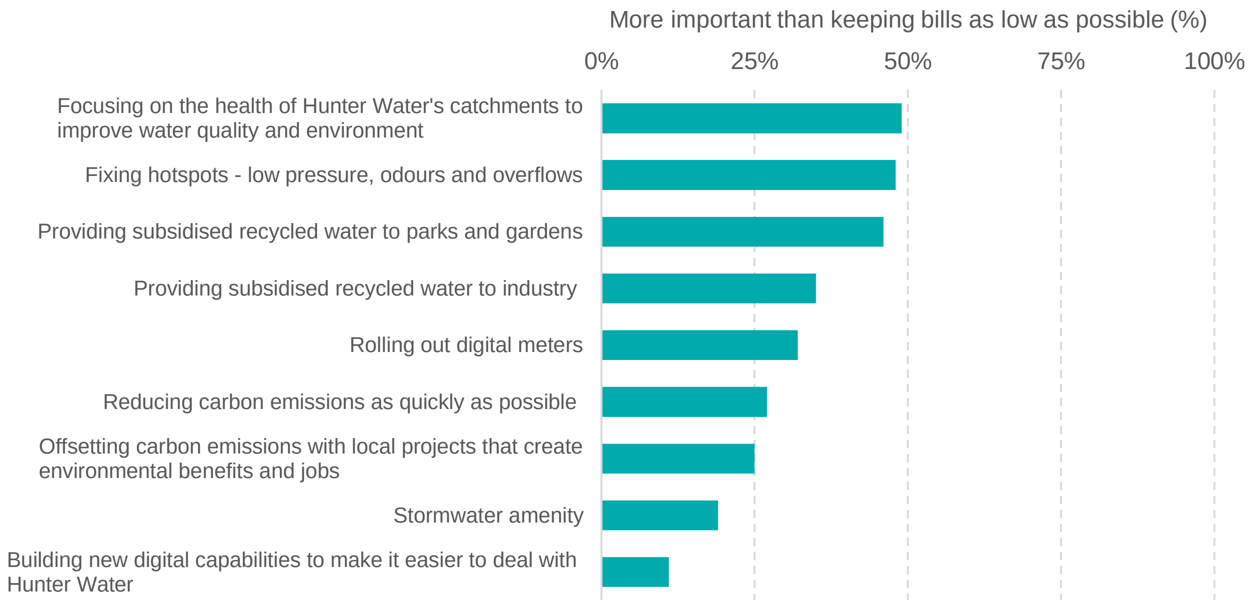
Figure 3.4: Number of Hunter Water customers in customer assistance programs



Affordable bills are the top priority for our customers

As part of our multi-stage customer engagement program, we asked customers about the relative importance of service improvements against keeping bills as low as possible. As shown in Figure 3.5, the views from our community were clear – keeping bills as low as possible is their highest priority. From the nine service improvement options offered, none were seen by most customers as more important than affordability (that is, all other service improvement initiatives scored less than 50 per cent).

Figure 3.5: Keeping bills as low as possible vs other service improvements

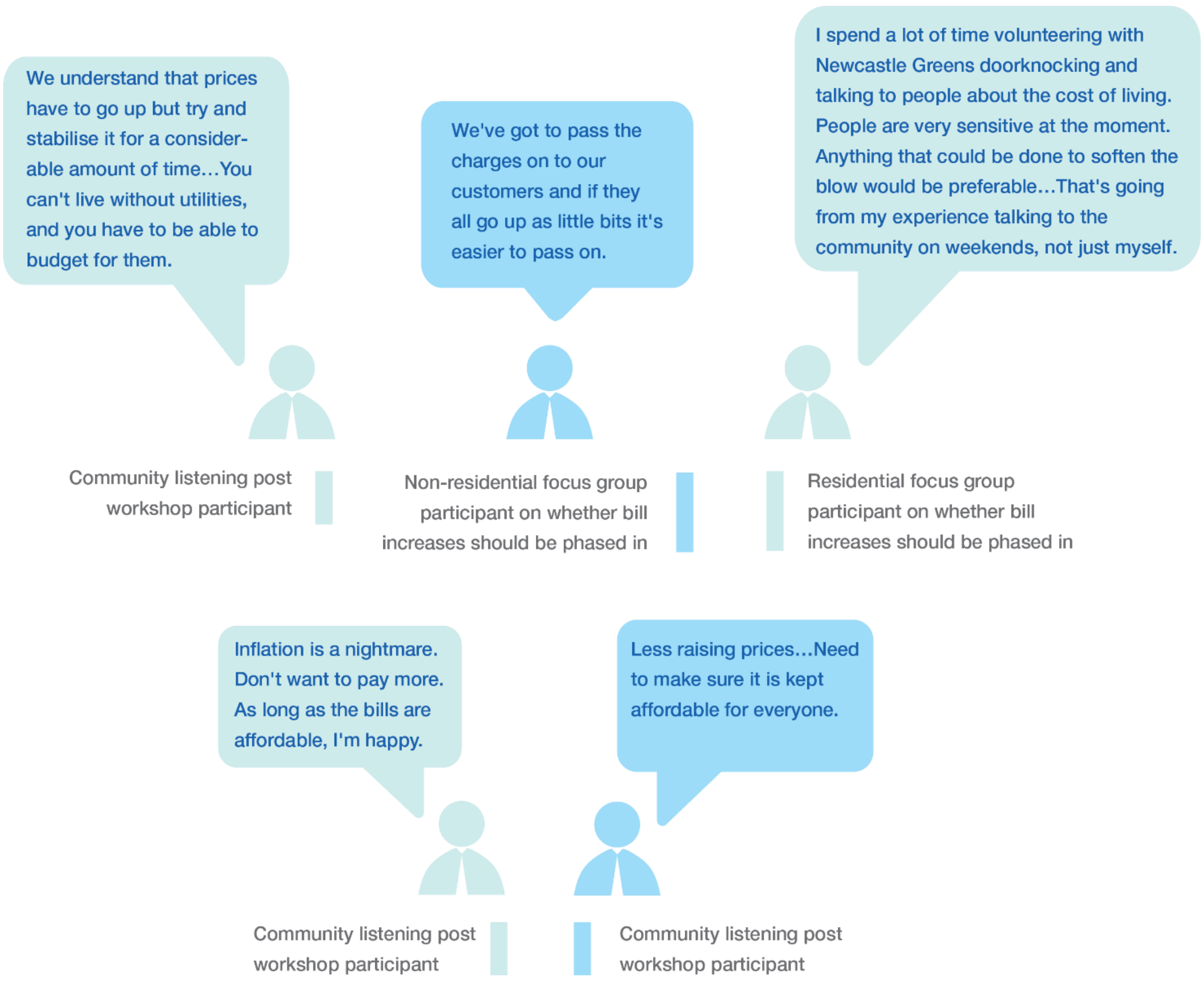


Question: Affordability can be a big concern for many Hunter Water customers. Please indicate if any of the following are more important to you than keeping bills as low as possible. n=213, unweighted.[1]

[1] Hunter Water Quarterly Community Survey, November 2022

Hunter Water's customers are not alone in this respect. A 2023 WSAA survey of 366 customers in our area found similar results.[1] An equivalent question was posed offering 17 different service improvements. Only one improvement: *focusing on the health of local waterways including water quality, biodiversity and visual amenity* was more important for most customers than keeping bills low.

You can see a summary of what we've heard from customers on affordability in Section 1.4 (focus principles) and Chapter 2 (informing the *'value for money, and affordable'* customer outcome).



In the sections that follow, we explain how we have responded to the cost-of-living pressures our community is facing by challenging ourselves and making a proposal we believe is in the best long-term interest of our customers.

[1] Water Services Association of Australia National Customer Perceptions Survey, 2023

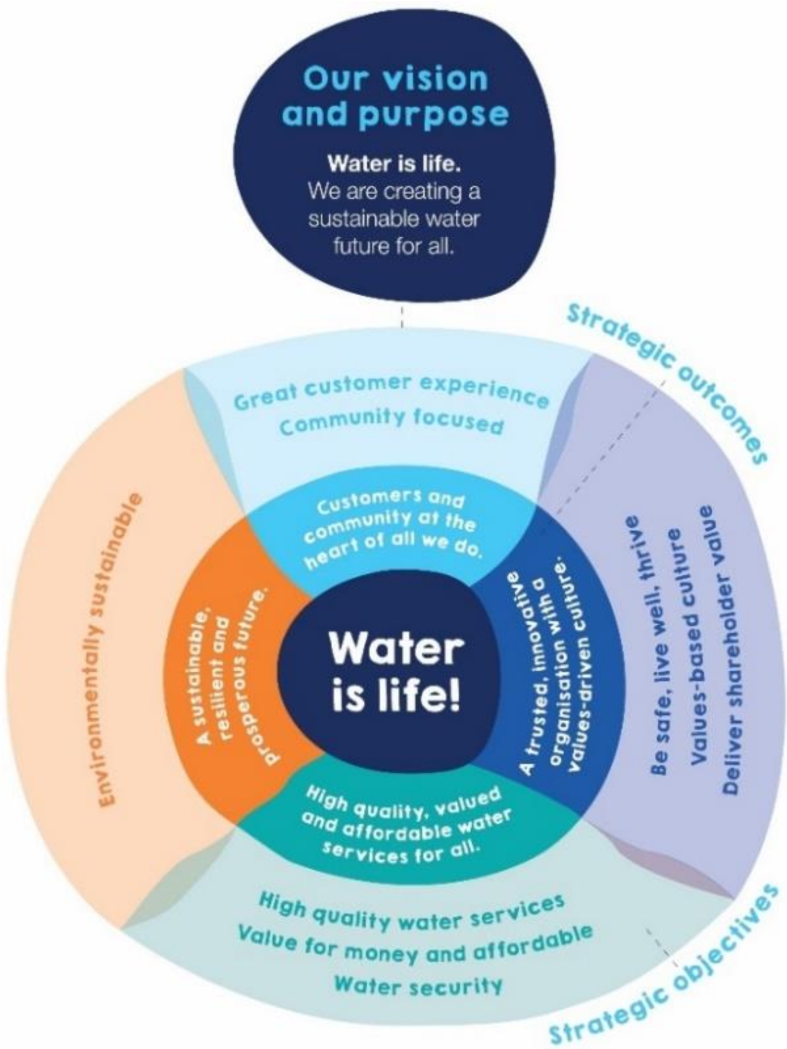
3.3 Charting the right course for the future

3.3.1 The customer outcomes are in our corporate strategy

Our corporate strategy is long-term and ambitious, with four high-level strategic outcomes we aspire to achieve.[1] In Gathung language, Miromaliko Baato means saving water. It's the closest way we can express the term 'water is life' using a language of the Traditional Custodians of the land in which we operate.

In Chapter 2 we described our proposed customer outcomes. These are the commitments we make to our community with this pricing proposal and are a centrepiece in IPART's new framework. They highlight our ambition associated with high quality water services, water security, great customer experience, being community-focused, sustainable, and delivering value for money. We have built these six customers outcomes directly into our strategy as 'objectives' (Figure 3.6).

Figure 3.6: Our corporate strategy: Miromaliko Baato



[1] It is available on our website here https://www.hunterwater.com.au/about-us/our-commitment-to-you/strategic-priorities.

A suite of organisation-wide strategies and technical strategies support and complement our corporate strategy providing additional guidance, specifically:

- Business improvements including customer experience, our values, safety-health and wellbeing, sustainability, digital and community engagement,
- Technical improvements including the LHWSP, bulk water supply strategy, Hunter River estuary framework, biosolids strategy and carbon strategy.

These strategies, customer outcomes, stakeholder expectations, regulatory requirements and Risk Appetite Statements, have guided the identification of investments included in this pricing proposal.

3.3.2 We need to meet evolving service expectations

There are a variety of drivers underpinning our need to invest both capital and operating costs to maintain and improve our services. We continually monitor these drivers through our strategy, and risk and planning frameworks to ensure we invest at the right times and in the right areas.

A high-level overview of some of our most important investment drivers is provided in Table 3.3. In Attachment E, we provide more detail about the specific drivers behind key investments.

Table 3.3: Drivers of our proposed capital and operating expenditure

Investment driver	Explanation
Regional growth	Our region's population is growing. This calls for investment in water and wastewater network and treatment upgrades to service new connections – if we don't augment our system with additional capacity, we will inhibit new housing growth, see deteriorating service outcomes for existing customers (e.g. lower water pressures), and / or breach environmental regulations.
Climate variability and change	The climate is increasingly variable with more extremes and is shifting over time. We must respond by ensuring our assets and water and wastewater services are resilient to climatic conditions. It's important we invest in a way that minimises lifecycle cost, including avoiding stranding assets. Climate variability is driving higher costs now, and the changing climate remains a key threat to our future service provision.
Safety of our people and community	We are required to meet the NSW Work Health & Safety and Dam Safety legislation, Australian and NSW Safety Standards, and codes of practice. These regulatory requirements are met through both our Safety Management System (appropriate work practices) and our Asset Management System (assets are compliant and safe to operate and maintain). Safety expectations evolve over time, which drives ongoing investment to ensure our workers and community are kept safe.
Water security	If our region runs out of water, it will have catastrophic economic and social impacts. To ensure a secure water supply in an increasingly uncertain future, there is a need to diversify our sources beyond our vital dams. This includes reducing leakage from our network and driving water conservation to reduce demand; investing in non-rainfall dependent sources of supply including desalination; and where cost-effective, recycling for industry and potentially for drinking water.
Water quality regulation	Our Operating Licence requires us to maintain and implement a Drinking Water Quality Management System that is consistent with the Australian Drinking Water Guidelines and implement this system to the satisfaction of NSW Health. Protecting public health by providing clean, safe water is considered non-negotiable by our stakeholders and community.
Environmental regulation	We transport and treat wastewater, and reuse and/or dispose of treated effluent to the environment. The NSW Environment Protection Authority (EPA) issues and administers Environment Protection Licences (EPLs) for our wastewater systems (including the wastewater treatment plants and wastewater network) which we must comply with. As the population grows, and / or our assets deteriorate, we must invest to ensure we continue to comply with existing regulations. In some areas, environmental expectations and regulations are changing.
Customer service levels	We engage with customers and community to understand their expectations and preferences for service provision and willingness to pay for different service levels. This may involve investing to deliver new outcomes or improving or reducing existing service levels in line with preferences.

Investment driver	Explanation
Asset condition	Our assets are distributed across a wide area and comprise of assets of varying ages, construction standards, condition, and performance. As our assets age, they require increasing maintenance and renewal to meet service obligations now and into the future.
Technology	Investing in digital is essential to enable our business to meet regulatory requirements, improve or maintain customer experience, and improve efficiency and productivity, and effectively manage cyber security risks.
Business efficiency	Our customers expect us to deliver our services efficiently so that their customer bill is minimised now and over the long-term.

3.3.3 A resilient water supply is essential

Our region is vulnerable to drought. We have experienced severe droughts in the past. Climate change will increase the potential for more severe and frequent droughts to occur. Our community consistently tells us that they value a reliable and safe water system. The LHWSP is a whole of government plan informed by our community's values and preferences. We provide an overview of the plan in Attachment D.

The plan demonstrates that we need to act to ensure water security for the region. We need to invest in making the most of what we have by continuing to reduce the leakage in our water network, by continuing to help our community conserve water and by increasing water recycling. We also need to increase our water supply, and the Belmont desalination plant is an essential "do now" investment to improve the water security for the region.

3.3.4 Responding to a changing climate

We are experiencing a more variable and changing climate: more frequent extreme events, sea level rise, increased salinity, harsher fires, higher temperatures and hotter days, changing rainfall patterns, and reduced flows in rivers and streams. This presents significant challenges to the way water and wastewater services are delivered, and infrastructure is managed.

In June 2024, our Board approved a new sustainability strategy. The strategy recognises that a more variable climate is a key driver and includes an objective of 'responding to climate change'. The strategy defines clear measures and targets for climate change mitigation and adaptation by 2030, including:

- reduce greenhouse gas emissions (scope 1 and 2) by 80 per cent (against a baseline of 2020-21)
- installed renewable energy capacity greater than 13 megawatts
- increase climate risk maturity to 'embedded' as defined by the NSW Government's Climate Risk Ready Guide.

We have a roadmap to progress towards net zero carbon emissions

Our corporate strategy (Miromaliko Baato) and sustainability strategy demonstrate our commitment to eventually achieving net zero carbon emissions.

Following the recommendations of our Community Panel, we plan to reduce Scope 1 and 2 carbon emissions by 80 per cent by 2030.[1] Investing in on-site renewable energy and purchasing renewable energy to run our operations will drive us towards this target. We hope to reduce Scope 1 and 2 emissions by 100 per cent by 2035. However, we need to test our community’s willingness to pay to achieve this, ahead of our 2030 pricing proposal. We aim to have reduced scope 3 emissions by 100 per cent by 2050.

Climate change adaptation planning

We developed our climate change adaptation plan in 2022 and updated it in 2023. It is informed by the NSW Government’s Climate Change Adaptation Strategy (2022). Our adaptation plan sets out priorities and associated actions that will be taken in the short to medium term to become more resilient to climate change. The priorities are to:

- build organisational capability and capacity to consider and respond to climate change impact
- identify and assess climate change risks and opportunities
- build the resilience of our business operations and assets
- partner with communities, governments and businesses to act
- establish a set of robust and trusted metrics.

Since the development of the plan, the regulatory context for climate change has continued to evolve. Hunter Water is preparing to meet new climate-related disclosure requirements defined by the NSW Treasury’s reporting framework. These requirements are aligned with the new Australian sustainability reporting standards.

We have developed a sustainability standards roadmap to strengthen and integrate existing processes and ensure we are ready to transparently and robustly commence climate-related disclosures from 2024-25. The roadmap outlines the required organisational uplift across strategy, governance, risks and opportunities, and measures and targets. Work is currently underway to align the actions and timeframes in the roadmap and the climate change adaptation plan.

[1] Compared to our baseline emissions in 2020-21

Assessing climate risks and taking action to adapt

Our ability to provide safe and reliable water and wastewater services will be strained if climate change risks are allowed to develop unchecked. Incorporating climate change into our business processes is essential.

We are using an adaptive planning approach. Many adaptation actions don't need to be done immediately. They can be implemented more cost effectively at the same time as we renew assets on their traditional asset management timeframe. However, if we act too late, we run the risk of service failures and costly rectification of assets. We aim to find the balance between risk-averse early adaptation and acting too late.

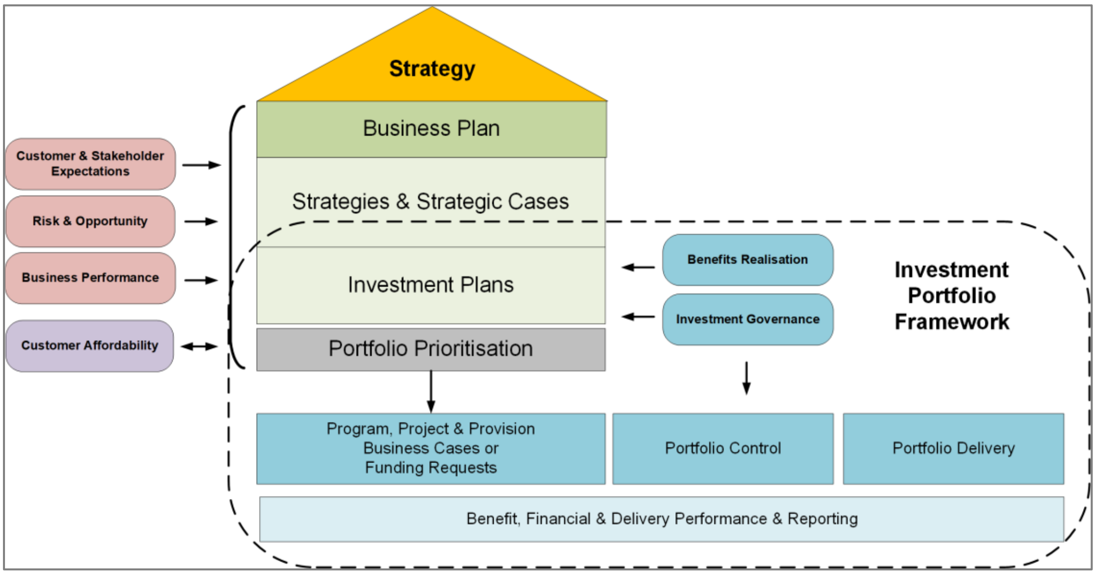
We are managing the potential impact of climate change on our infrastructure and services in several ways:

- Embedding consideration of climate change in our enterprise risk framework and the annual risk review process to identify and assess material climate-related risks and establish treatment actions.
- Embedding consideration of climate risks in our investment and business case processes.
- Developing a climate risk screening tool and guideline to support climate change adaptation and decision-making. Once implemented, this will ensure we have a robust and uniform process for identifying appropriate design interventions in response to climate change risks under our asset creation framework.
- A climate change scenario framework has been developed to ensure consistent application of climate scenarios. Supporting guidance will help to support annual risk assessments and build climate literacy across our business.
- Building capability to provide quantitative data that identifies climate change risks across our asset base. We have piloted a spatial screening tool to assess the vulnerability of assets to extreme weather and climate hazards and help inform 'value-at-risk' for climate-related disclosures. We are currently participating in a NSW Government led pilot program using the Climate XDI platform to assess climate risks.
- Increasing the resilience of our water supply and planning for an increasingly variable and uncertain climatic future – we considered climate variability, and climate change scenarios in the demand and hydrological modelling, and options evaluation in the LHWSP. We have also incorporated climate change in modelling and planning to manage water quality events.
- Building capability to meet new climate-related financial and sustainability reporting requirements.
- Identifying and monitoring actions, measures and targets in our sustainability strategy and environmental management plan.
- Monitoring and reporting on climate change risks and risk mitigations to our Board. The Board expects action to address climate risks that exceed their appetite.
- Adopting an integrated approach supported by a cross-organisational working group. We have established an Executive steering committee to guide our response to climate change adaptation and climate change more broadly.

3.3.5 Long-term investment plans underpin our proposal

We have undertaken an extensive long-term investment planning process to identify and prioritise the investments we must make to meet regulatory requirements, make targeted service improvements, and deliver customer value into the future. We have structured our investments around achieving outcomes. To ensure all the projects we deliver are driving us toward important outcomes, we have a cascading approach of strategic cases, investment plans and investment items, as presented in Figure 3.7.

Figure 3.7: Investment management structure



Strategic cases

Our board has approved 9 strategic cases

Our strategic cases outline the high-level problems, opportunities and objectives we want to achieve across our service areas.

Investment Plans

We have 24 Investment Plans

Our long-term investment plans align to our strategic cases.

They are plans for what we must deliver to meet compliance obligations and customer's expectations across various service outcomes or areas.

Investment Items

Projects, Provisions and Programs

These are the specific investment solutions to deliver the objectives identified in investment plans and strategic cases.

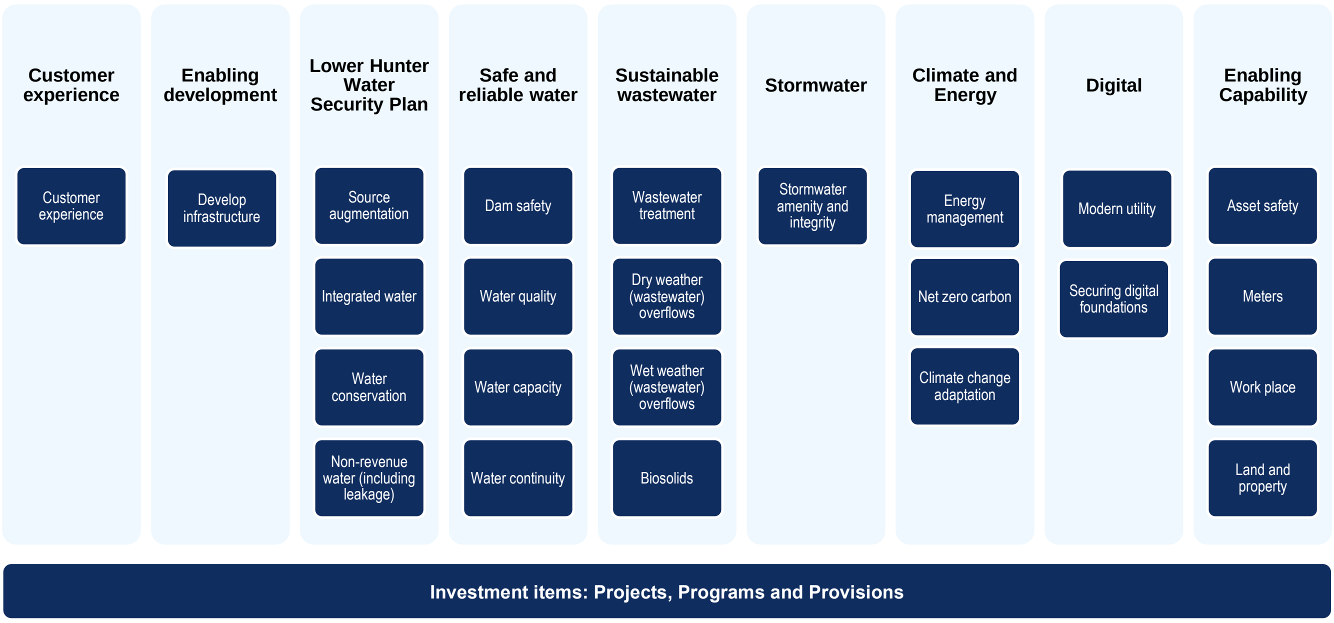
All investment items are underpinned by a business case and required to go through our gateway approval process to ensure they are well-evidenced, prudent and efficient.

Our Board-approved strategic cases provide a high-level direction by specifying the desired outcomes to achieve and demonstrate the case for investment by articulating the current problems or opportunities. Collectively, the nine strategic cases provide a full picture of our investment portfolio.

Our detailed long-term investment planning process considered 24 investment plans to evaluate the preferred investment options and expenditure needs to meet the Board's risk appetite and deliver upon the ambitions in our corporate strategy (see Figure 3.8). Each Investment Plan explains the key drivers, problems and opportunities necessitating investment across that outcome or service areas. They contained a range of investment options that would achieve different levels of performance or risk reduction. Our evaluation of the options was influenced by the views of our community, the NSW Government, regulators, and other stakeholders.

The investment plans are comprised of investment items: the various projects, programs and provisions required to deliver the outcomes articulated in the investment plans. We have a robust and mature investment governance and assurance process for all our investment items including business cases underpinned by cost-benefit-analysis or least-lifecycle cost analysis.

Figure 3.8: Strategic cases and long-term investment plans



To deliver the outcomes we wanted and reduce risk to an acceptable level, required substantial investment and ongoing expenditure. The investment planning process resulted in a 5-year capital portfolio of greater than $2.1 billion (or an average of $424 million per annum), and a $35 million annual increase in operating expenditure (from approx. $180 million to $215 million per annum). This level of expenditure was estimated to result in real average bill increases (before inflation) of about 10 per cent per year.

While further challenge on efficiency and deliverability was required, this investment scenario was comprised of justifiable, prudent projects, primarily to address compliance obligations and stakeholder expectations to within risk appetite, with only modest strategic improvement in some other areas (such as carbon, customer experience, and driving efficiency through digital investment). In other words, the investment plan scenario was not a gold-plated wish list.

The investment plans had varying time horizons – ranging from a minimum of ten years to forty years. They were used to identify the longer-term investment requirements and compile a 10-year capital portfolio. The longer-term view was characterised by several large projects associated with either bulk water supply, water security, or wastewater treatment and safety risks. Importantly, the prioritisation challenge we face extends beyond the upcoming pricing period, to at least 2035, which limits the feasibility of using regulatory levers to smooth bill impact across multiple pricing periods.

3.4 We've done all we can to keep bills low

This pricing proposal reflects our customers' and NSW Government's priority to keep bills as low as possible. Some of the steps we have taken are prioritising our expenditure to focus on compliance and making targeted improvements, assuming greater risk as a business, and challenging ourselves to be more efficient.

3.4.1 We prioritised and deferred investments

We made trade-offs by considering customer bill impacts and outcomes

In Section 3.3.5, we explained that our investment planning process initially resulted in projected real annual bill increases for a typical house in the upcoming pricing period of about 10 per cent, per year, every year.

In Section 3.2.6, we explained that our community is struggling with cost-of-living pressures and has told us that it's crucial we keep bills as low as possible. Affordability is a key priority for the NSW Government too.

Although our deliberative Community Panel understood why prices will need to rise in the upcoming pricing period, it's reasonable to say that any bill increase in the current environment is unwelcome due to the pressures the community is facing. Based on what we have heard from our customers directly, the difficulties we are seeing across our community, and the views of the NSW Government and other stakeholders, bill increases of 10 per cent per year would not be in customers' best interest right now.

For this pricing proposal to be credible, we had to do all we can to keep bills as low as possible. We made challenging trade-offs by prioritising and deferring investments and reducing future expenditure. Our approach focused on what outcomes we really needed to achieve.

For each project or program area we calculated the incremental bill impact of the proposed expenditure, the risks from investing or not investing, and the impacts on long-term asset and service performance for the community and environment. Comparing bill impact to outcome performance allowed us to do the best assessment we could of 'customer value'.

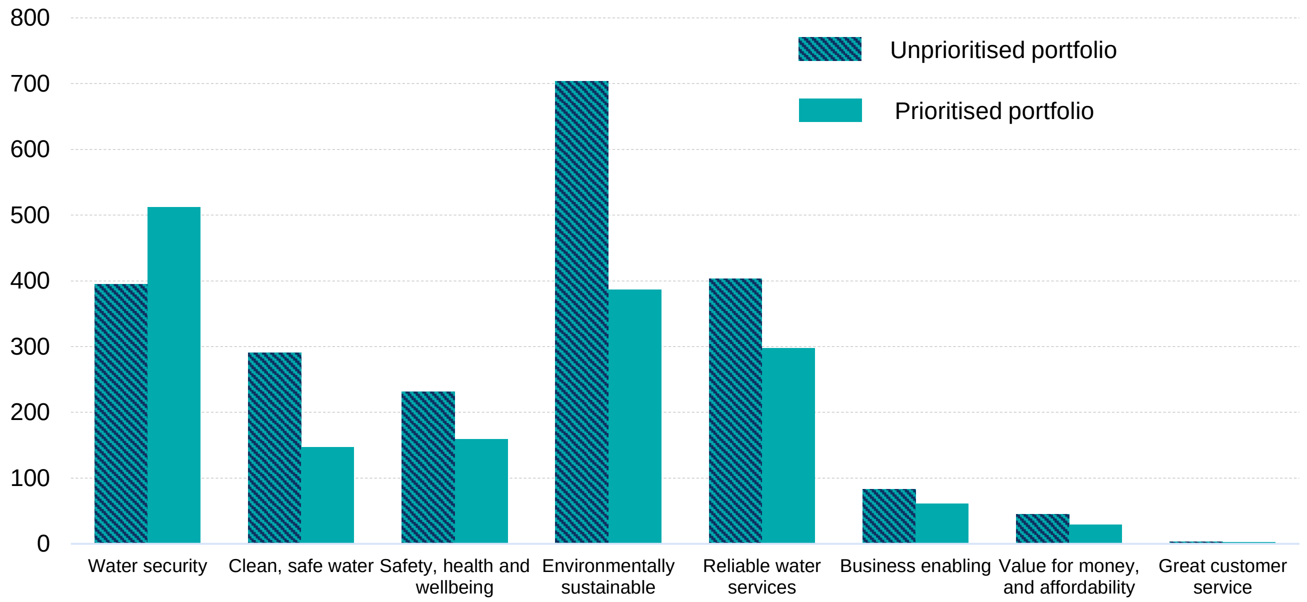
We considered several different total investment scenarios: these resulted in varying levels of bill increases and a progressive deterioration in outcomes and risk positions associated with each, lower, investment scenario.

The investment prioritisation process was iterative. We progressively reduced expenditure, testing what this meant for risks and outcomes. The process was robust, in-depth, and at times, confronting.

We've reached an expenditure proposal, presented in Figure 3.9, that we believe strikes the right balance between affordability, outcomes and risk, resulting in bill increases for a typical house of about 5.7 per cent, per year, every year.

We have addressed affordability challenges by proposing a lower level of expenditure. We haven't used financial levers or regulatory mechanisms to shift the burden of today's problems unduly on future generations.

Figure 3.9 Proposed capital investment portfolio ($2024-25, $millions)



We have decided to take on risk in areas where we can monitor performance and respond and adapt as needed if risks start to be realised or new risks merge (this is discussed in Section 3.4.2). The prioritisation decisions we made were guided by the long-term interests of our customers and informed by what we heard through our customer and community engagement activities, and from other stakeholders including regulators and the NSW Government.

Reducing our proposed expenditure much further would not be in customer's long-term interests as performance outcomes would suffer and risks could become unmanageable. We've gone as low as we can while still having a credible path to compliance, making a needed improvement to water security, and delivering the targeted improvements our customers wanted.

In the following section, we provide five case studies that act as examples of the prioritisation decisions we have made, and what this means for Hunter Water, and our community. These decisions are uncomfortable and not easy, but we are confident in our ability to monitor performance, manage the risks, and change our plans as needed in the upcoming pricing period.

3.4.2 We are taking on more risk as a business rather than asking customers to pay right now

We have a considered and nuanced approach to managing risk

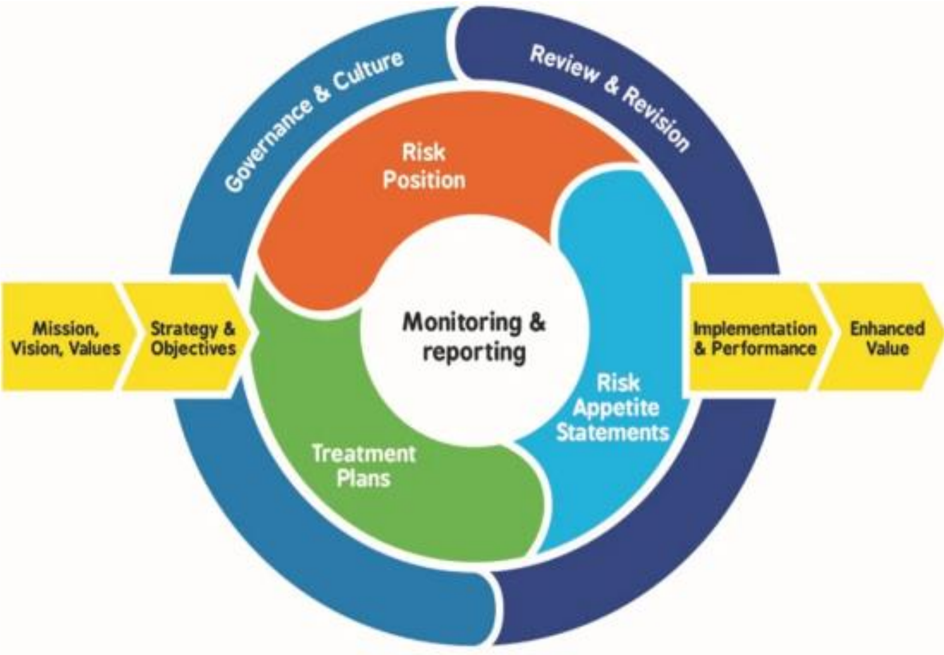
The prioritisation process required us to decide how risk should be shared between Hunter Water as a business, and our customers.

At one end of the risk spectrum, we could ask customers to pay now to resolve all known and foreseeable issues. This provides customers a high level of protection against potential service problems and minimises future risks to Hunter Water's compliance performance, reputation and finances.

At the other end, we could propose a level of future expenditure that is inadequate for us to competently maintain our services. Customers would see increasing service problems in both the short and long-term, and Hunter Water would have a high risk of non-compliance with regulations, and our reputation would deteriorate.

We have an enterprise risk management framework (Figure 3.10) that helps us find a suitable middle ground where risk is appropriately shared between Hunter Water and our customers.

Figure 3.10: Our Enterprise Risk Management framework



Our independent Board sets and owns the risk appetite, risk tolerance, and monitors risk positions as part of our planning and governance processes.

Regulation and legislation informs our appetite for risk. We are less willing to accept risk, for example, where there is potential for critical impacts to our people, our customers and the community. This includes ensuring safety and wellbeing, drinking water quality, a secure water supply and safeguarding our customers information through cyber security and privacy measures. We are more willing to accept risk, for example, relating to corporate reputation.

In an ideal world we would invest just before a problem occurs. For example, replacing a large water pipe just before it breaks, upgrading a wastewater treatment plant just before we fail to comply with our environmental requirements, or increasing capacity in our water network just before new customers connect to our system.

Getting the timing right requires a combination of engineering or planning skill, good judgement, and often, good luck. It's not realistic to get it right every time – sometimes we will be too late and service performance may suffer, and sometimes we may invest earlier than we needed to. Some of the general considerations we make are:

- *How likely is the event? How severe are the consequences?*
- *How well can we monitor the risk and then adapt our plans during the pricing period?*
- *If the risk event does occur, can we respond quickly?*
- *Who is impacted if the risk materialises? (Hunter Water or our customers, community, stakeholders)*
- *How have we controlled this risk in the past?*

Our Board have been required to make challenging trade-offs in shaping this pricing proposal. With a focus on customer affordability, Hunter Water is proposing to take on additional business risks to achieve this goal. Rather than asking customers to pay too much now, we are taking some risk that we will invest too late. Below we provide tangible examples that demonstrate the trade-off decisions made in this proposal.

We will monitor performance and adapt during the pricing period

Despite the trade-offs we have made, and additional risks we will take on, we are confident in our ability to continue to comply with regulations and meet customers' expectations in the upcoming pricing period.

We are taking additional risks in areas where we can monitor our service performance and changing risk positions, where we can put contingencies or mitigations in place, and where we will be able to adapt and respond as needed if risks eventuate.

We have robust asset management processes for monitoring the performance of our assets and detecting issues (see Table 3.4), typically allowing us to respond before asset issues unreasonably impact services for customers, or the environment, and ensuring that issues are resolved promptly.

Table 3.4 How we monitor asset and service performance

Asset health and service performance
We monitor and report asset failure performance through daily, monthly and annual trend analysis of key metrics. The results are assessed against predicted performance levels and are discussed by both management and the Board. If performance deviates from expectations, we promptly take action to address the issues. Additionally, we have a range of activities to understand and predict asset performance. This includes: • Asset condition assessments • Preventative maintenance • Reactive maintenance • Operational controls • Continuity plans • Asset class plans • Active performance predictive analysis • Real time asset and system monitoring • Risk reviews • Asset failure analysis

Effective asset managers adapt investment to reflect new information, and defer, or bring-forward planned expenditure based on a dynamic view of service performance issues or predictions, and relative priority across our services. We have a demonstrated track record of adjusting investment based on actual performance (rather than relying on theoretical information) to meet our obligations and service commitments at the lowest sustainable cost.

For risk-based investment decisions related to higher-consequence but lower-likelihood events, we use a combination of investment planning, risk assessments, and adaptive decision-making and analysis to monitor and manage these risks effectively.

We monitor and prioritise investments regularly through our corporate investment portfolio with senior management and Board involvement and oversight. This enables ongoing project prioritisation to consider new risk or performance information, cost changes, timing delays, and shifts in relative priority.

To succeed in the upcoming pricing period, we will need to be flexible and adapt our plans where needed, operating within our regulated expenditure envelopes. We will also need to deliver innovative solutions that address problems as efficiently as possible.

We have the financial resilience to respond if risks are realised

If risks and service performance issues are realised or emerge during the upcoming pricing period, and can't be managed within our expenditure allowances, we won't sit on our hands. We will spend beyond our expenditure allowances if needed, prudently and efficiently, to ensure we continue to comply and customers don't receive an unacceptable level of service.

Our Shareholder understands the challenges our business faces, and risks we are taking on behalf of customers to keep our customer bills affordable. They accept that, ultimately, this increases the risks they bear. Future distributions may be lower, if we need to adapt and spend beyond our expenditure allowances.

CASE STUDY: Chichester Trunk Gravity Main (CTGM) replacement

The CTGM is a critical part of our water supply

The CTGM is 85km long and conveys water from Dungog to Newcastle. The pipe was originally constructed in 1923 from lead-jointed locking bar steel pipes.

Customers in Dungog, Clarence Town, Paterson and Coalfields region are reliant on this source, and it supplements supply in Newcastle and Lake Macquarie. It supplies about 40 per cent of the average daily demand from our customers. Hunter Water has been progressively replacing sections of this pipeline.

The pipe could break, leaving customers without water

A remaining 12km section from Brookfield Tunnel to Burmi Creek is in poor condition: the pipe is heavily corroded (pictured below), and joints misaligned (pictured left). Reactively repairing frequent leaks is increasingly problematic – further welding makes the pipeline more rigid, transferring stress to other joints which increases the likelihood of more leaks or potentially catastrophic failure.

In summer conditions, if the pipe failed or needed to be shut down for major repairs, up to 45,000 customers could be without water until supply is reinstated. Depending on the level of customer water demand at the time, and time taken to complete the repair, the duration of a service continuity could be substantial (many days) and would have a critical impact on the community.

Ongoing maintenance and reactive repairs on the lead-jointed pipeline also poses a risk to the health and safety of our workers.

We are deferring part of the needed replacement

The full replacement is estimated to cost about $121 million. To keep bills as low as possible, in the upcoming pricing period we propose to replace only the part of this pipeline that is in the worst condition. The rest will be deferred until the subsequent (2030-35) pricing period.

We are taking on additional risk by not replacing it all, but we believe it's the right decision for customers to help manage affordability impacts.

How we will manage the risk during the pricing period

To manage the risk and protect the community from a potentially critical water discontinuity, we will monitor the remaining section closely, so we are able to bring-forward replacement if the pipe condition worsens and the risk increases.

We are undertaking the design work for replacement of the full pipeline now, to put us in a credible position to respond quickly.

CASE STUDY: Morpeth wastewater treatment plant (WWTP) upgrade

Morpeth WWTP is operating beyond its design capacity

Morpeth wastewater treatment plant is a biological nutrient removal plant built in 2000. It has a nominal design capacity of 60,000 Equivalent Persons (EP). The current estimated load is about 70,000 EP.

Morpeth serves a high growth catchment, expected to grow by 15% to 80,000 EP by 2030.

There is a risk that we will not comply with environmental legislation

The key issue is the secondary treatment system is at capacity and risks overloading and inability to meet Environment Protection Licence (EPL) load limits for total suspended solids and biological oxygen demand during significant or extended wet weather. This overloading will increase as further growth occurs.

There are also issues relating to the biosolids production process and meeting Environmental Impact Statement requirements for disinfection of effluent discharges in wet weather.

We will implement process changes and controls to defer the upgrade

The plant requires a major upgrade to provide additional treatment capacity and manage existing risks, and future growth. The estimated cost of the project is about $94 million.

To keep bills as low as possible, we are pushing the plant beyond its theoretical design capacity, facing increasing risks relating to the plant's performance and environmental compliance. We are deferring the start of the investment by a further two years, proposing only $35 million is spent in the upcoming pricing period.

How we will manage the risk during the pricing period

The plant will continue to require careful operation and monitoring of performance to manage our EPL compliance risks and other requirements. We are relying on innovations to optimise the plants processes, using more advanced operational controls, and undertaking minor capital works to maximise the potential of our existing assets.

The innovations and controls may not be sufficient to manage the growth and environmental risks, and we may need to bring forward the investment if the risks cannot be reliably managed.

CASE STUDY: Water network capacity upgrades

We must increase capacity in our water network as our region grows

The water network is pressurised to provide adequate supply to customers when they turn on their taps. This relies on sufficient hydraulic capacity and the pressure is influenced by customer water demand at the time. Receiving low water pressure can be frustrating for customers as some uses of water can't be undertaken or are unsatisfactory. There are scales of low water pressure, ranging from mild (annoying sometimes) to severe (frequently intolerable).

As our customer base grows over time, the network's ability to meet increasing demand and provide sufficient water pressure can diminish. This requires us to progressively increase hydraulic capacity by either building new, or upsizing existing, pipes, pumping stations and reservoirs.

The Operating Licence protects customers from getting low water pressure

Our Operating Licence sets standards we must meet for how many customers can receive a water pressure failure each year. We have historically performed well, with 'headroom' between the allowable number of customers, and the actual number of customers experiencing low water pressure. To ensure compliance, headroom is needed due to uncertainty in the timing and location of growth and annual fluctuations in peak day demands, primarily related to weather conditions.

Without investment to increase network capacity as growth occurs, an increasing number of customers would receive a deficient water service, and we would not comply with our Operating Licence. We must forecast when growth will occur and ensure there is sufficient capacity to provide adequate water pressure to both new and existing customers. It's important we provide timely capacity, or we may hold up new housing development, undermining the NSW Government's priority to increase housing supply. The optimal timing to invest is 'just' before the growth happens, but this can be hard to judge given the many factors that influence growth and hydraulic capacity.

In Chapter 1, we explained that some of our customers receive ongoing issues with water pressure. Our Community Panel felt strongly about service equity for all customers and expect us to resolve these issues.

We will have a higher risk of non-compliance, and focus on fixing hot spots

To keep bills as low as possible, we are deferring water capacity upgrades in several areas of our network. We initially estimated about $98 million of capital expenditure to provide sufficient water capacity in the upcoming pricing period, however, prioritised this down to $29 million.

This means it's possible that as growth occurs in some areas, we may be too late in increasing capacity, resulting in more customers receiving low water pressure, less headroom against the Operating Licence standard and a higher chance of non-compliance.

We will tolerate the higher risk of non-compliance and focus on equity and improving water pressure performance for customers who experience either severe or persistent water pressure failures.

How we will manage the risk during the pricing period

It will be crucial for us to target the prioritised investment in areas where capacity constraints are greatest, and where we are most certain about the timing and location of the growth.

We will routinely assess and adjust growth forecasts, monitor actual system performance, and undertake hydraulic modelling to ensure we continue to comply with the Operating Licence standard, and will dynamically adjust, bring-forward or defer investment, depending on the actual timing of growth.

CASE STUDY: Grahamstown algal solids removal upgrade

An algal bloom in our largest dam could result in a major water quality event

Large algal blooms in a dam have the potential to produce toxins that can make people sick.

In 2018 and 2021, we experienced significant blooms in Grahamstown Dam that had the potential to produce, but did not produce, algal toxins. During these events we were still able to provide safe and reliable water supply to our customers. There is evidence that due to development in the drinking water catchments and changing biological conditions in the dam (including temperature and aquatic plants), raw water quality is deteriorating, and the risk of algal blooms is increasing. The risk of an algal bloom producing algal toxins is rare but increasing.

Grahamstown water treatment plant is Hunter Water's largest, supplying treated water to approximately 400,000 customers. The plant has the capability to treat algal solids, but limited capacity to do so.

There is a risk that we will have to restrict water supply to our customers

If we have an algal event that produces toxins, we will never risk providing unsafe drinking water to our customers. Therefore, depending on the timing (e.g. during high demand conditions in summer) and nature of the event (the duration and extent of algal solids and toxins) we may have to reduce the capacity of the treatment plant to ensure that the water it produces is safe. The reduced treatment capacity may result in a shortfall of water supply to our customers.

Because so many customers rely on Grahamstown Dam and water treatment plant for their water supply, reduced treatment capacity, in the unlikely event of an algal bloom producing toxins, could result in hundreds of thousands of customers receiving restricted water supply, or even no water for some, until conditions improve, and we regain the capacity to meet the demand for treated water.

We will increase the resilience of the Grahamstown water treatment plant

Through our bulk water supply program, we have identified several upgrades required to resolve asset condition issues and improve the resilience of Grahamstown water treatment plant. We are currently adding a UV disinfection barrier and proposing to deliver several projects at Grahamstown water treatment plant in the upcoming pricing period: filter replacements, chlorination and backwash systems, and upgrading the clear water tank.

However, to keep bills as low as possible, we are deferring the required Grahamstown algal solids removal upgrade until the 2030-35 pricing period – reducing proposed capital expenditure by about $60 million.

How we will manage the risk during the pricing period

The proposed upgrades mean we are making meaningful improvements at Grahamstown water treatment plant to address water quality risks, but we will have to tolerate the remaining unlikely risk that an algal bloom poses for our water supply capacity. Customers will always receive safe drinking water.

We will continue to monitor these risks and invest in improvements to slow the degradation in our catchments and try to prevent further escalation in the likelihood of algal events. Delivering the Belmont desalination plant will also provide additional resilience against algal events by diversifying our water supply and reducing our reliance on Grahamstown Dam and water treatment plant.

CASE STUDY: Lower Hunter Water Security Plan

Improving water security is crucial, but we must take a staged approach

Throughout the LHWSP community engagement process, we have been told that providing safe and reliable water supply is crucial. This view was reinforced in our recent pricing proposal community engagement.

Ensuring future water security was the expectation most frequently mentioned at community listening post workshops in Stage 1.[1] And in Stage 3, the Community Panel noted the importance of securing water resources for future generations.[2]

But we have also heard that cost-of-living is a challenge. This means we will need to transition toward a secure water future more slowly than identified in the LHWSP.

We will make a step-change improvement in the upcoming pricing period by delivering the first, and most important water supply action – a new permanent desalination plant at Belmont.

We will follow the Community Panel's water conservation recommendations

Informed by our community and stakeholders views at that time, the LHWSP set ambitious water conservation targets that required investment above the level supported by the Economic Level of Water Conservation methodology.

Given the costs involved, we retested this with our Community Panel to inform our pricing proposal. In the context of our overall investment and in light of affordability constraints, they supported a lower level of investment in water efficiency and recycling than identified in the LHWSP.

In Chapters 1, 2, 4 and 5, we describe our community's recommendations about water conservation, and the outcomes, capital and operating expenditure that we propose for the upcoming pricing period.

It's appropriate to defer investment in other sources and drought-response

Recognising the cost-of-living challenges our community faces, we propose to defer most of our planned capital and operating expenditure on investigating and delivering other new water sources, as explained in Table 3.5.

Table 3.5 Proposed investment in other new water sources

Project	Position adopted in this pricing proposal
Paterson River Connection	• Delivery deferred until post-2035. • Work with the NSW Government to finalise the Detailed_Business Case for the Lostock to Glennies pipeline and associated Paterson River Connection.
Purified Recycled Water (PRW)	• Defer our proposed investment in investigations and preparation for PRW beyond the 2025-30 pricing period.
Drought-response desalination	• Defer investigations and readiness activities for a separate drought-response desalination plant. • Future-proof Belmont desalination with incremental investment to ensure the capacity of the plant can be expanded later, potentially as a drought-response.

[1] Insync, September 2022, Hunter Water Stage One Engagement Summary

[2] Insync, March 2024, Hunter Water Community Panel: Deliberative forum report, page 39.

3.4.3 Challenging ourselves to be more efficient

We are proposing an ambitious cost efficiency target

In addition to prioritising our expenditure, and taking on more risk as a business, we are proposing an ambitious cost efficiency target.

This target puts downward pressure on prices to help keep bills as low as possible. We have applied the target across both capital and operating expenditure. The target means Hunter Water and our Shareholder will bear more financial risks, rather than customers facing even higher prices than we are proposing.

When put together with the Efficiency Benefit Sharing Scheme (EBSS), Capital Efficiency Sharing Scheme (CESS), a shadow price of leakage, and ongoing external efficiency reporting requirements to the NSW Government – there is a strong financial and reputational driver to deliver on our efficiency commitments.

We have developed a cost efficiency strategy (provided as Attachment M). The strategy demonstrates to our community that we are an efficient business; have challenged ourselves to become even more efficient over time; have a credible plan to achieve the strategy; and will be accountable if we don't. We will also publish a customer-friendly summary version.

Our cost efficiency targets are shown in Table 3.6 – they represent an approximately 1 per cent compounding efficiency gain, over the life of the pricing period. We consider this to be a realistic, yet ambitious target. In Chapters 4 and 5, we describe how we set these targets.

Benchmarking our efficiency target suggests the target is ambitious, yet realistic:

- Actual productivity performance in the economy can provide a guide about what may be a reasonable efficiency target. Using the same approach that IPART applied in its recent pricing decisions to calculate the continuing efficiency factor, we estimate the long-term average annual change in multi-factor productivity in the market sector of the economy is 0.8 per cent.

  Notably, over the last 20 years the 'utility sector' has lagged the broader market, with declining productivity growth. The reasons for this are unclear but impacts such as increasing standards, regulation, and better planning that drive quality improvements not captured in the output measure are likely contributors to the trend. As a monopoly-service provider, Hunter Water should challenge itself to be as productive as a competitive business in other industries – our customers expect this.

- Although direct comparison can be misleading, our target is within the broad range of efficiency decisions made by other economic regulators in recent years.

Table 3.6: Our 2025-30 cost efficiency target

Efficiency target	Operating expenditure	Capital expenditure
Efficiency target	$36.4 million	$41.2 million

How will we achieve the target?

We've developed a framework that recognises an engaged and empowered workforce, and appropriate resourcing, priority, sponsorship, processes and governance are crucial to achieving our targets. The framework sets activities across four stages of an efficiency lifecycle: *Identify, Deliver, Evaluation*, and *Share*.

We've developed an initial set of cost efficiency initiatives to pursue in the upcoming pricing period.

For capital expenditure, we expect most of the efficiency to be achieved by gains from project delivery such as value for money procurement, skilled project management, value management and engineering, asset management, and condition assessments.

Value for money procurement may involve bundled and consolidated work packages, early contractor or tenderer involvement, use of performance-based contracts, and leveraging NSW Government contracts.

Investment in smart systems will also help to optimise and suitably target our capital expenditure.

For operating expenditure, we believe the key opportunities to achieve the efficiency target are:

- **Digital transformation**: we seek to improve our digital capabilities enabled by data-driven decision making and innovation at speed and scale. We see investment in smart systems, data insights, process automation and artificial intelligence as the key to driving the long-term efficiency.
- Utilising **WSAA benchmarking** to compare our costs across various areas relative to other water businesses. This will hopefully help us identify potential areas of over-investment or inefficiency to target for potential savings.
- Operating expenditure **savings from capital investments** in renewable energy, energy efficiency and optimisation, spoil management, and asset renewals.
- **Cost rationalisation**: routinely reviewing specific expenditure areas to proactively identify opportunities to reduce costs.
- Enterprise **workforce planning**: evaluating service partnership models, the mix of external vs internal resourcing, staff retention, and the makeup and types of roles we need into the future.
- Cost savings in how we manage our **facilities and vehicles**.
- **Maintenance productivity**. Despite significant efficiencies achieved in recent years, we will identify new opportunities that will help offset the cost impact of growth.

How can customers hold us to account?

We're putting in place processes to ensure we remain accountable for delivering on our efficiency commitments. Internally, we are establishing a new accountability model, and will be reporting monthly and quarterly to our Board on progress towards delivering our efficiency strategy. We also report at least quarterly to NSW Treasury, including an annual "efficiency return".

In Chapter 1, we described how we can be held to account for delivering our customer outcome commitments. We plan to be accountable for our efficiency commitments in a similar way, by reporting progress annually to our Customer Committee.

Attachments related to this chapter

Attachment B – Service performance in the current pricing period

Attachment C – The socioeconomics of our region

Attachment D – The Lower Hunter Water Security Plan

Attachment M – Cost efficiency strategy 2025-30

PART TWO:

Efficient costs

4 Capital expenditure

Key points

- Our proposal reflects a lean and restrained investment approach. Our focus is on customer affordability, and we have balanced keeping our bills as low as possible while maintaining and improving our service performance.
- Recently, market construction cost escalation has outpaced general inflation, putting upward pressure on our, and other utilities', capital expenditure needs.
- We have prioritised and deferred investments to reduce our total proposed capital expenditure for the upcoming pricing period from $2.1 billion to $1.55 billion.
- We are investing $530 million ($nominal) for design and construction of a new, permanent desalination plant at Belmont to reduce our dependence on rainfall and ensure a secure water supply for our region as the climate continues to change. Of the total delivery cost, $460 million ($nominal) will be incurred in the upcoming pricing period – this accounts for almost one-third of our proposed capital investment.
- Excluding Belmont desalination, we propose to invest about the same level of capital expenditure in the upcoming pricing period as in the current period.
- Our proposed level of capital expenditure will allow us to comply with all regulations and deliver on key customer outcomes in the upcoming pricing period, and we'll achieve this by being flexible and adapting our plans as necessary to ensure success. We'll also need to deliver innovative solutions that address problems as efficiently as possible.
- Higher capital investment will need to continue in the subsequent pricing period. We currently forecast $1.6 billion across 2030-35, driven by major wastewater treatment plant upgrades and the need to address important strategic issues relating to biosolids management and dam safety. Our challenge to keep bills affordable will continue into the 2030s.
- Our major capital investment areas during the upcoming pricing period (2025-30) are:
  - **Water security** – Belmont desalination plant and leakage reduction.
  - **Environmentally sustainable** – Servicing growth and protecting waterways and human health by upgrading wastewater treatment plants at Burwood Beach and Morpeth, renewing our wastewater network, and starting our wastewater biosolids improvement program.
  - **Reliable water services** – Ensuring a reliable water supply to customers by replacing a stretch of our bulk water supply pipeline (Chichester Trunk Gravity Main) and addressing the repeat service issues experienced by a small subset of our customers.
  - **Clean, safe, water** – Investing in our largest water treatment plant at Grahamstown to ensure we continue to provide a clean, safe and continuous water supply to customers.
  - **Safety, health and wellbeing** – Keeping our people and the community safe by addressing asset safety issues and starting work on managing our dam safety risks.

4.1 We propose to invest over $1.5 billion in 2025-2030

To continue delivering our asset-intensive services we undertake capital works ranging from small projects that can be completed within months, to larger more complex projects such as a desalination plant that can take several years of planning to ensure it is delivered efficiently.

In Chapter 3, 0we explained how our investment planning process has helped inform this pricing proposal. The investment plans considered the level of expenditure needed to meet our regulatory obligations and customer expectations across various outcome and service areas.

Customers have told us that keeping bills affordable is their top priority. Accordingly, we have prioritised and deferred investment, proposed a credible cost efficiency target, and will take on additional risk as a business.

Our proposed investment balances the competing challenge of maintaining affordable customer bills with:

- meeting community and stakeholder expectations about:
  - water security and safeguarding the region from the economic and social impacts of running out of water during a severe and prolonged drought
  - safety, water and wastewater services, environmental impacts, and enabling new housing growth
- making targeted improvements in areas that our customers told us were important and they were willing to pay for.

In the upcoming pricing period, we propose investing $1.55 billion capital expenditure (see Table 4.1). We have prioritised this down from about $2.1 billion to help keep bills as low as we can.

The product breakdown shows that most (61 per cent) of our expenditure in the upcoming pricing period is on our water services. The main driver is investing in a new desalination plant at Belmont; however, we also require considerable investment to protect the quality and reliability of our water supply.

Table 4.1: Proposed capital expenditure in 2025-2030 by product ($million, $2024-25)

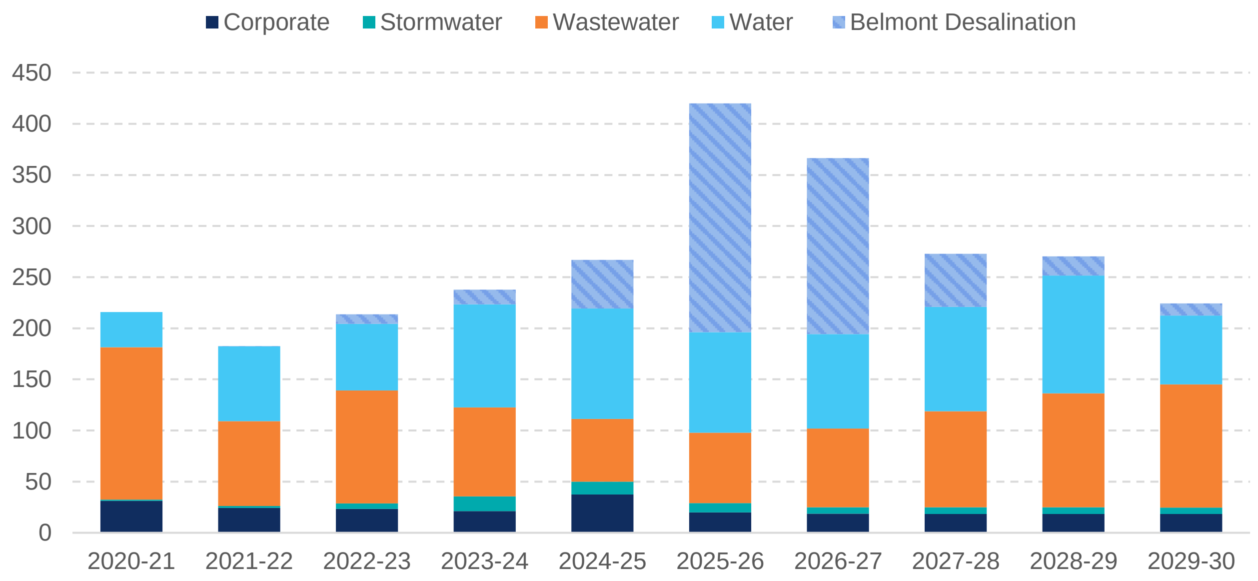
Product	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Water	322.0	264.5	153.8	134.0	79.3	**953.8**
Wastewater	69.0	76.9	94.1	111.6	120.2	**471.9**
Stormwater	9.1	6.5	6.4	6.4	6.4	**34.8**
Corporate	19.9	18.6	18.4	18.4	18.4	**93.7**
Total	**420.1**	**366.5**	**272.8**	**270.5**	**224.3**	**1,554.2**

Source: Hunter Water AIR/SIR, 'SIR CAPEX 2a' – rows: 65, 72, 79, and 89.

Figure 4.1 shows our capital expenditure by product across the current and upcoming pricing period. Our proposed expenditure in the 2025-30 period, without Belmont desalination, would be about the same level as in 2020-25 – approximately 2.8 per cent higher.

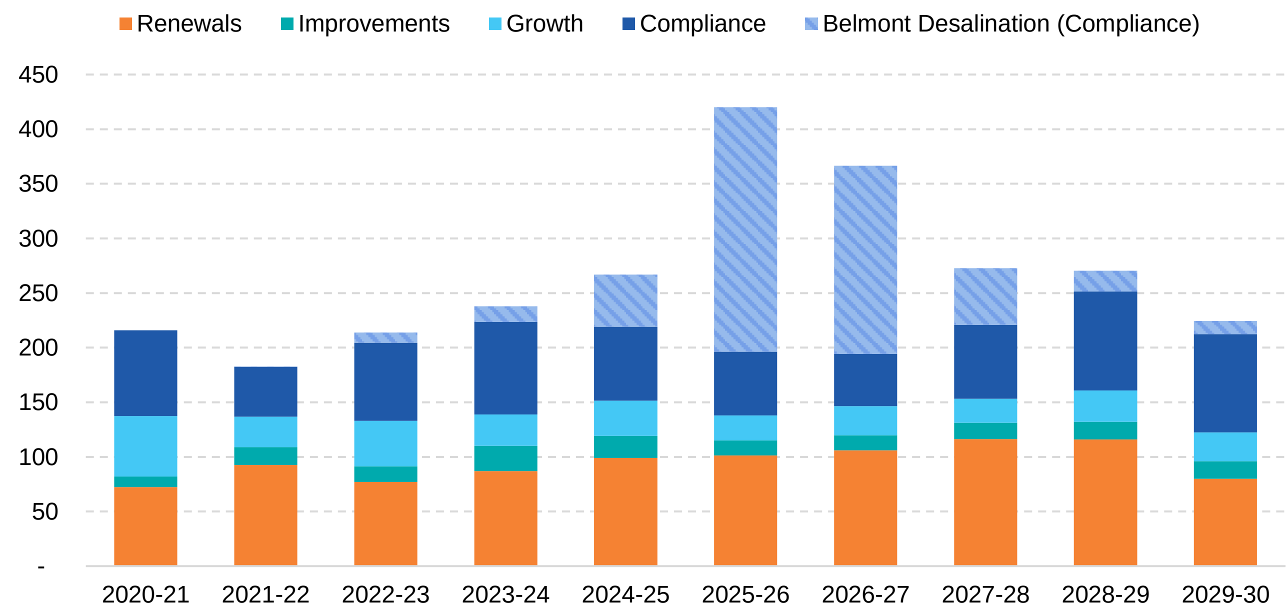
Our capital expenditure by driver across the current and upcoming pricing period is shown in Figure 4.2. Table 4.2 compares the expenditure drivers between the 2020-25 and 2025-30 pricing periods, excluding Belmont desalination. The mix of drivers are relatively similar; however, we propose higher renewal expenditure and lower growth expenditure in the upcoming pricing period. Part of this change is attributed to more accurately categorising these drivers.

Figure 4.1: Capital expenditure in 2020 to 2030, by product ($million, $2024-25)



Source: Derived from Hunter Water AIR/SIR, 'CAPEX' – rows: 40, 82, 96, and 103 and Hunter Water Analysis

Figure 4.2: Proposed capital expenditure 2020-2030 by driver ($million, $2024-25)



Source: Derived from Hunter Water AIR/SIR, 'CAPEX' – rows: 117, 118, 119 and 120 and Hunter Water Analysis

Table 4.2: Comparison of capital expenditure drivers ($million, $2024-25)

Driver	2020-25	2025-30	Difference ($m)	Difference (%)
Growth	185.8	126.3	(59.5)	(32.0%)
Renewals	427.6	519.2	91.6	21.4%
Improvements	84.2	75.1	(9.1)	(10.8%)
Compliance (excluding Belmont Desalination)	347.9	354.4	6.5	1.9%
Total	**1,045.4**	**1,075.0**	**29.5**	**2.8%**

Source: Derived from Hunter Water AIR/SIR, 'CAPEX' – rows: 117, 118, 119 and 120 and Hunter Water Analysis

4.1.1 Our investment is focused on delivering the outcomes that our customers and stakeholders expect

We described our customer outcomes in Chapter 2 – these are the foundation of our proposal and seek to deliver on what our customers and community have told us they value.

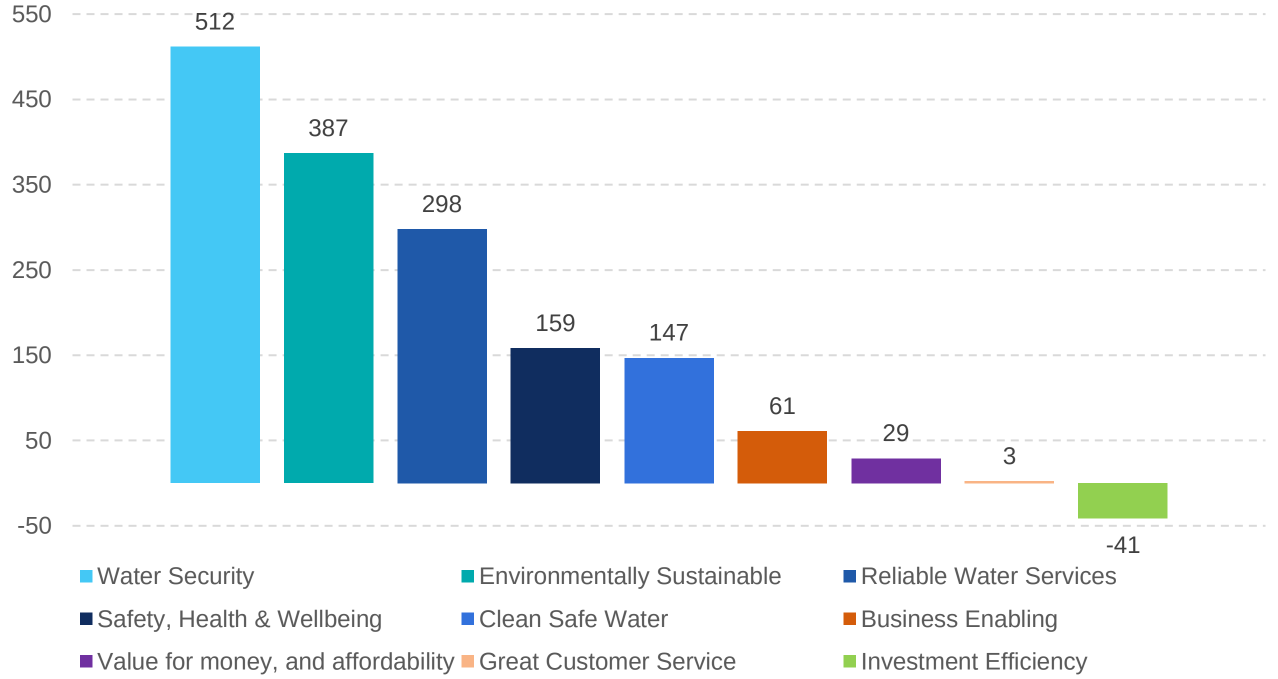
In addition to these customer outcomes, we must also invest in:

- **Safety, health and wellbeing:** To meet legislative requirements and basic community expectations to protect the safety of our people, and the broader community.
- **Business enabling:** To sustain the digital systems, water meters, workplaces, and property we require to continue to deliver our services – these investments enable us to achieve other outcomes.

In this chapter, including Figure 4.3, we describe our expenditure against these key outcome areas. We divide the *high quality water services* outcome into two components to improve visibility of the key elements:

- clean, safe water
- reliable water services.

Figure 4.3: Proposed capital expenditure in 2025-2030 by outcome ($million, $2024-25)



Source: Hunter Water AIR/SIR, 'SIR CAPEX by Outcome' – rows: 11, 24, 35, 47, 54, 61, 65 and 71

4.1.2 Proposed Capital Expenditure in 2025-30

Below we summarise the most notable capital expenditure items required to achieve our customer outcomes. The values shown refer only to the spend in the upcoming 2025-30 pricing period. We further justify the specific drivers of these investments in Attachment E.

Water security ($512 million in 2025-30)

Chapter 3 and Attachment D of our proposal introduced the Lower Hunter Water Security Plan. It sets out a plan for reducing demand and increasing supply to ensure we have enough water to meet the community's needs in drought, and over time. The key investments proposed to improve water security during the upcoming pricing period are:

- design and construction of a desalination plant at Belmont ($460 million, $nominal) in the 2025-30 pricing period
- supporting our customers to use water more wisely and efficiently through improved water conservation (operating expenditure)
- reducing leaks in our system and other non-revenue water ($20 million).

These investments will increase the sustainable supply (yield) of our system, reduce water demand, reduce the frequency and duration of water restrictions imposed on customers, and lower the chance of running out of water.

The recent decision to reduce the maximum top water level at Grahamstown Dam as an interim safety measure, further increases the importance of having a more resilient water supply.

We are continuing to work with the NSW Government to finalise the Detailed Business Case for the Lostock to Glennies pipeline and associated Paterson River Connection. We will continue to explore cost-effective recycled water schemes.

The Belmont desalination project is forecast to cost $530 million ($nominal) to design and construct, with project completion forecast in 2028. The project has commenced with expenditure for design and early works occurring within the 2020-25 period. The remaining $460 million is forecast ($nominal) for the 2025-30 pricing period.

Environmentally Sustainable ($387 million)

Our community has told us it's important to take care of the environment and be environmentally sustainable.

The wastewater services we provide require us to transport and treat wastewater, and reuse and/or dispose of biosolids and treated wastewater to the environment. The NSW Environment Protection Authority (EPA) issues and administers Environment Protection Licences (EPLs) for our wastewater systems – both our wastewater treatment plants and wastewater network.

Our sustainable wastewater activities focus on minimising dry and wet weather overflows from the network, sustaining healthy waterways, managing wastewater biosolids, and enabling regional development.

The key investments we propose are:

- upgrading our largest treatment plant at Burwood Beach to ensure we comply with our EPL, protect our staff, and cater for growth ($70 million)
- introducing sludge treatment at Burwood Beach wastewater treatment plant to cease disposal of sludge to the ocean, as required by the EPA ($60 million)
- deferring and then upgrading Morpeth wastewater treatment plant to ensure compliance with EPL load limits and cater for growth ($35 million)
- upgrading smaller treatment plants to provide capacity for growth and ensure we meet EPL compliance requirements ($14 million)
- renewing a range of major and minor assets across our treatment plants to ensure safe and reliable operation ($63 million)
- renewing assets across our wastewater network to prevent wastewater overflows in dry weather ($85 million)
- upgrading the capacity of the wastewater network to service growth and protect the environment from wastewater overflows in wet weather ($28 million)
- upgrading vulnerable wastewater pump stations and rising mains to provide emergency storage or improve network resilience to prevent wastewater overflows when assets fail ($30 million).

High quality water services: Reliable water services ($298 million)

Water capacity upgrades are essential to service new growth precincts and supply water to new developments, while ensuring existing customers continue to receive adequate water pressures.

Once connected, customers expect consistent and reliable water supply. This supply can be impacted by asset failures (pipeline bursts and pump station failures), which requires assets to be renewed.

The investment required to ensure adequate and reliable water supply for our customers includes:

- upgrading assets across our water distribution network to increase their capacity and ensure customers receive adequate water pressure ($29 million)
- upgrading the capacity of some assets to meet minimum requirements for firefighting ($8 million)
- replacing the next section of the Chichester Trunk Gravity Main (CTGM) to ensure customers continue to receive supply ($56 million)
- supporting growth by investing in lead-in and lead-out infrastructure to service new developments ($41 million)
- renewing water storage reservoirs to prevent failures and major water discontinuities ($29 million)
- renewing major trunk watermains to prevent failures and major water discontinuities ($39 million)
- renewing other assets across our water distribution network to meet operating licence requirements and prevent customers from experiencing major water discontinuities ($66 million)
- following our Community Panel's recommendations by:
    - improving water pressure for customers who repeatedly experience service problems ($18 million),
    - resolving wet weather overflows and odours for customers repeatedly impacted by these service issues ($12 million).

Safety, health and wellbeing ($159 million)

We have large, complex and varied assets. Some of these assets can be hazardous to the community should they fail (e.g. dams, high voltage electricity, large watermains and stormwater culverts), or to our workers to operate and maintain (e.g. electrical, lifting equipment, unsafe access, confined spaces).

To ensure community and worker safety, we must meet relevant safety legislation and standards. This requires us to invest in:

- commencing upgrade works on our largest dam at Grahamstown to address dam safety risks ($20 million)
- commencing upgrade works on our Chichester Dam to address dam safety risks ($15 million)
- renewing our stormwater assets to maintain their integrity ($36 million)
- progressively removing asbestos from assets across our operations ($11 million)
- addressing unsafe levels of hydrogen sulphide at Belmont wastewater treatment plant ($21 million)
- reducing risks relating to our workers accessing confined spaces ($11 million)
- addressing a range of other worker safety issues relating to interaction with our assets ($28 million)
- reducing risks to the community caused by the potential for large pipes to break and cause flooding ($12 million)
- renewing assets at our dams and catchments ($4 million).

High quality water services: Clean, safe water ($147 million)

Our main water supply systems (the Williams River system and Grahamstown and Chichester dams) are experiencing a long-term decline in raw water quality. Catchment modelling indicates that the sub-catchments contributing the greatest nutrient and sediment loads to the system are those almost entirely covered by intense agricultural land use and urban areas along the Williams River.

A large proportion of our water supply is provided through Grahamstown WTP. As the catchment is deteriorating and the treatment plant is over 50 years old, there is increasing potential that a major water quality or asset performance issue may see us unable to supply an adequate quantity or quality of water to our customers. We propose to invest from the catchment to the customer of our drinking water supply system to ensure an effective multiple barrier approach to protecting and maintaining water quality.

The key investments proposed to sustain clean safe drinking water are:

- better management of our water catchments to protect the quality of source water ($9 million)
- upgrades at our largest water treatment plant at Grahamstown ($106 million)
- water network upgrades ($6 million) including disinfection improvements and reservoir integrity refurbishments to prevent vermin ingress
- renewing assets at our water treatment plants ($23 million).

Business enabling ($61 million)

We rely on technology, digital systems, land, buildings, fleet and corporate equipment to undertake our operations and enable our people to provide water services to our customers and community. This enabling infrastructure and equipment requires ongoing investment to ensure business continuity. In the upcoming pricing period, we will invest in:

- improving cybersecurity to keep critical infrastructure and customer data safe ($6 million)
- maintaining and upgrading digital applications and infrastructure including storage, computing, and network and communication devices ($36 million)
- managing the land and property we own ($9 million)
- replacing customer meters to ensure we can accurately measure water usage ($10 million).

Value for money, and affordability ($29 million)

To keep bills as low as possible, it's crucial for us to be as efficient as we possibly can. In the upcoming pricing period, we plan to invest capital expenditure to become more efficient in the long-term with:

- onsite generation of renewable energy to reduce our reliance on purchasing energy ($15 million)
- changes to our assets and control systems to optimising our energy use ($7 million)
- modernising our digital services to improve our internal processes, data insights, and add increasing 'smart' monitoring and control of our systems ($7 million).

Great customer service ($3 million)

Our customers expect us to deliver great customer service by making it easy for them, respecting them and their time, and resolving their situation. Many aspects of customer service are considered a 'given' and are expected of every organisation ("meet the market"). While our customers are generally satisfied with the interactions they have with us, we must continue to invest to: maintain our core systems, improve privacy controls and safeguard customer data, and make incremental digital improvements to keep pace with basic customer expectations about how customers can interact with us. Without investment, our customer service performance will deteriorate.

4.1.3 Our Community Panel supported targeted improvements

We described our extensive community engagement process in Chapter 1. The community recommended we invest in water conservation (leakage and water efficiency), address persistent customer service performance issues (hot spots), and reduce carbon emissions.

Table 4.3 summarises the capital investment supported by our community to make these targeted improvements.

Table 4.3: Capital expenditure related to recommendations of our Community Panel ($million, $2024-25)

Program	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Repeat service issues (hot spots)						
Hotspots – Low water pressure	2.6	2.6	3.5	4.4	4.4	**17.6**
Hotspots – Wet weather overflows	0.9	0.9	1.1	1.4	1.4	**5.7**
Hotspots – Wastewater odours	1.3	1.3	1.3	1.3	1.3	**6.6**
Water conservation						
Water efficiency[1]	-	-	-	-	-	**-**
Leakage reduction[2]	2.2	2.2	2.2	2.2	2.2	**11.4**
Carbon emissions[1]	-	-	-	-	-	**-**
Total	**7.0**	**7.0**	**8.1**	**9.3**	**9.3**	**41.3**

1 No capital expenditure required

2 Leakage reduction values in Table 4.3 represent the incremental amount supported by our community panel. The total non-revenue water investment is $20.1m capital expenditure and $2.5m operating expenditure.

Source: Hunter Water AIR/SIR, 'SIR CAPEX 2a' – rows: 144 (Odours), 161 (Leakage), 177 (Water Pressure), and 192 (Wet Weather Overflows)

4.2 We have challenged our ability to deliver

In Chapter 3, we presented how we are charting the right course for the future, considering customers' expectations and preferences, changes in service expectations and investment drivers, and how we prioritised and deferred investments to keep our customer bills as low as possible. In doing so, we acknowledge we have taken on more risk, however we expect to meet regulatory, customer and stakeholder expectations through active monitoring, and adapting and/or investing, if required.

A separate but important consideration in proposing our expenditure profile is whether the outcomes and associated capital works can be delivered within the 2025-30 period.

We assessed this deliverability risk considering market availability, our capacity and capability, and an assessment of our processes to govern, manage, design, and construct investments. We are confident, with our delivery partners, that we have the capacity and capability to deliver the proposed program of work.

4.2.1 Market conditions influence our approach

There are challenges in the current market, including strong demand across infrastructure industries (such as electricity, transport, and sports), resourcing constraints, supply chain constraints and contractor risk tolerance.

Contractors are becoming more selective and are less willing to accept risk. As market conditions evolve it is increasingly important to monitor the effectiveness of the current arrangements throughout the upcoming pricing period and adapt our approach and build our supply chain resilience as needed.

Through market engagement we have learned that contractors' value long term relationships where there is a clear forecast of ongoing opportunities for future work. They prioritise opportunities that can result in lower tendering costs to achieve their targeted revenue objectives. As contractors enhance their efficiency, cost recovery across projects improves, resulting in reduced costs for us and our customers.

We are building capacity and leveraging capability

One of the key factors influencing the successful delivery of projects is ensuring the availability of the right mix of experienced resources. In the current market, attracting these resources requires offering an appropriate risk proposition and providing contractors and their teams with a clear forward forecast of work opportunities.

To support this, we have established several strategic, longer-term project delivery arrangements and partnerships, including panels, approved suppliers and contract accreditation processes. These arrangements do not cover all scenarios, as there are situations where bespoke contracting arrangements must be developed to meet specific needs.

We rely on a range of strategic partnerships and panels to deliver our core services

The resourcing demands for project delivery can fluctuate, with different types of projects requiring different skill sets. Our strategic partnerships and panels improve our delivery capability by providing the flexibility to adjust resources according to the individual needs of projects and peaks and troughs in portfolio workload. These partnerships include:

Program and project management (PPM)

Partnering with WSP Australia Pty Ltd under a program and project management (PPM) partnership has proven to be an effective model for providing project management capacity and capability to support project delivery. In place since 2018, this collaborative contracting approach was designed to support an uplift in both the number and complexity of our infrastructure projects and provides peak resourcing, technical specialists, program management support and cost control.

The PPM model offers significant flexibility in project timing and scope, adapts to varying demands with a responsive resourcing model, and ensures the sourcing of appropriate skilled staff and contractors. Over the years, alignment with the PPM model has increased operational efficiencies and supported local contractor capabilities, such as the construction services panel, to meet the expected high standards in safety, environmental management, and quality.

Design and engineering services partnership (DESP)

We established a design and engineering services partnership (DESP) panel to improve project delivery through a collaborative approach to design and engineering services that focuses on efficiency, innovation, and value.

The DESP delivers value across the project lifecycle by examining total costs, evaluating quality, fostering innovation, managing risks, and considering environmental and social impacts. This comprehensive approach ensures that investments in this area of service maximise returns and support our strategic priorities. Objectives of the partnership target procurement efficiency, increased work output, consistent high-quality results, and a strengthened culture of collaboration and transparency.

Construction services panel (CSP)

Activity across the construction market continues to increase, and access to resources remains challenging. We established the construction services panel (CSP) to support our capability to deliver major infrastructure projects. This panel was conceived knowing market activity was projected to increase with a growing investment in public infrastructure across NSW. This panel arrangement has also proven to provide resilience to market volatility, labour constraints and supply chain challenges.

The key objective of the panel is to ensure our work remains a priority for these contractors. Practices such as providing insights into the timing of forward works and negotiating fair and balanced risk positions on contracts has encouraged a strong level of competitive tension during tendering activities and across the select number of contractors on the panel. There are currently five members of the CSP.

Repeatedly working with the same contractors has also led to improved internal delivery efficiencies for both parties and created an environment which encourages respectful challenge and innovative thinking.

Plumbing services panel (PSP)

There is a consistent baseline of small-scale repeatable work across our assets that is of lower complexity and is best suited to smaller, less sophisticated contractors. The plumbing services panel has been established to facilitate partnering with local contractors that can offer ongoing efficiencies when delivering scalable, low complexity work. This work covers routine replacements of watermains and ad-hoc non-urgent repair works.

By providing a consistent baseload of work through this panel, selected contractors can mobilise skilled resources that can work effectively and consistently through agreed rates that provide price certainty for our us and our customers.

Data insights panel (DIP)

We created a data insights resourcing panel in mid-2024. The panel will support our data insights improvement program by providing the necessary skills and flexibility to improve continuous delivery of data automation and digitisation projects and programs of work.

The benefits of the panel include access to specialist skillsets like data science and artificial intelligence, competitive costs through negotiated pricing, and more efficient cost management. Vendors can scale resources quickly, reducing project costs, while ensuring continuous delivery through service level agreements. The model minimises management overhead and risk by linking vendor performance to contractual obligations and shifting knowledge transfer and training responsibilities to the vendors.

4.2.2 Mature processes support project delivery

Our corporate investment portfolio oversees the ongoing monitoring and prioritisation of investments

Our corporate investment portfolio (CIP) supports project management and delivery capability. The CIP monitors portfolio health and prioritisation of investments with both senior management and Board involvement and oversight. Through the CIP, we have improved our investment governance and assurance, and built greater confidence in our decision-making for an expanding portfolio.

The CIP enables dynamic project prioritisation to accommodate new risk or performance information, cost changes, timing delays, and adaptability as relative priorities change. The CIP monitors and reports on performance and benefits realisation. It provides governance, improves decision-making, fosters transparency and ensures that investments deliver value and are aligned to our strategic objectives.

Our asset management framework

Our asset management system (AMS) is certified (to ISO55001:2014), and supports improved governance, accountability and risk management. The AMS provides the framework to optimally manage asset lifecycles to achieve agreed outcomes for customers, the environment and the community.

We participate in a 5-yearly WSAA asset management customer-value benchmarking program and have done so since 2004. We seek to continually improve our practices, particularly as the industry rapidly moves towards recognition of the integral nature of asset management with that of service delivery, health and safety, environmental benefits, the circular economy, customer value, and higher service standards.

ISO 55001 accreditation supports project delivery

Our Asset Management System (AMS) has been certified since 2018. The scope of our AMS includes both physical assets and asset lifecycle processes required to provide customers with water, wastewater, recycled water and stormwater services. Assets covered by the AMS include raw water, treatment, water network, wastewater network, recycled water, stormwater, electrical and telemetry and SCADA.

The asset lifecycle processes include the functions and activities required to effectively manage the full lifecycle (including planning and operation) from identification to disposal, which includes service planning, asset planning, asset creation, asset operation, asset maintenance and portfolio management.

Our asset creation framework is our process for the planning, development and delivery of capital assets. It requires stage gateways to be passed to progress through the process.

Our asset management planning processes include asset class plans that addresses how risks are identified and managed through the asset lifecycle, and how assets can be operated and maintained to achieve organisational objectives, at an agreed cost, while delivering the required level of service. Asset class management involves both planning and implementing required activities, including operation, maintenance, renewal, and disposal.

We have a robust gateway approval process for governing investments

Our gateway process is a modified version of the NSW Treasury process and has matured over sixteen years since it was first implemented in 2008. Each gate represents a key milestone in an investment's lifecycle, whereby key information and decisions are documented, reviewed, and approved before the investment can continue. The gates ensure an investment remains prudent and is implemented efficiently. Certainty increases as an investment progresses through its lifecycle – the gates ensure we continually refine outcomes, risks, options, costs, and timing as new information becomes available.

Strategic procurement

Our procurement approach is customised for each project and plays a critical role in supporting project delivery. Strategic procurement includes optimising our sourcing activities, engaging the right suppliers, and establishing fit-for-purpose contracting arrangements that align with strategic priorities. This approach ensures the efficient and effective delivery of objectives while achieving long-term value. Examples include:

- **Consolidation of existing work** to reduce internal administration through standardised engagement with suppliers, reduced overheads and sustaining long-term supplier relationships.
- **Project bundling** to reduce overheads, increase quality outcomes and provides certainty and consistency of resources in constrained environments. particularly for infrastructure projects.
- **Leveraging existing arrangements**, including NSW whole-of-Government contracts, provides access to volume pricing efficiencies, and reducing internal administration burden.
- **Implementing early tenderer involvement** to develop productive supplier relationships through competition, increased design innovation and whole-of-life efficiencies.
- **Sustainable procurement** which enables compliance with legal and regulatory frameworks (for example: the Modern Slavery Act) and contributes to a more sustainable supply chain.

Our centralised procurement model supports these strategic procurement initiatives by focusing on value-for-money outcomes through dedicated procurement, commercial, and supply chain functions.

This model enables the organisation to form long-term partnerships, establish competitive panel arrangements, and collaborate with outsourced partners to enhance resilience, operational efficiency, and quality. We provided examples of these key partnerships in Section 4.2.1.

Strategic procurement supports delivery of the Belmont desalination plant project

The Belmont desalination plant project is a strategically significant investment for the Hunter.

Following a competitive tender approach, we have entered a bespoke contracting model with John Holland. The contract model was developed to be flexible to align with the delivery principles and value for money at each phase through a structured governance approach. Senior management is providing direction through a monthly steering committee and the Board is providing oversight through a Treatment Operations and Desalination Committee.

Assurance is provided by internal and external subject matter experts, including rigorous review of the contract price and the processes for 160 competitively quoted packages of work. Critical subcontractor arrangements are in place with back-to back commercial arrangements.

The contract includes mechanisms for a phased approach to delivery and has been designed to incorporate whole-of-life cost and operational principles through an incentivised performance arrangement.

A target outturn cost approach, including a risk and reward regime incentivises John Holland's performance throughout design and construction of the plant. Optimising whole-of-life cost and operational effectiveness, the contract includes a two-year performance guarantee period that commences following construction – Hunter Water partnering with John Holland to prove the optimal performance of the plant through seasonal changes and different operating levels.

4.2.3 We have a strong history of delivering

We have a long-standing track record of delivering capital projects, earning credibility with both customers and stakeholders by meeting our investment and outcome commitments.

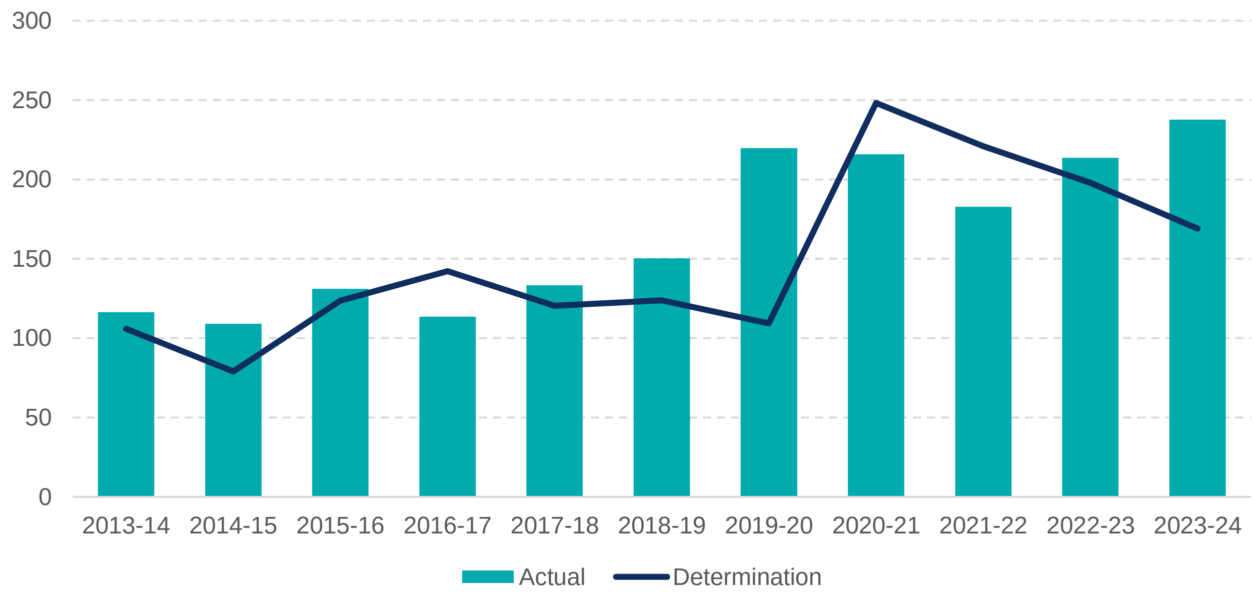
In the current pricing period, we have delivered our capital investment to within 2 per cent of the determination allowance, despite challenges including the unprecedented COVID-19 pandemic, international market and supply chain disruptions, and La Niña wet weather events. This is further discussed in Section 4.7.

This is consistent with our historical performance which reflects our organisational culture and commitment to delivering high performance outcomes, while minimising customer's bills. We ensure that costs passed on to customers are only for fully validated, prudent and efficient investments.

Figure 4.4 presents a comparison of our actual expenditure against the determination allowances over three pricing periods. Over the past decade we have exceeded our allowance by a total of $183 million: 16 per cent above for 2013-16, 24 per cent above for 2016-20, and 2 per cent above for 2020-24.

Our strong historical performance demonstrates that our delivery structures, processes and people have been successful. This track record provides credibility and confidence that we have the processes in place to deliver the proposed prioritised and targeted investment outcomes.

Figure 4.4: Actual expenditure against our determination allowance



Source: Hunter Water analysis

4.2.4 The Belmont desalination project is underway

We have made significant progress on the Belmont desalination project. The planning process has involved extensive technical, community and governance assessments including finalising the design, gaining independent business case endorsement from Infrastructure NSW, environmental evaluations and approvals, and government support.

The NSW Government has provided in principle approval for the delivery and funding of the Belmont desalination plant. The Department of Planning, Housing and Infrastructure granted planning approval in September 2024.

We have awarded the construction contract to a capable and experienced Tier 1 contractor, who has commenced delivery of the project. This progress provides confidence and certainty that the project has the capacity and capability to be delivered within the 2025-30 pricing period.

4.2.5 Investment prioritisation aligns with our strong track record of delivery through capacity and capability

Section 3.3.1 described how we carefully prioritised and deferred projects, materially reducing our proposed investment. Excluding the Belmont desalination plant, our total capital investment is similar to the current pricing period, in which we have met investment commitments.

This prioritised investment, combined with our effective market engagement, available capacity and capability and mature delivery processes, supports our confidence in our ability to deliver our proposed investment. Several additional factors further support our delivery credibility:

- We benefit from a network of local contractors who prefer to work within the region to support their workforce, ensuring competitive tenders for ongoing and new projects.
- Our capital investment (excluding the Belmont desalination plant) is a combination of small to medium scale projects to larger complex projects, which aligns well with the capabilities of our local contractors and means we do not have to compete for tier 1 contractors at a national level.
- Our investment prioritisation has identified projects of value (planned for 2030-35) which will progress to design. This allows us to manage regulatory or outcome risks, while progressing the projects to be 'shovel-ready' should the portfolio experience delays, providing continuity of work which encourages ongoing market availability. Examples include the second stage of the CTGM, additional Grahamstown water treatment plant upgrades, interim wastewater treatment upgrades or wastewater network upgrades.
- In Chapter 3, we described how we prioritised and deferred investments including replacement of the CTGM. By accepting a higher level of risk and strategically deferring less urgent work, we prioritised essential projects and will focus resources without overextending our capacity.

4.3 Capital Efficiency

While we are already an efficient business, there are always opportunities to improve. Our customers' priority to keep bills as low as possible has guided us to prioritise and include a substantial capital efficiency target.

Investment Prioritisation

In Chapter 3, we explained how we considered customer bill impacts, outcomes, and operational risks to prioritise and defer justifiable investments, resulting in a reduction in capital investment from an original $2.1 billion to $1.55 billion. This implies a capital efficiency of 26 per cent.

While this high-level capital efficiency is not included in our proposed capital investment, it remains a substantial investment efficiency embedded in our proposal which demonstrates our commitment to customer affordability.

Capital efficiency target

We have reviewed our processes and are confident of achieving capital efficiencies through 2025-30 – we propose a further $41.2 million capital efficiency reduction in our prioritised proposal.

We have developed a cost efficiency strategy (Attachment M). This is our plan to identify, deliver, monitor and be held accountable for being efficient throughout the upcoming pricing period.

Our capital expenditure savings target phases in line with each products' capital project delivery schedule. The application of a 1.0 per cent per year compounding efficiency factor on capital expenditure is problematic given the 'lumpy' nature of capital works. The target of $41.2 million capital expenditure efficiencies over the five-year period has been identified in alignment with the compounding efficiency.

We've identified an initial set of cost efficiency initiatives to pursue over the 2025-30 pricing period. This is to:

- inform the suitability and achievability of our overall target
- provide initial focus areas for the business
- demonstrate our commitment to delivering on our cost efficiency strategy.

These initial opportunities represent possible efficiency savings that could be realised over the 2025-30 period, subject to further investigation. In addition to these flagged initiatives, our cost efficiency framework will assist us to identify and deliver further initiatives throughout the 2025-30 pricing period to meet our 1 per cent target. The source of opportunities for capital expenditure are summarised below.

Project delivery

Over the 2025-30 pricing period, we will investigate the scope to achieve further project delivery efficiencies through, for example:

- Bundled and consolidated packages of work across the delivery of design, engineering, infrastructure and maintenance services. Bundling and consolidating will create opportunities to improve resilience in supply chains and delivery, optimise co-location efficiencies, retain contracted resources, consolidate corporate overheads and improve competition between suppliers.
- Continued early contractor involvement and early tenderer involvement, to drive further efficiencies in the construction and operation phases.
- Greater use of performance-based contract models, with key performance indicators, to improve value for money.
- Leveraging NSW Government contracts, as with Hunter Water's recent change to the NSW Government banking and financial services agreement.

Our estimated cost savings in 2025-30 are based on actual project delivery savings achieved through the current pricing period.

Planning and decision-making

Planning and decision-making efficiencies are achieved through the planning and business case preparation process. Actual system performance is collected and validated, changes in investment drivers are reviewed (e.g. regulatory, weather, climate), growth in new development is validated against available capacity, historical solutions are challenged, and innovative/targeted solutions are explored. We have quantified planning and decision-making efficiencies at $8 million.

Digital

We are building our digital capabilities to transform the way we work.

Smart Systems are planned to return capital expenditure efficiencies of $6 million through improved automation and instrumentation. This technology has the potential to increase the available capacity of our assets and allow growth to be served without expensive plant upgrades. It also has the potential to raise early awareness of asset leaks, triggering earlier maintenance to prevent larger and more expensive pipe replacements.

These efficiency initiatives are guided and supported by our robust investment decision and capital delivery governance, processes and procedures which we present in Section 4.2.2.

In Table 4.4, we summarise our capital efficiency target, by product.

Table 4.4: Capital expenditure efficiency targets ($million, $2024-25)

Product	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Water	6.3	6.0	4.7	4.1	3.0	**24.1**
Wastewater	1.3	1.7	2.8	3.4	4.4	**13.6**
Corporate	0.4	0.4	0.6	0.6	0.7	**2.6**
Stormwater	0.2	0.1	0.2	0.2	0.2	**0.9**
Total	**8.2**	**8.2**	**8.2**	**8.2**	**8.2**	**41.2**

Source: Hunter Water AIR/SIR, 'CAPEX 2a – rows: 197 to 218

4.4 Major projects and programs 2025-35

Table 4.5 outlines the major projects and programs we will start or deliver during the 2025-35 period. Major projects combined account for 57 per cent of total expenditure in 2025-30 and 54 per cent in 2030-35.

Table 4.5: Proposed major projects and programs across 2025-35 ($million, $2024-25)

Project	Project Overview and Benefits	Scheduled Completion	Capital Cost 2025-30	Capital Cost 2030-35	Total Project Cost 2020-40
Belmont desalination plant (LHWSP)	Design and construction of a new 30 million litre per day (30ML/day) desalination plant to provide a rainfall independent water supply that improves our regions resilience to drought.	2028	$460m (nominal) (30.8%)	-	$530m (nominal)
Burwood Beach WWTW upgrade stage 3	To cater for growth and ongoing asset deterioration, we are upgrading the screening and biological systems at Burwood Beach WWTWs.	2031	$70m (4.5%)	$18m (1.1%)	$93m
Grahamstown WTP – clear water tank (CWT)	Grahamstown WTP provides 60% of the drinking water to the region. The current CWT cannot sufficiently disinfect pathogens and toxins in peak, future demand scenarios. To cater for future growth, we are investing in a new CWT and the refurbishment of the existing asset to reduce the likelihood of a failure resulting in customer demand not being met.	2031	$64m (4.1%)	$4m (0.3%)	$69m
Burwood Beach WWTW sludge upgrade	We are upgrading Burwood Beach WWTW to cease waste activated sludge discharge via an ocean outfall. These works are required to meet licencing requirement of the EPA to cease all ocean discharges.	2033	$60m (3.9%)	$122m (7.4%)	$182m
CTGM replacement (Brookfield to Burmi)	We are planning to replace a 12km section of the CTGM between Brookfield Tunnel and Burmi Creek. These works will reduce leaks, improve safety for workers, and help maintain a consistent supply of water to the region.	Part 1 2029 Part 2 2033	$56m (3.5%)	$63 (3.8%)	$121m
Morpeth wastewater treatment upgrade stage 4	We are upgrading existing inlet works and constructing a biological nutrient removal (BNR) bioreactor. This upgrade helps cater for future growth in the catchment and ensures our wastewater treatment processes protect our natural environment. (additional commentary – Hunter River Estuary Wastewater Masterplan (HREMP) will further ensure discharge concentration limits from the EPL load limits and EIS targets to 2050).	2033	$35m (2.3%)	$57m (3.5%)	$94m
Grahamstown stage 2 filter refurbishment	Replacement of end-of-life treatment filters to ensure high quality water to our customers	2029	$28m (1.8%)	-	$30m
Belmont WWTW H_2S	Belmont WWTW is our second largest treatment plant and collects wastewater from 54 wastewater pumping stations, servicing over 35,000 properties. These works reduce the unsafe levels of hydrogen sulphide (H2S) around the inlet works, to ensure worker and contractors.	2027	$21m (1.4%)	-	$26m
Grahamstown Dam safety works	While we are doing future works on Grahamstown Dam, we are putting in place preventative measures in the form of wall protection works to keep our community safe.	Part 1 2035 Part 2 2040	$20m (1.3%)	$103m (6.3%)	$450m
Chichester Dam safety works	Similar to Grahamstown Dam, future upgrades are planned at Chichester, but interim stability upgrades are planned to mitigate any risks to the community and environment.	2035	$15m (1.0%)	$180m (11%)	$195m
Centralised biosolids	We are investigating a centralised biosolids treatment approach to reduce whole of life biosolid treatment costs and meet population growth demand across our asset base.	2038	$2m	$180m (11%)	$308m
Raymond Terrace WWTW stage 4 upgrade	Future works are planned at Raymond Terrace WWTW to accommodate for future growth.	2037	-	$100m (6.1%)	$113m
Kurri Kurri WWTW upgrade	Future works are planned at Kurri Kurri WWTW to accommodate for future growth.	2030	-	$62m (3.8%)	$66m

Source: Derived from Hunter Water AIR/SIR, 'SIR CAPEX 2a' and Hunter Water Analysis Hunter Water Analysis

4.5 Capital investment will need to continue at a similar level in 2030-35

Our investment planning takes a longer-term view and we have identified the capital investment required to comply with regulatory requirements out to 2035. We revisit our 10-year expenditure forecast annually and expect to adapt as an uncertain future becomes clearer.

Table 4.6 shows our forecast capital expenditure in 2030-35, by product. Most of the investment will be in wastewater because of major investments required to manage biosolids, and upgrade wastewater treatment plants to ensure ongoing protection of the environment. There are additional increases in water expenditure to address dam safety issues at Grahamstown and Chichester.

Table 4.6: Forecast capital expenditure in 2030-2035 by product ($million, $2024-25)

Product	2030-31	2031-32	2032-33	2033-34	2034-35	Total
Water	48.9	133.1	195.1	168.0	130.7	**675.8**
Wastewater	134.8	145.1	194.5	192.0	176.4	**843.0**
Stormwater	6.8	6.8	9.8	8.7	6.6	**38.7**
Corporate	16.7	15.2	18.4	19.8	18.3	**88.5**
Total	**207.2**	**300.2**	**417.8**	**388.6**	**332.0**	**1645.9**

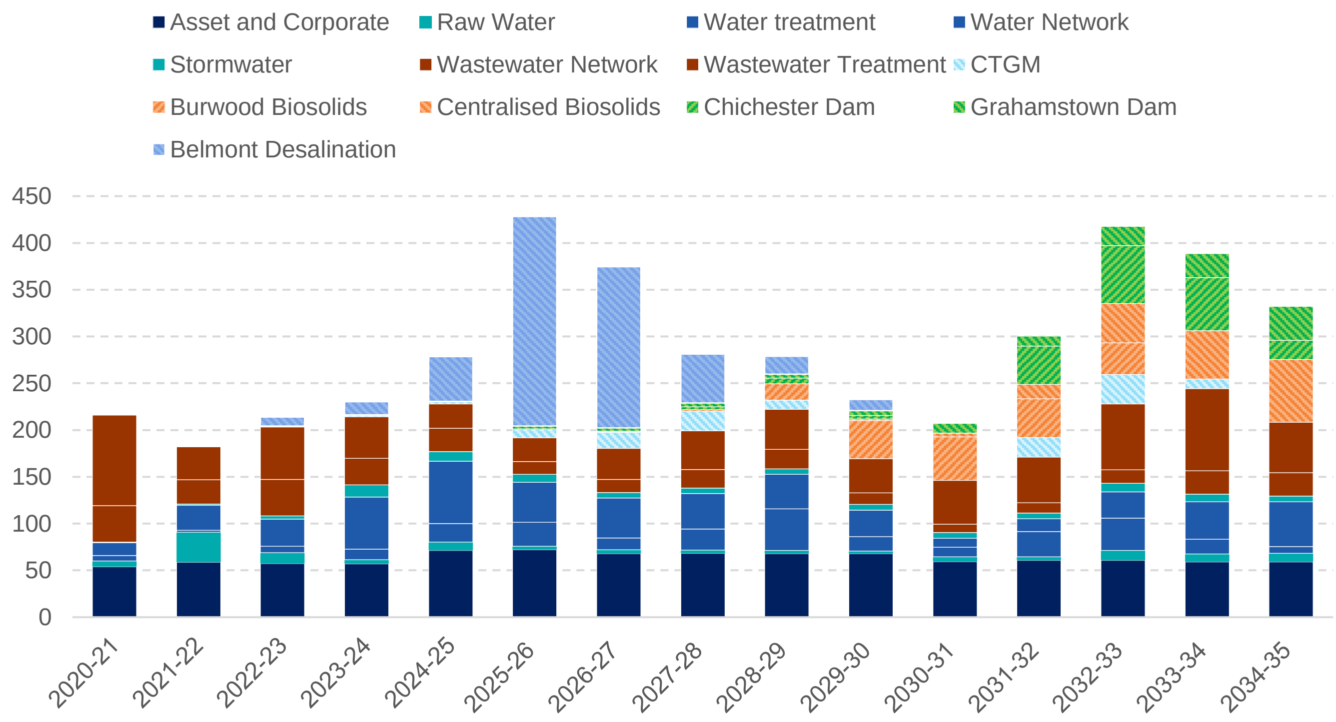
Source: Hunter Water AIR/SIR, 'SIR CAPEX 2a', rows: 65, 72, 79 and 86

Figure 4.5 shows a 15-year view of capital expenditure. It shows the 2025-35 period is dominated by the need to address important strategic risks relating to water security, biosolids management and dam safety:

- **Water security** – Delivery of the Belmont desalination plant.
- **Biosolids management** – Stopping the discharge of waste-activated sludge to ocean at Burwood Beach wastewater treatment plant and delivering a long-term solution that manages existing and future biosolids risks across many of wastewater treatment plants.
- **Dam safety –** protecting the community by addressing dam safety risks at Chichester Dam and Grahamstown Dam.

If not for these major challenges, the ongoing level of expenditure would be broadly consistent throughout the 2020 to 2035 period.

Figure 4.5: Long-term capital investment profile - 2020-2035 ($million, $2024-25)



Source: Hunter Water AIR/SIR, 'SIR CAPEX by Outcome' and Hunter Water Analysis

In the 2030-35 pricing period, we must also invest in major projects to finish the renewal of the critical CTGM water pipeline, and meet existing EPL requirements at Kurri Kurri, Morpeth and Raymond Terrace wastewater treatment plants.

The number and scale of major investments required mean the prioritisation challenge extends into the subsequent pricing period (2030-35). We have prioritised and deferred expenditure to propose what we consider is a realistic and balanced investment position for that period.

Notably, the 2030-35 period does not include investment for the Paterson River Connection to the Lostock Dam to Glennies Creek Dam pipeline scheme. This project was identified in the LHWSP as the next required source augmentation after Belmont desalination plant but is still in the planning phase. We have not included this in the outlook due to uncertainty about the project's timing, potential funding constraints, and impact on customer's bills.

The investment proposed for 2030-35 only includes a relatively small allowance to plan and address safety risks at Grahamstown Dam. The cost and timing of the total required expenditure is uncertain. Further planning and technical investigations are needed to properly evaluate investment options and understand the appropriate timing of the works.

The scale of investment needed in 2030-35 shows that there are no easy answers for reducing bills for customers in the current period. Potential regulatory mechanisms to defer cost recovery may exacerbate future challenges and defer problems for future generations to deal with.

4.6 Opportunities and vulnerabilities that our capital investment could be higher or lower than forecast

Our proposed capital investment for 2025-35 is underpinned by robust investment planning. However, there is inherent uncertainty in asset management and planning. We have strong and demonstrated processes in place to adapt our plans, defer or bring-forward expenditure where appropriate, respond to a changing external environment, or modify the assumptions underpinning our investments as new information comes to hand.

There are both opportunities and vulnerabilities relating to our proposed 10-year capital investment (2025-35). Opportunities include improved understanding of asset condition, lower regional growth, improved integrated planning, and delivery and transformational outcomes from the digital utility initiatives.

Vulnerabilities include climate change, emerging contaminants (e.g. PFAS and microplastics), changing community expectations, assets deteriorating faster than forecast, tighter regulation (in particular, environmental and water quality), third party impacts, and increased growth.

There are four key vulnerabilities that could result in the need for higher investment.

Regional development

Population and dwelling growth may be higher, and/or occur in different areas, than forecast – necessitating increased investment in water and wastewater capacity.

Increased asset renewals

Our asset fleet has a gross replacement cost of over $9 billion, which is distributed across a wide area and is composed of varying ages, construction standards, deterioration, conditions and performance. These assets are vulnerable to increased ageing and deterioration and may require increased investment should service outcome performance not be able to be maintained through the proposed targeted renewals, maintenance, and innovative monitoring.

Asset safety

A proposed change in Australian Standards for hydrogen sulphide has encouraged significant industry involvement due to the material increase in investment that may be required to meet the revised standards. While the revised standard may still proceed, industry expectations are that there will be substantial evaluations to understand community benefit before implementation.

External market forces

In addition to specific project vulnerabilities, the international and national economy has incurred major shocks over the past three years, including COVID-19, supply chain interruptions, and geopolitical conflict. These shocks have seen high inflation above forecast (including price escalation in fuel, energy, and materials), resource constraints, and risk-averse contractors, which, when combined, are impacting project budgets and delivery schedules. We expect these challenges may continue to impact the economy for at least the next 12-24 months, and potentially beyond.

4.7 Actual capital expenditure in the current period (2020-24) was consistent with IPART's allowance

IPART's 2020 determination of our prices set capital expenditure allowances for the period 1 July 2020 to 30 June 2024. In this section we compare our actual expenditure over that period against IPART's allowance.

IPART accepted our request to extend the current pricing period by one year, deferring their review of our prices. This resulted in there being no capital expenditure allowance set for 2024-25. We explain our 2024-25 capital expenditure in Section 4.8.

Table 4.7 and Figure 4.6 compares our actual expenditure to IPART's allowance. Over the period, actual expenditure closely matches with the determination allowance. Influenced by the COVID-19 pandemic, international political events impacting supply chains, wet weather and construction market conditions, actual expenditure was significantly below IPART's allowance in 2020-21 and 2021-22. As these external factors eased, expenditure was higher than allowance in 2022-23 and 2023-24.

Despite market cost escalations arising in the 2020-24 period, we have managed the growing costs of infrastructure projects by implementing value engineering assessments, optimising our procurement solutions, reprioritising expenditure where appropriate, and implementing innovative solutions.

Table 4.7: Actual expenditure vs IPART determination for 2020-24 ($million, $2024-25)

	2020-21	2021-22	2022-23	2023-24	Total
Determination ($m)	248.2	220.9	198.0	169.1	**836.1**
Actual ($m)	215.9	182.7	213.7	237.7	**850.1**
Difference ($m)	**(32.3)**	**(38.2)**	**15.7**	**68.6**	**14.0**
Difference (%)	**(13%)**	**(17%)**	**8%**	**41%**	**1.7%**

Source: Hunter Water AIR/SIR, 'AIR CAPEX' – row 121

Figure 4.6: Actual expenditure vs IPART determination for 2020-24 ($million, $2024-25)

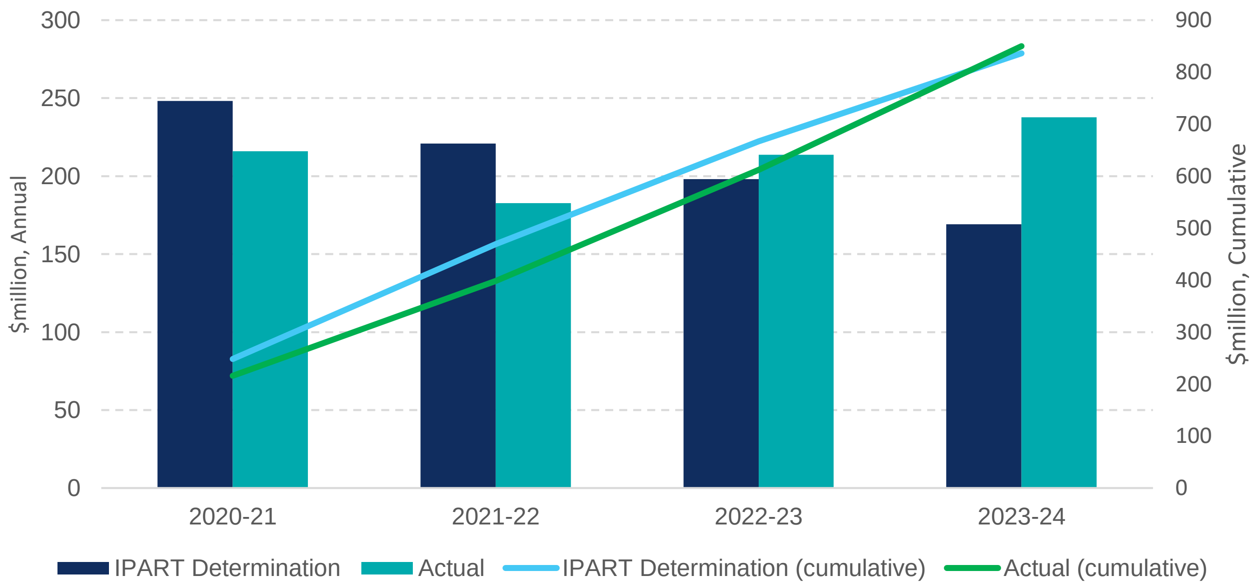


Table 4.8 shows our actual expenditure over the current pricing period.

Table 4.8: Actual capital expenditure 2020-24 by product ($million, $2024-25)

Product	2020-21	2021-22	2022-23	2023-24	Total Actual	Total Determination
Water	34.4	73.5	74.6	115.1	**297.5**	**243.6**
Wastewater	149.1	83.1	110.4	86.9	**429.6**	**432.6**
Stormwater	1.3	1.9	5.2	14.4	**22.8**	**20.9**
Corporate	31.1	24.3	23.5	21.3	**100.1**	**139.0**
Total	215.9	182.7	213.7	237.7	**850.1**	**836.1**

Source: Hunter Water AIR/SIR, 'AIR CAPEX' – rows: 117, 118, 119 and 120 and Hunter Water AIR/SIR, 'Determination' – rows 65, 66, 67 and 68

Investment in water was 22 per cent higher than IPART's allowance due to commencement of the Belmont desalination project. Investment in wastewater (0.7 per cent lower) and stormwater (9 per cent higher) are consistent with IPART's allowance. Corporate investment was 28 per cent lower than IPART's allowance due to lower expenditure on digital infrastructure, digital transformation, renewable energy, and upgrades at our maintenance depots.

Total actual expenditure for the period is similar to IPART's allowance, however, the composition of individual projects delivered during the period was different than previously forecast. The key differences include:

- $42 million of new projects including an upgrade of the Belmont wastewater treatment plant, our geographic information system, and a new program to replace diffusers at our wastewater treatment plants.
- $27 million relating on the LHWSP implementation, namely Belmont desalination
- major and minor variances in expenditure on individual projects.

We are a dynamic business that adapts plans during the pricing period as new information comes to hand. This may be due to updated asset condition assessments, updated cost estimates, operational incidents, unforeseen events, increasing risks, identification of innovative options, or further planning and investigations. We manage our portfolio in a way that ensures we can prudently and efficiently respond to emerging priorities and address challenges that may not have been forecast or prioritised when making our pricing proposal.

All investments go through our robust gateway approval, asset creation, procurement and prioritisation processes to ensure they are well tested and deliver value for money.

4.8 Capital expenditure in 2024-25 was higher due to commencing the Belmont desalination plant

4.8.1 Expenditure in 2024-25 compared to 2020 to 2024

In November 2021, IPART approved extension of the 2020-24 pricing period by one year, to 2024-25. No capital expenditure allowance was set for 2024-25 and we seek to include our planned expenditure for 2024-25 in the RAB for the upcoming pricing period.

We propose to spend $266.8 million in 2024-25 (see Table 4.9). For comparison, this is about $54 million higher than our average actual expenditure over the first four years of the pricing period (2020-24). The primary driver for the higher expenditure in 2024-25 is commencing delivery of the Belmont desalination plant. This, and other minor spend on LHWSP, account for $48.2m (89 per cent) of the total difference.

Table 4.9: Proposed capital expenditure for 2024-25 compared to average annual capital expenditure in the 2020-24 period, by product ($million, $2024-25)

Product	Average annual expenditure 2020 to 24	Proposed expenditure for 2024-25	Change ($)	Change (%)
Water	74.4	155.4	81.0	109.0%
Wastewater	107.4	61.5	(45.9)	(42.7%)
Stormwater	5.7	12.3	6.6	115.5%
Corporate	25.0	37.6	12.6	50.2%
Total	**212.5**	**266.8**	**54.3**	**25.6%**

Source: Hunter Water AIR/SIR, ‘AIR CAPEX – rows: 40, 69, 96 and 110

4.8.2 Key investments in 2024-25

Table 4.10 provides a summary of the key investments in 2024-25, ranked by expenditure.

Table 4.10: Capital expenditure for key investments in 2024-25 ($m, $2024-25)

Key investments	Outcome	$ capital expenditure in 2024-25 (% of total)
Belmont desalination plant (30 ML/d)	Water security	47.6 (18%)
Wallsend 2 stormflow pump station and rising main	Environmentally sustainable	10.9 (4%)
Tomago depot building renewal	Business enabling	10.2 (4%)
Harpers Hill reservoir renewal	Reliable water services	9.2 (3%)
Grahamstown UV upgrade project	Clean safe water	8.1 (3%)
Tomago WTP chlorination upgrade	Clean safe water	7.9 (3%)
Cameron Park WD high-level system	Reliable water services	7.6 (3%)
Stormwater major rehabilitation and renewal program	Safety, health, and wellbeing	7.2 (3%)
Arcadia Vale and Morisset reservoir renewal	Reliable water services	6.8 (3%)
Trunk main management - Louth Park	Reliable water services	5.7 (2%)
Other projects and programs (individually <$5m)	Various	101.1 (38%)
Provisions	Various	49.0 (18%)
Program efficiency	N/A	- 4.5 (- 2%)
Total		**266.8 (100%)**

Source: Hunter Water Analysis

Attachments related to this chapter

Attachment E – Additional detail on drivers of investment

Attachment K –Discretionary expenditure in the current pricing period

Attachment M – Cost efficiency strategy 2025-30

5 Operating expenditure

Key points

- Benchmarking shows that we have historically, and continue to be, one of the lowest cost service providers of all major Australian water utilities. We are projecting that operating costs per property will decline even further over the upcoming pricing period.
- We have driven substantial efficiencies over the current period, particularly in maintenance delivery and energy use. This has helped offset a variety of cost pressures.
- Our operating expenditure was lower than the determination in the first few years of the current pricing period due to the impact of the COVID-19 pandemic; the temporary, lagged effect of sharply rising inflation; wage indexation lower than pricing indexation across the pricing period; and the achievement of cost efficiencies.
- Actual expenditure in 2023-24 (the 'base-year') was higher than the years preceding it due to non-recurrent expenditure for major digital projects; the procurement of a new market-tendered treatment operations contract; a significant investigative study into dam safety risks; and the preparation of this pricing proposal including additional customer and community engagement.
- Total proposed operating expenditure in the upcoming pricing period is $978.8 million, an average of $195.8 million per year.[1] This is 1.6 per cent higher than IPART's average allowance for the current period. Operating expenditure is increasing in the upcoming pricing period due to:
  - **a growing customer base:** supporting dwelling growth of 1.3 per cent per year [2]
  - **upward market pricing pressures**: above-CPI market price trends for electricity, chemicals and fuel excise, treatment operations and recently market tendered maintenance contracts
  - **digital technology:** an escalating need to improve the security of our critical infrastructure and manage cyber and data security as threats become increasingly sophisticated and prevalent. Our projections also reflect the ongoing shift from on-premises digital platforms (capital expenditure) to software-as-a-service, cloud-hosted solutions (operating expenditure), in line with recent changes to interpretation of accounting standards
  - step changes in expenditure to deliver **customer outcomes** (as described in Chapter 2)
  - **water security**: investing in water conservation in line with the Economic Level of Water Conservation and the views of our community, and to test the operation of the Belmont desalination plant in the performance proving period (2028-30).
- To keep bills as low as we possibly can, we have set an ambitious cost efficiency target of 1 per cent (compounding) per year to absorb the impact of customer growth and offset cost pressures. Our cost efficiency strategy outlines a credible plan, and explains how we will be accountable, for delivering on this ambitious commitment.
- Where costs are uncertain, our approach has been to exclude these from our proposed operating expenditure. We have explicitly excluded approximately $15 million of operating expenditure ($3 million per year) over the next pricing period. We will carry several operating expenditure vulnerabilities in areas such as treatment operations (retendered contract commencing July 2025), energy network charges (new

[1] All expenditure in this chapter is 'regulated' operating expenditure and is expressed in $2024-25 – unless otherwise noted.

[2] We have used forecast dwelling growth to trend increase our operating expenditure. We have used forecast billable connection growth to set prices, as detailed in Chapter 7. 'Billable connections' differ slightly from the number of 'dwellings'. Billable connection numbers have several rules applied in their calculation to enable the calculation of service charge revenue as used in setting our proposed prices.

Ausgrid pricing from July 2024) and insurance premiums (above CPI) and intend to manage these within our proposed expenditure envelope.

- The outlook for total operating expenditure in the subsequent pricing period (2030-35) is $1,068.5 million, an average of $213.7 million per year. There are three key drivers of this increase:
  - Operating the Belmont desalination plant to improve water security for the region.
  - Replacing our end-of-life Enterprise Resource Planning (ERP) digital platform our business relies on for asset management, inventory management, procurement and accounts payable, finance, banking and general ledger, payroll and human resources functions.
  - Operating costs related to a capital upgrade of our largest wastewater treatment plant to meet the EPAs expectations to stop discharging waste-activated sludge via an ocean outfall.

5.1 Overview of proposed operating expenditure

Operating expenditure captures the day-to-day operating, maintenance and administrative costs incurred in providing our water, wastewater and stormwater services. It includes managing and maintaining water storages, treatment and distribution of water and wastewater, meter-reading, customer services, billing, planning, corporate services, digital software and licences, and NSW Government charges and fees.

Total proposed operating expenditure in the upcoming pricing period is $978.8 million; an average of $195.8 million per year – this is 1.6 per cent higher than IPART's average allowance for the current period. Table 5.1 shows projected operating expenditure by product.

Table 5.1: Operating expenditure, by product ($2024-25, $millions)

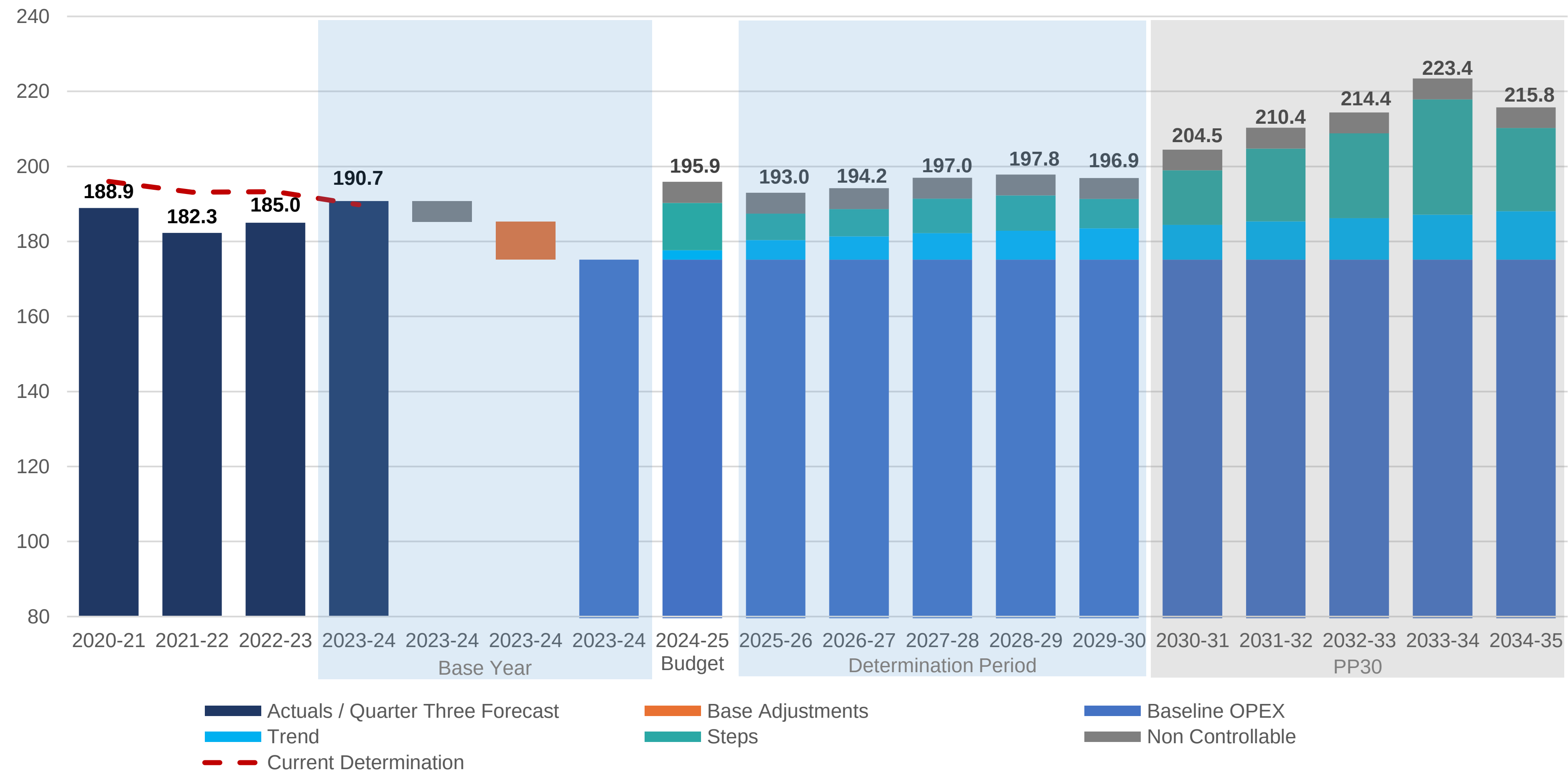
Product	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Corporate	62.0	62.7	63.6	63.1	62.7	**314.2**
Water	64.0	64.2	65.4	66.8	66.2	**326.6**
Wastewater	65.0	65.3	65.9	65.9	65.9	**328.0**
Stormwater	2.0	2.0	2.0	2.0	2.0	**10.0**
Total	**193.0**	**194.2**	**197.0**	**197.8**	**196.9**	**978.8**

Source: 'SIR Opex 2 bts' (rows 501:506)

We have used a base-step-trend methodology to prepare our operating expenditure forecast for the 2025–30 regulatory period, consistent with the approach IPART outlines in the Water Regulation Handbook. Figure 5.1 presents our total operating expenditure in the base-trend-step format, it specifically shows:

- Historical operating expenditure for the current pricing period to date (2020-21 to 2023-24) compared to the IPART-determined allowance.
- Budgeted expenditure for 2024-25 – the "deferral year" when IPART agreed to extend the current pricing determination by one-year.
- An efficient normalised base year (baseline).
- Proposed expenditure for the upcoming pricing period (2025-26 to 2029-30); including trend inputs for real cost escalators, growth in customer connections and enlargement of the network, offset by cost efficiencies; step changes in expenditures; and forecasts for non-controllable expenditure such as land taxes, rates and regulatory licences.
- An outlook for the subsequent pricing period (2030-31 to 2034-35).

Figure 5.1 Operating expenditure by year, 15-year view ($millions, $2024-25)



Source: Derived from 'Opex by item' (Table 3.2) and 'SIR Opex 2 bts' (rows 512:526)

Table 5.2 shows the base-trend-step components of the total projected operating expenditure for the upcoming pricing period.

Table 5.2: Operating expenditure, by base-trend-step component ($2024-25, $millions)

Component	2025-26	2026-27	2027-28	2028-29	2029-30	5-year total
Base	175.2	175.2	175.2	175.2	175.2	**875.9**
Trend – Growth	4.7	7.1	9.5	11.9	14.3	**47.4**
Trend – Price	4.5	4.8	4.7	4.7	4.7	**23.4**
Trend – Efficiency	(4.0)	(5.7)	(7.1)	(8.9)	(10.7)	**(36.4)**
Trend – Subtotal	5.2	6.2	7.1	7.7	8.3	**34.4**
Step changes	7.0	7.3	9.2	9.4	7.9	**40.7**
Controllable expenditure	187.4	188.6	191.4	192.2	191.3	**951.0**
Non-controllable	5.6	5.6	5.6	5.6	5.6	**27.9**
Total operating expenditure	**193.0**	**194.2**	**197.0**	**197.8**	**196.9**	**978.8**

Source: 'SIR Opex 2 bts' (rows 512:526)

5.2 Our current operating expenditure is efficient

5.2.1 Our operating expenditure benchmarks well against other water utilities

Operating cost per property (National Performance Report)

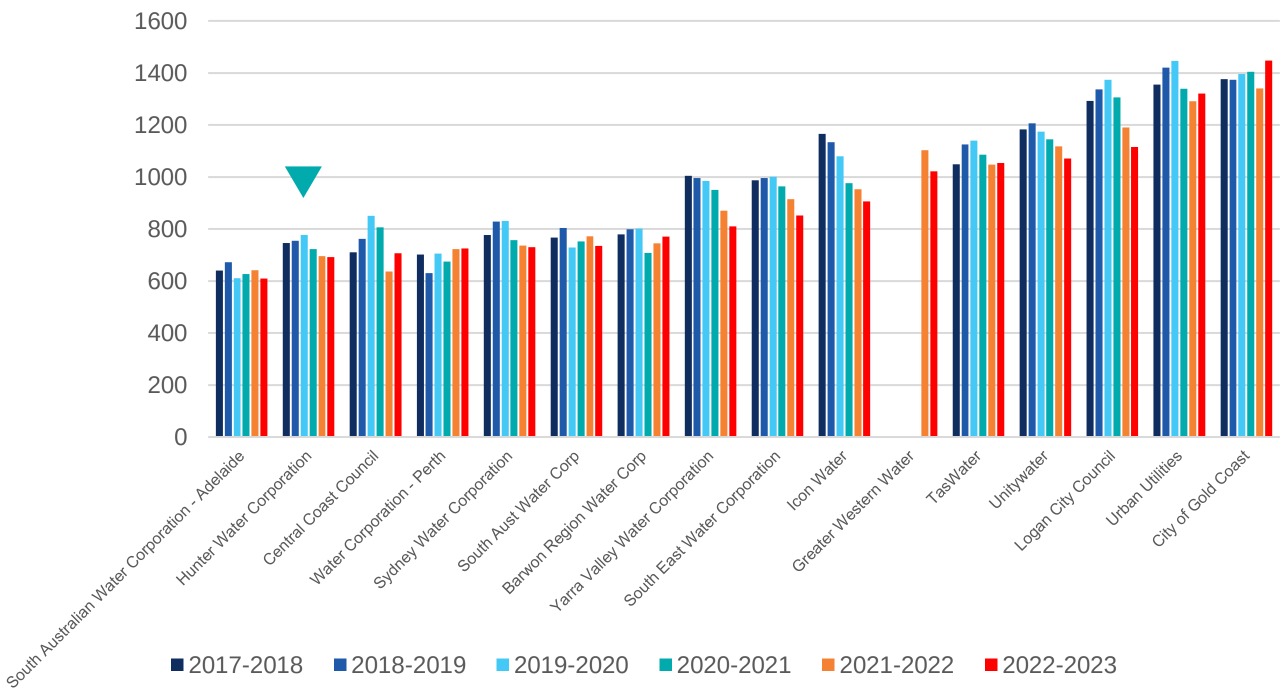
Hunter Water is one of Australia's lowest cost water utilities. For many years we have prided ourselves on having one of the lowest water and wastewater operating costs per property, as measured by the National Performance Report (NPR; indicator F13).

This performance is despite providing our services across a large geographic area of operations with low population density relative to other major metropolitan water utilities – we have longer lengths of water and wastewater main per property connection (as explained in Chapter 3).

These characteristics should result in comparatively higher operations and maintenance requirements per property than most other water utilities. However, our operating cost performance is comparable to other major NSW water utilities, and leading relative to water utilities across Australia.

The most recent published comparative NPR data is 2022-23 shown in Figure 5.2. It highlights that we continue to be a low-cost service provider. We have recently published our performance against indicator F13 for 2023-24 and while our operating cost per property has risen to $748 per property, we still expect to benchmark favourably when comparative results become available later this year.

Figure 5.2: NPR indicator F13 - combined operating cost per property comparison ($2022-23, per property)

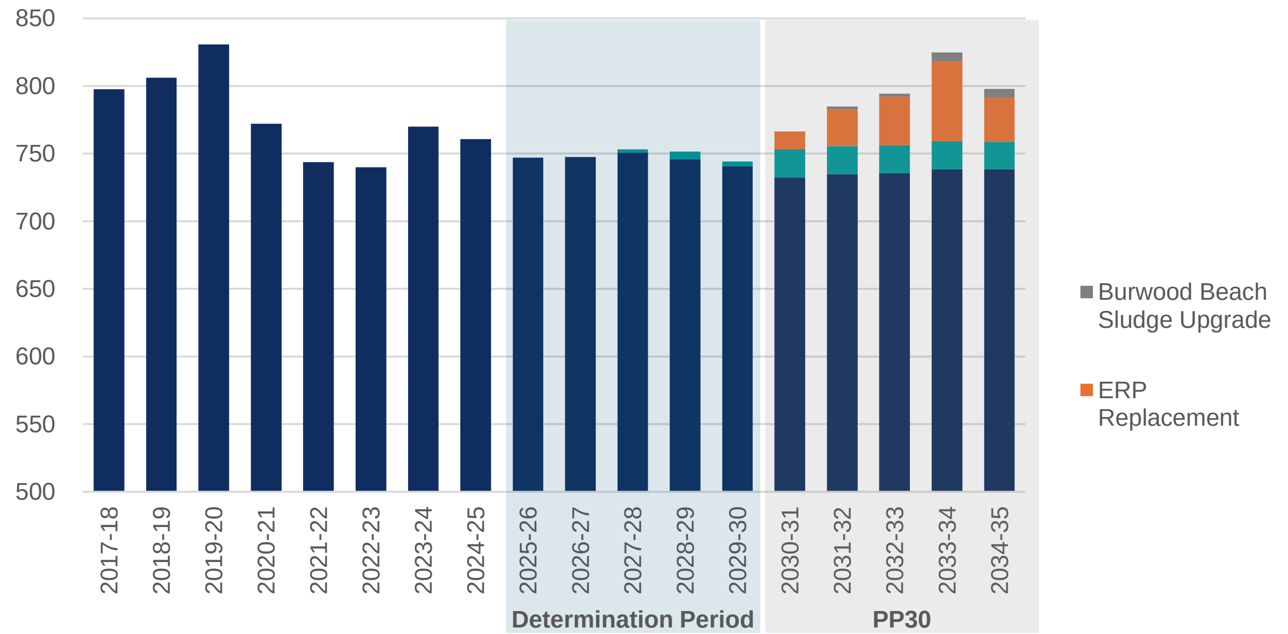


Source: Derived from National Performance Report (http://www.bom.gov.au/water/npr/)

We recognise this NPR measure is not perfect due to differences in both the extent of utilities' vertical integration and definition of connected properties. The Water Services Association of Australia (WSAA) has developed an improved measure of operating costs per property, adjusting for these shortcomings, and has indicated our comparative performance as a low-cost provider remains materially similar.

Figure 5.3 shows this combined operating cost per property measure using the forecast operating costs and dwelling growth included in our proposal. It highlights that our operating costs per property will decline over the next pricing period and shows the impact the material step changes we are projecting will have in the following pricing period.

Figure 5.3: NPR indicator FI3 - combined operating cost per property trend ($2024-25 per property)



Source: Derived from National Performance Report (http://www.bom.gov.au/water/npr/) and Hunter Water analysis

Water Services Association of Australia (WSAA) cost benchmarking

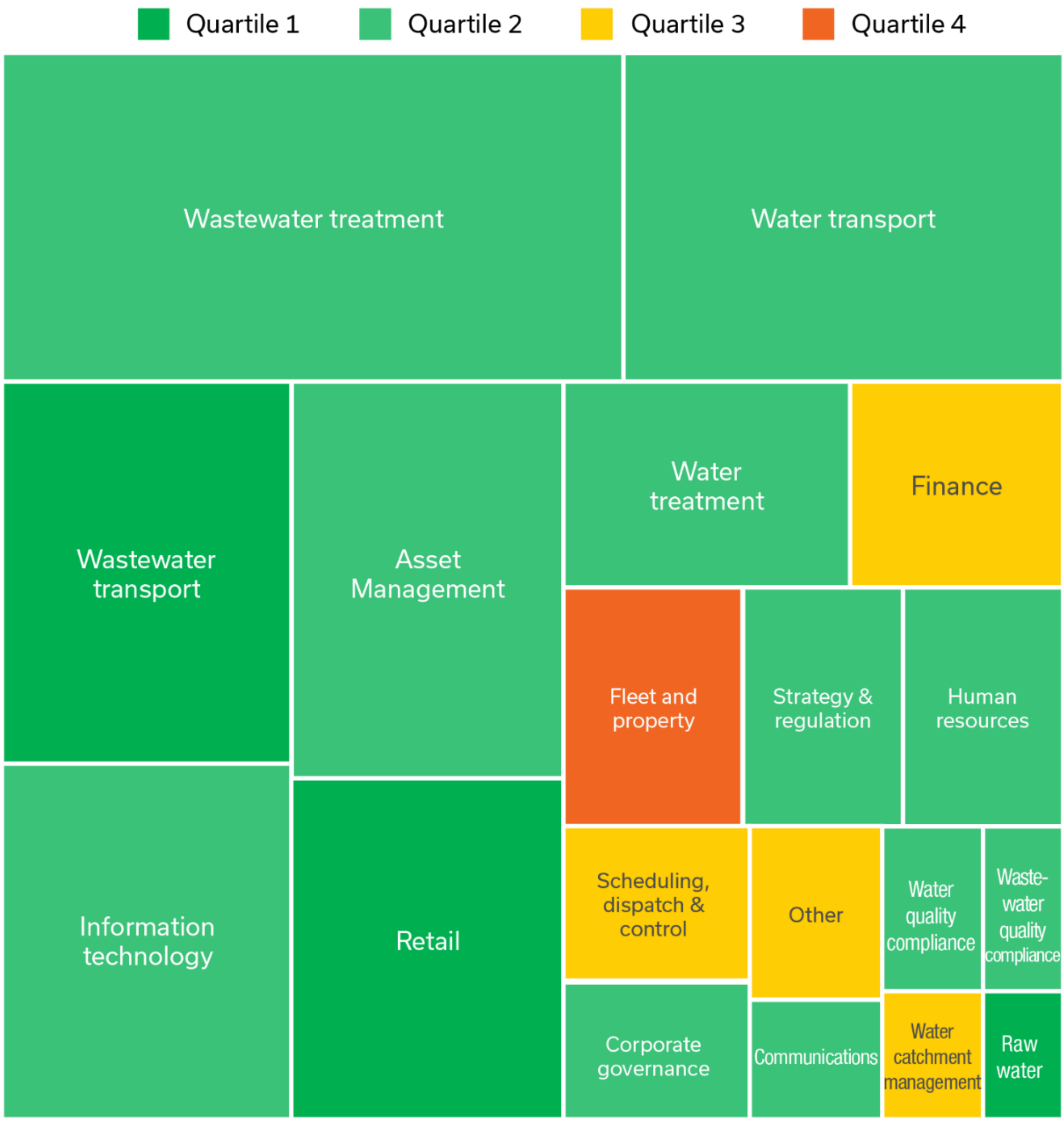
We actively participate in the WSAA cost benchmarking study. The most recent study was completed for the 2021-22 financial year. Our WSAA benchmarking comparative performance across all 19 operating expenditure categories is summarised in Figure 5.4. The size of the boxes indicates the relative size of the operating expenditure category.

The results show we are a low-cost performer in the areas that matter most:

- We rank better than median in 15 out of 19 operating expenditure categories and are in the top quartile for 4 out of 19.
- We perform strongly in most of the higher value operating expenditure categories, and the areas we perform poorest typically represent a lower proportion of our total costs.

We use the benchmarking findings to focus our efficiency initiatives and opportunities for improvement, as outlined in our cost efficiency strategy.

Figure 5.4: WSAA benchmarking performance



Source: Hunter Water analysis of WSAA Cost Benchmarking 2021-22

5.3 Performance in the current period (2020-24)

To describe our operating expenditure performance over the current regulatory period, in this section we:

- Compare our actual expenditure to IPART's 2020 determination, providing breakdowns by product (i.e. water, wastewater, stormwater and corporate) and cost category.
- Explain the drivers and reason for variances in costs over the four-year period.
- Describe some of the efficiency programs that we have undertaken.
- Establish the 'base year' (2023-24) used to project expenditure for the next price period. Noting the timing of this pricing proposal, the base year expenditure has been established with reference to our last full year forecast (quarter three reforecast) of 2023-24, as the full year of actual costs were not available until late August 2024.

5.3.1 Our total operating expenditure was 2.7 per cent lower than the IPART determined allowance

Our robust controls have seen us effectively manage our actual expenditure within the envelope set by IPART. In the current pricing period, to date we have spent $20.6 million (2.7 per cent) less than the determination envelope for the four years from 2020-21 to 2023-24, as shown in Table 5.3 and Figure 5.5.

The four-year operating expenditure envelope of $772.1 million ($618.6 million in $2019-20) was determined by IPART to be prudent and efficient, informed by detailed review by their expenditure review consultants. IPART's decision included an embedded 0.8 per cent continuing efficiency factor.

The current pricing period has been unusually disruptive and volatile – from the tail-end of extended drought, the COVID-19 pandemic, global supply chain disruption and social restrictions, materially higher than anticipated levels of inflation, and more recent extreme wet weather including an East Coast Low flooding event.

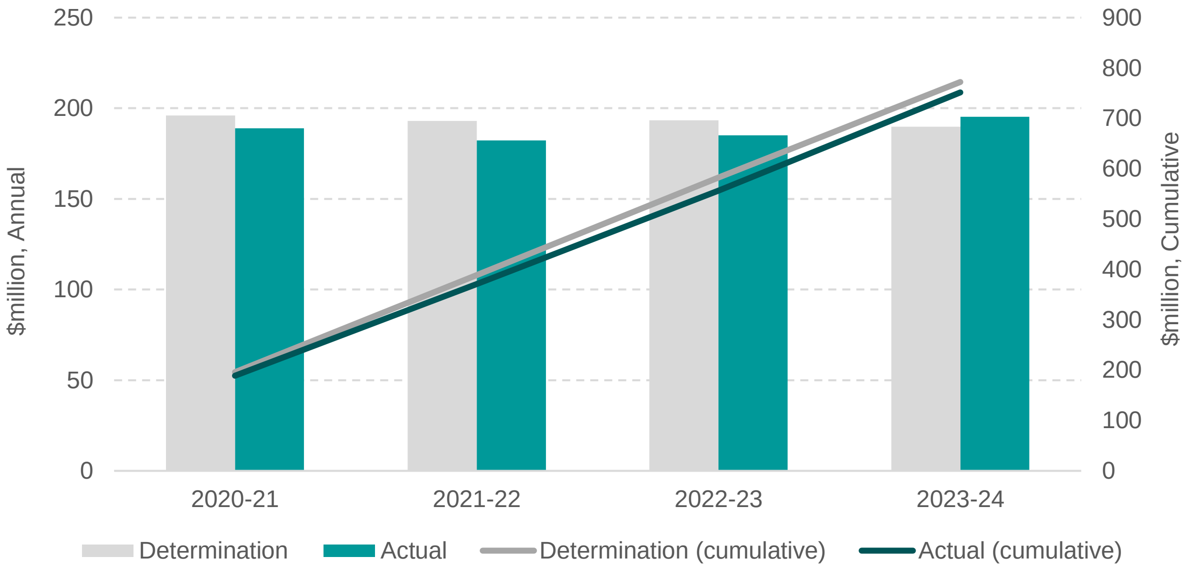
IPART's annual expenditure envelopes were based on a 'P50' or central estimate; however, each year has experienced material non-P50 events resulting in both under and overspends to the determination. Overall, the total operating expenditure across the four-year period is relatively similar to the determination.

Table 5.3: Actual operating expenditure versus IPART determination for the current pricing period ($2024-25, $millions)

	2020-21	2021-22	2022-23	2023-24	Total
Determination ($m)	196.0	193.1	193.3	189.8	**772.1**
Actual ($m)	188.9	182.3	185.0	195.3	**751.5**
Difference ($m)	**(7.1)**	**(10.8)**	**(8.2)**	**5.5**	**(20.6)**
Difference (%)	**(3.6%)**	**(5.6%)**	**(4.2%)**	**2.9%**	**(2.7%)**

Source: Determination = 'Determination' (row 33) less the drought allowance of $8.75 million in the Final Determination, escalated by 'SIR CPI' (cell D23); Actual = 'Opex by function' (row 108), escalated by 'SIR CPI' (row 24)

Figure 5.5: Actual operating expenditure vs IPART determination for the current pricing period ($million, $2024-25)



The material external factors that have contributed to the volatile actual spend pattern are explained below.

The COVID-19 global pandemic

In March 2020, the NSW Government enforced strict lockdown measures in attempts to break the chain of community transmission of COVID-19, a disease that continued to rapidly spread, globally. For Hunter Water, like all Australian businesses, the pandemic played a significant and disruptive role: it disrupted our supply chain, impacted our operations and ways of working, and in turn our level of operating expenditure.

Through 2020-22, our response to COVID-19 centred on the safety and wellbeing of our workforce, customers, and community, while ensuring continuity of our essential services. Our field staff modified their work practices to reduce the potential impact of risk posed by COVID-19 while undertaking essential operational and maintenance activities only. Preventative planned routine network and treatment plant maintenance was deferred, for the safety and wellbeing of our workforce at Hunter Water sites.

Property repairs and maintenance costs were lower than expected with lower cleaning and maintenance due to changes in the working environment, with remote, working from home arrangements, in line with COVID-safe workplace principles. Our Newcastle and regional customer support centres remained closed through to September 2021 with an appointment booking system and intercom service used for customer support.

Necessary public health measures responding to COVID-19 delayed the delivery of programs at this time, including face-to-face training, strategy studies, planning and design, and fleet replacement, with the restriction of the movement of people and materials across state and international borders. The lockdown measures also impacted our ability to fill vacant positions, access contactors and consultants, and saw an emerging trend towards flexible working arrangements including part-time employment.

COVID-19 necessitated moderate additional ICT expenditure to change how we operate and to find innovative solutions to support the continuation of remote working. We implemented new technologies to deliver more productive and efficient ways of working, such as the use of robotic process automation to streamline our invoice payment process, introduced QR codes for effective inventory management, increased the use of digital workflow forms, and improved satellite monitoring of our network. We also introduced new online collaboration platforms (MSTeams) and digitised over 34,000 paper files to soft copy.

We provided additional support to customers facing financial, physical or emotional hardship due to COVID-19 and made accessing help easier by removing the need for third party referrals to our payment assistance scheme

(PAS). This streamlined customers' ability to access support, with more than 350 customers assisted through the PAS and a further 1,500 through our account assistance support program in 2020-21. The NSW Government-funded PAS scheme remains an important part of our customer hardship offering today.

Impact of rising inflation during the period

Rapidly rising and higher than anticipated actual inflation experienced during the current pricing period, especially in the first few years, has impacted actual operating expenditure versus the escalated determination allowance in the following ways:

- **CPI pass-through on contracted services** – many of our service delivery partners are engaged under multi-year contracts. This includes our treatment operations contract, design and engineering services contract, and most of our maintenance contracts including grounds maintenance, road and path restoration, and plumbing services. These contracts include annual price escalation mechanisms which typically:
    - Trigger on the contract anniversary date (not necessarily the financial year end) and apply the most recent headline CPI value published immediately preceding the anniversary date of the contract, or
    - Apply a composite measure using a range of cost inflation measures published immediately preceding the anniversary date of the contract (note: these composite inflation measures often include a measure of wage inflation as a sub-component, which in recent years has been below annual CPI).

  During periods of escalating headline inflation as experienced in Australia since 2021, this retrospective (or lagged) price escalation mechanisms contained in our contracts act as a temporary 'inflation-shield' that delays the impact of rising input prices.

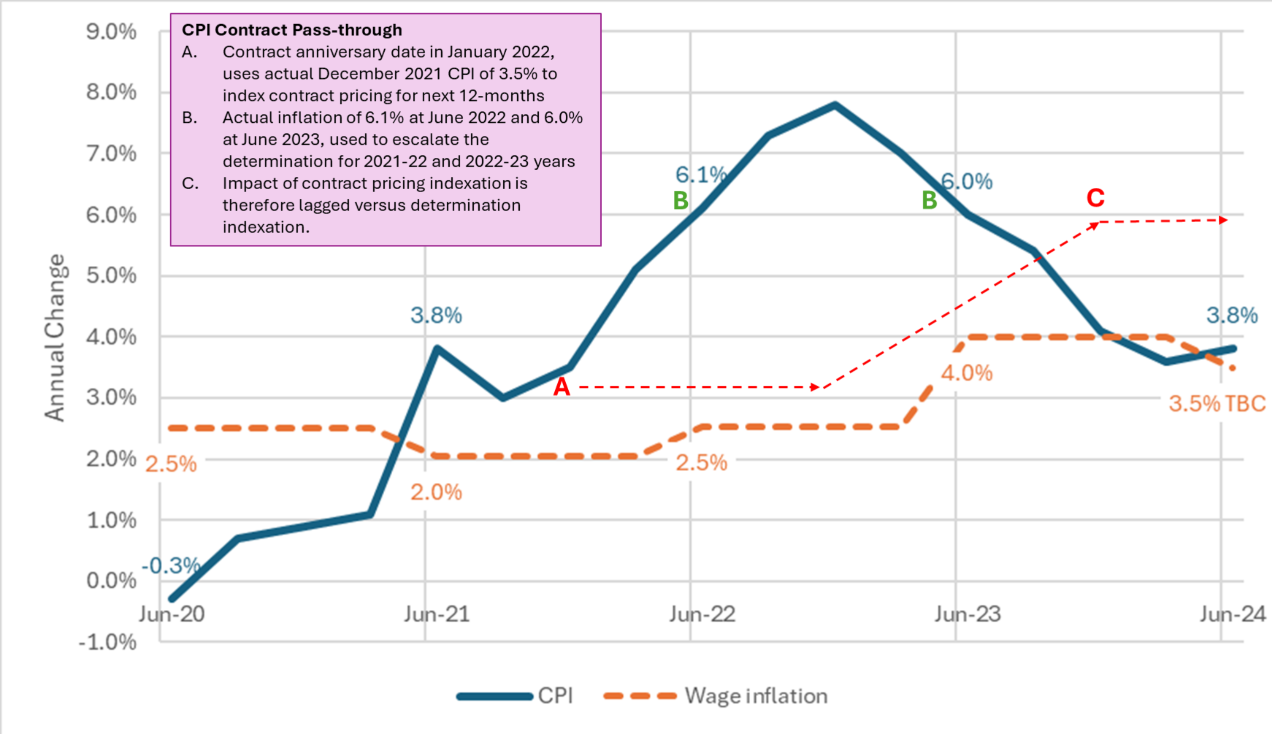
- **NSW Government Wages Policy** – the former NSW Government public sector wages policy was in effect for most of the current pricing period. This policy capped remuneration increases to 2.5 per cent per annum and was reflected in Hunter Water's two industrial instruments, the Hunter Water Employees Agreement and the Engineers and Scientists Agreement. Increases to salaries and wages are underpinned by these Agreements. This actual wage indexation of 2.5 per cent is lower than the headline CPI escalation that is applied to escalate the determination allowance. As labour expense represents around 32 to 35 per cent of total operating expenditure, this shows as a material underspend to IPART's determination, especially in 2021-22 and 2022-23.

  In accordance with the NSW Government policy *M2023-04 - NSW Government Fair Pay and Bargaining Policy 2023*, Hunter Water sought the concurrence of the Treasurer and Minister for Industrial Relations to adjust the 1 July 2023 remuneration increase to 4.5 per cent (4 per cent salary increase plus 0.5 per cent superannuation uplift). This ensured that Hunter Water maintained a competitive market position to attract and retain talent, offering pay increases consistent with the NSW Public Sector. The increase in salary and wages resulted in an increase in total labour costs of approximately $1.1 million in 2023-24.

The effect of this 'lagged' inflation impact on our contracted operations costs, compared to the inflation used to escalate the determination allowance, is shown in Figure 5.6**.** This chart is illustrative only, to demonstrate the concept. We have also included the actual wage inflation across the same period. In Section 5.5.3, we describe that we expect wage inflation to be above CPI for 2024-25, 2025-26 and 2026-27.

A further impact of this 'inflation-shield' and the delayed rising input prices through the current pricing period, is the 'catch up' pricing we are starting to experience when contracts are retendered in the market. For example, in June 2024, we competitively market tendered a 10-year contract for grounds maintenance. It was awarded with a 100 per cent price increase on the prior long-term contract as described in Section 5.5.

Figure 5.6: Illustrative impact of rising inflation



Source: https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release; and Hunter Water analysis

Variable weather and climate change

As further explained in Chapter 7, water demand was lower than expected during the current pricing period for several reasons, including extremely wet weather.

In July 2021, an east coast low pressure system brought widespread flooding to many areas across our region. Major flooding threatened Maitland after the Hunter River at Singleton peaked at 13.7m, well above recent flood levels. The event resulted in roughly a ten-fold increase in customer service faults and restricted access to many of our assets.

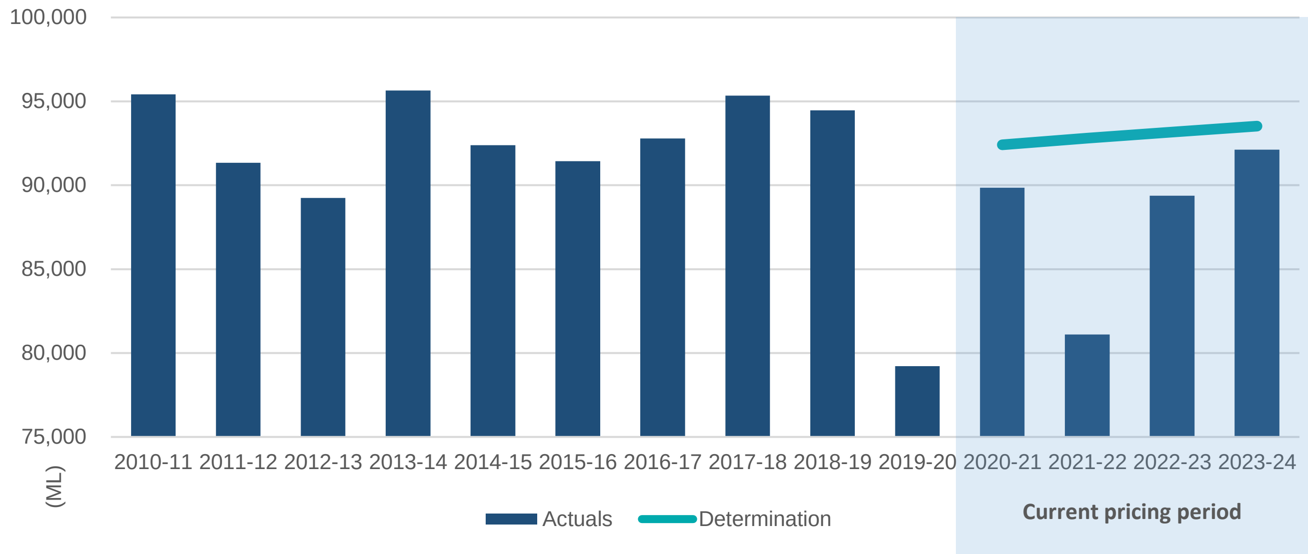
Through 2022, Hunter Water's catchments received significant rainfall, with many rainfall records broken due to a combination of the climate drivers of La Niña, a negative Indian Ocean Dipole and a positive Southern Annular Mode. The onset of a rare third La Niña event has only happened three times before, most recently in 1998-2001. In our region, Cessnock broke a 33-year record after receiving 1,219mm of rainfall.

These more extreme climate scenarios, result in more volatile operating expenditure from month-to-month and year-to-year. Some of the impacts of the extreme wet weather include fluctuations in reactive maintenance (more pipe breaks and chokes than average), lower water treatment and higher wastewater treatment costs, and a reduced ability to undertake routine grounds maintenance and long-cycle preventative maintenance at treatment plants as scheduled.

To illustrate the impact of the extreme climate experienced within the current pricing period, Figure 5.7 and Figure 5.8 highlight the lower water treatment volumes, and higher wastewater treatment volumes experienced compared to the last 10 years and the assumed volumes in the current determination.[1]

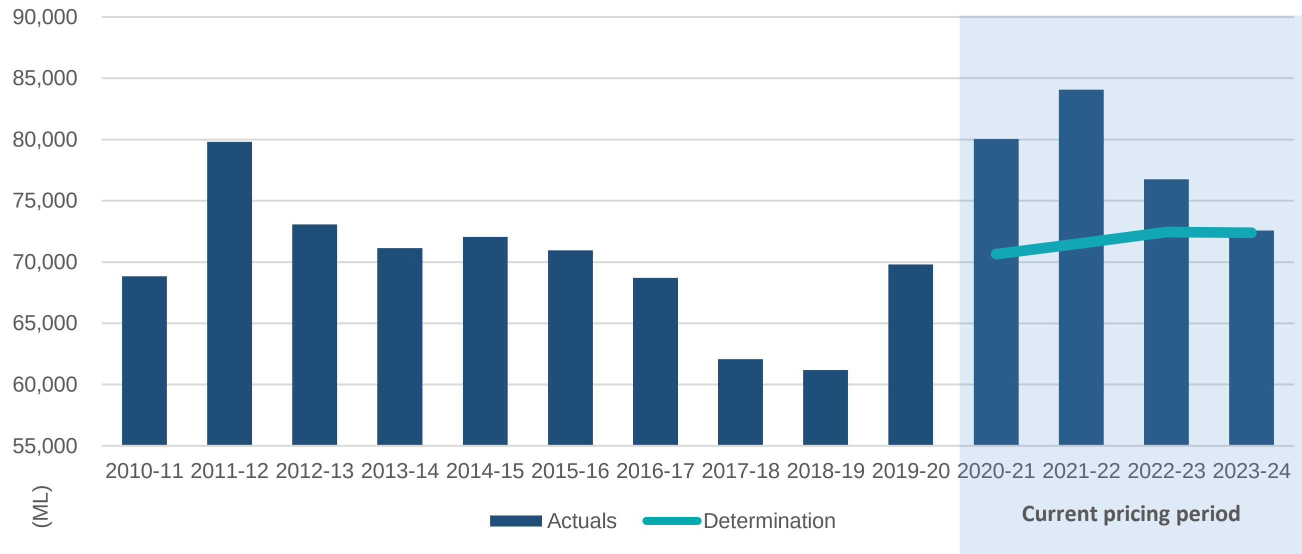
[1] The water treated quantities differ to water supply quantities reported in Chapter 7 and our AIR because water from Chichester dam is recorded at both the dam chlorinator and Dungog water treatment plant to facilitate billing through our treatment operations contract.

Figure 5.7: Annual water treatment volumes (megalitres)



Source: Hunter Water analysis

Figure 5.8: Annual wastewater treatment volumes (megalitres)



Source: Hunter Water analysis

Reclassification of digital expenditure from capital to operating expenditure

In our 2019 pricing proposal, and IPART's 2020 pricing determination, digital project expenditure and digital solutions were mainly forecast as capital expenditure.

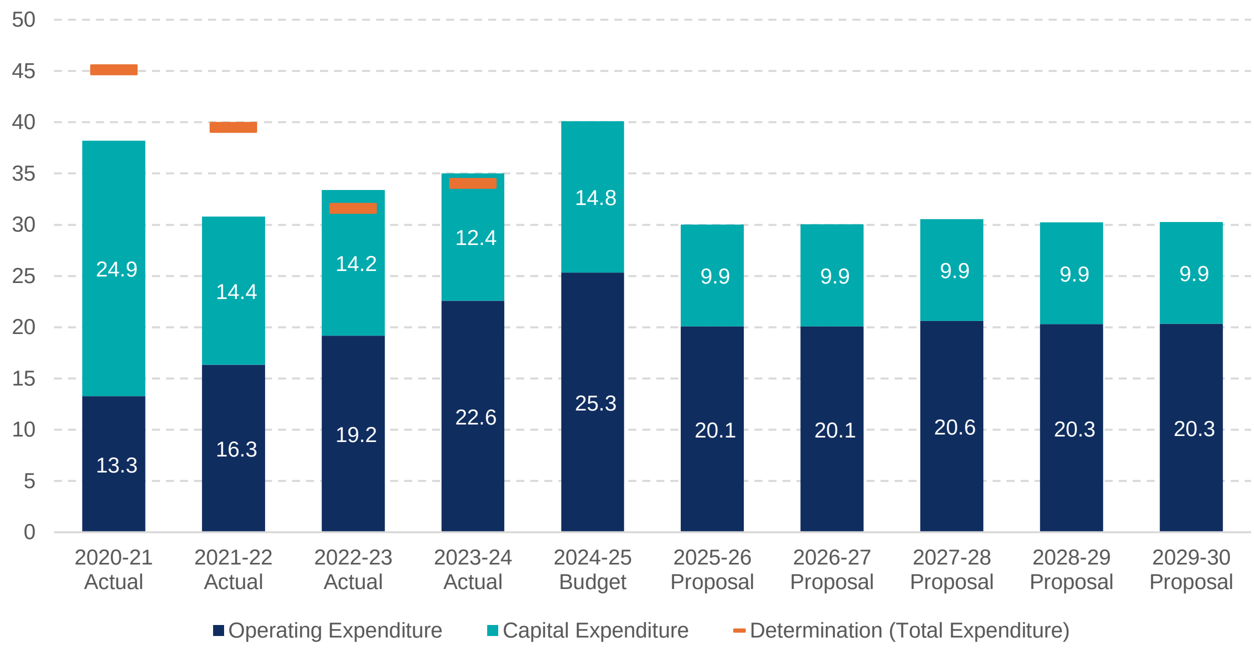
In the past, Hunter Water would purchase perpetual licenses and hardware assets, as capital expenditure, and then pay ongoing support and maintenance costs for continued use and updates. Many technologies are now only being offered as cloud 'subscription' solutions with most vendors offering cloud-only services.

Following a change to the accounting interpretation of cloud-based projects, and the increasing market prevalence towards the provision of software-as-a-service style digital solutions, much of our digital investment has instead been incurred and expensed as operating expenditure during the period. The increasing proportion (light blue) of total digital expenditure that is operating expenditure in Figure 5.9 shows this trend.

Figure 5.9 also highlights two other insights:

- Total digital expenditure for the current pricing period was not higher than the determination.
- The proposed level of total digital expenditure for the upcoming pricing period is lower than actual expenditure for the current pricing period and will continue to be mainly operating expenditure.

Figure 5.9: Total digital expenditure vs IPART determination for the current pricing period ($million, $2024-25)



Source: Hunter Water analysis

5.3.2 We have delivered substantial efficiency improvements during the current pricing period

During the current pricing period we've focused on providing services to customers prudently and efficiently, with a view to complying with regulatory obligations and providing adequate service levels to customers.

We have become more efficient during the current pricing period. This has helped offset other cost increases we have experienced and resulted in cost savings to eventually pass on to customers.

Maintaining our assets more efficiently has offset growth in our network

As we gain new customer connections and add new assets to our system, the number of maintenance jobs we must undertake grows over time. Despite growth, our maintenance costs have remained flat during the pricing period as we have become more efficient. For example, we have:

- Implemented a targeted maintenance productivity program involving industry benchmarking, process improvement and adopting best practice job assessment and scheduling.
- Used technology to better identify wastewater network blockages
- Improved how we reuse and dispose of spoil from construction activities. Despite the quantity of spoil we generate being higher than expected, by better segregating, managing and testing the spoil we improved its typical quality resulting in a lower average price of disposal.
- Introduced new FSM technology and process for our electrical and mechanical maintenance delivery. This has led to reduced calls, reporting burden, preventative maintenance costs, and better performance against both corrective and preventative maintenance KPIs.

We have managed to reduce energy expenditure, despite a challenging environment

Energy costs have been rising in recent years, causing pain for residential customers, businesses and governments. During the current pricing period, we have done all we can to drive our energy costs down through smart purchasing decisions, and reducing the quantity of energy we need to purchase.

Implementing smart pump scheduling technology has allowed us to take advantage of 'time-of-use pricing' and optimise energy use across our network. Other examples include installing behind the meter solar and an innovative wastewater treatment plant technology, as described in Figure 5.10.

Figure 5.10: Investing in technology to drive energy savings

Behind the meter solar

We have installed about 6,000 solar panels across 12 of our wastewater treatment plants and other sites. Producing our own energy reduces carbon emissions and how much energy we must purchase.

Our largest installation to date will double our renewable energy generation capacity and supply renewable energy to our water treatment plant at Grahamstown.

Renewable energy is forecast to save us, and in turn our customers, $9 million across the next five years.

Hubgrade Performance Plant

HPP is an innovative digital solution that improves the performance of existing infrastructure.

Installation at Belmont wastewater treatment plant in 2023 is the first in the Asia Pacific region. This innovation resulted in energy savings and has delayed capital investment of about $10 million for 10 years.

We are now exploring opportunities to adopt a similar solution to increase capacity at Edgeworth and Morpeth treatment plants, deferring the need for capital investment.

5.4 Base - our current efficient level of recurrent controllable operating expenditure is $175m/year

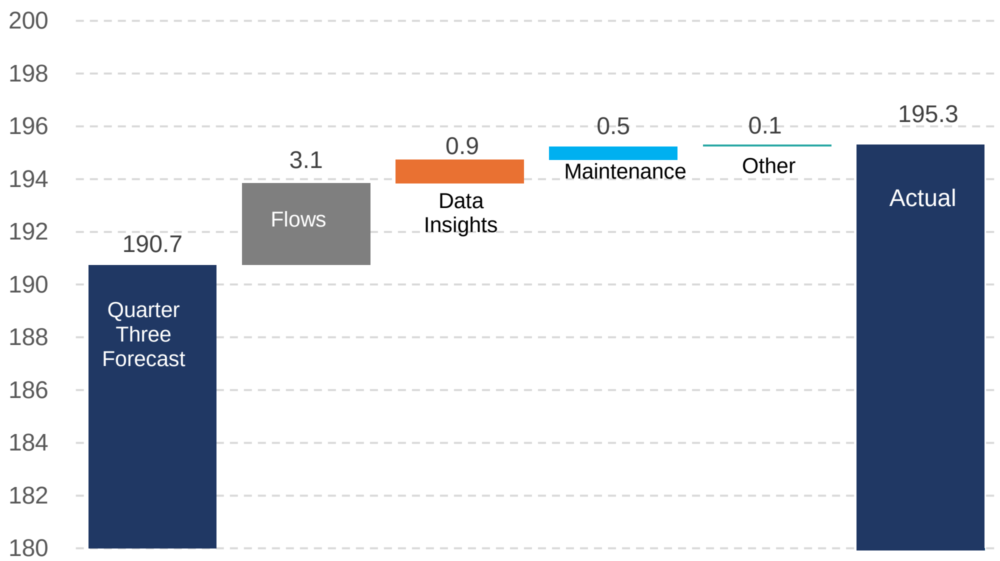
5.4.1 Base-year total operating expenditure of $191 million (Quarter Three Forecast)

With full-year 2023-24 actual expenditure not available until late-August, and a September deadline for this pricing proposal, we agreed with IPART to use our 2023-24 quarter three forecast as the base-year in our base-trend-step operating expenditure forecast.

The quarter three forecast comprises actual expenditure from July to March, and forecast expenditure from April – June. The reliability of the quarter three forecast for full year expenditure is typically strong, however in 2023-24, our actual expenditure was unusually $4.6 million higher than the quarter three forecast.

Figure 5.11 presents the variance between the quarter three forecast and the actual operating expenditure for 2023-24.

Figure 5.11: Operating expenditure 2023-24 actuals to quarter three forecast ($millions, $2024-25)

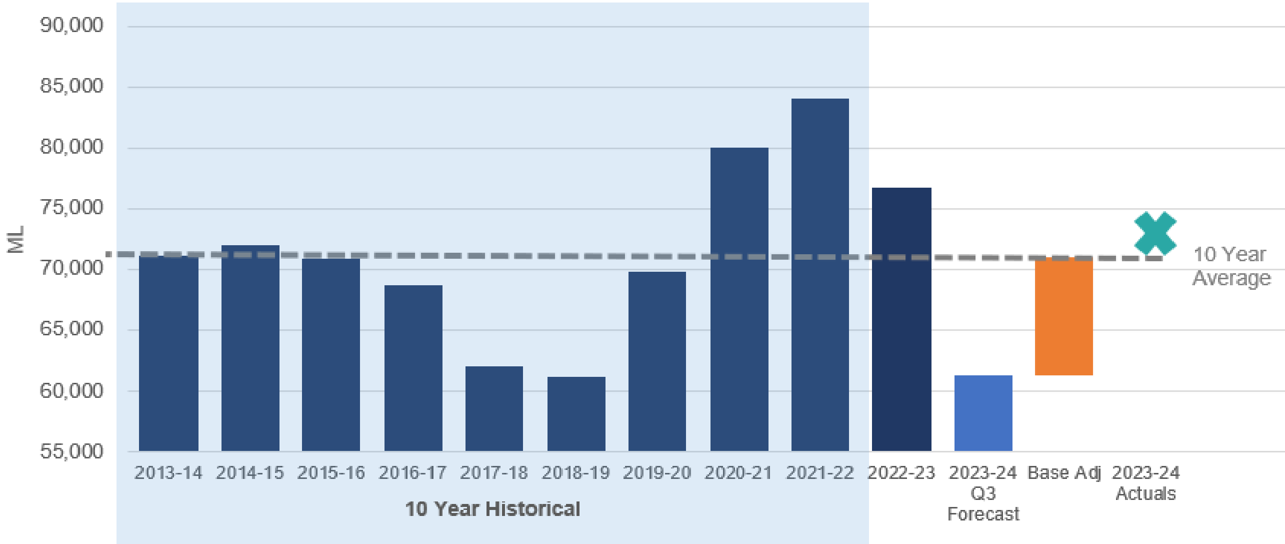


Source: Hunter Water analysis

Actual (audited) operating expenditure in 2023-24 of $195.3 million was $4.6 million higher than forecast due to the following three reasons:

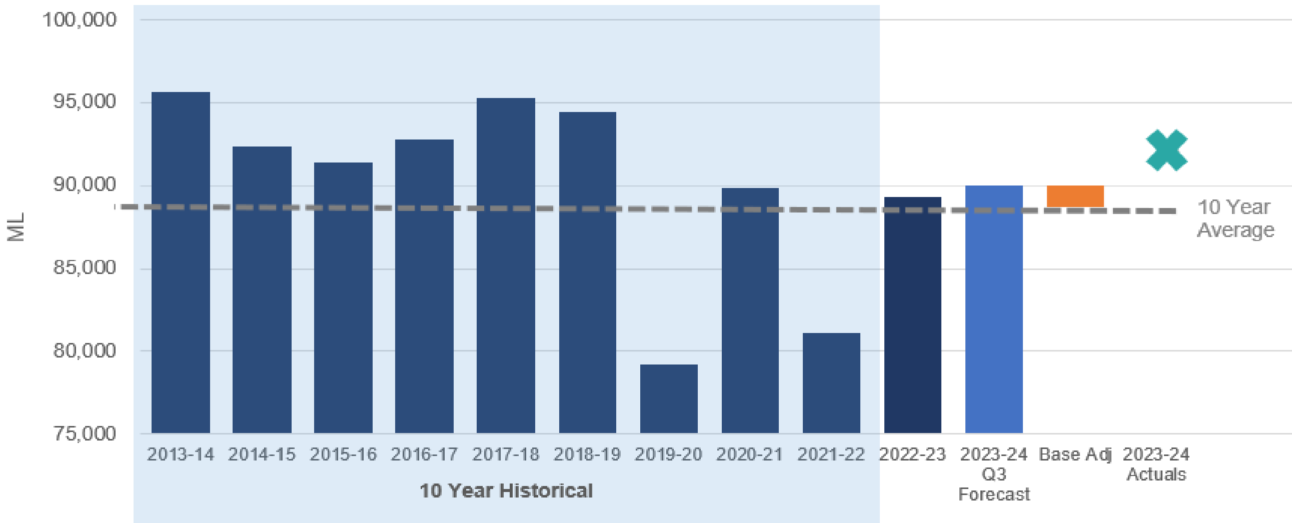
1. **Flows** - extreme wet weather across April and May 2024 led to wastewater treatment flow volumes that were 21 per cent higher than the quarter forecast (59,744 ML vs 72,579 ML) as shown in Figure 5.12. This resulted in higher wastewater treatment variable fees and energy associated with wastewater pumping. Actual (audited) total operations costs, which includes wastewater treatment and energy, were $3.1 million higher than the quarter three forecast.

Figure 5.122: Wastewater Flow data, 10 years history, quarter three forecast, actuals and base adjustment (Megalitres)



Water flow data is shown in Figure 5.12 for chargeable meters under the existing treatment operations contract including treatment plants and the chlorination facility at Chichester dam.

Figure 5.133: Water Flow data, 10 years history, quarter three forecast, actuals and base adjustment (Megalitres)



Source: Hunter Water analysis
The water treated quantities will differ to water supply quantities reported in Chapter 7 and our AIR because water from Chichester dam is recorded at both the dam chlorinator and Dungog water treatment plant to facilitate billing through our treatment operations contract.

2. **Data insights –** a reclassification of a data insights capability project was made from capital to operating expenditure following an assurance controls review of the project as part of statutory financial statement preparation. This abnormal accounting adjustment increased operating expenditure by $0.9 million above the quarter three forecast, with an offsetting reduction in capital expenditure.

3. **Maintenance –** increased maintenance costs due to higher input costs and more maintenance jobs caused by the damaging, extreme wet weather conditions. Actual (audited) total maintenance costs were $0.5 million higher than the quarter three forecast.

5.4.2 Less base-year adjustments of $15.6 million

In Table 5.4, we describe the adjustments we have made to our base year operating expenditure for:

- Non-controllable expenditure ($5.5 million) – as defined by IPART.
- Non-recurrent expenditure ($10.1 million) – including one-off or cyclically occurring items.

Table 5.4: Base year adjustments ($2024-25, $millions)

Item	Description	Cost
Non-controllable expenditure		
Land tax and rates	Costs associated with our land holdings for water storage, network and treatment plant assets	(3.8)
Regulatory licenses	Operational licence fees for water extraction and wastewater treatment plant operations	(1.2)
Bulk water charges	Water sharing arrangement with Central Coast Council	(0.5)
		(5.5)
Non-recurrent expenditure		
Variable treatment costs	Quarter three forecast included lower-than-average wastewater flows, partially offset by higher-than-average water flows (as shown by the orange bars in **Figure 5.6**).	1.3
Major digital projects	Non-recurrent project expenditure for major projects such as FSM and GIS product replacements/upgrades	(3.1)
Other digital projects	Project expenditure for other digital enhancement projects. Most of these costs are added-back as 'Steps' ("securing digital foundations" and "modern utility").	(3.5)
Strategies and studies	Strategies and studies across water resilience and sustainability, and a controls assurance project	(1.3)
Pricing proposal and community engagement	Cyclical costs associated with the preparation of this pricing proposal, including additional community engagement beyond normal levels.	(1.0)
Portfolio management	Non-recurrent expenditure to improve our portfolio management functions.	(0.2)
Treatment contract transition	Procurement and legal costs relating to retendering of our treatment operations contract	(0.8)
Dam safety	A large investigative study for Grahamstown dam (safety)	(0.7)
Maintenance volumes	Above average road and path restoration job volumes and sizes in 2023-24	(0.5)
Laboratory volumes	Above average laboratory test volumes in 2023-24	(0.2)
		(10.1)
Total		**(15.6)**

Source: 'SIR Opex 2 bts' (rows 531:549)

5.5 Trending the base-year forward

5.5.1 We propose an efficiency factor of 1.0 per cent per year

Our cost efficiency target

We have set a cost efficiency target of 1.0 per cent per year of our forecast operating expenditure over the six years from 1 July 2024 to 30 June 2030. This equates to $36.4 million in total operating expenditure savings over the upcoming pricing period. We consider this is an ambitious, yet realistic, target.

Our efficiency target compounds over time, which means we need to maintain cost savings year-on-year as well as identify new efficiency initiatives each year.

Table 5.5: Efficiency factor, 2024-25 and upcoming pricing period ($2024-25, $millions)

	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	5-year total
Trend - Efficiency factor	(2.5)	(4.0)	(5.7)	(7.1)	(8.9)	(10.7)	**(36.4)**

Source: 'SIR Opex 2 bts' (row 560)

We set our efficiency target based on a range of factors

Customer feedback about affordability

We heard from our customers and community that they are struggling with cost-of-living pressures, and that right now, affordability is their number one priority. If prices must rise, they expect we have done all we can to reduce costs before asking customers to pay more. To keep bills as low as possible, we have challenged ourselves with an ambitious efficiency target.

Current performance

Our recent expenditure is in line with the most recent IPART determination of efficient costs, and external benchmarking to our peers shows we are one of the lowest cost water utilities in Australia. As such, we are currently operating broadly at the efficiency frontier, so we set our target at a level that primarily ensures we continue to move with the frontier over time rather than having to also 'catch-up' to this frontier.

Historical productivity in the Australian economy

Actual productivity performance in the economy can provide a guide as to what might reflect a reasonable efficiency target. Using the same approach that IPART applied in its recent pricing decisions to calculate the continuing efficiency factor, we estimate the long-term average multi-factor productivity in the market sector of the economy is 0.8 per cent. We note that over the past 20 years the 'utility sector' (which includes water services, electricity, gas and waste) has consistently lagged the broader market segment.

Recent regulator decisions

We reviewed recent decisions made by water regulators in other jurisdictions across Australia and found that the targets ranged from 0 per cent up to around 2 per cent for some utilities in Victoria. Simple comparisons of these targets can be misleading given the targets are generally specific to individual businesses, can include catch-up and continuing efficiency, and due to variations in aspects of regulatory frameworks across jurisdictions; however, they broadly support our target of 1.0 per cent being appropriate.

Internal assessment of opportunities

We undertook thorough internal (bottom-up) assessment of potential cost saving initiatives and the estimated value of these opportunities. Although we have not yet identified all the initiatives needed to reach our efficiency target, we believe it's in our customer best interests that we stretch ourselves over the upcoming pricing period. This bottom-up exercise assisted us in determining what is a realistically achievable but ambitious target.

'Cost efficiency strategy 2025-30' - our plan to achieve the target

We have developed a cost efficiency strategy (see Attachment M) to guide our efficiency activities, provide confidence that we are challenging ourselves to be efficient and have a credible plan for delivering on our efficiency commitments. The cost efficiency strategy will be used within the business to help further embed a culture of efficiency and drive the business to deliver our efficiency commitments.

Our cost efficiency strategy outlines:

- how we control our costs.
- our current cost efficiency performance and achievements.
- the framework and processes we have put into place to achieve our cost efficiency targets (across both capital and operating expenditure). This includes dedicated resources to lead our cost efficiency endeavours and drive continuous improvement and innovation (CI&I) culture and capabilities, including the ongoing deployment of a Lean Six Sigma methodology across the business.
- an initial set of cost efficiency initiatives that we have identified to:
    - inform the suitability and achievability of our overall target
    - provide initial focus areas for the business
    - demonstrate our commitment to the strategy
- how our customers can hold us accountable for delivering on our efficiency commitments.

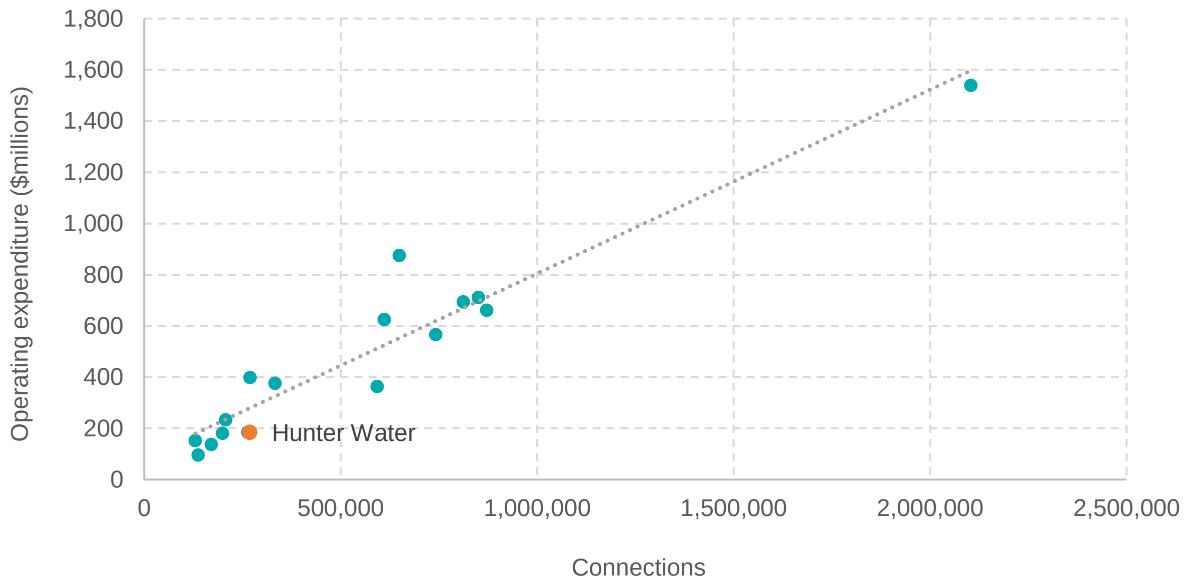
5.5.2 Expenditure will increase in line with weighted-average dwelling growth of 1.3 per cent per year

We applied an overall growth factor of 1.3 per cent to our total operating costs, based on the weighted average dwelling growth forecast for the upcoming pricing period across water, wastewater and stormwater.

The underlying forecast growth is consistent with that presented in Chapter 7 of this proposal, however, we have based our operating expenditure growth factor on dwelling growth, rather than the billable connections presented in Chapter 7.

It's expected that our operating expenditure will increase as we gain new connections and expand our water and wastewater networks. Figure 5.14 shows the relationship between connections and operating expenditure. A correlation coefficient of 0.95 demonstrates property connections are a good predictor of total operating expenditure, and therefore a suitable basis on which to trend-forward forecast costs.

Figure 5.14 Relationship between property connections and operating expenditure



Source: Hunter Water analysis based on 2022-23 National Performance Report, indicators: IF11, IF12, C4, C8

The increase in operating expenditure each year due to the growth trend is shown in Table 5.6. This additional expenditure driven by growth will include:

- Treatment operations – from increased water and wastewater flows
- Energy – consumption will increase with increased water and wastewater flows
- Maintenance – of a growing network of assets to service additional connections
- Customer service activities - increased frontline customer contacts, billing, and communications
- Treatment plant upgrades – operating expenditure outcomes of capital investments for periodic treatment plant upgrades and renewals that we will deliver in the upcoming pricing period
- Corporate activities to support our growing water, wastewater and stormwater services.

Table 5.6: Operating expenditure growth trend ($2024-25, $millions)

	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Trend – Growth	4.7	7.1	9.5	11.9	14.3	**47.4**

Source: 'SIR Opex 2 bts' (row 567)

5.5.3 Real input price changes

As described earlier, Hunter Water and our suppliers, not unlike consumers across the whole economy, are subject to 'cost-of-living' pricing pressures. The water industry is not insulated from economy-wide inflation and the market costs to deliver our investments, and to operate and maintain the business, are materially increasing.

Table 5.7 shows the real input price items we have allowed for in our operating expenditure projections for the next pricing period. Note: the table shows the change in operating expenditure each year compared to the ongoing efficient base level of $175 million per year.

To determine these items, we undertook a bottom-up budget build to determine any upward or downward price trends. Energy was the only material input price decrease identified.

Table 5.7: Proposed real input price changes ($2024-25, $millions)

	2025-26	2026-27	2027-28	2028-29	2029-30
Salaries and wages	1.2	1.9	2.2	2.5	2.8
Motor vehicle leases	1.1	1.1	1.1	1.1	1.1
Treatment operations contract – chemicals and fuel excise increase	0.7	0.7	0.8	0.7	0.7
Maintenance contract increases	0.7	0.7	0.7	0.7	0.7
Energy	0.8	0.4	(0.0)	(0.3)	(0.6)
Total	**4.5**	**4.8**	**4.7**	**4.7**	**4.7**

Source: Hunter Water analysis and 'SIR Opex 2 bts' (row 574)

Salaries and Wages

The salaries and wages real input price trend is made up of the two components shown in Table 5.8.

Table 5.8: Wage increases in addition to consumer price index (CPI) ($2024-25, $millions)

	2025-26	2026-27	2027-28	2028-29	2029-30
Annual wage changes [1]	0.7	1.0	1.0	1.1	1.1
Engineers and scientists regrades	0.6	0.8	1.1	1.4	1.7
Total	**1.2**	**1.9**	**2.2**	**2.5**	**2.8**

Source: Hunter Water analysis
Note 1: See Table 5.9 for projected annual wage inflation underpinning this forecast increase

Most of Hunter Water's employees are employed under Hunter Water's two industrial instruments: the Hunter Water Employees Agreement and the Engineers and Scientists Agreement. Both current Enterprise Agreements have nominal expiry dates of 30 June 2024.

Bargaining has commenced for the 2024 iteration of enterprise bargaining, with bargaining parameters approved, including an objective to enter into 3-year agreements. The parameters align with recent correspondence from the Premier's Department regarding the NSW Government's Fair Pay and Bargaining Policy (dated June 2024) for a 10.5 per cent increase to remuneration over three years. This includes up to 4 per cent in Year 1 (inclusive of the 0.5 per cent superannuation uplift), 3.5 per cent in Year 2 (inclusive of the 0.5 per cent superannuation uplift) and 3.0 per cent in Year 3. Pay increases for senior managers on individual contracts are benchmarked against the enterprise agreement increases.

Table 5.9 shows the assumed wage increases over the next pricing period. It is anticipated that annual wage increases over the next three years (starting from 1 July 2024) may be greater than headline CPI, before reverting to the long-term inflation forecast of 2.5 per cent.

Table 5.9: Projected annual wage inflation (%)

	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Wage inflation	4.0%*	3.5% *	3.0%	2.5%	2.5%	2.5%

* Includes mandated 0.5 per cent superannuation increment

Source: Hunter Water analysis

The Engineers and Scientists Agreement includes provisions for additional annual wage increments aligned to qualifications and experience of individual employees covered under the agreement. The Hunter Water Employees Agreement includes a provision to reflect changes in work value through reclassification reviews. We have made an allowance of about $0.3 million per year for salary and wages regrades across Hunter Water.

Motor Vehicle Leases

We currently have 33 fleet vehicles with expired (or soon to expire) lease terms that need to be replaced with new vehicles. These vehicles are from 5 to 7 years old and have triggered either an end of lease residual value payment, or a new lease. Of the 33 expired vehicles, 25 are new fit-for-purpose trucks, to meet operational requirements, which are on order - most of which have experienced supply chain delays for 12-24 months. We continue to await the delivery of these new vehicles.

The quoted lease costs for the new vehicles (including modifications to make the new trucks fit-for-purpose) are much higher than the current lease terms. This is partly driven by the change in the implicit interest rate which is around 7 to 7.3 per cent for a current lease, versus 3 to 4 per cent for the expired vehicles.

Treatment operations: chemical costs and fuel levy

The operation of our 25 water and wastewater treatment plants is currently contracted to Veolia Water Australia. This contract expired in June 2024; however, an additional one-year extension was negotiated with revised pricing.

In December 2023, Veolia Water Australia sought recovery for substantial and unavoidable input price increases that exceeded the cost escalation provided for under the original contract. Input price increases relate to:

- Chemical costs, driven by rising chemical production input costs for fuel and gas due to geo-political tensions and the war in Ukraine; and
- Fuel costs, driven by the fuel levy applied for transportation of biosolids.

These higher costs are reflected in the contract pricing for the one-year extension ($1.4 million); however, we have only included 50 per cent of the annual impact in future years ($0.7 million per annum) because future pricing is not yet certain as we are part-way through the procurement process for the new contract. Early indications from the process suggest costs will be much higher than our projections included in this proposal. This approach helps keep customer bills as low as possible.

Maintenance: Service Contract increases

We included, as price trends, two service contract increases that occurred during the 2023-24 base year:

- Hunter Water contracts services to maintain the land and grounds we own. This involves mowing, gardening, pruning, weed control and graffiti removal, around our treatment plants and facilities. In June 2024, a 10-year contract was competitively tendered and awarded with a 100 per cent price increase on the previous long-dated contract. In the interest of keeping customer bills as low as possible, we have not allowed for the full impact of this substantial price increase in our proposed expenditure. We will revisit maintenance schedules and scope-of-works (volume) to try to reduce overall expenditure.

- In December 2023, we tendered a contract for the disposal of spoil material, with a 25 per cent increase in contract rates on the prior contract. The increase includes allowance for more stringent asbestos testing requirements. Given this occurred part-way through the 2023-24 base year, we have pro-rated the real price input impact – that is, part of the increase is captured by the ongoing base expenditure projection, and part is captured in this real input price trend.

Energy costs

We have entered a six-and-a-half-year fixed price energy contract with AGL, for our large sites, effective from 1 January 2025 to 30 June 2031. Prices are expected to be higher than what CPI will allow for the first two years of the pricing period and potentially below CPI for the last two years of the pricing period. The overall total estimated impact for the upcoming pricing period is $0.1 million.

5.6 Required step changes in controllable expenditure

We propose total step change increases to baseline operating expenditure of $40.7 million over the upcoming pricing period. The step changes are summarised in Table 5.10.

For each step change we categorise the key driver(s) as either:

- expenditure required to deliver our customer outcome commitments
- mainly resulting from the ongoing shift in digital solutions from capital to operating expenditure
- investments or expenditure to deliver projects necessary to meet regulatory requirements.

We have not included operating expenditure changes that would reasonably be covered by our growth trend increase – i.e. we have only included material changes in how services are provided.

Below we explain why each step is required as a change to the baseline, referring to other parts of our proposal where we have established the case.

Table 5.10: Proposed step changes ($2024-25, $millions)

Step change	Key driver(s)	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Community panel recommendations							
Water conservation	Customer outcome	1.6	1.6	1.6	1.6	1.6	**8.0**
Carbon emissions	Customer outcome	-	-	0.3	0.5	0.4	**1.2**
Repeat service problems (hot spots)	Customer outcome	0.2	0.2	0.2	0.2	-	**0.8**
Other step changes							
Securing digital foundations	Capex to opex	2.4	2.4	2.8	2.3	2.2	**12.1**
Customer service	Capex to opex / Customer outcome	1.4	1.7	1.6	1.1	1.1	**6.9**
Belmont desalination plant	Customer outcome	-	-	0.7	1.7	1.1	**3.5**
Modern utility	Capex to opex	0.7	0.7	0.7	0.7	0.7	**3.4**
Water quality	Regulatory requirement	0.6	0.6	0.6	0.6	0.6	**2.9**
IPART pricing proposal	Regulatory requirement	-	0.0	0.4	0.6	0.1	**1.1**
Support for vulnerable customers	Customer outcome	0.2	0.2	0.2	0.2	0.2	**0.9**
Total		**7.0**	**7.3**	**9.2**	**9.4**	**7.9**	**40.7**

Source: 'SIR Opex 2 bts' (rows 585:612)

Community panel recommendations

In Chapter 1, we describe the recommendations of our Community Panel. These recommendations form part of the customer outcome commitments we make in Chapter 2. Additional operating expenditure is needed to:

- help our customers conserve water by being more efficient, fixing leaks on their property, and to reduce leaks across our own system (improve **Water Security**)
- reduce our carbon emissions by using renewable energy to operate Belmont desalination plant (be **Environmentally Sustainable**)
- provide equity of care and service for all customers by resolving repeat service problems, i.e. hot spots (provide **High Quality Water Services**).

Securing digital foundations

Our water and wastewater operations are becoming ever more reliant on digital systems. Technology underpins everything we do, and both the criticality and complexity of our digital systems is increasing. As the platforms, tools and hardware we use become 'end-of-life', operating them unsupported is risky. Our operations are increasingly dependent on technology services which drives increasing expectations from a business resilience and continuity perspective to maintain a high level of availability with lower tolerance for outages.

To ensure business continuity we need to maintain and upgrade our digital infrastructure (storage, compute, network and communications), end-user devices (e.g. laptops and monitors), and a variety of applications ranging from our payroll system to a GIS, to complex water network hydraulic modelling software.

We also need to invest more in cybersecurity. Globally and nationally, cyber-attacks are becoming increasingly common and of higher consequence. They pose risks to business continuity and critical infrastructure, but also to customer data that they expect us to keep safe.

While there is greater investment required to manage cybersecurity risks, most of the step change operating expenditure increase is driven by a shift from capital expenditure to operating expenditure, especially for cybersecurity and applications, as the optimal digital solutions are increasingly cloud-hosted (and expensed) rather than hosted on-premises and capitalised.

The choice to shift to the cloud is not always ours – many vendors are no longer developing, or continuing to support, on-premises solutions. With this shift we are seeing rising technical complexity, the need for more cybersecurity controls, rising total lifecycle costs, and a higher proportion of costs expensed with greater recurrent costs to maintain licences and support for applications and services.

This step-change is an offset to the 'other digital projects' base-adjustment described earlier in Section 5.4.2.

Providing great customer service

In Chapter 1 and 2, we explained that our customers expect us to deliver great customer service by making it easy for them, respecting them and their time, and resolving their situation. Many aspects of customer service are considered a 'given' and are expected of every organisation.

While our customers are generally satisfied with the interactions they have with us, we must continue to invest to maintain our core systems, improve privacy controls and safeguard customer data, and make incremental digital improvements to keep pace with basic customer expectations about how they can interact with us. Without investment, our customer service performance will deteriorate.

For example, customers see it as a given that they can manage their account on our website and use apps or portals to provide and receive information from us. They also expect we recognise them as people, who may or may not have interacted with us previously, rather than starting a fresh relationship at every contact.

Digital platforms and services continue to shift towards cloud-hosted rather than on-premises (capital) solutions. This means investing to provide and maintain these basic functions increasingly requires non-recurrent operating expenditure to implement fixes, updates, and new solutions, and recurrent operating expenditure to licence and support these solutions over time.

Operating Belmont desalination plant

In Attachment D and Chapter 4, we explain the service need, proposed capital expenditure, and delivery timing for the Belmont desalination plant. We forecast that most plant testing and optimisation costs will be capitalised during the performance guarantee period, however, a proportion of costs will be expensed.

We expect to complete the performance guarantee period in March 2030, and will then transition to normal operation.

We are not proposing to recover the costs to operate Belmont desalination in the three months from April to June 2030 in the 2025-30 pricing period. It would only take a minor delay in delivery timing for these costs not to be required and potentially be over-recovered from customers via prices. To keep bills as low as possible, we've adopted a conservative approach by not asking customers to pay for these costs now.

Becoming a modern utility

We recognise the need to respond to internal and external drivers, setting a goal to maximise our digital capabilities to transform the way we work for the benefit of our customers and staff, enabled by data-driven decision-making and innovation at speed and scale. Digital transformation is one of the keys to driving the long-term efficiency improvements necessary to keep our customer bills low. With legacy, increasingly unsupported, and disparate systems, and limited automation, we have a technological debt and long path ahead in our transformation. In Attachment E, we describe the priority areas we must invest in to achieve our digital ambition.

To keep bills as low as possible for customers, we have prioritised and propose to progress our digital ambition at a slower pace than originally planned. We will focus on areas where there is currently greater clarity and certainty of the benefits. For example, improving our data insights capabilities, and undertaking more targeted smart systems initiatives.

To that end, we are only asking our customers to pay now for a limited set of projects and programs that offer clear benefits. This will keep bills as low as possible. We are still up to six years from the end of the upcoming pricing period. That's an eternity in a rapidly evolving digital landscape. While we may not have certainty now, that will improve over time. We will continue to prove value and look to deliver outcomes while minimising risk.

For other investments required to progress us towards our digital ambition, we will defer cost recovery from customers until we demonstrate incremental value through delivery or develop a bankable business case. We will progress some of the work and deliver the investments when warranted during the period. This means we don't ask our customers to bear all costs upfront, but also that we don't miss opportunities to make improvements that are in customers best long-term interests. This approach will require us to reprioritise or spend beyond our allowances in the upcoming pricing period if faster transformation is warranted.

This step-change is an offset to the 'other digital projects' base-adjustment described earlier in Section 5.4.2.

Water quality

In Chapter 1 and 2, we explain that customers view providing a safe water supply as essential.

In Attachment E, we describe the public health and regulatory drivers for ensuring we supply safe water to consumers. We explain some of the key water quality risks we face, including development pressures, emerging contaminants, and ongoing deterioration of our drinking water catchments. Managing risks in the catchment can address risks at their source (raw water quality) and has the potential to avoid significant investment in water treatment plant upgrades.

Activities to better manage catchment risks include collaborating with our stakeholders to achieve good planning outcomes, investing in research and education programs, partnering with landholders to improve farm runoff quality, and investing in projects to maintain and improve catchment water quality such as bush regeneration, erosion control, bushfire management, signage and fencing. Many of these activities are typically expensed rather than capitalised.

To keep bills as low as possible, we are not able to do as much to protect and reduce risks in our drinking water catchments as we may have liked, increasing our reliance on our water treatment protection barrier. The proposed step change represents a small incremental investment to ensure a multiple barrier approach through prudent management of our catchments.

IPART pricing proposal

In Section 5.4.2, we explained the cyclical costs we incurred in 2023-24 to prepare this pricing proposal. We have made a base adjustment to remove these costs in establishing the base-year and efficient level of recurrent controllable operating expenditure.

We submit a pricing proposal to IPART every five years and propose to add back in a step change to reflect the periodic costs incurred to do so. The proposed costs are less than the base adjustment we made – i.e. we are challenging ourselves to be more efficient in how we engage and develop our pricing proposals. The proposed costs include:

- additional customer and community engagement activities beyond the typical level we would undertake.
- consultant support to provide advice, or assist with preparing elements, and quality assurance of our proposal.

This step-change is an offset to the 'IPART pricing proposal base-adjustment described earlier in Section 5.4.2.

Support for vulnerable customers

In Chapter 3, we have described how our customers are impacted by cost-of-living pressures and finding it increasingly difficult to pay their bills.

In Chapter 2, we explain that providing support for vulnerable customers is a key pillar of our 'value for money and affordable' customer outcome, and that our community have told us they expect us to help customers who struggle to pay their water bills.

In Chapter 9, we present high-level analysis showing that with higher water prices households are likely to need to spend an increasing proportion of their disposable income on their Hunter Water bill. We also explain the various ways we help customers and that we propose to increase our customer assistance spend by 25 per cent over the upcoming pricing period to ensure we are supporting our customers when they need it the most.

We will use this additional funding to reach out and raise awareness about our support offerings as well as help more customers find leaks on their property. Our key measure of success is for customers accessing our support programs to rate our help as effective.

5.7 We have minimal non-controllable costs

IPART's definition of "non-controllable" is relatively strict. This definition has loosened since the 2020 price review when IPART suggested that all our operating costs are controllable to some extent.[1] Hunter Water did not support this position.

In Section 5.3.2, we explained that in establishing our efficient level of base-year expenditure we removed $5.5 million in non-controllable costs relating to land tax and rates, and regulatory licenses. We add these costs back in to project our total proposed operating expenditure.

These non-controllable costs represent a relatively small proportion of our total costs (less than 3 per cent). We expect non-controllable costs to remain stable over the period in real terms (Table 5.11).

Table 5.11: Non-controllable costs in the upcoming pricing period ($2024-25, $millions)

Product	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Land tax and rates	3.8	3.8	3.8	3.8	3.8	19.0
Regulatory licences	1.4	1.4	1.4	1.4	1.4	7.0
Bulk water charges	0.4	0.4	0.4	0.4	0.4	1.9
Total	**5.6**	**5.6**	**5.6**	**5.6**	**5.6**	**27.9**

Source: 'SIR Opex 2 bts' (rows 617:621)

5.8 Operating expenditure in 2030-35

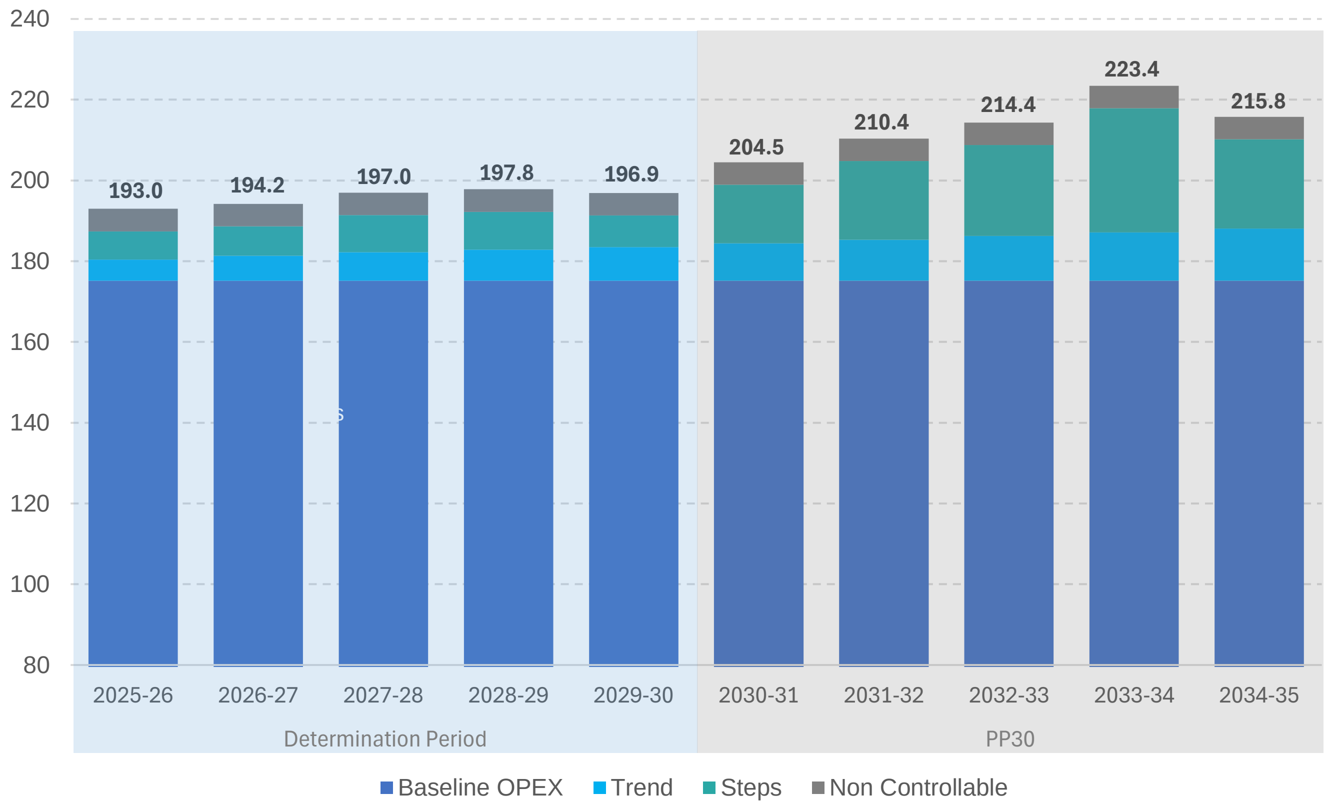
We have projected operating expenditure for 2031-2035 by extending the base-trend-step forecasting methodology used for the upcoming pricing period. Specifically, we:

1. held the baseline recurrent controllable operating expenditure constant in each year
2. reviewed each of the trend assumptions (growth, real input prices and cost efficiency) using the best available information currently available for the 2030-35 pricing period
3. carried forward recurrent operating expenditure from new step changes in the 2025-30 pricing period
4. added new step changes expected to commence in the 2030-35 period. These were only the most material identified changes, using current best estimates of their value
5. added non-controllable costs.

Total operating expenditure for 2030-35 is forecast to be $1.1 billion, an average $214 million (as shown in Figure 5.15). This is $18 million per year higher than in the upcoming pricing period (2025-30).

[1] IPART 2020, Final Report: Review of prices for Hunter Water corporation from 1 July 2020

Figure 5.15: Operating expenditure for the 2030-35 pricing period ($2024-25, $millions)



Source: Derived from 'SIR Opex 2 bts' (rows 512:526)

Each of the base-trend-step components shown in Figure 5.15 are explained below.

Constant recurrent controllable operating expenditure baseline

The current efficient level of recurrent controllable operating expenditure of $175 million per year has been held constant for each year of the 2030-35 pricing period.

Steady growth and efficiency trends

The trend assumptions for the 2030-35 pricing period are:

- **Growth** – a factor of 1.28 per cent has been applied, consistent with our approach to 2025-30. The growth factor for 2030-35 is slightly lower than the 1.31 per cent per annum growth factor for the 2026-30 pricing period, reflecting slightly lower expected new dwelling growth across this period.
- **Real Input Prices** – we have assumed no new real input price changes for 2030-35. That is, any real price changes above CPI are either too uncertain at this time to include or will be fully offset by equivalent real price decreases.
- **Efficiency** – we have applied a continuing efficiency factor of 0.8 per cent per year (compounding) for 2030-35, reflecting the long-term average multi-factor productivity of the broader economy (see Section 5.5.1).

Recurrent steps and new material step changes

Recurrent expenditure from step changes included in the 2025-30 forecast (see Section 5.6) have, by definition, been carried forward into the 2030-35 pricing period. This represents $2.3 million in each year of the 2030-35 pricing period.

The increase in operating expenditure in 2030-35, shown in Figure 5.15, is primarily driven by further step changes required in 2030-35, described in Table 5.12.

Table 5.12: Step changes required in the 2030-35 pricing period ($2024-25, $millions)

Step change	Description	Estimated total cost included in 2030-35 forecast
Enterprise resource planning (ERP) system replacement	Our existing ERP platform ('Ellipse') is nearing end-of-life, and Hitachi Energy (the vendor) have advised that they have commenced planning to replace the current (on-premises) platform with a cloud-based solution. We have made an allowance (initial high-level estimate) to implement a new, yet-to-be-identified, system. The allowance reflects non-recurrent implementation costs. We have not included ongoing (e.g. licencing) costs that will be required after implementation.	$52 million
Operating Belmont desalination plant	Once operational, the plant is expected to operate at a 'hot standby' capacity, except during water restrictions. We have included operating costs of $6.0 million per year for the 2030-35 period reflecting this 'hot standby' operation and not entering water restrictions in this period.	$31 million
Burwood Beach wastewater treatment sludge upgrade	Operating expenditure outcomes of the Burwood Beach wastewater treatment sludge upgrade capital project commencing from 2031-32. This project is explained in Chapter 4 and Attachment E. The increase relates to higher energy, chemical, labour, maintenance and transport costs associated with ceasing the disposal of sludge to ocean at Burwood Beach wastewater treatment plant.	$6 million

Source: 'SIR Opex 2 bts' (rows 625:629)

No real change in non-controllable costs

We have assumed no real change in non-controllable costs from the 2025-2030 period and are projecting a continuation of $5.6 million per year across 2030-35.

5.9 Opportunities and vulnerabilities that operating expenditure could be higher or lower than forecast

Hunter Water is a dynamic business, and our forecast operating expenditure reflects assumptions about an uncertain future. These uncertainties mean that actual costs may be different than we propose. There are both opportunities (potential for lower costs) and vulnerabilities (potential for higher costs) in our proposal.

To keep customer bills as low as possible, our approach to this proposal has generally been to exclude uncertain costs, even if we think these are likely to eventuate. Table 5.13 below describes operating expenditure estimates that we have explicitly excluded from our projections for the upcoming price period.

Table 5.13: Operating expenditure excluded from the 2025-30 pricing period ($2024-25, $millions)

Item	Description	Estimated total cost excluded in 2025-30 forecast
Energy network charges	New Ausgrid pricing, provided May 2024	$6 million
New treatment contract	See Section 5.5.3	$4 million
Insurance premiums	We have assumed insurance premiums will increase by CPI each year going forward, however increases in recent years have exceeded projected CPI.	$2 million
Belmont desalination plant	The capital project is scheduled for completion in March 2030, however given the inherent uncertainty in delivery timing of such a large and complex project we have assumed ongoing running costs will commence from July 2030.	$2 million
Grounds maintenance	See Section 5.5.3	$2 million
Total		**$15 million**

Source: Hunter Water analysis

We have not included recent increases in Ausgrid network charges

In May 2024, Ausgrid published revised network pricing for 2024-25. Overall, network charges increased by around 20 per cent from 2023-24, partially offset by shoulder tariffs changing to off-peak.

This change in pricing represents an estimated increase in costs of $1.2 million per year or $6.0 million across the five-year price period.

We have not adopted this revised pricing in this proposal due to the high-degree of uncertainty in future year network charges as the Australian energy market transitions away from coal-fired power plants to renewable energy infrastructure. We do not want to pass on costs that are this uncertain to our customers.

The new treatment operations contract pricing higher than forecast

From 2015 we have outsourced the operation and maintenance of our water and wastewater treatment plants to Veolia Water Australia. This contract has expired and we have been undertaking a competitive market tendering process for a new alliance contract across the last 12 months. We expect to know the final pricing outcome of this process in March 2025.

Given the scale of the treatment operations contract – currently 17 per cent of our total operating expenditure – we considered expediting the procurement process so that we would know the outcome prior to lodging this pricing proposal. However, continuing our robust and thorough process will ensure we deliver value for money, and will be in our customer's best interest.

Through the tendering process, we have learnt that the profit margin included in our current contract arrangement is no longer achievable in the market. Our projections for the upcoming pricing period broadly reflect current contract costs, which we now understand is likely to be at the lower end of what we expect the final pricing contract outcomes to be. It is reasonably likely that this cost could be several million dollars higher each year.

Digital solutions will continue to shift from capital to operating expenditure

As discussed in Section 5.3, we have experienced a material shift in the composition of digital expenditure. Digital services are increasingly being hosted on the cloud or provided by vendors as Software-as-a-Service (SaaS), rather than on-premises assets. They are increasingly requiring up-front (non-recurrent) and ongoing (recurrent) operating expenditure, rather than capital expenditure. This shift partly explains our increasing corporate operating expenditure in recent years.

Our digital landscape is characterised and challenged by rapid innovation and constant change. It is difficult to forecast digital expenditure several years in advance. The specific solutions to meet our customer and business requirements are uncertain, or in some cases may not exist yet.

We have done our best to forecast a suitable mix of capital and operating expenditure, however, the actual mix will depend on the specific nature of the solutions eventually delivered. We have conservatively forecast the pace of this shift from capital to operating expenditure, meaning there is a high likelihood that our actual operating expenditure on digital will be higher, and capital lower, than included in our proposal.

The change in delivery through subscription services also risks an overall increase in the total cost of ownership. Beyond the initial cost of development and implementation, the ongoing annual operating expenses for licencing, maintenance, upgrades, training and vendor support, energy use, compounded by cyber security and data privacy management, are often uncertain or unclear five years in advance. These dynamic cost drivers may impede delivery of expected harvestable cost benefits.

External Market Forces

In addition to the specific vulnerabilities described above, we note there are general operating environment factors that could present as opportunities or vulnerabilities over the pricing period. Including, but not limited to, higher/lower inflation than forecast (including price escalation), resource constraints, climate conditions (particularly rainfall) and changes in stakeholder expectations (including regulatory change).

Attachments related to this chapter

Attachment F – Operating expenditure in the current pricing period

Attachment M – Cost efficiency strategy 2025-30

6 Revenue requirement

Key points

- Actual revenue for the current pricing period is materially below target. Most of the variance is due to different inflation assumptions between price and target revenue escalators. Differences in demand and connections resulted in a $40.2 million variance (2 per cent of target).
- The RAB increases over time due to new capital investment.
- To calculate regulatory depreciation, we have chosen to weight asset lives by depreciation.
- We forecast a March 2025 WACC of 3.6 per cent. That is 0.2 per cent higher than the 3.4 per cent WACC that applied for the current pricing period.
- Cash capital contributions will increase due to the reintroduction of developer charges, placing downward pressure on revenue requirements.
- We have made two revenue adjustments:
  - Demand volatility adjustment mechanism: lower than forecast water sales in the current pricing period results in an upward revenue adjustment
  - WACC true-up: a downward adjustment to revenues for the end of period WACC calculation
- Proposed target revenue (smoothed) is higher in the upcoming pricing period: $2.3 billion in present value terms.
- The main drivers of the higher target revenue are:
  - a step increase and upward trend in the return of assets due to the higher WACC, and a growing RAB over the upcoming pricing period
  - a trend upwards in regulatory depreciation due to the growing RAB, and updated regulatory asset lives weighted by depreciation
  - an ongoing small increase in operating expenditure.
- Water target revenues increase the most, mainly due to investment in improving water security by building Belmont desalination plant. The water product comprises a higher proportion of total required revenues than in the current pricing period.
- There is a small increase in stormwater revenue requirements, however, this represents a large proportional increase.
- Proposed target revenues pass IPART's financeability test.

6.1 IPART prescribes a building block approach to calculate required revenues

The building block approach allows the recovery of efficient costs by calculating an annual ‘notional revenue requirement’ that accurately reflects these costs.

The notional revenue requirement is the sum of the five cost allowances shown in Figure 6.1.

Figure 6.1: IPART’s building block approach

Operating expenditure:
Operating, maintenance, labour, digital and corporate expenses

Return on assets:
Regulatory Asset Base (RAB) multiplied by the Weighted Average Cost of Capital (WACC)

Return of assets:
Regulated depreciation allowance based on regulated asset lives

Tax allowance:
Approximates the tax liability of a benchmark commercial business

Working capital allowance:
Recovery of costs to hold net current assets

Once annual revenue requirements are calculated, revenues may be adjusted each year to ensure that movements in underlying prices are ‘smooth.’ This avoids sudden spikes or volatility in customer bills and is achieved through a Net Present Value (NPV) revenue smoothing technique.

Although the full cost recovery of the notional revenue requirement occurs over the pricing period, it follows a different, smoothed, revenue profile. These smoothed revenue requirements are called the 'target revenues.'

6.2 We had lower water sales than target over the current pricing period

In 2020, IPART calculated our target revenues for each year in the current pricing period: 1 July 2020 to 30 June 2024 (Table 6.1).

Sales revenue refers to revenue received from water, wastewater and stormwater service and usage prices. Other regulated revenue includes revenue from miscellaneous and trade waste charges. Non-regulated revenue refers to revenue from non-regulatory activities and has been apportioned to represent only the value that is shared with customers.

Key building block assumptions in this target revenue include:[1]

- A post-tax WACC of 3.4 per cent.
- Regulatory depreciation based on individual weighted average lives for 42 asset classes. A corporate 'transition' RAB recognised the historic under-recovery of corporate depreciation and allowed a 'catch-up' of some of these revenues through the period.
- An NPV-neutral smoothing technique applied to smooth out bill impacts across the pricing period.

Table 6.1: Target revenue, 1 July 2020 to 30 June 2024 ($2019-20, $millions)

Component	2020-21	2021-22	2022-23	2023-24	4-year total
Sales revenue	322.0	330.3	337.6	344.4	1,334.3
Other regulated revenue	4.6	4.9	4.9	4.9	19.2
Non-regulated revenue	1.4	1.4	1.4	1.4	5.4
Target revenue	**327.9**	**336.5**	**343.8**	**350.6**	**1,358.9**

Source: IPART, 2020, Review of prices for Hunter Water Corporation – Final Report, page 69.

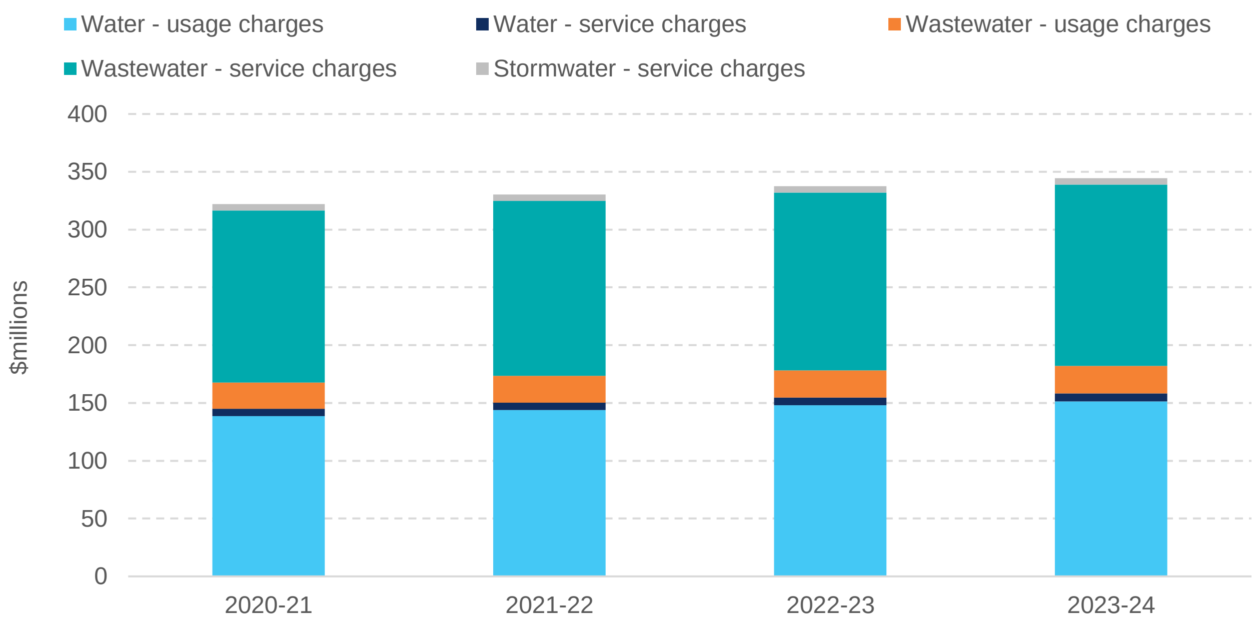
Target revenues are calculated by product – water, wastewater, and stormwater. Most of our costs, and therefore revenues, relate to providing water and wastewater services. These products account for about 98 per cent of our sales revenue – 46 per cent and 53 per cent, respectively.

Based on forecast connections and demand for services over the period, IPART set prices that would allow Hunter Water to recover target revenues.

Figure 6.2 shows that water revenue is recovered mostly through usage charges. Water revenue outcomes are highly variable and dependent on climatic conditions experienced during a pricing period. Wastewater revenue is recovered mostly through fixed service charges. Wastewater usage charges are also mainly 'fixed' in nature as residential charges are based on deemed discharge allowances. Stormwater revenue is recovered through fixed service charges.

[1] IPART, 2020, Review of prices for Hunter Water Corporation – Final Report

Figure 6.2: Sales revenue by product, IPART target, current pricing period ($2019-20, $millions)



Source: Hunter Water analysis based on IPART 2020 pricing model.

Throughout the pricing period, the CPI, as notified annually by IPART and based on the March annual figure, is applied to real prices and charged to customers based on actual connections and demand. Table 6.2 shows actual revenue received.

Table 6.2: Actual revenue ($nominal, $millions)

Component	2020-21	2021-22	2022-23	2023-24	4-year total
Sales revenue	321.3	328.7	352.0	395.8	1,397.8
Other regulated revenue	4.5	5.5	5.8	5.9	21.7
Non-regulated revenue	1.9	2.3	1.9	2.2	8.3
Total actual revenue	327.7	336.5	359.7	403.8	1,427.8

Source: Hunter Water AIR/SIR, 'Revenue' – rows 112, 139, 155.

Notes:
1. Trade waste and miscellaneous charge revenue is included in "Other regulated revenue'.
2. Non-regulated revenue is reported at 50 per cent of its value. This represents the portion 'shared' with customers.

Actual and target revenue is converted to $2024-25 in Table 6.3 for ease of comparison. This shows our actual revenue has been consistently less than target over the current pricing period.

Part of the variance is due to inflation. The IPART 'pricing' CPI applied to prices (March to March), and inherent in actual revenue, is substantially lower over the period than the yearly June to June inflation used to inflate costs and the target revenue into $2024-25. Of the $120.1 million difference, $79.9 million is attributable to the difference in inflation.

The remaining difference of $40.2 million is driven by demand for our services. This represents 2 per cent of total revenue. Most of this variance is due to lower-than-expected water sales – water usage revenue was $43.7 million lower over the period.

Water demand is lower than target due to wetter than average weather conditions, high water conservation targets and an observed change in customer behaviour following drought conditions preceding the period.

Attachment G provides further detail explaining variances within products and between service and usage charges.

Table 6.3: Revenue - Target versus Actual ($2024-25, $millions)

Component	2020-21	2021-22	2022-23	2023-24	4-year total
Target revenue	409.3	420.0	429.1	437.6	1,696.0
Actual revenue	394.1	381.4	384.6	415.9	1,576.0
Difference: total	(15.2)	(38.7)	(44.6)	(21.7)	(120.1)
Difference: inflation	(6.3)	(25.9)	(29.8)	(17.9)	(79.9)
Difference: connections and demand for services	**(8.9)**	**(12.8)**	**(14.7)**	**(3.7)**	**(40.2)**

Source: Hunter Water analysis

6.3 Proposed revenue requirements in 2025-30

6.3.1 Target revenue is higher in the upcoming pricing period

Table 6.4 summarises proposed target revenues over the upcoming pricing period – 1 July 2025 to 30 June 2030. Proposed target revenues recover the same revenue over the period in present value terms as the calculated notional revenue requirements at $2,255.5 million.

Target revenue is higher than in the current period, placing upward pressure on customer prices.

Table 6.4: Proposed target revenues, upcoming pricing period ($2024-25, $millions)

All products	2025-26	2026-27	2027-28	2028-29	2029-30	5-year NPV
Sales revenue	433.4	463.7	494.8	526.0	556.8	**2,214.3**
Other regulated revenue	6.9	7.0	7.1	7.2	7.3	**31.9**
Non-regulated profit	2.1	2.1	2.0	2.0	2.1	**9.2**
Target revenue	**442.4**	**472.8**	**503.9**	**535.2**	**566.2**	**2,255.5**
Notional revenue requirement	465.1	490.5	508.1	520.5	529.8	**2,255.5**

Source: Hunter Water analysis and Hunter Water AIR/SIR, 'Revenue' – rows 80,123,126,127,129,131,134 and 135 and Hunter Water AIR/SIR, 'SIR Non-regulatory' - row 40.

Notes:

1. Trade waste and miscellaneous charge revenue is included in "Other regulated revenue'.

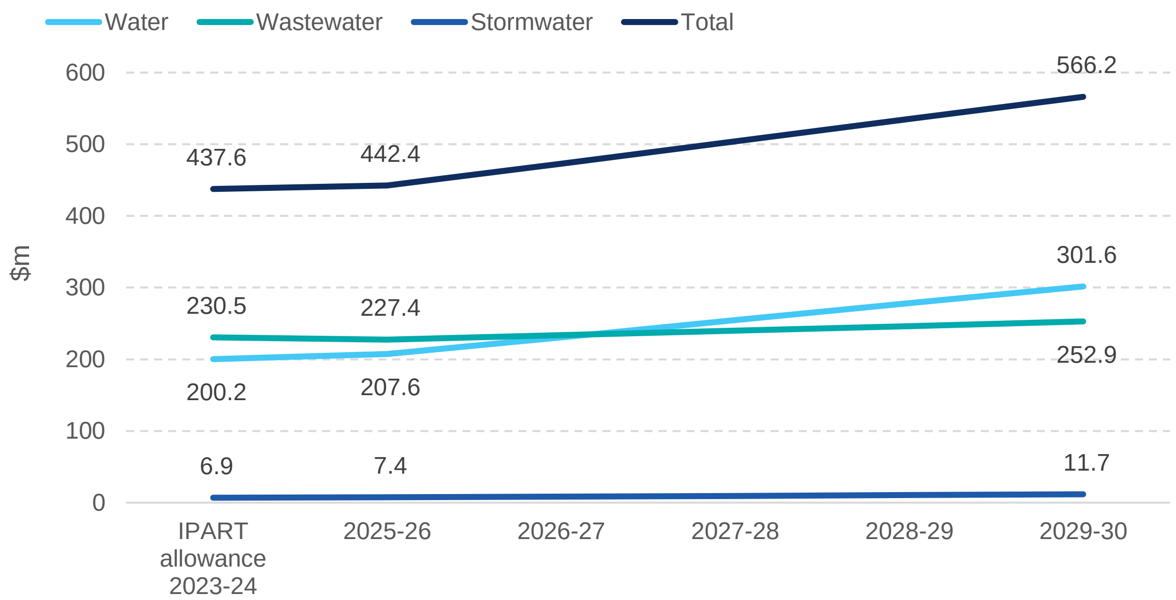
2. IPART changed the treatment of non-regulated revenue in their new 2023 Water Regulation Handbook. Non-regulated profit rather than non-regulated revenue is now included in the notional revenue requirement. See Section 6.3.8. Non-regulated profit is reported at 50 per cent of its value. This represents the portion 'shared' with customers.

Figure 6.3 shows the overall increase in proposed target revenue is driven primarily by the water product.

- Water target revenues increase to recover higher investment in water security during the upcoming pricing period, primarily in Belmont desalination plant.
- Wastewater target revenues increase only moderately over the pricing period.
- Relative to other products, increases in stormwater target revenues are small. In percentage terms however, the target revenue for this product increases on average 11 per cent per year over the period. Increases in the revenue requirement are driven by a combination of a relatively small opening stormwater RAB, and an increase in recent capital renewals and maintenance expenditure to reflect ageing infrastructure.

The overall increase in target revenue is also impacted by the price smoothing technique applied. Price increases are introduced in smaller, equal increments compared to what building block cost recovery requires. This means that we recover less revenue than required at the beginning of the pricing period, and more revenue than required at the end of the pricing period. While this avoids spikes or volatility in customer bills, it ultimately ends with higher prices, and subsequently higher target revenues at the end of the pricing period.

Figure 6.3 Proposed target revenues, by product ($2024-25, $millions)



Source: Hunter Water analysis and Hunter Water AIR/SIR, 'Revenue' – rows 80,123,126,127,129,131,134 and 135 and Hunter Water AIR/SIR, 'SIR Non-regulatory' - row 40.

Proposed notional revenue requirements calculated using the building block method are shown in Table 6.5. The IPART-determined allowance for 2023-24 is included for comparison.

Note: The 2024-25 financial year is omitted as it does not have an IPART-determined revenue requirement due to extending our current pricing determination by one year. In 2024-25, prices have remained constant at the 2023-24 level in nominal terms, consistent with IPART's direction.

Table 6.5: Proposed revenue requirements, Total ($2024-25, $millions)

All products	IPART allowance 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Operating expenditure	189.9		193.0	194.2	197.0	197.8	196.9
Return on assets	133.9		153.9	163.4	169.9	174.3	177.7
Regulatory depreciation	101.5		101.9	110.0	116.7	122.7	128.2
Tax allowance	17.9		19.4	21.0	22.1	23.1	24.0
Working capital	2.0		1.3	1.8	2.5	2.6	2.9
Less: Revenue adjustments	-		(4.3)	-	-	-	-
Notional revenue requirement	445.1		465.1	490.5	508.1	520.5	529.8

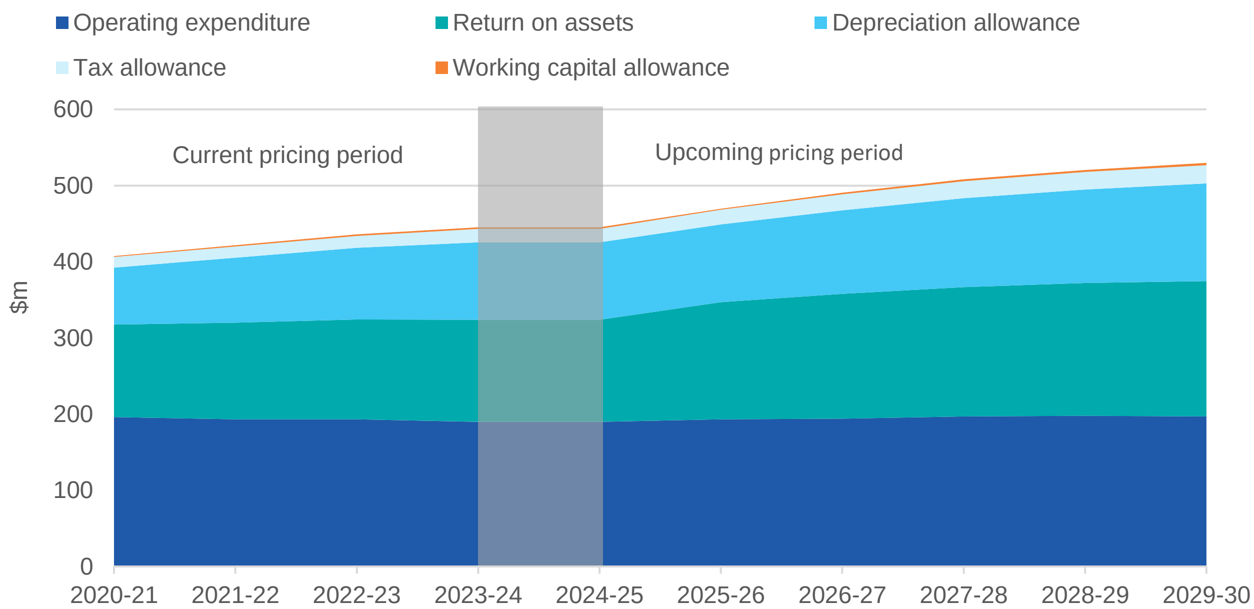
Source: Hunter Water analysis. Operating expenditure aligns with that reported in Table 5.1.

Note: The 2024-25 financial year does not have a calculated revenue requirement.

Figure 6.4 shows the building block components across the current and upcoming pricing period. The key movements are:

- An average 0.7 per cent yearly increase in operating expenditure from IPART's 2023-24 allowance to the end of the upcoming pricing period.
- A step increase in the return on assets at the start of the upcoming pricing period. This continues to trend upwards over the period. There are three reasons for this:
  - We have forecast the WACC for the upcoming pricing period at 3.6 per cent – as explained in Section 6.3.3 of this chapter. This WACC is 0.2 per cent higher than the 3.4 per cent WACC applied in the current pricing period.
  - An increase in the opening RAB of the upcoming pricing period, as compared to the closing RAB of the current pricing period, due to capital expenditure added in 2024-25 – the deferral year.
  - The RAB increases over the upcoming pricing period due to ongoing capital investment – particularly in water assets. Section 6.3.3 of this chapter provides more detail.
- A trend upwards in regulatory depreciation over the upcoming pricing period. This is due to:
  - Updated regulatory asset lives reflecting the current asset register (existing assets) and proposed capital expenditure (new assets). Asset lives are now weighted by depreciation as opposed to those in the current pricing period that are weighted by asset value. Section 6.3.4 provides more detail.
  - The increasing RAB over the upcoming pricing period.

Figure 6.4: Building block cost allowances, trend over time ($2024-25, $millions)



Source: Hunter Water analysis

Notes:
1. There is no calculated revenue requirement for the 2024-25 financial year. Prices for 2024-25 remained constant at the 2023-24 level.
2. Cost allowances in the current pricing period are as determined by IPART in their 2020 review. Cost allowances in the upcoming period are proposed by Hunter Water.

IPART's 2023 Water Regulation Handbook has allowed for modelling simplifications related to discretionary expenditure.[1] Where previous policy required the maintenance of separate RABs, revenue requirements and prices for discretionary expenditure, these costs are now included within the relevant water, wastewater or stormwater product category.

Our current discretionary projects, while linked to recycled water and stormwater assets, deliver benefits to our community as whole. To ensure recovery of these costs from our total customer base, we have included discretionary projects in the water product category. This also aligns with the application of the discretionary charge in the current pricing period – as a fixed charge to all residential water customers.

Table 6.6 shows the notional revenue requirements for each product.

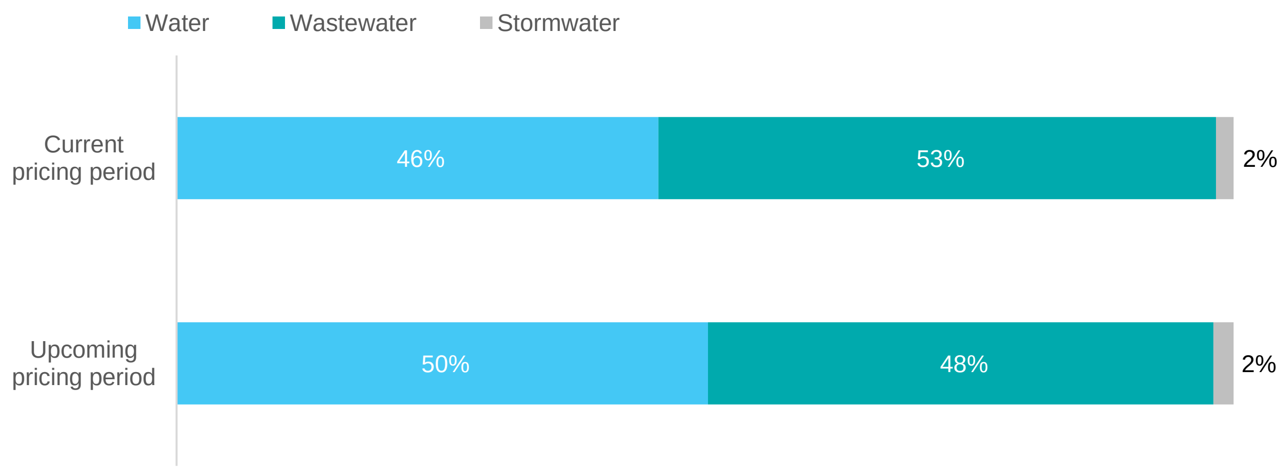
Table 6.6: Proposed revenue requirements, by product ($2024-25, $millions)

Notional revenue requirements	2025-26	2026-27	2027-28	2028-29	2029-30
Water	229.6	244.5	257.5	265.7	269.8
Wastewater	226.8	236.7	241.1	245.0	249.9
Stormwater	8.7	9.3	9.5	9.8	10.1

Source: Hunter Water analysis

In addition to changes in building block components between pricing periods (shown in Figure 6.4), there is also a shift between products. Figure 6.5 shows that required revenues for water have increased relative to wastewater, reflecting higher investment in water in the upcoming period.

Figure 6.5: Revenue requirement by product, proportion of total revenue (%)



Source: Hunter Water analysis

Attachment H provides further breakdown of revenue requirements by product and building block.

We have also calculated forecast revenue requirements for the subsequent pricing period - 1 July 2030 to 30 June 2035. Detailed in Chapter 9, these provide a longer-term view of expected price outcomes for that period.

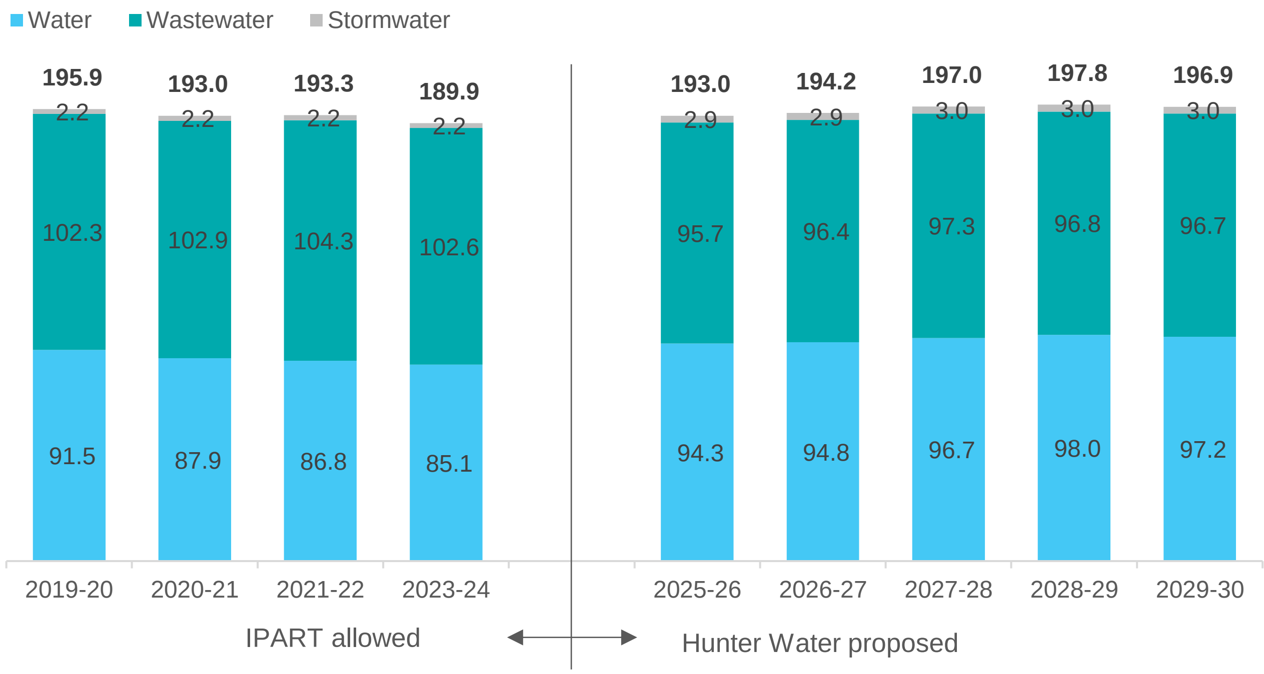
[1] IPART, 2023, Water Regulation Handbook, pg.96.

6.3.2 Higher operating expenditure allowances are required to deliver our services

Figure 6.6 summarises the proposed operating expenditure allowances by product. The allowances are consistent with those presented in Chapter 5, where we detail our base-step-trend forecast approach.

Operating expenditure related to corporate activities has been reallocated across the three products.

Figure 6.6 Proposed operating expenditure allowances, ($2024-25, $millions)



Source: Hunter Water analysis. Total proposed expenditure aligns with that reported in Table 5.1. Corporate expenditure has been allocated across water, wastewater and stormwater products.

6.3.3 Our proposed return on assets increases over the period

IPART's methodology calculates the return on assets building block by multiplying the WACC with an approximate mid-year RAB value. This occurs for each year of the pricing period. RAB values are calculated for each product – water, wastewater, stormwater and corporate.

The RAB increases over time due to new capital investment

In the 2020 price review, IPART calculated a RAB based on actual, as opposed to forecast, data until 30 June 2019. We have used this value of $2,660.5 million as our starting base to calculate the RAB over the current pricing period, as shown in Table 6.7.

This allowed us to establish the opening RAB value for 1 July 2025, and then forecast the RAB over the upcoming pricing period, see Table 6.8. We did this using actual expenditure and values until 30 June 2024, and then forecast expenditure and values between 1 July 2024 and 30 June 2030.

In accordance with IPART's method we:[1]

- added capital expenditure each year
- deducted cash capital contributions net of tax
- deducted asset disposals
- deducted IPART's 2020 allowance for regulatory depreciation until 30 June 2024 and our forecast calculation of regulatory depreciation thereafter
- added indexation until 30 June 2025.

Table 6.7 Roll forward of RAB, 2019-20 and current pricing period, ($nominal, $millions)

Component	2019-20	2020-21	2021-22	2022-23	2023-24
Opening RAB	**2,660.5**	**2,779.2**	**3,004.7**	**3,277.8**	**3,592.0**
Add: capital expenditure	176.1	179.4	161.2	199.9	230.8
Less: cash capital contributions	(7.3)	(0.3)	(0.6)	-	(1.5)
Less: asset disposals	(0.0)	(0.1)	(0.0)	(0.0)	(0.0)
Less: regulatory depreciation	(41.9)	(62.4)	(75.6)	(88.3)	(98.9)
Add: indexation	(8.2)	109.0	188.2	202.7	140.9
Closing RAB	**2,779.2**	**3,004.7**	**3,277.8**	**3,592.0**	**3,863.2**

Source: Hunter Water analysis and Hunter Water AIR/SIR, 'Capex', row 114 - row 55 x row 40 and 220, and Hunter Water AIR/SIR, 'Disposals', rows 117 and 159.

Note: Cash capital contributions are reported at 70 per cent of their value to represent the value deducted from the RAB: excluding a tax component.

[1] IPART, 2018, IPART-cost-building-block-model-template.xlsm, 'IPART policies'

Table 6.8 Roll forward of RAB, 2024-25 and upcoming period, ($2024-25, $millions)

Component	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Opening RAB	**3,863.2**	**4,147.2**	**4,450.9**	**4,679.5**	**4,807.0**	**4,925.5**
Add: capital expenditure	266.8	420.1	366.5	272.8	270.5	224.3
Less: cash capital contributions	(7.1)	(12.6)	(25.8)	(26.5)	(27.2)	(27.9)
Less: asset disposals	-	-	-	-	-	-
Less: regulatory depreciation	(95.6)	(103.7)	(112.0)	(118.8)	(124.9)	(130.5)
Add: indexation	119.8	-	-	-	-	-
Closing RAB	**4,147.2**	**4,450.9**	**4,679.5**	**4,807.0**	**4,925.5**	**4,991.4**

Source: Hunter Water analysis and Hunter Water AIR/SIR, 'Capex', rows 114 and 220, and Hunter Water AIR/SIR, 'Disposals', rows 117 and 159.

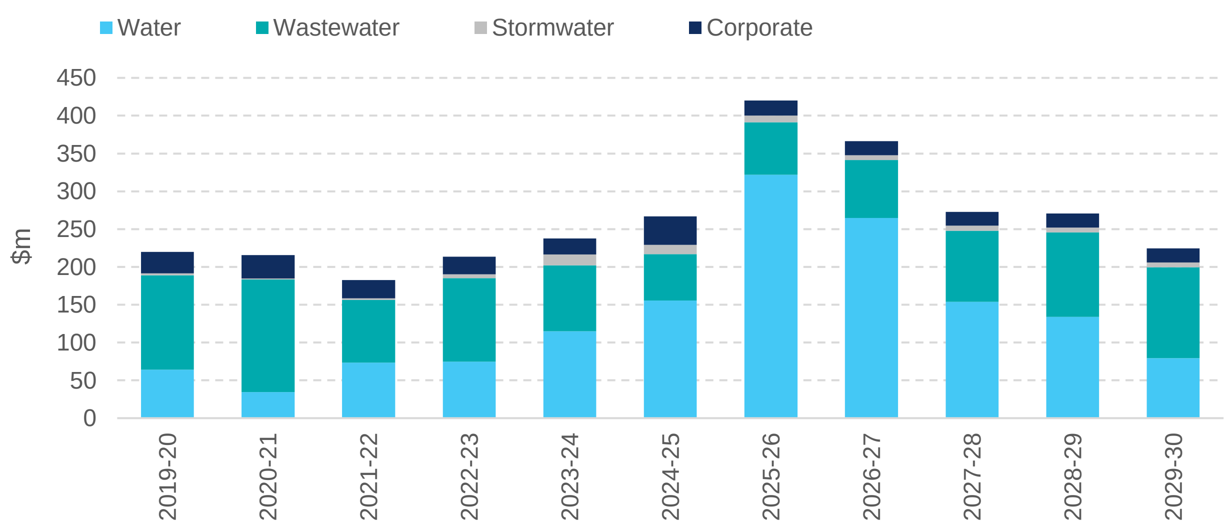
Note: Cash capital contributions are reported at 70 per cent of their value to represent the value deducted from the RAB: excluding a tax component.

Most of our capital expenditure is in water in the upcoming pricing period

Figure 6.7 shows capital expenditure included in the RAB between 1 July 2019 and 30 June 2030. This aligns with the capital expenditure described in detail in Chapter 4 of our proposal. The product breakdown indicates a shift in the focus of capital investment, from mainly wastewater in 2019-20 and the current pricing period, to mainly water in the upcoming pricing period. A large component of this relates to the Belmont desalination plant.

Construction of the Belmont desalination plant occurs during the first few years of the upcoming pricing period. The plant is expected to be completed in 2028. It then enters a two-year performance guarantee period, during which most costs continue to be capitalised for both accounting and regulatory purposes.

Figure 6.7 Capital expenditure added to the RAB ($2024-25, $millions)



Source: Hunter Water analysis
Note: Numbers reflect actual expenditure until 30 June 2024. Numbers are forecast after this point.

Cash capital contributions will increase due to the reintroduction of developer charges

Cash capital contributions are received in addition to our regulated revenues. These contributions are deducted from our RAB to ensure we do not earn a return on, or of, capital expenditure related to these. In accordance with IPART's method in our 2020 price review, we have deducted a 30 per cent tax from the contribution value.

Table 6.9 shows our cash capital contributions during 2019-20 and the current pricing period total $13.9 million. This includes:

- $7.7 million revenue in 2019-20 from the discontinued Environmental Improvement Charge
- a $2.4 million contribution in 2019-20 from the NSW Government for the Wyee backlog sewer scheme
- minor contributions from various third parties totalling $3.8 million.

Table 6.9 Cash capital contributions, 2019-20 and current pricing period ($nominal, $millions)

Cash capital contributions	2019-20	2020-21	2021-22	2022-23	2023-24
Water	0.1	0.5	0.9	-	2.0
Wastewater	10.3	0.0	0.1	-	0.0
Stormwater	-	-	-	-	0.1
Total	**10.4**	**0.5**	**0.9**	**-**	**2.1**
Tax allowance	(3.1)	(0.1)	(0.3)	-	(0.6)
Total deducted from the RAB	**7.3**	**0.3**	**0.6**	**-**	**1.5**

Source: Hunter Water AIR/SIR, 'Capex', row 220 and Hunter Water analysis.

The reintroduction of water and wastewater developer charges from 1 July 2024 increases expected cash capital contributions.

Developer charges are location-specific, upfront charges that will help to recover the costs of providing or upgrading infrastructure for new developments in our area of operations. These charges had been set to zero by the NSW Government since 2008 and are to be reintroduced through a transition whereby developers pay 25 per cent of the charge from 1 July 2024, 50 per cent of the charge from 1 July 2025 and the full charge from 1 July 2026.[1]

Table 6.10 shows the increase in contributions over the period. To forecast developer charge revenue, we have assumed developer charges remain at the same level for the entire upcoming pricing period. In practice, the developer charges will be recalculated and registered with IPART prior to 30 June 2028.

Besides developer charges, we only forecast $2 million in wastewater cash contributions for the 2024-25 year. This relates to Housing Acceleration Fund (HAF5) funding.

[1] Additional information regarding developer charges can be found on our website:

https://www.hunterwater.com.au/building-and-developing/developers-and-designers/developer-charges

Table 6.10 Cash capital contributions, 2024-25 and upcoming pricing period ($2024-25, $millions)

Cash capital contributions	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Water	2.7	6.2	12.5	12.8	13.0	13.3
Wastewater	7.4	11.9	24.4	25.1	25.8	26.5
Total	**10.1**	**18.0**	**36.9**	**37.9**	**38.8**	**39.8**
Tax allowance	(3.0)	(5.4)	(11.1)	(11.4)	(11.6)	(11.9)
Total deducted from the RAB	**7.1**	**12.6**	**25.8**	**26.5**	**27.2**	**27.9**

Source: Hunter Water AIR/SIR, 'Capex', row 220 and Hunter Water analysis.

We have minimal asset disposals

Asset disposals in 2019-20 and the current pricing period are minimal. The RAB has been reduced by only $245,000 (see Table 6.11). Disposals have been deducted from the RAB in line with IPART's 2018 policy. Modelling simplifications in IPARTs 2023 handbook would apply in the upcoming pricing period.[1]

Table 6.11 Regulatory asset disposals ($nominal, $millions)

Asset disposals	2019-20	2020-21	2021-22	2022-23	2023-24
Corporate	0.024	0.137	0.007	0.036	0.040

Source: Hunter Water AIR/SIR, 'Disposals', rows 117 and 159.

Values deducted from the RAB are based on the regulatory value of the asset or estimates of this value, if unknown. The regulatory value is generally known if the asset is post 'line-in-the sand' (post 2000). The estimate of the regulatory value of pre 'line-in-the sand' assets is based on the RAB to Depreciated Replacement Cost (DRC) ratio at 1 July 2000. For Hunter Water this ratio is 0.42.

The value to be deducted from the RAB also depends on whether the asset is considered 'significant' or 'non-significant'. A 'significant' asset is subject to capital gains tax (CGT) or exceeds 0.5 per cent of the total RAB value. Table 6.12 shows our treatment of asset disposals over 2019-20 and the current pricing period.

Table 6.12: Treatment of asset disposals, 2019-20 and current pricing period

Year	Asset disposals
2019-20	Equipment sales (civil) – non-significant assets deducted at sales value
2020-21	Equipment sales – non-significant assets deducted at sales value
2021-22	Land sale at Vacy – significant post line-in-sand asset deducted at sales value
2022-23	Equipment sale – non-significant asset deducted at sales value Land sales at Tomago – significant pre line-in-sand assets deducted at 0.42 of sales value Land sales at Tomago – significant post line-in-sand assets deducted at sales value
2023-24	Sale of Kubota excavator (equipment) – non-significant post line-in-sand deducted at sale value

Source: Hunter Water analysis

We have forecast no asset disposals in 2024-25 or the upcoming pricing period. Amendments to the *Constitution Act* 1902 (NSW) in 2023 prohibit the sale or disposal of Hunter Water or its main undertakings without an Act of Parliament.

[1] IPART, 2023, Water Regulation Handbook.

Our forecast WACC of 3.6 per cent is higher than in the current pricing period

The WACC estimate is used to calculate the return on our RAB. It is IPART's measure of the cost of financing regulated business activities. The WACC methodology reflects the efficient cost of debt and equity through time for a benchmark firm. IPART applies a real, post-tax WACC method.

IPART will set the WACC estimate for the upcoming pricing period close to the start of the period – around March 2025. IPART's WACC methodology applies a trailing average approach, with the cost of debt split into a number of annual equal tranches.

Equal weighting is applied to current and long-term market data in the calculation of a mid-point WACC. The current (short-term) trailing average includes market data from the number of years in the pricing period. The long-term trailing average includes market data from 10 years.

The change in the length of Hunter Water's pricing period from the current four-year period to the upcoming five-year period, lengthens our current cost of debt trailing average to five years.

For our pricing proposal, we have forecast our best estimate of the WACC for March 2025 as 3.6 per cent. This forecast WACC is higher than the 3.4 per cent from the current pricing period. This increases the return on assets and places upwards pressure on customer bills.

We have used the same method as the current pricing period to calculate the WACC. Since the calculation of the 3.4 per cent in March 2020:

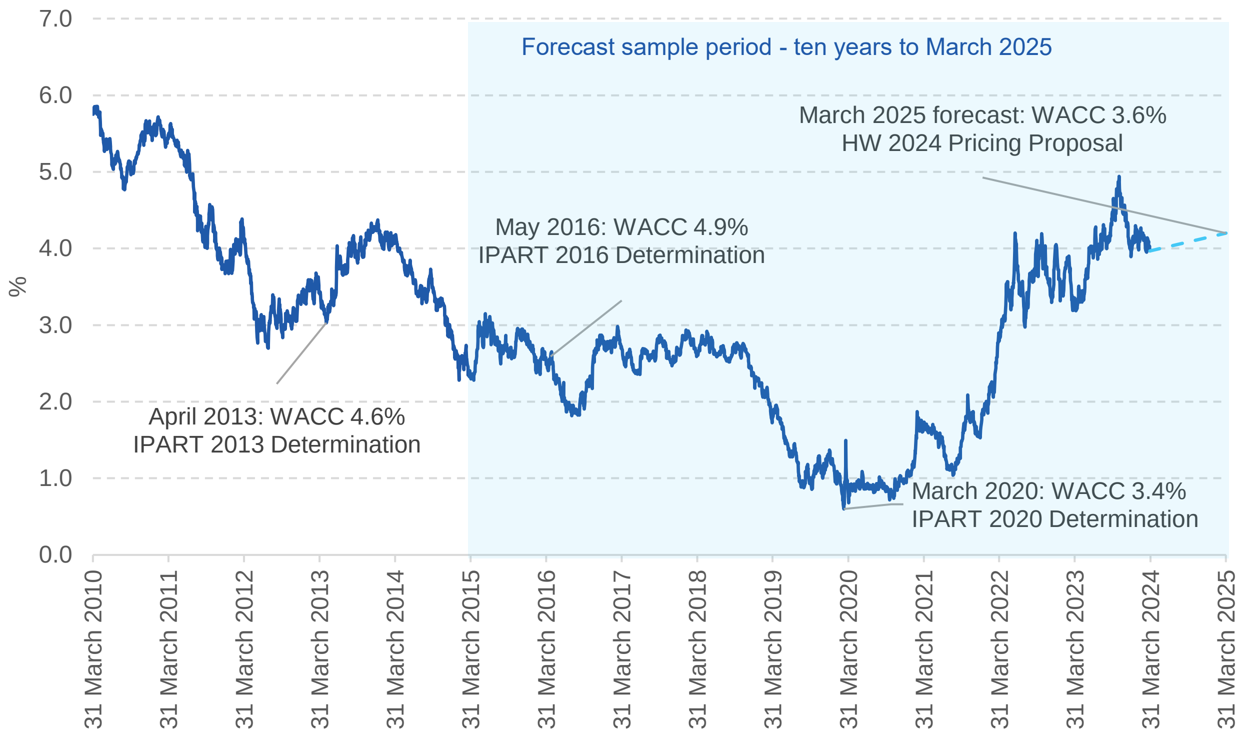
- Market interest rates have increased by around 3.0 per cent between March 2020 and March 2024, see Figure 6.8. This increases the calculated WACC.
- Longer-term interest rates included in the 10-year trailing averages have dropped. The interest rates between March 2010 and March 2015 are much higher than those between March 2015 and 2020 (see Figure 6.8). This has dampened the increase in the WACC caused by current market data.

Figure 6.8 shows that despite the increase, our proposed WACC is still significantly lower than that determined in IPART's 2013 and 2016 pricing determinations at 4.6 and 4.9 per cent, respectively. This reflects both a continuation of high historic market interest rates pre-March 2010, and changes in IPART's WACC methodology.

The WACC parameters for our forecast WACC of 3.6 per cent for March 2025 are detailed in Table 6.13. The nominal risk-free rate and implied debt margin trailing averages include actual data up until March 2024, followed by forecast data for the March 2025 observation period. The forecast March 2025 risk-free rate and debt margin were sourced from NSW Treasury Corporation (TCorp). The inflation forecast of 2.5 per cent incorporates the IPART CPI forecast of 2.5 per cent for the forward year, followed by the RBA midpoint of 2.5 per cent over the remainder of the five-year geometric mean calculation. We have forecast the current market risk premium of 8.0 per cent based on a linear regression with the risk-free rate. Other parameters align with IPART precedent.

The WACC is an important determinant of prices, and we have calculated customer bill impacts for two alternative WACC levels as sensitivity analysis. Section 9.3 details the bill outcomes that would result from ether a 3.3 per cent, or 3.8 per cent WACC.

Figure 6.8 Daily yield on Australian government bonds and WACC outcomes (%)



Source: RBA Statistical tables – Capital Market Yields – Government Bonds – Daily – F2 and Hunter Water analysis.

Table 6.13 WACC parameters, forecast for March 2025

Parameter	Current market data	Mid-point	Long term averages
Nominal risk-free rate	3.0%	2.8%	2.6%
Inflation	2.5%	2.5%	2.5%
Implied debt margin	2.3%	2.3%	2.3%
Market risk premium	8.0%	7.0%	6.0%
Debt funding	60%	60%	60%
Equity funding	40%	40%	40%
Gamma	0.25	0.25	0.25
Corporate tax rate	30%	30%	30%
Equity beta	0.70	0.70	0.70
Post tax real WACC	4.0%	3.6%	3.1%

Source: Hunter Water analysis

6.3.4 Regulatory depreciation is sensitive to applied asset lives

The regulatory depreciation allowance directly reflects:

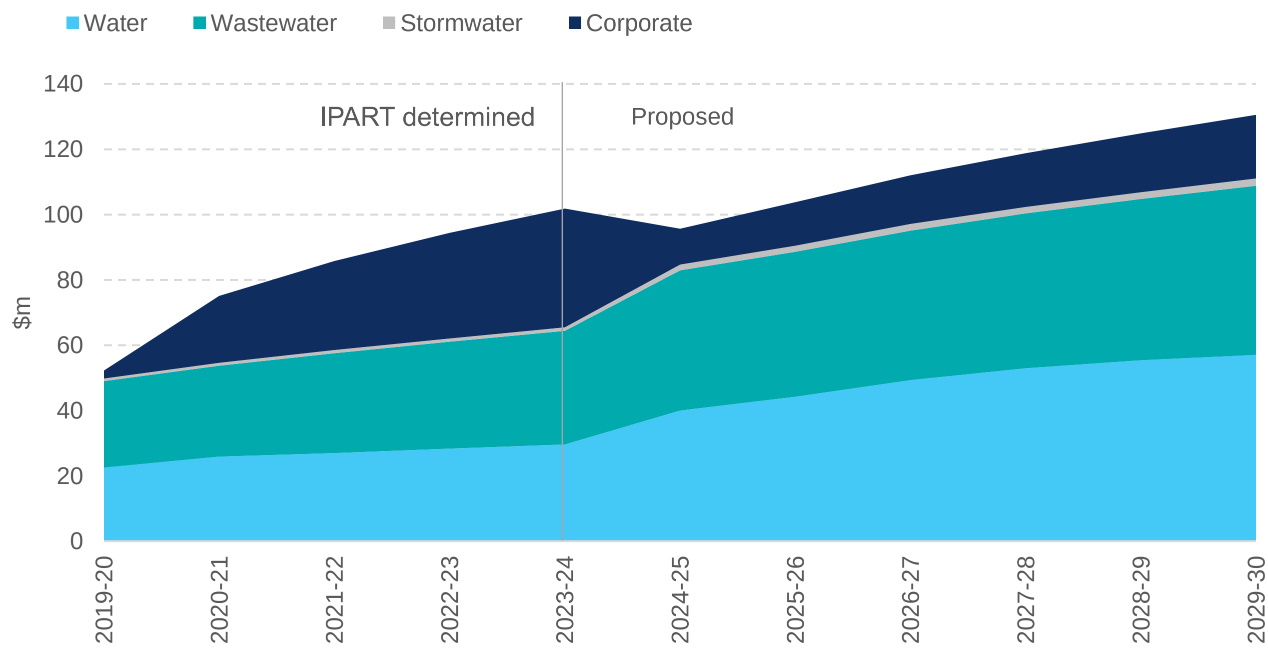
- RAB values at the start of a pricing period
- capital investment that enters the RAB during a pricing period
- the regulatory asset lives applied to new and existing assets.

Figure 6.9 shows regulatory depreciation between 1 July 2019 and 30 June 2030 by product. Product RAB values have increased steadily over this time.

Depreciation allowance for assets related to corporate activities is allocated across the other products, in proportion to average RAB values.

Regulatory asset lives are set to reflect the group of assets to which they relate. Individual assets in our system have a broad range of useful economic lives. For example, in our water network system, the useful economic life of pipelines is around 100 years. The useful life of the electrical mechanical components of pump stations to transfer water through these pipelines is around 30 years. Due to this mix of assets across our system, individual asset lives need to be weighted to reflect their proportion of the group.

Figure 6.9 Regulatory depreciation by product ($2024-25, $millions)



Source: Hunter Water analysis

Figure 6.9 highlights three distinct changes in assumption regarding asset lives over recent pricing periods:

- In the 2016-20 pricing period, IPART set consistent economic asset lives across all product groups – one life for all RAB categories. The asset lives reduced each year across the pricing period, ending in 2019-20 with existing asset lives set at 66 years and new asset lives set at 84 years.
- In the current pricing period, IPART disaggregated the RAB by product and asset component to calculate a more detailed depreciation allowance. Regulatory asset lives were set across 42 asset groups,

weighted by asset value. These groupings included discretionary and non-discretionary expenditure RAB's disaggregated by product (water, wastewater, stormwater and corporate) and asset component (civil, electrical/mechanical, equipment, intangibles and non-depreciating), and then split between new and existing assets.

The corporate RAB also included a 'transition' component. This was established to recognise that a significant proportion of corporate assets (intangibles and equipment) had previously been under-depreciated under a high system-wide asset life. The increase in corporate depreciation allowance from 2020-21 to 2023-24 reflects this 'transition' component. Depreciated at a nine-year useful life, this effectively included some 'catch-up' in corporate depreciation allowance that had historically not been recovered.

- From 1 July 2024 onwards, we propose fewer RAB categories, with only two asset categories in each product, namely depreciating and non-depreciating assets. To set asset lives we also propose to weight assets within each category by depreciation. Our proposal reflects modelling simplications made by IPART in their 2023 Water Regulation Handbook.

  Our proposed asset lives are lower than previous pricing periods and therefore cause a shift upwards in our water, wastewater and stormwater allowance. To ensure that customers are not unfairly burdened by the higher depreciation allowance, we have discontinued the use of the corporate transition RAB and reallocated it across the other products. This change effectively lengthens the asset life of the corporate transition assets. The reallocation of the corporate transition RAB results in the step downwards in the corporate depreciation allowance.

Over the upcoming pricing period, the addition of capital expenditure to the RAB outpaces regulatory depreciation. This results in continued growth in the RAB. This is explained by the following factors:

- IPART set a 'line-in-the-sand' RAB at 30 June 2000 where the value of assets in the RAB were set at 42 per cent of their DRC at the time. Regulatory depreciation of existing assets is reflective of this lower asset value. Capital expenditure added to the RAB, however, is at full cost. As assets dated pre-30 June 2000 are replaced, they will increase in value to reflect their full replacement cost.
- We are experiencing growth in demand for services and performing to increasingly higher levels of service and/or quality. Capital expenditure that enters the RAB and regulatory depreciation that is deducted from the RAB, should theoretically align if all capital expenditure relates to the replacement of existing assets. Capital expenditure during the upcoming period includes increased water security, meeting growth in demand for services, and incremental improvements in safety and compliance. Expenditure is therefore higher than would be required to purely renew the existing asset base.

  As outlined earlier, IPART has reintroduced upfront levies to fund growth infrastructure through developer charges. Treated as cash capital contributions and deducted from the RAB as earned, it is expected that these charges will fund capital investment related to growth over time. Once developer charges are reintroduced in full and have been operational for a longer period, these contributions will have a greater impact on reducing the RAB and lowering retail customer bills.
- Recent costs of capital investment have been increasing higher than inflation. Over time the RAB has been inflated in line with CPI figures. Recent experience has shown that costs of construction and replacement of assets has increased at higher than this rate. However, countering this is that conceptually, renewals should be delivered more efficiently over time.

We have chosen to weight asset lives by depreciation

We propose the remaining economic lives of existing assets, and expected lives of new assets in Table 6.14. Our proposed existing and new asset lives are weighted by depreciation and fall within IPART's acceptable range of asset lives, per regulatory guidance. IPART recognise that it is more accurate over the short term to weight asset lives by depreciation and recommend this approach unless there is good reason to adopt a different one.[1]

[1] IPART, 2023, Water Regulation Handbook, pg.94.

Weighting grouped asset lives by depreciation ensures that the weighted asset life accurately reflects the depreciation of the grouped assets. This approach helps ensure that the capital we invest in regulatory assets is returned over the useful life of each asset. By contract, weighting asset lives by asset value skews the weighting toward higher value assets which typically have longer asset lives and lower annual depreciation (e.g. pipelines, civil works).

Table 6.14 Proposed existing and new asset lives from 1 July 2024, years

Product	Existing Assets	New Assets
Water	44	56
Wastewater	49	42
Stormwater	46	87
Corporate	8	12

Source: Hunter Water AIR/SIR, 'SIR Asset lives & WC' – rows 22, 23, 24, 25, 28, 29, 30 and 31.

Asset lives proposed are calculated based on, and applied to, the six-year period from 1 July 2024. Proposed asset lives reflect modelling simplications made by IPART in their 2023 Water Regulation Handbook.

Existing asset lives are calculated using our 30 June 2024 DRC asset register. The following adjustments have been made to DRC values to reflect regulatory settings:

- Existing assets dated pre-30 June 2000 are included at 42 per cent of their value. This recognises IPARTs 'line-in-the-sand' RAB at that date, and the value at which assets were included in the RAB.
- The DRC has been forecast forward six years to cover 2024-25 and the upcoming pricing period. This includes a reduction for retired assets each year and excludes any new capital expenditure.

In addition, the non-depreciating component of our wastewater RAB has been reallocated to depreciating, to be consistent with a recently completed (early 2024) external revaluation of these assets. A material change was advised in this valuation where the cavity (i.e. the hole in the ground) associated with wastewater gravity mains should be treated as a depreciating asset, rather than our previous classification as a non-depreciating asset.

Our DRC asset register and our financial statements now reflect this change. To reflect this change in the regulatory value of assets, we have reclassified most of our non-depreciating wastewater RAB to depreciating.

The longer existing asset lives of our wastewater assets (49 years) compared to new wastewater assets (42 years), reflects the higher porportion of long life assets (e.g. pipelines, where the trench is excavated and the pipes are installed) within the existing RAB. Capital expenditure on watewater assets includes a higher proportion of replacement assets with shorter lives. For example, watewater gravity mains are relined, as opposed to excavating a trench prior to installing the pipe.

New asset lives reflect our forecast capital expenditure over the six-year period. Each investment item has been allocated an economic useful life that takes into consideration external asset valuation reports, tax asset lives and industry standards.

For regulatory purposes, capital expenditure is included in the RAB when incurred and starts depreciating from day one. By contrast, capital expenditure is not depreciated for accounting purposes until the asset is completed or commissioned. Hunter Water does not consider it appropriate for customer prices to include the recovery of depreciation on assets that are work in progress (WIP) and have not yet been completed or ready for use.

To reflect the average time assets are classified as WIP, the overall weighted asset lives of both existing and new assets have been extended by one year for corporate assets and two years for water, wastewater and stormwater assets. We estimate that between 7.7 per cent to 14.6 per cent of our assets will be classified as WIP over the upcoming pricing period.

6.3.5 To calculate the tax allowance, we apply a 30 per cent tax rate to projected taxable income

Per IPART's method, the calculation of the tax allowance is done in nominal dollars, inflated using the WACC point estimate of inflation. The calculated tax expense is adjusted for the value of hypothetical franking credits.

To estimate taxable income, both regulatory components, including revenue requirements from other building block components, and non-regulatory components, including interest and depreciation expense are included.

In Table 6.15, notional revenue requirements and operating costs directly reflect regulatory building block calculations. In addition to this we have:

- Added assets received free of charge

  Also known as non-cash capital contributions, these assets do not enter the RAB and therefore we do not receive a return on them. The assets, do however, enter the income statement and therefore incur tax.

  Our forecast assets free of charge in Table 6.15 reflects recent performance, with no major deviation from this expected over the pricing period.

- Deducted a forecast of regulated tax depreciation

  Our forecast of tax depreciation is projected from a 30 June 2023 actual base. The expense increases over the upcoming pricing period based on the value of our asset additions and the expected average life of assets added. Asset additions include our capital expenditure profile, assets received free of charge, and adjustments made for the movement in WIP and retired assets.

  We exclude depreciation related to operating leases. Contrary to accounting treatment, operating lease costs are treated as an operating expense for regulatory purposes and recovered through the operating cost building block.

- Deducted forecast interest expense. This is based on the IPART notional calculation and reflects benchmark utility gearing and capital structure rather than our own.

Table 6.15 Tax allowance calculation ($nominal, $millions)

	2025-26	2026-27	2027-28	2028-29	2029-30
Notional revenue requirements – excluding tax	461.3	493.3	523.4	549.0	572.2
Add: Assets received free of charge	30.4	31.2	31.9	32.7	33.6
Less: Operating costs	(197.8)	(204.0)	(212.1)	(218.3)	(222.8)
Less: Tax depreciation	(89.9)	(96.8)	(103.6)	(109.7)	(115.9)
Less: Interest expense	(135.5)	(147.7)	(157.7)	(165.8)	(173.3)
Profit before tax	68.5	75.8	82.0	87.9	93.7
Tax	19.9	22.0	23.8	25.5	27.2
Tax allowance ($24-25)	**19.4**	**21.0**	**22.1**	**23.1**	**24.0**

Source: Hunter Water analysis and Hunter Water AIR/SIR, 'Other', row 87.

6.3.6 The working capital allowance is our smallest block

The working capital allowance provides recovery of costs incurred from delays between delivering regulated services and receiving payments for those services. We have adopted IPARTs 2018 method of calculation, with two small updates to the calculation methodology as outlined in the 2023 Water Regulation Handbook.[1]

The working capital calculation involves an estimate of receivables, payables, inventory, and prepayments.[2] The two calculation updates standardise input assumptions related to receivables.

To estimate receivables, we have assumed:

- 21 days is an efficient period of time between the last day of a billing cycle and the receipt of payment. This is based on the period between the invoice date and due date on our bills.
- The number of days in the billing cycle that fixed charges are billed in advance has been set to half the number of days in the billing cycle (60.8 days). Likewise, the number of days that fixed charges are billed in arears has also been set to 60.8 days. Customers can be billed any time in a billing cycle, for the service charge of that cycle. On average, the number of customers billed in advance – at the start of a cycle, is assumed to be offset by the number of customers billed in arrears – at the end of a cycle.
- The overall share of fixed versus usage charges differs by product. Proportions are based on estimated revenue in the 2024-25 year. These are 4.4 per cent for water, 97.5 per cent for wastewater and 100 per cent for stormwater.
- Taking into account both fixed and usage charges, we calculate the net number of days billed in arrears at 58.1 days for water, 1.5 days for wastewater and nil for stormwater.

To calculate payables, we have used the benchmark number of days delay. This is 30 days.

Our inventory and prepayments are based on the forecast value on 30 June 2025. Prepayments include land tax, various ICT contracts, and our head office lease. There is little change in the value of both our inventory and prepayments between financial years.

Our proposed working capital allowance is shown in Table 6.16.

Table 6.16 Working capital allowance calculation, upcoming pricing period ($2024-25, $millions)

	2025-26	2026-27	2027-28	2028-29	2029-30
Receivables	62.8	66.8	69.9	72.0	73.2
Payables	3.6	3.6	3.6	3.6	3.6
Inventory	4.1	4.1	4.1	4.1	4.1
Prepayments	(49.3)	(44.0)	(36.4)	(36.3)	(32.3)
Net working capital	21.2	30.6	41.2	43.6	48.6
Working capital allowance	1.3	1.8	2.5	2.6	2.9

Source: Hunter Water analysis and Hunter Water AIR/SIR, 'SIR Asset lives & WC', rows 69 and 76.

[1] IPART, 2023, Water Regulation Handbook, p. 97

[2] IPART, 2018, Working Capital Allowance, Policy Paper.

6.3.7 Our 2025-26 revenue allowance requires two adjustments

IPART's 2020 Final Report details two revenue adjustments relevant to the current pricing period.[1] These include:

- demand volatility adjustment mechanism (DVAM), triggered when revenue from actual water sales varies more than 5 percent from forecast
- annual WACC adjustment – IPART will apply an end of period true-up to reflect annual changes in WACC value.

Lower than forecast water sales result in an upward revenue adjustment

Since the 2016 review of our prices, IPART have included a DVAM in revenue allowances. This protects both us and our customers from high volatility in actual versus target water sales during a pricing period. It allows any over or under-recovery in sales, above a 5 per cent materiality threshold or 'deadband', to be adjusted for in the subsequent period.

In 2020, IPART calculated the DVAM adjustment for the 2016 pricing period based on actual, as opposed to forecast, data until 30 June 2019. The DVAM calculation for the current pricing period will therefore include water sales from 1 July 2019. At the time, IPART stated the DVAM assessment for the current pricing period would include water sales until 2022-23. Due to the extension of the price determination by one year, we propose to also include the 2023-24 financial year.

At the time of our proposal, water sales related to this period are forecast. Actual water sales for the period will be known early-November 2024, after the end of the next billing cycle. At this point all water meters would have been read once since 30 June 2024, and water usage related to the final bill cycle in 2023-24 will be known. We will provide IPART an update to our DVAM calculation at this time.

We have used a DVAM calculator provided by IPART to calculate a $5.8 million upward revenue adjustment related to the period 1 July 2019 to 30 June 2024. The calculation is shown in Table 6.17.

[1] IPART, 2020, Review of prices for Hunter Water Corporation - Final Report.

Table 6.17 Calculation of DVAM revenue adjustment

	Unit	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Price							
Usage price – average across tiers	$nominal/kL	2.33	2.42	2.50	2.65	2.88	
Short Run Marginal Cost (SRMC) of water	$nominal/kL	0.11	0.12	0.12	0.12	0.12	
Usage price net of SRMC	$nominal/kL	2.22	2.30	2.38	2.53	2.76	
Water sales							
Water sales - forecast	ML	56,290	58,180	59,337	60,255	60,677	
Water sales - billed	ML	55,463	53,647	53,660	56,064	59,207	
Revenue calculation							
Water sales - forecast	$nominal m	124.8	134.0	141.0	152.7	167.4	
Water sales - forecast	$24-25m	155.8	161.1	159.7	163.2	172.4	
Add: holding costs	$24-25m	39.6	32.8	24.7	17.7	11.0	
Water sales - forecast	$24-25m	195.3	193.9	184.5	180.9	183.4	**937.9**
Water sales - actual	$nominal m	123.0	123.5	127.5	142.0	163.4	
Water sales - actual	$24-25m	153.5	148.5	144.5	151.9	168.3	
Add: holding costs	$24-25m	39.0	30.2	22.4	16.4	10.7	
Water sales - actual	$24-25m	192.4	178.7	166.8	168.3	179.0	**885.3**
DVAM calculation							
Variance in water sales	$24-25m	(2.9)	(15.1)	(17.7)	(12.6)	(4.4)	**(52.6)**
Variance	%						5.6%
5% sales threshold	$24-25m						**46.9**
DVAM adjustment	$24-25m						**5.8**

Source: Hunter Water analysis. Forecast and actual water sales align with Table 7.10.

Note: Results for 2023-24 are based on forecast. Final numbers will be provided to IPART in late 2024.

We have applied a downward adjustment to revenues for the end of period WACC calculation

IPART's 2020 Final Report included a rate of return of 3.4 per cent. This was based on market parameters until March 2020 and includes a ten-year historic trailing average cost of debt. The end of period WACC true-up adjusts for movements in this trailing average each year during the pricing period. For each new year, the oldest tranche of debt drops off, replaced by a new tranche.

We have used IPART's WACC true-up calculator to determine an end of period downward adjustment of $10.1 million. Table 6.18 provides a summary of the calculation.

Table 6.18 Calculation of WACC true-up revenue adjustment

	Unit	2020-21	2021-22	2022-23	2023-24	Total
Average RAB – IPART determined	$19-20 $m	3,038.6	3,038.6	3,038.6	3,038.6	
Total debt – IPART determined	$19-20 $m	1,823.2	1,823.2	1,823.2	1,823.2	
WACC						
IPART determined	%	3.4	3.4	3.4	3.4	
Re-calculated	%	3.4	3.1	3.2	3.6	
Cost of debt						
IPART determined	%	2.2	2.2	2.2	2.2	
Re-calculated	%	2.2	1.9	2.0	2.3	
Return on debt						
IPART determined	$19-20 $m	40.1	40.1	40.1	40.1	160.4
Re-calculated	$19-20 $m	40.1	34.6	36.5	41.9	153.1
Difference	$19-20 $m	0.0	(5.5)	(3.6)	1.8	(7.3)
Difference - PV	$19-20 $m	0.0	(6.0)	(3.9)	1.9	(8.1)
Difference – PV	**$24-25 $m**	**0.0**	**(7.5)**	**(4.9)**	**2.4**	**(10.1)**

Source: Hunter Water analysis

6.3.8 We deduct other regulated revenue and non-regulated profits from revenue requirements

In Table 6.19, forecasts of other regulated revenue and non-regulated profits are deducted from notional revenue requirements to determine sales revenue.

Sales revenue refers to revenue received from water, wastewater and stormwater service and usage prices. To calculate these prices, we have applied NPV revenue smoothing. In Table 6.19,'sales revenue - target', achieves the same revenue over the pricing period in NPV terms as 'unsmoothed sales revenue'. This equates to $2,214.3 million.

IPART regulates prices that we can charge for miscellaneous and trade waste services. Forecast other regulated revenues in Table 6.19 reflect proposed charges and demand for these services, explained in Chapter 8.

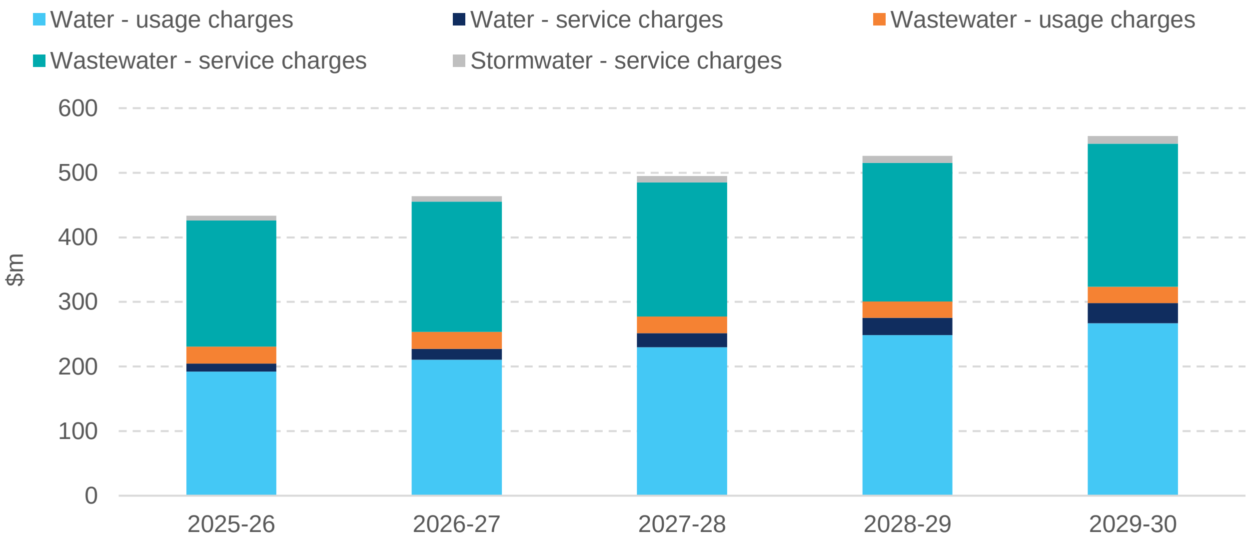
Table 6.19 Calculation of required sales revenue ($2024-25, $millions)

All products	IPART allowance 2023-24	2025-26	2026-27	2027-28	2028-29	2029-30
Notional revenue requirements	445.1	465.1	490.5	508.1	520.5	529.8
Less: Other regulated revenues	(6.1)	(6.9)	(7.0)	(7.1)	(7.2)	(7.3)
Less: Non-regulated profit	(1.7)	(2.1)	(2.1)	(2.0)	(2.0)	(2.1)
Unsmoothed sales revenue	437.4	456.1	481.4	499.0	511.3	520.4
Sales revenue - target	437.6	433.4	463.7	494.8	526.0	556.8

Source: Hunter Water analysis and Hunter Water AIR/SIR, 'Revenue' – rows 80,123,126,127,129,131,134 and 135 and Hunter Water AIR/SIR, 'SIR Non-regulatory' - row 40.
Notes:
1. Trade waste and miscellaneous charge revenue is included in "Other regulated revenue'.
2. Non-regulated profit is reported at 50 per cent of its value. This represents the portion 'shared' with customers.

Figure 6.10 provides a breakdown of the proposed sales revenue target by product and type of charge – service or usage. Like the current pricing period, we propose to recover most of our water revenues through variable usage charges. Most wastewater revenues will be recovered through fixed service charges. All stormwater revenues are recovered through fixed service charges. Chapter 8 explains how individual prices have been calculated.

Figure 6.10 Sales revenue by product, proposed, upcoming period ($2024-25, $millions)



Source: Hunter Water analysis

Profits from non-regulatory activities are shared with customers

Through non-regulatory activities, a regulated utility can generate income from its assets outside of that from regulated prices. IPART encourages a utility to pursue non-regulated revenue and optimise the use of assets when this does not compromise delivery of core services. IPART consider the 'sharing' of non-regulated revenues both encourages non-regulatory activities, and appropriately compensates customers who have paid for the assets through the building block framework.[1]

IPART's 2023 Water Regulation Handbook outline their policy to share 50 per cent of forecast profits from non-regulatory activities with customers.[2] This is a shift from the previous methodology that included the sharing of revenue, rather than profits. This update requires us to forecast incremental costs of non-regulatory activities and exclude these costs from the base operating cost allowance.

Non-regulated profits primarily result from rental income related to regulatory assets. Table 6.20 shows the calculation of non-regulated profit shared with customers.

Table 6.20 Proft from non-regulatory activities ($2024-25, $millions)

All products	2025-26	2026-27	2027-28	2028-29	2029-30
Non-regulated revenue	4.4	4.4	4.3	4.3	4.4
Non-regulated incremental cost	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Non-regulated profit	4.1	4.1	4.1	4.0	4.2
Non-regulated profit - shared with customers	2.1	2.1	2.0	2.0	2.1

Source: Hunter Water analysis and Hunter Water AIR/SIR, 'SIR Non-regulatory', row 40.

[1] IPART, 2020, Review of prices for Hunter Water Corporation - Final Report, pg. 31

[2] IPART, 2023, Water Regulation Handbook

6.4 Proposed target revenues pass IPART's financeability test

Fitch Ratings (Fitch) completed their most recent credit rating report for Hunter Water in December 2023, resulting in no change to our standalone credit profile of 'a-', with a stable outlook. By comparison, Moody's last rating of Hunter Water in October 2020 was 'Baa2' (BBB), with a stable outlook.

Both Fitch and Moody's have a strong focus on the funds from operations (FFO) interest coverage and net debt to RAB metrics. However, Moody's also focus on the FFO to net debt metric, which is our weakest metric.

Fitch also assigned Hunter Water a long-term issuer default rating (IDR) of AAA, with a stable outlook. The IDR is equalised with that of the State of New South Wales, reflecting Fitch's assessment of "*the state's 'Very Strong' support responsibility as it has full ownership and control of Hunter Water. In addition, Hunter Water is strategically important as it provides water and wastewater services in the Lower Hunter region of NSW.*" [1]

IPART's financeability test assesses the impacts of pricing decisions on the financial sustainability of a regulated utility. The test outlines a process for identifying potential financeability concerns and identifies ways to address these that support efficient and prudent decision-making by regulated businesses. [2]

IPART continues to assess financeability against a target BBB credit rating outcome. Table 6.21 shows determined target ratios that IPART considers a BBB rated business would meet under the building block approach. The benchmark test assesses whether building block outcomes allow an efficient, investment grade utility to remain financially viable. The actual test ensures the utility is actually financeable over the pricing period.

Table 6.21 Target ratios for benchmark and actual test

Ratio	Benchmark test	Actual test
Interest cover	>2.2x	>1.8x
FFO over debt	>7.0%	>6.0%
Gearing	<70%	<70%

Source: IPART 2018. For the benchmark test the ratios are known as Real interest cover and Real FFO over debt to recognise that a real cost of debt assumption is used.

We have replicated IPART's financeability methodology to test the financial implications of this pricing proposal. The results are presented in Table 6.22.

Included revenues are smoothed, to align with expected revenue outcomes from prices. Our weakest metric, FFO over debt, does not meet target in the first two years of analysis, however, improves over the period. This reflects the price smoothing technique applied where target revenue is less than revenue requirements at the start of the period, however higher at the end of the period.

Due to the uplift in financial metrics and out-performance against target by the end of the pricing period we consider the financial risk is manageable in the short term.

[1] Fitch Ratings, Final ratings report for Hunter Water, published 21 December 2023. Available at: https://www.fitchratings.com/research/corporate-finance/hunter-water-corporation-09-01-2024

[2] IPART, 2018, Review of financeability test – Final Report

Table 6.22 Financeability metrics against targets, proposed revenue requirements

Financial metric	2025-26	2026-27	2027-28	2028-29	2029-30
Benchmark Test					
Real interest cover	3.2	3.4	3.7	4.0	4.3
Target >2.2	✓	✓	✓	✓	✓
Real FFO over debt	5.8%	6.3%	7.0%	7.7%	8.6%
Target >7.0%	✗	✗	✓	✓	✓
Gearing	60%	60%	60%	60%	60%
Target <70%	✓	✓	✓	✓	✓
Actual Test					
Interest cover	2.5	2.4	2.4	2.5	2.6
Target >1.8	✓	✓	✓	✓	✓
FFO over debt	6.0%	6.6%	7.0%	7.6%	8.2%
Target > 6.0%	✓	✓	✓	✓	✓
Gearing	54%	54%	53%	53%	53%
Target <70%	✓	✓	✓	✓	✓

Source: Hunter Water analysis.

We have excluded revenue from developer charges in the calculation of the benchmark test. The test focuses on building block and price outcomes from this proposal in isolation. We have, however, included revenue from developer charges in the calculation of the actual test. This aligns with the approach taken by credit rating agencies and recognises the additional short-term cash-flow provided by these charges.

We have tested financeability metrics under alternative WACC scenarios

Our pricing proposal is based on our best forecast of the WACC at March 2025. As sensitivity analysis, we tested a 3.3 per cent and 3.8 per cent WACC for the upcoming pricing period.

For these scenarios, we have adjusted our forecast borrowings in the actual test to recognise a change in revenue allowances. We have not adjusted our forecast cost of debt in the actual test. The change in WACC is assumed to be the result of different market risk premium and inflation parameters.

Results in Table 6.23 and Table 6.24 show the Real FFO over debt is our weakest metric and does not meet IPART's benchmark target in the first half of the pricing period. Results are weakest in the 3.3 per cent scenario. If this outcome did eventuate, we would need to consider whether this financial risk is manageable in the short term or whether a material financeability concern exists.

In their 2018 Final Report on the review of the Financeability test, IPART identifies a process that will be followed when a financeability concern exists. Under this process, IPART would reassess pricing decisions and adjust regulatory settings.[1]

Table 6.23 Financeability metrics against targets, WACC sensitivity 3.3 per cent

Financial metric	2025-26	2026-27	2027-28	2028-29	2029-30
Benchmark Test					
Real interest cover	3.3	3.5	3.7	3.9	4.1
Target >2.2	✓	✓	✓	✓	✓
Real FFO over debt	5.8%	6.2%	6.7%	7.2%	7.9%
Target >7.0%	✗	✗	✗	✓	✓
Gearing	60%	60%	60%	60%	60%
Target <70%	✓	✓	✓	✓	✓
Actual Test					
Interest cover	2.5	2.4	2.3	2.4	2.4
Target >1.8	✓	✓	✓	✓	✓
FFO over debt	5.8%	6.3%	6.5%	6.9%	7.4%
Target > 6.0%	✗	✓	✓	✓	✓
Gearing	54%	54%	53%	53%	53%
Target <70%	✓	✓	✓	✓	✓

Source: Hunter Water analysis.

[1] IPART, 2018, Review of financeability test – Final Report, p. 58.

Table 6.24 Financeability metrics against targets, WACC sensitivity 3.8 per cent

Financial metric	2025-26	2026-27	2027-28	2028-29	2029-30
Benchmark Test					
Real interest cover	2.9	3.1	3.4	3.7	4.1
Target >2.2	✓	✓	✓	✓	✓
Real FFO over debt	5.6%	6.2%	7.0%	7.9%	8.9%
Target >7.0%	✗	✗	✓	✓	✓
Gearing	60%	60%	60%	60%	60%
Target <70%	✓	✓	✓	✓	✓
Actual Test					
Interest cover	2.5	2.5	2.5	2.6	2.7
Target >1.8	✓	✓	✓	✓	✓
FFO over debt	6.1%	6.8%	7.3%	7.9%	8.7%
Target > 6.0%	✓	✓	✓	✓	✓
Gearing	54%	53%	53%	53%	53%
Target <70%	✓	✓	✓	✓	✓

Source: Hunter Water analysis.

Attachments related to this chapter

Attachment G – Target versus actual revenue by product

Attachment H – Revenue requirements by product

7 Demand

7.1 Key points

- In the current pricing period, actual water, wastewater, and stormwater connection growth has been broadly in line with forecasts included in IPART's 2020 Determination. While our actual total connections were in line with the determination, we observed a higher proportion of connection growth in apartments, and lower connection growth in standalone houses, compared to the forecast.
- Residential connection growth has been above long-term historical averages, and we expect this to continue across the upcoming pricing period.
- We forecast annual growth in total billable water connections of 1.4 per cent, wastewater of 1.4 per cent, and stormwater of 1.1 per cent each year, with ongoing higher growth in residential apartments[1].
- Actual water demand in the current pricing period was materially below the forecasts included in IPART's 2020 Determination. The key drivers of this difference were unexpectedly wetter and cooler weather conditions and stronger water conservation behaviour by our customers.
- In the upcoming pricing period, we only expect total potable water demand to increase by 0.2 per cent per year. The forecast is based on assumed average climatic conditions. Population growth will largely be offset by water efficiency improvements and changes in consumer behaviour, as well as declining non-residential demand.
- We will continue to invest in conserving water, following recommendations of our Community Panel.

7.2 Why demand and connection forecasting matters

Forecasts for water, wastewater and stormwater connections, and water and non-residential wastewater volumes, are key inputs in our apportionment of target revenues and calculation of prices.

We have robust forecasting processes and adopt industry best practices, where practicable. Our connection forecasting methodology is well-established and draws on multiple data sources including regional census information and intelligence from state and Local Government, property developers and industry. Our forecast water demand is based on best practice and peer reviewed methodologies and has continued to be refined over recent years to improve how we model the influence of weather and climate, including a more informed view of the longer-term as part of the development of the Lower Hunter Water Security Plan. We plan to further improve and recalibrate our models during the upcoming pricing period.

Attention to forecasting demand and connections growth matters as it can lead to significant over- or under-recovery of target revenues. If the forecast differs markedly from actual outcomes, our customers could pay too much, or too little, over the upcoming pricing period. The demand and connections growth forecast also inform our investment planning (capital and operating expenditure profiles), including the anticipated timing of future investments.

This chapter summarises our forecast connections and demand volumes for the upcoming pricing period, compares our prior forecasts for the current pricing period against actuals, and describes improvements we have made, and will continue to make, to our forecasting methodologies.

[1] We have used forecast billable connection growth to set prices. We have used forecast dwelling growth to trend increase our operating expenditure as described in Chapter 5. 'Billable connections' differ slightly from the number of 'dwellings'. Billable connection numbers have several rules applied in their calculation to enable the calculation of service charge revenue as used in setting our proposed prices. We outline these rules in our 2019 Tech Paper – Demand for services, section 6.

7.3 Billable connection forecasts

7.3.1 Water connection forecasts

In the current pricing period, actual water connection growth has been broadly in line with forecasts included in IPART's 2020 Determination

Table 7.1 shows that actual 'average' residential connections in 2023-24 are only slightly higher than forecast. There were fewer houses than forecast, but more apartments. Connection growth was higher than forecast during the COVID-19 pandemic but has slowed in the last two years.

In 2022-23, we undertook assurance work to validate billable connection counts reported in extracts from our billing system. This resulted in a revision downward particularly for 'multi-premises counts' and is the reason for the reported decrease in total apartments from 2022-23 to 2023-24. This change has increased the accuracy of 'billable counts' reported for 2023-24, and the prior years' counts remain slightly overstated.

Table 7.1: Billable residential water connections, forecast vs actuals, current pricing period

Residential water connections	2020-21	2021-22	2022-23	2023-24
IPART's 2020 Determination				
Houses	198,656	200,403	202,149	204,053
Apartments	44,480	45,721	46,961	48,064
At the end of Total	**243,136**	**246,123**	**249,110**	**252,117**
Actual connections				
Houses	196,996	199,427	201,372	202,861
Apartments	47,724	50,121	50,676	50,651
Total	**244,720**	**249,547**	**252,048**	**253,512**
Total difference	**1,584**	**3,424**	**2,938**	**1,395**

Where numbers do not exactly sum it is due to rounding. Numbers reflect mid-year averages.
Residential connection counts are per dwelling. Non-residential connection counts are per 20mm Meter Equivalent.
Source: Actuals found in Hunter Water AIR/SIR, 'Non-financial', Table 1.2, midyear averages applied

Table 7.2 shows that non-residential growth was slightly lower than expected.

Table 7.2: Billable non-residential water connections, forecast vs actuals, current pricing period

Non-residential connections	2020-21	2021-22	2022-23	2023-24
IPART's 2020 Determination	29,519	29,792	29,998	30,176
Actual connections	28,984	28,977	29,097	29,415
Difference	**(535)**	**(815)**	**(901)**	**(761)**

Where numbers do not exactly sum it is due to rounding. Numbers reflect mid-year averages.
Non-residential connection counts are per 20mm Meter Equivalent.
Source: Actuals found in Hunter Water AIR/SIR, 'Non-financial', Table 1.2, midyear averages applied

We forecast growth in residential water connections of around 1.3 per cent per year for the upcoming pricing period, largely driven by residential apartment growth

Our forecasts for the upcoming pricing period are summarised in Table 7.3.

Residential growth has recently been strong, above the long-term average. We expect this to continue in the short to medium term and have forecast total average annual billable residential water connection growth of around 1.3 per cent. We expect about one third of new dwellings will be apartments, and the total number of apartments to grow by an average of about 2.2 per cent per year, double the rate of new houses (1.1 per cent).

Our projections are consistent with the 2022 NSW Common Planning Assumptions released by the NSW Government. We have seen an increasing share of growth in residential apartment dwellings. We expect that major NSW Government development initiatives will further increase the mix of residential apartments over the upcoming pricing period. As a result, we expect apartment connections to grow by 11 per cent over the upcoming pricing period, compared to house connections growth of 6 per cent.

An increase of 1,677 non-residential billable connections is included from 1 July 2025. This reflects our proposal to introduce a minimum water service charge to strata and community title properties that share a common meter in a non-residential multi-premises. This change is explained in Section 8.6.

Table 7.3: Forecast billable water connections for the upcoming pricing period

	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Residential						
Houses	204,732	207,026	209,311	211,597	213,981	216,462
Apartments	52,005	53,156	54,303	55,449	56,645	57,890
Total residential	**256,737**	**260,182**	**263,614**	**267,046**	**270,626**	**274,352**
Non-residential						
Total non-residential	**29,807**	**31,741**	**31,936**	**32,125**	**32,345**	**32,542**

Where numbers do not exactly sum it is due to rounding. Numbers reflect mid-year averages.
Residential connection counts are per dwelling. Non-residential connection counts are per 20mm Meter Equivalent.
Source: Hunter Water AIR/SIR, 'Non-financial', Table 1.2, midyear averages applied

We use multiple data sources to robustly forecast billable connections

The alignment between total actual connections and forecasts over the current pricing period supports the view that our connection forecasting process is fit-for-purpose and reliable.

Connection forecasts for different customer categories are based on population and activity growth forecasts for the Lower Hunter. These forecasts draw on regional census information, NSW government planning data, the advice of local councils, property developers, industry, and comprehensive analysis of our own customer connection data and trends.

The connection forecasting process broadly involves:

- a geographic information system (GIS) allowing the multiple layers of growth information to be overlayed across our area of operations.
- drawing together historic connection rates and other growth information, balanced at the local and regional scale
- reviewing connections forecasts for each of the local government areas against the respective council growth strategies and NSW Government forecasts.

Water and wastewater connection growth largely moves in line with housing activity and business growth.

7.3.2 Wastewater connection forecasts

Actual wastewater connections have been broadly similar to forecast in the current pricing period

Like water, Table 7.4 shows the total residential wastewater connection forecast in IPART's 2020 Determination was broadly similar to actual connection growth, with more apartments and slightly fewer houses. The impact of the assurance work undertaken in 2022-23 is again evident in the apparent decrease in apartments between 2022-23 and 2023-24.

Table 7.4: Billable residential wastewater connections, forecast vs actuals, current pricing period

Residential wastewater connections	2020-21	2021-22	2022-23	2023-24
IPART's 2020 Determination				
Houses	187,755	189,536	191,410	193,445
Apartments	45,136	46,406	47,677	48,808
Total	**232,892**	**235,942**	**239,087**	**242,253**
Actual connections				
Houses	186,744	189,782	191,687	193,064
Apartments	47,577	49,594	50,149	50,049
Total	**234,321**	**239,376**	**241,835**	**243,113**
Total difference	**1,429**	**3,434**	**2,748**	**860**

Where numbers do not exactly sum it is due to rounding. Numbers reflect mid-year averages.
Residential connection counts are per dwelling.
Source: Actuals found in Hunter Water AIR/SIR, 'Non-financial', Table 1.3, midyear averages applied

Non-residential connections are shown in Table 7.5 – actual connections were similar to forecast.

Table 7.5: Billable non-residential wastewater connections, forecast vs actuals, current pricing period

Non-residential connections	2020-21	2021-22	2022-23	2023-24
IPART's 2020 Determination	16,484	16,707	16,887	17,047
Actual connections	16,485	16,903	17,114	17,151
Difference	**1**	**196**	**227**	**104**

Where numbers do not exactly sum it is due to rounding. Numbers reflect mid-year averages.
Non-residential connection counts are per 20mm Meter Equivalent and adjusted for discharge factors.
Source: Actuals found in Hunter Water AIR/SIR, 'Non-financial', Table 1.3, midyear averages applied

We forecast growth in billable residential wastewater connections of around 1.4 per cent per year for the upcoming pricing period

The wastewater connection growth forecast for the upcoming pricing period is shown in Table 7.6.

Wastewater connections are mainly driven by the same factors influencing water connections (see Section 7.2); with higher relative growth rates expected in residential apartment connections.

A step-change increase of 987 non-residential billable connections is included from 1 July 2025, reflecting our proposal to extend the minimum sewer service charge to strata and community title properties in a non-residential multi-premise who share a common meter (explained in Section 8.6).

Table 7.6: Forecast billable wastewater connections for the upcoming pricing period

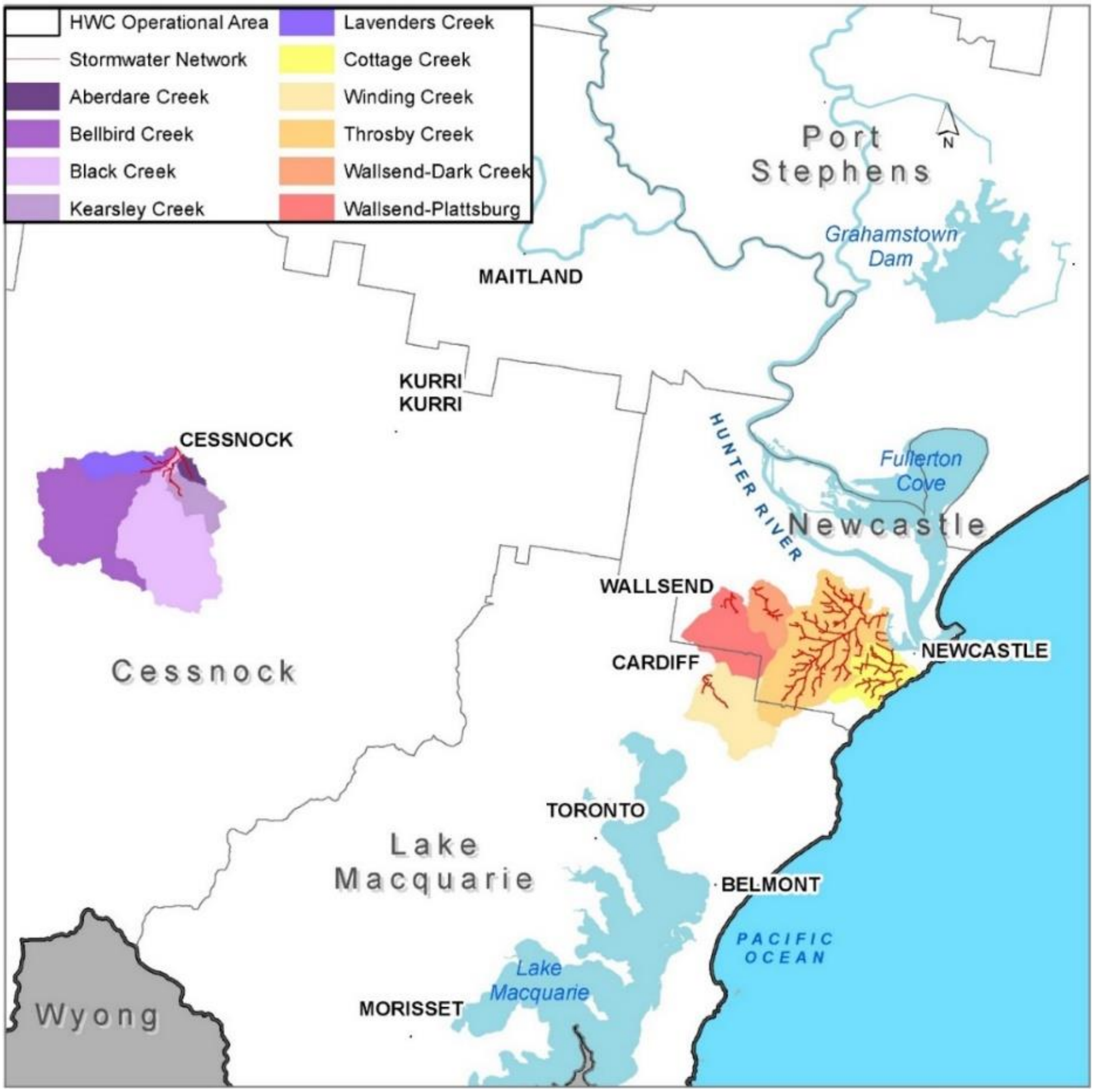
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Residential						
Houses	195,007	197,299	199,584	201,869	204,252	206,732
Apartments	51,277	52,385	53,488	54,591	55,741	56,939
Total residential	**246,284**	**249,684**	**253,072**	**256,460**	**259,993**	**263,671**
Non-residential						
Total non-residential	**17,343**	**18,504**	**18,629**	**18,741**	**18,882**	**19,008**

Note: Where numbers do not exactly sum it is due to rounding. Numbers reflect mid-year averages.
Residential connection counts are per dwelling. Non-residential connection counts are per 20mm Meter Equivalent and adjusted for discharge factors.
Source: Hunter Water AIR/SIR, 'Non-financial', Table 1.3, midyear averages applied

7.3.3 Stormwater drainage customers

We manage and operate stormwater drainage services for properties in areas where rainfall runoff enters our stormwater channels and detention basins. Around 25 per cent of our customers are located within these areas, see Figure 7.1.

Figure 7.1 Hunter Water's stormwater drainage service areas



Actual stormwater connections have been broadly similar to forecast in the current pricing period

Table 7.7 and Table 7.8 show that residential and non-residential stormwater connections were similar to forecast in the current pricing period.

Table 7.7: Billable residential stormwater connections, forecast vs actuals, current pricing period

Property type	2020-21	2021-22	2022-23	2023-24
IPART's 2020 Determination				
Houses	51,322	51,502	51,683	51,864
Apartments	16,389	16,508	16,626	16,745
Total	**67,711**	**68,010**	**68,309**	**68,609**
Actual connections				
Houses	49,598	49,971	50,104	50,218
Apartments	17,708	18,371	18,680	18,638
Total	**67,306**	**68,342**	**68,784**	**68,856**
Total difference	**(405)**	**332**	**475**	**247**

Note: Where numbers do not exactly sum it is due to rounding. Numbers reflect mid-year averages
Source: Actuals found in Hunter Water AIR/SIR, 'Non-financial', Table 1.4, midyear averages applied. Houses include rows 257,258 259 and 260. Apartments include rows 261, 262, 263, & 279

Table 7.8: Billable non-residential stormwater connections, forecast vs actuals, current pricing period

Property type	2020-21	2021-22	2022-23	2023-24
IPART's 2020 Determination				
Small property (<1,000m^2) or low impact	1,968	1,968	1,968	1,968
Medium property (1,001 to 10,000m^2)	973	973	973	973
Large property (10,001 to 45,000m^2)	101	101	101	101
Very large property (>45,000m^2)	15	15	15	15
Total	**3,057**	**3,057**	**3,057**	**3,057**
Actual connections				
Small property (<1,000m^2) or low impact	1,899	1,893	1,879	1,858
Medium property (1,001 to 10,000m^2)	943	956	953	941
Large property (10,001 to 45,000m^2)	93	96	96	96
Very large property (>45,000m^2)	19	19	20	20
Total	**2,953**	**2,963**	**2,947**	**2,915**
Total difference	**(104)**	**(94)**	**(110)**	**(142)**

Note: Where numbers do not exactly sum it is due to rounding.
Source: Actuals found in Hunter Water AIR/SIR, 'Non-financial', Table 1.4, midyear averages applied.

We forecast growth in billable stormwater connections of 1.1 per cent per year for the upcoming pricing period

Our forecast annual billable stormwater connections for the upcoming pricing period are shown in Table 7.9. Annual growth in residential properties is forecast to grow by 1.1 per cent per year, with no growth expected in non-residential properties.

Table 7.9: Forecast billable stormwater connections for the upcoming pricing period

Property type	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Residential						
Houses	50,496	50,836	51,177	51,517	51,857	52,197
Apartments	19,076	19,544	20,013	20,481	20,949	21,418
Total residential	**69,572**	**70,380**	**71,190**	**71,998**	**72,806**	**73,615**
Non-residential						
Small property (<1,000m^2) / low impact	1,856	1,856	1,856	1,856	1,856	1,856
Medium property (1,001 to 10,000m^2)	943	943	943	943	943	943
Large property (10,001 to 45,000m^2)	96	96	96	96	96	96
Very large property (>45,000m^2)	20	20	20	20	20	20
Total non-residential	**2,915**	**2,915**	**2,915**	**2,915**	**2,915**	**2,915**
Total (residential + non-residential)	**72,487**	**73,296**	**74,104**	**74,913**	**75,721**	**76,530**

Note: Where numbers do not exactly sum it is due to rounding. Numbers reflect mid-year averages
Source: Hunter Water AIR/SIR, 'Non-financial', Table 1.4, midyear averages applied. Houses include rows 257,258 259 and 260. Apartments include rows 261, 262, 263, & 279

7.4 Forecasting water demand

We provide water (and wastewater services) to residential and non-residential customers, and we also supply bulk water to Central Coast Council, MidCoast Council and to private network operators. In this section we summarise our approach to forecasting water demand.

7.4.1 Drivers of residential demand

Residential water demand is forecast to make up 69 per cent of our total water supply in 2025-26. Residential customers water usage is shaped by many factors. The most important are:

- the population and number of dwellings we service
- the mix of different residential property types
- the Australian Government's Water Efficiency Labelling and Standards scheme (WELS) and NSW Government's Building Sustainability Index (BASIX) policies influencing adoption of water saving technologies by consumers, and the number of functioning rainwater tanks
- changing water consumption behaviour, including the influence of our water conservation initiatives
- the demographics of our customers, including their age and socio-economic status
- a changing and more variable climate.

7.4.2 Drivers of non-residential demand and bulk water

Non-residential demand is driven by a combination of macro-economic influences, population growth and a changing climate. Over recent years, we have observed an increase in the number of service industry customers, with a fall in heavy industry customers. This trend is expected to continue. We directly engage with our largest non-residential customers to understand their expected future demand levels.

Our bulk water supply forecast is composed of wholesale supply and inter-regional transfers.

Wholesale supply of services

We supply water to private network operators that then provide retail water services, as well as self-contained wastewater and recycled water services, to greenfield development areas. Our volumetric forecasts have been adjusted to reflect the requirements and forecast growth of private operators in the region. These potable requirements consider the provision of recycled water both within, and to, these customers.

Inter-regional transfers

We maintain an agreement with Central Coast Council for the two-way access and transfer of water between our neighbouring systems through a connecting pipeline. The agreement increases water supply resilience, and sustainable system yield, for both water utilities. The pipeline requires minimum flows to maintain water quality, however we aim that flows for this purpose have a zero net transfer in an average year. We also supply a small volume of water to MidCoast Council.

7.4.3 Water demand modelling approach

To forecast water demand we undertake extensive modelling that can be broken down into four key steps.

1. Establishing the baseline period

The first step is to identify an appropriate water period over which we 'train' (or calibrate) our water demand prediction model, establishing relationships between several weather variables on water demand. Our baseline period is July 2016 to July 2018. This timeframe included a broad range of weather conditions and represented relatively stable customer behaviour with minimal external factors such as:

- water restrictions implemented over 2019-20
- the impacts of COVID
- the absence of active water conservation messaging
- a stable water usage price in real terms.

The model calibration performed well when compared to observed demand exhibiting strong regression statistics.[1] The model hasn't been recalibrated post water restrictions as there have not been favourable conditions, as identified above.

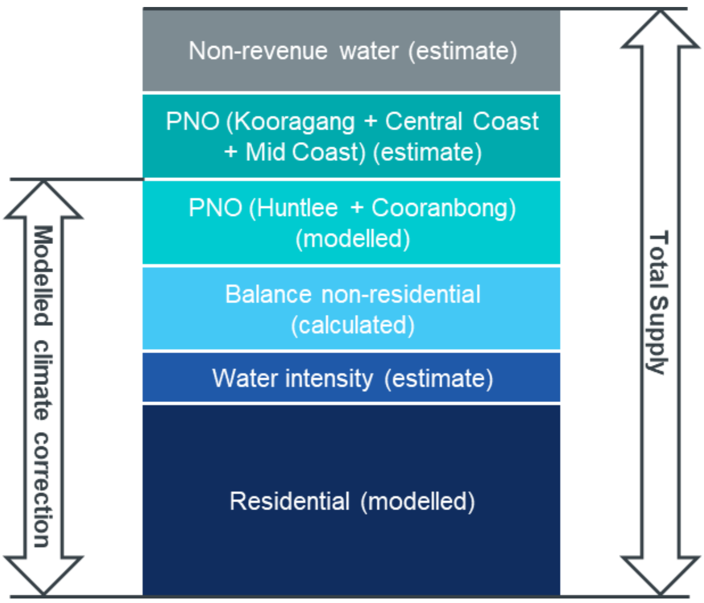
2. Establishing total year average demand for the baseline period

The model prediction established during the calibration period was simulated over a longer climatic sequence (1970 to 2024) to establish the average climatic demand for the baseline period.

3. Disaggregate the total average demand

The total average demand for the baseline period then requires disaggregation into component sectors to facilitate end use forecasting. Figure 7.2 shows relevant sectors that were targeted for disaggregation.

Figure 7.2: Illustrative model for disaggregation of the total baseline demand



[1] R^2 of 0.8 and a standard error of less than 10% of the mean of the prediction

The steps undertaken as part of the disaggregation process include:

- application of a property lot-scale, daily time-series, water balance model to establish baseline residential demand
- bespoke analysis of large and major non-residential customers (those who consume greater than 10 and 50ML per year, respectively) to identify average year trends
- bespoke analysis of private network operators to identify average year trends
- the balance between baseline total demand, residential, major and large customer demand and private network operator demand apportioned to the remaining non-residential customer categories (commercial, industrial and municipal customers who consume less than 10ML per year).

4. End use forecasting model

The final step uses the outcomes of the steps 1-3 flowing through to the Integrated Supply-Demand Planning (iSDP) model to estimate future water demand. We first implemented this modelling tool in 2011 and have since made several refinements to the process. The iSDP has been used widely as a demand forecasting model by water utilities across Australia and is considered best practice. It uses sector trends for non-residential demand, while the residential forecast is based on end-uses (activities).

7.5 Actual demand was lower than forecast during the current pricing period

Actual water sales in the current pricing period (excluding Central Coast transfers) were lower than forecast in IPART's 2020 Determination; approximately 4,000ML per year, or around 7 per cent lower (see Table 7.10). The difference was mainly due to:

- **Weather and climate**: The forecast for the current pricing period was for average climatic conditions. Weather and climate are a key determinant of water sales – conditions were significantly wetter than average (two La Niña events) leading to lower water sales.
- **Customer behaviour**: Water conservation behaviour was stronger than forecast, placing downward pressure on water sales. One likely contributing factor is customers retaining some of the water conservation behaviours from the recent period of water restrictions during the 2019-20 drought.
- **Impact of COVID-19**: Social restrictions and the closure of both state and international borders had an impact on water demand in some non-residential sectors, tourism for example. The slight downward pressure on water sales was observed to varying extent across parts of 2020 to 2022.
- **Population growth**: Actual population growth was higher than forecast, placing upward pressure on water sales.

Table 7.10: Water demand, forecast vs actuals, current pricing period

Property type	2020-21	2021-22	2022-23	2023-24
Sales volume forecasts – IPART 2020 Determination (ML)				
Residential	37,280	37,999	38,705	38,859
Non-residential	19,515	19,912	20,032	20,207
Bulk water sales	1,385	1,426	1,518	1,611
Total sales (excl sales to Central Coast)	**58,180**	**59,337**	**60,255**	**60,677**
Sales to Central Coast	365	365	365	365
Total incl sales to Central Coast	**58,545**	**59,702**	**60,620**	**61,042**
Sales volume actuals (ML)				
Residential	38,563	38,267	39,462	40,879
Non-residential	13,580	14,269	15,437	17,041
Bulk water sales	1,504	1,124	1,165	1,286
Total sales (excl sales to Central Coast)	**53,647**	**53,660**	**56,064**	**59,207**
Actual to forecast gap	**(4,533)**	**(5,677)**	**(4,191)**	**(1,470)**
Sales to Central Coast	2,968	1,081	1,090	1,069
Total incl sales to Central Coast	**56,615**	**54,741**	**57,154**	**60,275**

Note: Sales represent billable volumes during the financial year, rather than water year (20 April – 19 April)
Where numbers do not exactly sum it is due to rounding.
Residential includes Raw Water sales. Non-residential includes standpipe sales. Bulk water sales include sales to PNOs and Mid Coast Water

7.6 We forecast water demand to only increase by 0.2 per cent per year

In the upcoming pricing period, total potable water demand is only expected to increase slightly, as shown in Table 7.11. The forecast is based on assumed average climatic conditions.

Population growth puts upward pressure on water demand, however, we forecast this will be largely offset by water efficiency improvements and changes in consumer behaviour, as well as declining non-residential demand as informed by discussions with major non-residential water users.

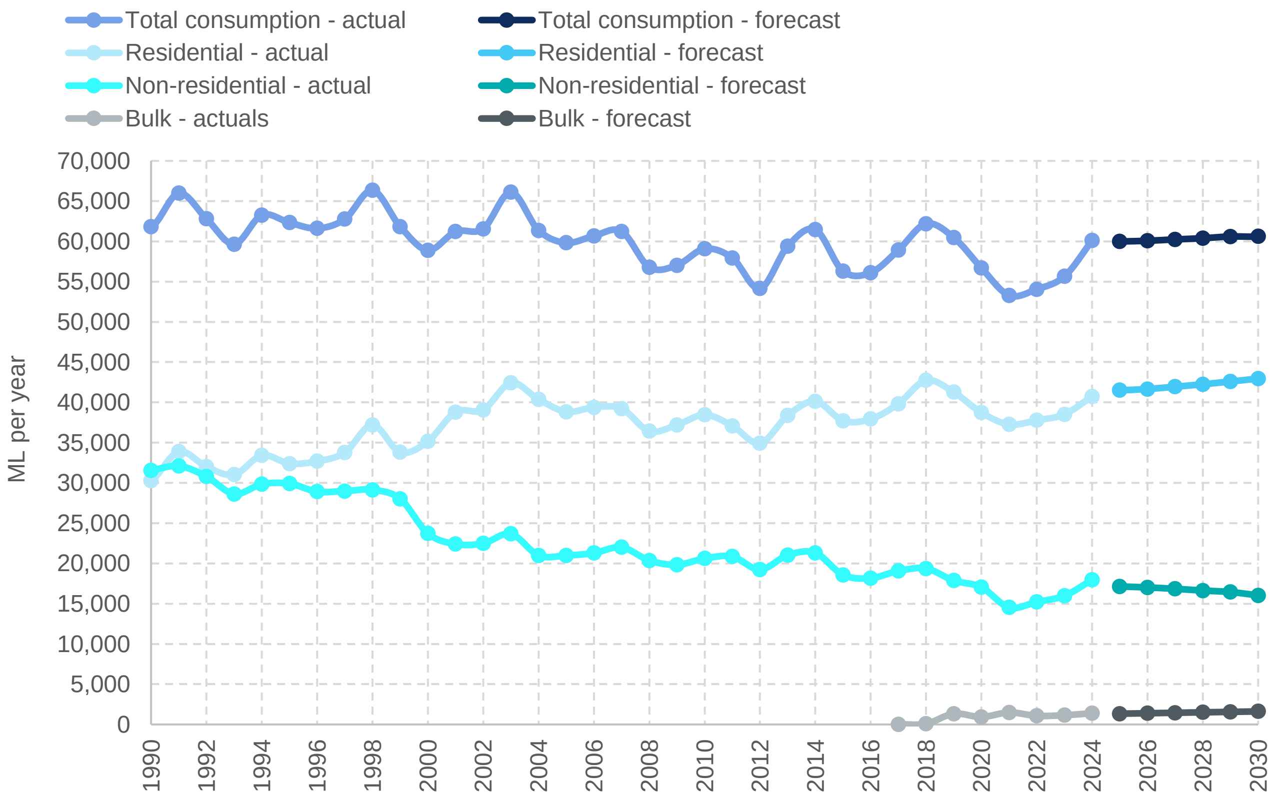
Table 7.11: Forecast water sales volumes (ML) (including bulk sales), 2025-26 to 2029-30

Property type	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Residential	41,503	41,660	41,948	42,249	42,597	42,958
Non-residential	17,143	17,018	16,845	16,631	16,445	16,038
Bulk water sales	1,338	1,394	1,451	1,508	1,563	1,620
Total sales (excl Central Coast sales)	**59,983**	**60,072**	**60,244**	**60,389**	**60,606**	**60,616**
Sales to Central Coast	1,241	1,241	1,241	1,241	1,241	1,241
Total incl Central Coast sales	**61,224**	**61,313**	**61,485**	**61,630**	**61,847**	**61,857**

Note: Where numbers do not exactly sum it is due to rounding. Residential includes raw / untreated water sales. Non-residential includes standpipe sales. Bulk water sales include sales to PNOs and MidCoast Water
Source:
Hunter Water AIR/SIR, 'Non-financial', Table 1.5, residential: rows 341 +331, non-residential: rows 344 - 359
Hunter Water AIR/SIR, 'Bulk Water', Table 2.2, sales to central coast row 118, and rows 124 + 130

Figure 7.3 shows forecast water sales volumes in the context of historical sales. We forecast continued trends of increasing residential water demand driven primarily by population growth, which is offset by declining non-residential water demand primarily due to reducing demands from heavy industrial customers.

Figure 7.3: Historic and forecast water sales volumes, 1990 to 2030



Note: Residential includes Raw Water sales. Non-residential includes standpipe sales. Bulk water sales include sales to PNOs and Mid Coast Water. Central coast transfers are excluded
Source: Hunter Water AIR/SIR, 'Non-financial', Table 1.5 and 'AIR Bulk Water', Table 2.2

We have tested sensitivity of our demand forecast to changes in key factors

As part of our forecasting process, we undertake sensitivity analysis to understand the impact of changes in key forecasting assumptions. Factors that we test include:

- population growth changes
- closure / opening of large non-residential customers
- changes in customer behaviour
- weather variability
- climate change.

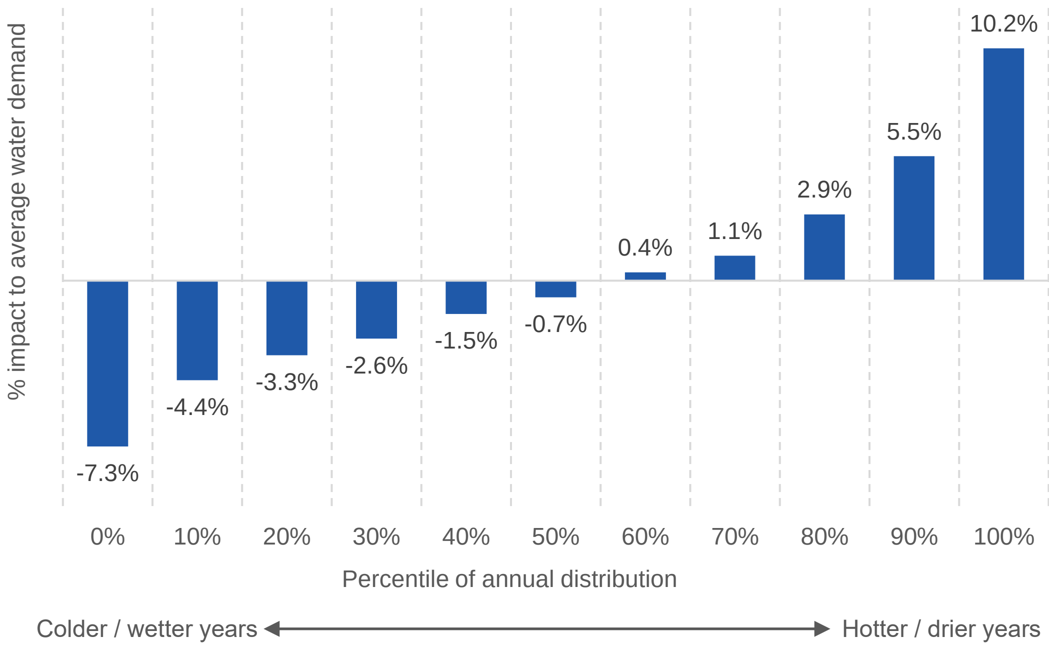
Below we provide more detail on our sensitivity analysis for two key variables: weather variability and climate change.

Weather variability

The factor most likely to significantly influence annual and total forecasting accuracy over the pricing period is variability in weather. Figure 7.4 shows the impact of weather variability on our forecast of unrestricted water demand based on average weather conditions. Annual demand is simulated, under variable weather, and the resultant distribution is right-tailed; the mean is slightly higher than the median (50th percentile) and range from the median to the 90th percentile is larger than the range from the median to the 10th percentile.

In practice this suggests that hot/dry years will impact revenue on the high side slightly more than cold/wet years will on the low side.

Figure 7.4: Historical impact of annual weather variability on water demand



Note: Impacts to water demand and average water demand exclude Orica (whose water demand is unrelated to weather)

Source: Hunter Water analysis

Climate change

We also explore the sensitivity of water demand to a changing climate. While the forecast of an unrestricted average year demand is based on historic climate, the potential impacts of climate change are explored as a sensitivity to the forecast. The methodology used is:

- Utilise the climate data sets produced by the NSW/ACT Regional Climate Modelling (NARCLiM) project exploring seasonal impacts to rainfall, temperature and evaporation (this is consistent with the NSW Government Common Planning Assumptions approach to forecasting).
- Across the ensemble of 12 models for the SRES A2 emission scenario, identify low, median and high scenarios at two future time horizons (2030 and 2070).
- Re-run the demand prediction model to explore the potential impacts.
- Apply the incremental change to the baseline demand forecast for each scenario by linearly interpolating between time horizons.

Table 7.12 shows the range of impacts on the long-term average per capita demand for the simulated climate change scenarios over different time horizons.

Table 7.12: Climate change impacts on long-term average per-person demand

Time horizon	Scenario	Long term mean demand (L/p/d)	Change from historic
-	Historic (1970-2020)	274	0.0%
2030	Low	275	0.2%
	Median	276	0.7%
	High	278	1.3%
2070	Low	278	1.3%
	Median	283	3.2%
	High	283	3.4%

Source: Hunter Water analysis

We forecast lower average residential water demand

The adoption of water-saving appliances, a shift in housing types, and ongoing customer water conservation efforts – including the impact of our initiatives – are all contributing to lower residential water demand.

Over the upcoming pricing period, we forecast an average water demand of 168 kL per year for houses under average climate conditions, with a median demand of 146 kL per year. This represents a decrease in the average water demand from 182 kL per year in 2018, reflecting pre-drought behaviour. For apartments, we expect an average demand of 102 kL per year, down from 109 kL in 2018.

We will continue to invest in water conservation

We published our most recent five-year water conservation plan in December 2023.[1] This plan outlines our water conservation initiatives to support the delivery of the Lower Hunter Water Security Plan – we have since updated our water conservation investments in line with our Community Panel's recommendations.

[1] Five year water conservation plan, December 2023. 5-Year-Water-Conservation-Plan.pdf (hunterwater.com.au)

We have not adjusted the water demand forecast to account for customers' potential demand-response to higher water prices

The demand for water, like most products, is sensitive to price changes. Measurement of customer's sensitivity to price is referred to as the price elasticity of demand.

We are proposing a higher water usage price (see Chapter 8) but have not made a downward price elasticity adjustment to our water demand forecast. We reviewed several studies of price elasticities of water demand and have low confidence that these elasticity calculations are relevant. Specifically, we are concerned the price elasticity studies are:

- **Old** – and therefore may not represent customers' current sensitivity to price. Economic conditions change over time, as do the value people place on a commodity and water use behaviours.
- **Not based on our customers** – different customers may have a different sensitivity to price.
- **Calculated at different price levels** – different price levels lead to different demand changes by customers. The studies measure price elasticity of water demand at significantly lower water price levels compared to what we propose for the upcoming pricing period.

While recognising that increasing the usage charge gives customers an opportunity to mitigate some of their bill increase by using less water, not applying an elasticity adjustment recognises uncertainties in pricing elasticity and is conservative in our customer's favour – an adjustment would reduce our water demand forecast demand, leading to further increases in water prices.

We have and will continue to improve our water demand forecasting

Our forecast water demand is based on best practice and peer reviewed methodologies. Over the past five years we have continued to refine our forecasting process to increase accuracy, by:

- **Improving how we model the influence of weather and climate:**
  - As part of the 2022 LHWSP, we developed an approach to have a more informed view on the long-term influence of climate on average water demand.
  - Potential impacts of climate change are explored as a sensitivity to the forecast.
- **Disaggregating the baseline demand** to support improved end-use forecasting including the influence of weather and climate on the residential sector.
- **Updating non-residential water demand forecasting** – review identified that population growth is not as important in driving non-residential water demand as previously thought.
- **Installing additional water data-loggers** – Water loggers are electronic devices that monitor and record water usage automatically over time for our larger non-residential customers. More loggers provide more information on actual demand patterns, enriching our forecasts.

In the upcoming pricing period, we plan to further improve our water demand forecasting. A key activity is to recalibrate the water demand prediction model and our measurement of baseline demand. As discussed above, currently our water demand prediction model is trained on the period July 2016 to July 2018. We acknowledge that our calibration period is some time ago, customer behaviour is likely to have changed, and a recalibration would be beneficial.

We will explore whether it is feasible and cost-effective to undertake a price elasticity study based on our own customers' water demand response to a higher water usage price in the upcoming pricing period.

7.7 Forecast wastewater discharge volumes

Wastewater discharge volumes are a function of water consumption. A sewer discharge factor is applied to water usage to reflect the estimated portion of metered use discharged into the wastewater system. The discharge factor is customer-specific, based on the nature of the individual customer's business.

A small number of our non-residential customers are separately metered for their wastewater discharge.

Over the current pricing period we've seen some differences between forecast and actual non-residential wastewater discharge

Table 7.13 compares actual wastewater discharge volumes to forecasts included in IPART's 2020 Determination. Variances are driven by differences in overall non-residential water demand and are also impacted by the mix of non-residential customers with deemed discharge factors.

The reported increase in billed volumes for 2022-23 includes approximately 400ML billed to manufactured homes as non-residential – previously these customers were incorrectly classified (and billed) as residential customers. This issue is further explained in Section 8.10.

Table 7.13 Forecast and actual chargeable non-residential wastewater discharge volumes 2020-21 to 2024-25, ML

	2020-21	2021-22	2022-23	2023-24
IPART 2020 Determination	6,710	6,848	6,980	7,120
Actual	5,207	5,543	7,450	6,966

Source: Actuals captured in Hunter Water AIR/SIR, 'Non-financial', Table 1.6

We forecast non-residential wastewater discharge volume growth to be close to flat.

To forecast the overall volume of wastewater discharged into our system by non-residential customers, we have looked at past trends of non-residential wastewater discharge as a proportion of non-residential water sales. This trend has been applied to future water sales forecasts.

We forecast non-residential wastewater discharge volumes as 44 per cent of non-residential water demand, excluding bulk customers and Eraring, a large non-residential customer excluded due to its variability.

Table 7.14 Forecast non-residential wastewater discharge volumes, upcoming pricing period, ML

	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Non-residential wastewater discharge forecast	6,821	6,766	6,778	6,794	6,822	6,841

Source: Hunter Water AIR/SIR, 'Non-financial', Table 1.6

PART THREE:

Prices and customer impacts

8 Prices

Key points

- Our water prices will need to rise to recover higher revenue requirements. We propose to apply most of the increase in the variable water usage charge, consistent with the views of our community.
- The water usage price will increase in real terms from $2.89 per kL in 2024-25 to $4.40 per kL in 2029-30. Our fixed 20mm water service charge will remain low compared to other utilities, increasing from $27.58 in 2024-25 to $102.30 in 2029-30.
- Increasing the usage charge gives customers an opportunity to mitigate some of their bill increase by using less water. The approach is supported by our estimated long-run marginal cost (LRMC) of water – it's appropriate to signal that water is precious, given the water security challenges we face.
- Price increases for wastewater services are more modest. The discharge factor adjusted wastewater service charge for a house will increase from $696.78 in 2024-25 to $766.58 in 2029-30.
- Wastewater usage is currently deemed for residential customers and estimated for most non-residential customers based on their metered water use.[1] We talked to our residential customers about introducing explicit wastewater usage charges. While many customers favoured the change, we do not consider the level of support compelling enough to shift to a less equitable charging approach.
- We estimated catchment-specific wastewater long-run marginal costs (LRMC) and used this to inform setting of the wastewater usage price. The price will stay nominally constant, reducing in real terms over time.
- Apartments will continue to pay slightly less in wastewater charges than houses. We will review this difference, and the setting of residential sewer discharge factors, ahead of our next price review.
- Approximately a quarter of our customers receive stormwater services. Stormwater prices will need to rise to recover higher revenue requirements.
- Properties in a non-residential multi-premise pay fixed service charges based on their metering arrangement. Applying minimum water and wastewater service charges will resolve an existing inequity between customers and remove a disincentive to sub-metering.
- We are following our community's preference to introduce any water, wastewater and stormwater price increases as five smaller increases, rather than one big increase.
- We have reviewed our high-strength trade waste charges to ensure they remain cost-reflective. These charges will increase in some catchments and reduce in others.
- Administrative fees for sewered trade waste customers will increase modestly to help us better manage risks to our operations and the environment. We will more closely monitor our Moderate customers' trade waste discharges, renew our Major customers' agreements more frequently, and introduce a charge for managing customers who don't comply with the terms of their agreements.

[1] A small subset of non-residential customers have metered sewer usage.

8.1 Our price structures are cost-reflective and fair

Our current price structures have evolved through multiple IPART price reviews, incorporating numerous changes and improvements. Their evolution reflects extensive consultation and debate between NSW water businesses, IPART, and other stakeholders including our customers, to establish prices that are cost-reflective and equitable.

This process has created significant regulatory precedents for structuring and calculating prices. Wastewater charges have been significantly restructured at each of the last three price reviews. Our 2019 pricing proposal sets out this historical evolution and precedent in detail, so we haven't duplicated that here.[1]

We tested various price structure issues with our customers ahead of our 2019 pricing proposal and made some significant changes, such as removing location-based discounts for large water users.

This time, we let our customers set the engagement agenda and only consulted on the pricing issues they deemed most important. We are not proposing major changes to price structures in this proposal.

During the upcoming pricing period, we plan to explore and discuss opportunities for differentiated pricing options with our customers.

8.2 Extending the pricing period by one year meant our prices in 2024-25 were lower in real terms

In November 2021, IPART agreed to our request to defer the price review, extending the existing price determination by one-year to cover 2024-25. This allowed us to fully engage with IPART's reforms and put our best pricing proposal forward, with a strong focus on customer outcomes and long-term planning.

Typically, prices are determined in real terms, and then indexed with inflation (CPI) annually. IPART did not allow us to pass through inflation to customer prices for the deferral year 2024-25. The result of prices being kept constant in nominal terms was that customers benefitted from a real reduction in prices in 2024-25.

8.3 Water prices

8.3.1 Our water prices have a fixed and variable component

Our water prices are split into a variable water usage charge, and a fixed water service charge:

- The water usage charge is a charge per kilolitre of drinking water used.
- The water service charge is a fixed charge that varies depending on the size of water connection.

Water service charges recognise that there are fixed costs for providing a water service to each property, and that this cost increases the larger the water connection. The current water service charge:

- recovers residual water revenue requirement not already recovered through water usage charges
- is apportioned based on the size or deemed size of the water meter; with,
  - all residential dwellings deemed to have a 20mm water meter
  - non-residential water service charges determined by the premise's actual meter size(s) relative to a 20mm meter.

[1] Hunter Water's 2019 Pricing Proposal, *Technical Paper 8: Pricing of water, wastewater and stormwater services*

We have phased-out location-based discounts for high water users

We currently have a two-tier water usage charge:

- Tier 1: A standard rate for all consumption up to 50,000 kL per year.
- Tier 2: Discounted location-based prices for water consumption above 50,000 kL per year.

The location-based discounts for high water users reflected historical differences in the costs to supply water to these locations. In 2020, we started to phase-out these discounts, as explained in IPART's 2020 Final Report.[1] The final year of discounts and the Tier 2 water usage price is 2024-25.

For the upcoming pricing period, we propose all potable water usage prices are uniform, except for unregulated bulk water or other negotiated supply agreements.

Customers currently have a high ability to reduce their water bills

Water usage charges make up about 94 per cent of the total annual water bill for a house with typical water use of 146 kL per year. The current water usage and service charges are shown in Table 8.1 – the mix of charges is highly variable relative to other Australian water utilities.

Table 8.1: Water usage and service charges in 2024-25

Water charge	$
Water usage charge	2.89 per kL
Water service charges – deemed 20mm meter [1]	27.58 per year

1 Non-residential customers pay meter-based charges set proportionally to a 20mm meter. These are shown in Table 8.4.
Source: Hunter Water AIR/SIR, 'Price data, Table 7.1

Lowest
water service charge
of the 26 large and major Australian water utilities

9th highest
water usage price
of the 26 large and major Australian water utilities

Source: 2022-23 NPR, ABS

[1] IPART, June 2020, *Final Report: Review of prices for Hunter Water Corporation from 1 July 2020*

8.3.2 Water revenue requirements are increasing

Revenue from our water usage price and water service charges in combination need to recover the efficient revenues required to deliver our water services. Chapter 6 explains that our water revenue requirements are increasing during the upcoming pricing period. The smoothed target water revenue to be recovered through water usage and service charges is shown in Table 8.2. Higher target water revenues mean that our water charges will need to rise in the upcoming pricing period.

Table 8.2: Target sales revenue from water service and usage charges, upcoming pricing period ($2024-25, $millions)

	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Water sales revenue – target	181.6	204.4	227.6	251.4	275.2	298.4

Source: Hunter Water analysis
Note: 2024-25 revenue reflects a forecast for the year based on actual prices and forecast demand and connections.
Source: Hunter Water AIR/SIR, 'Revenue, Table 6.1, rows 31, 39, 57 & 67

8.3.3 Our proposed water usage and service charges

Our water price structures will remain largely unchanged

We have followed IPART's pricing principles and past regulatory precedent in proposing to retain our existing water price structure. We do propose one minor change relating to how service charges are applied for non-residential strata multi-premises, explained in Section 8.6.

We applied a transparent methodology to propose water usage and service charges that are cost-reflective and reflect our customer's views

IPART's 2023 Water Regulation Handbook outlines principles for setting water prices, specifically that: water usage prices should be set with reference to the LRMC; water service charges should recover residual water revenue requirements; and that its preferable to smooth prices over a period.[1,2]

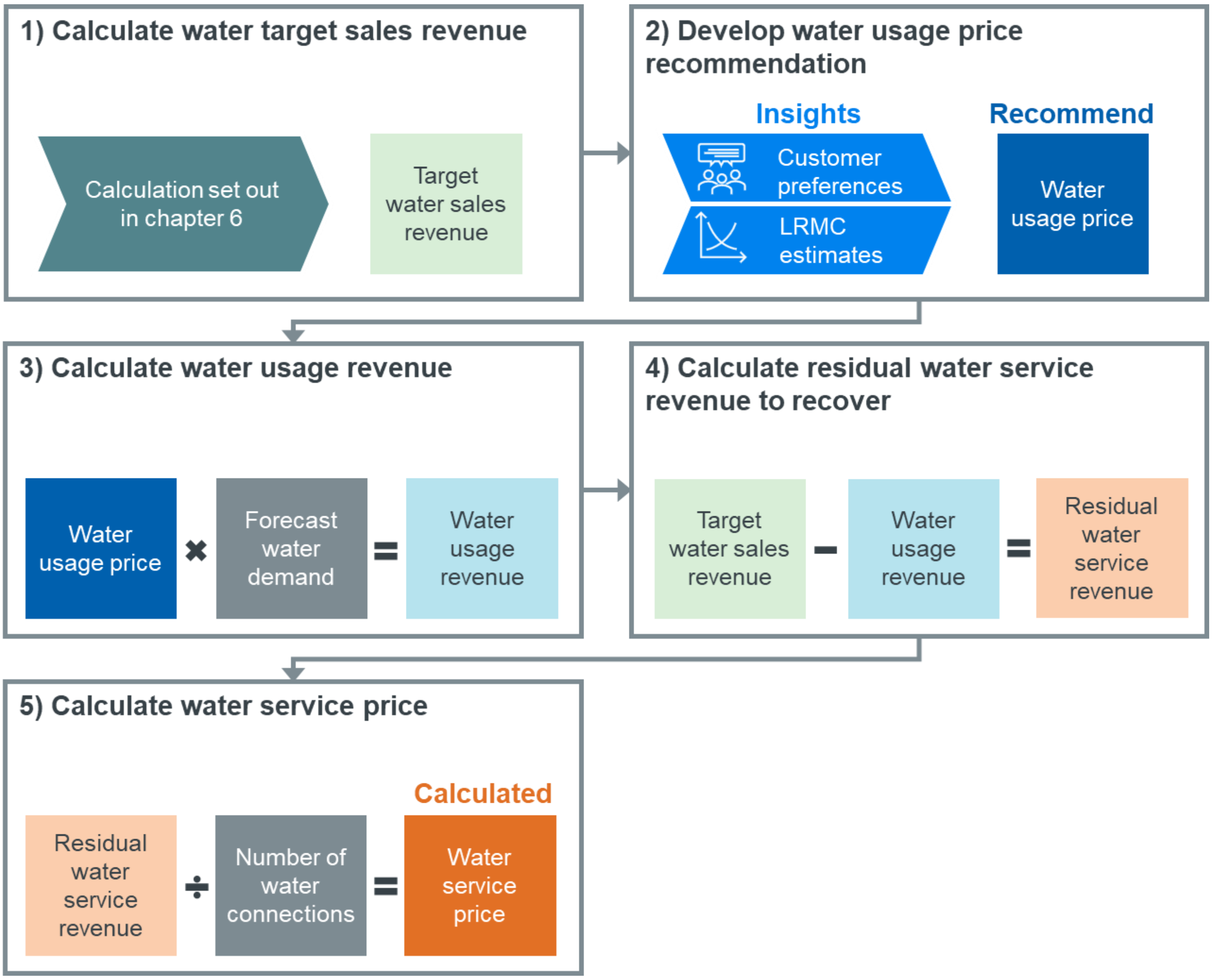
IPART's 3Cs framework and guiding principles emphasise the importance of developing pricing proposals through three lenses: customers, costs and credibility.

Figure 8.1 summarises the steps we have taken in proposing water usage and service charges. We have calculated water revenue requirements, set a water usage price reflective of LRMC and customer preferences, calculated water service charges as a residual, and propose to smooth bill increases.

[1] IPART's Water Regulation Handbook, July 2023, p48.

[2] The LRMC for water calculates the per unit cost of serving additional (permanent) demand for water services. It estimates the short-term production costs of serving demand, plus the long run 'opportunity cost' of current consumption in bringing forward investment in additional infrastructure (e.g. a future dam).

Figure 8.1 Development of our water usage and service charges



Our customers expressed a strong interest in discussing price structures

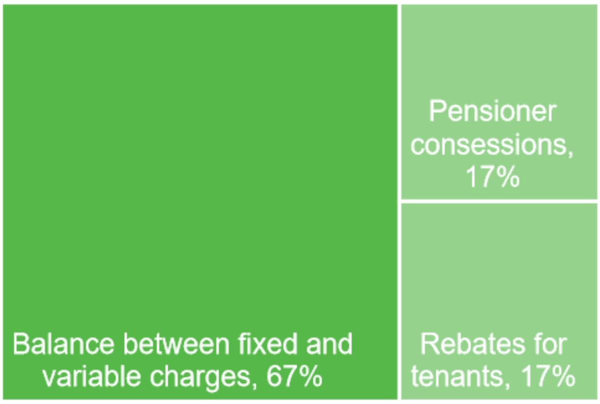
In Chapter 1, we outlined our approach to customer and community engagement for our pricing proposal.

Since we engaged extensively with our customers about price structures for IPART's 2020 price review, we initially did not plan to focus on this topic again this time.

However, during the first three stages of our engagement program, our customers made it clear they wanted to discuss price structures. This interest is likely driven by cost-of-living pressures, as customers are paying closer attention to their water bills and seeking ways to reduce their expenses.

Figure 8.2 shows the pricing topics customers were most interested to discuss. The balance between fixed and variable charges emerged as the most important issue.

Figure 8.2: Proportion of price structure comments by topic

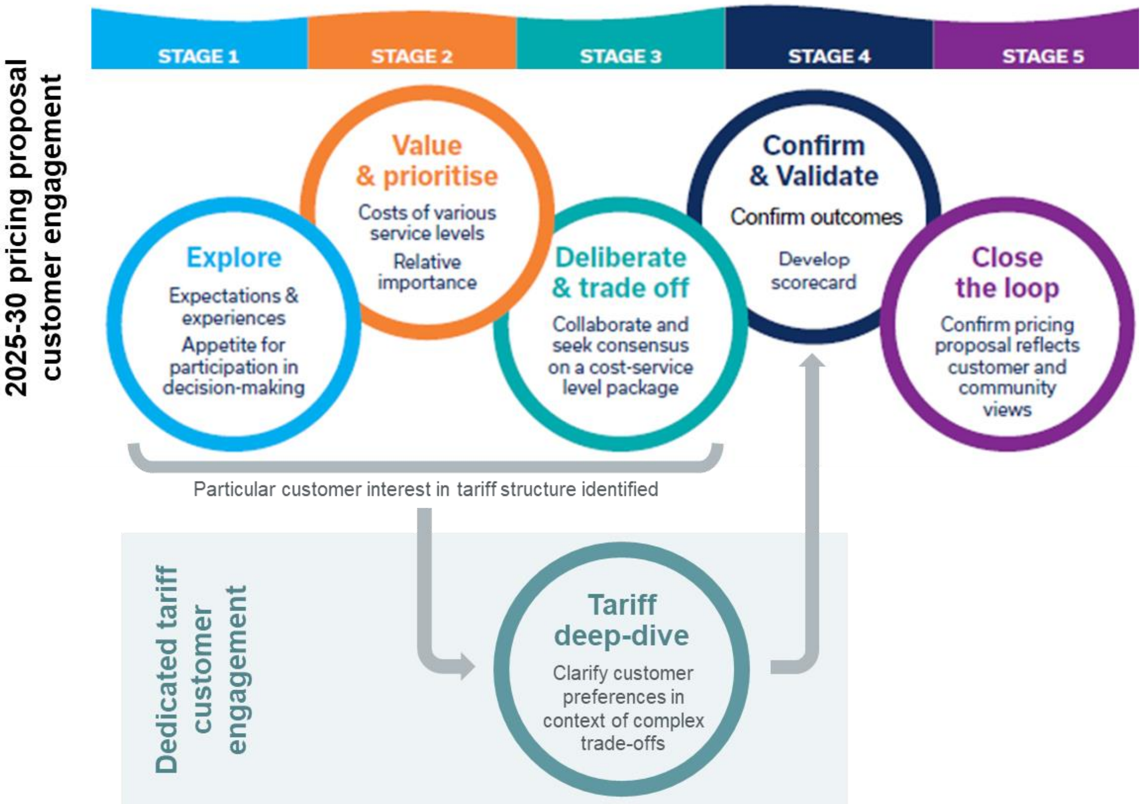


Source: Feedback through stages one, two and three of 2023-24 pricing proposal customer & community engagement

We listened to our customers and engaged on three key pricing issues

Letting our community shape our engagement agenda, we responded by undertaking dedicated engagement on price structures. Figure 8.3 shows how this fit into our overall engagement program.

Figure 8.3 Overview of pricing proposal customer engagement and tariff deep-dive



We sought to answer three key questions about prices:

- Question 1 – Water, wastewater, and stormwater: *Should prices increase with a large one-off step in year one of the upcoming pricing period, or be phased in gradually?*
- Question 2 – Water prices: *Should the increases in water prices be passed on to customers in fixed charges, in variable charges, or a mix of both?*
- Question 3 – Wastewater prices for residential customers: *Should we continue with a 100% fixed charge (based on deemed usage) or (re)-introduce an explicit variable component based on estimated discharge volume for each customer?* [1]

These questions are relatively complex. They require value judgments and trade-offs, and the options affect stakeholders differently. We adopted a mix-methods approach for the engagement: online customer surveys, interviews with subject matter experts, and several focus group discussions with our customers.

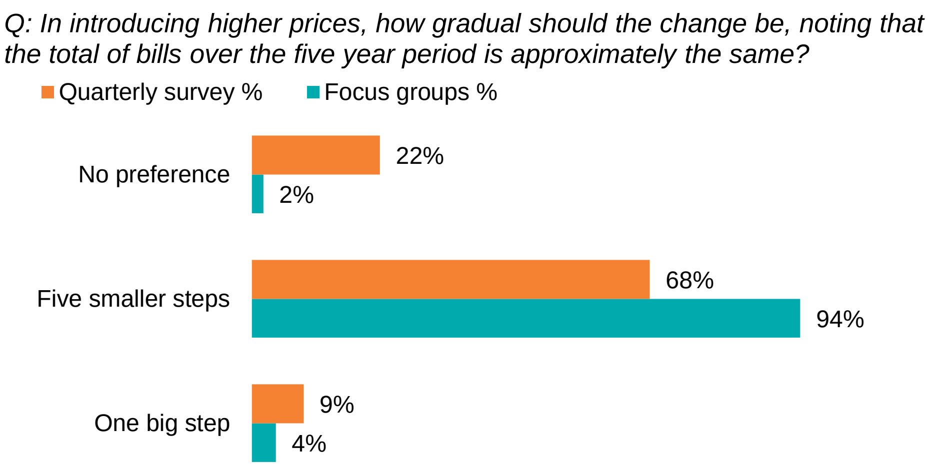
We are proposing five smaller price increases rather than one big increase, in line with our community's, and IPART's, preference

Question 1 – Water, wastewater, and stormwater: *Should prices increase with a large one-off step in year one of the upcoming pricing period, or be phased in gradually?*

Water bills need to increase. We asked our customers how quickly we should introduce that increase.

Our customers' preference was evident in their responses to an online survey and during subsequent focus groups (see Figure 8.4).

Figure 8.4: Our customers' preference for five small price increases



Source: Hunter Water Quarterly Community Survey, Feb. 2024; and Hunter Water Tariff Design Research, June 2024

The preference was stronger among focus group participants than survey respondents, likely due to the additional information and group discussions that helped inform their views. The focus groups highlighted a key driver: minimising, as much as possible, the impact on customers currently struggling with cost-of-living.

We agree with our customers and propose to introduce the bill increases in five smaller steps, smoothing prices. This approach aligns with IPART's pricing principles.

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[1] We share the insights from question three in Section 8.4, where we discuss that discusses our wastewater pricing recommendations.

Our customers want control of their water bills, preferring a higher proportion in the variable usage charge than the fixed service charge

Question 2 – Water prices: *Should the increases in water prices be passed on to customers in fixed charges, in variable charges, or a mix of both?*

Again, we used a mixed methods approach (survey and focus groups) to understand our customer's preference for setting the balance between fixed or variable water charges.

The survey asked customers to choose between principles that are most important to them. We focused on eliciting the principles that underpin customer preferences, to better understand the 'why', and prevent biasing the survey results by respondents only focusing on the pricing balance that minimised their own bills.

The results from this survey show that our customers prefer: having control over their bills, prices that encourage water conservation, and bills that are fair to small households, with customers paying for what they use. The survey results are summarised in Figure 8.6.

We also undertook six focus group sessions to test the survey results, and better understand customer preferences. Focus group participants were engaged in a discussion about the pros and cons of higher water usage or service charges, including the relative winners and losers under each option.

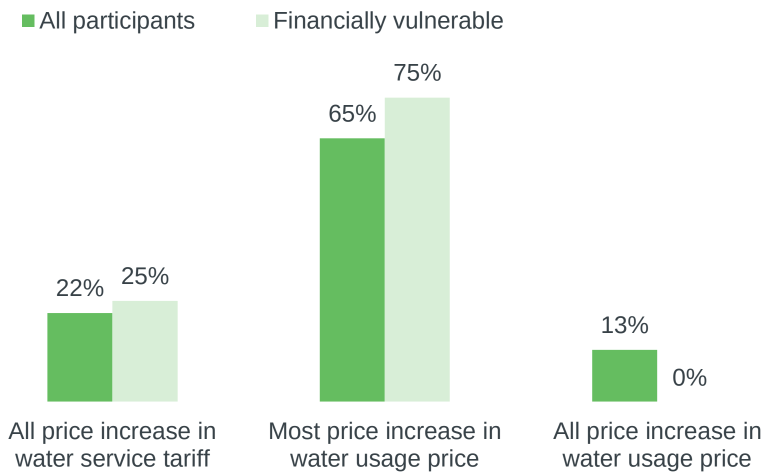
Focus groups were presented with three water pricing options:

- Option 1 – All price increases in the fixed water service charge
- Option 2 – Most of the price increases in the variable water usage charge
- Option 3 – All price increases in the variable water usage charge

Following in-depth discussion, focus group participants were asked to vote for their preferred option.

Figure 8.5 outlines the results for all participants, and a subset identifying as financially vulnerable. There was a strong preference for *Option 2 – most of the increase in the variable water usage charge*.

Figure 8.5 Focus group participants preferred most of the water price increase be in the water usage charge



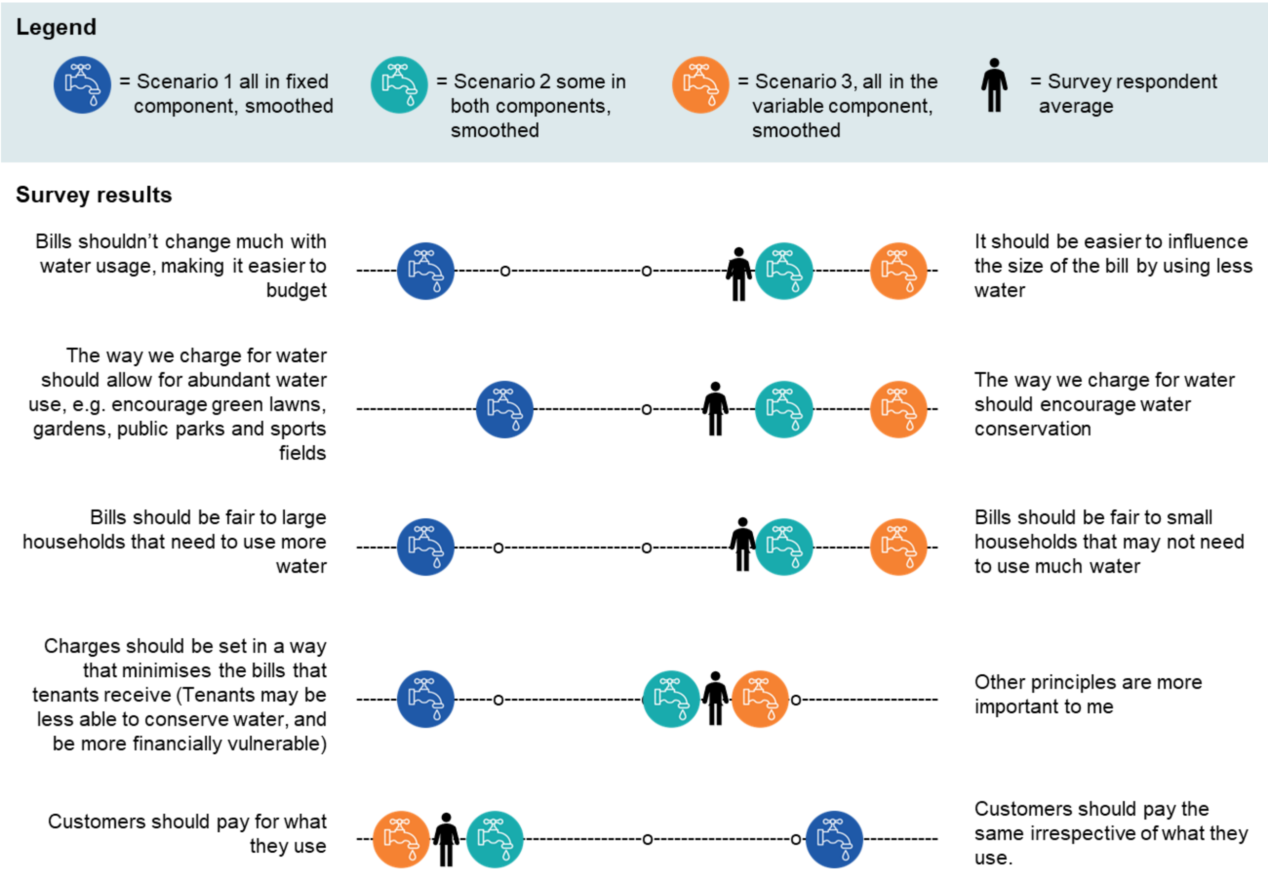
Source: Hunter Water Tariff Design Research, June 2024

When we plot the three water price options against the pricing principles shared with our customers through the survey and overlay our customers' preferences for these pricing principles established through the survey (Figure 8.6) we see that customer preferences most closely align with *Option 2 – most of the increase in the variable water usage charge*.

This research outcome aligns with our survey findings to inform our 2019 pricing proposal. [1] In that survey we asked customers about their preferred mix of fixed and variable water usage charges using an interactive 'slider' tool. Most residential customers preferred a water usage charge at, or above, the (then) current usage charge.

In proposing our fixed and variable water charges, we've incorporated this customer preference for most of the price increase to be in the water usage charge. We also considered other factors such as the LRMC of water supply and the bill impacts across our varied customer base.

Figure 8.6 Pricing options mapped against pricing principles overlayed with average of respondents' preference



Source: Hunter Water Tariff Design Research, June 2024, and Hunter Water analysis

[1] Source: See Hunter Water, 2019, Pricing Proposal Technical Paper 1, Section 2.4.2 for a description of the survey design and Technical Paper 1, Attachment B for a copy of the Price structures survey report by The CIE, 2019.

We've adopted IPART's algebraic method for estimating LRMC

Water usage prices should be set with reference to the LRMC of water supply.[1] This sends a signal to customers about the costs imposed, or avoided, if they increase, or reduce, their water consumption.

There is more than one established method for calculating LRMC, including the average incremental cost (AIC) and perturbation (Turvey). These can lead to a range of LRMC estimates due to differences in how the methodologies are applied by practitioners. In the past, this variation has created uncertainty, undermined confidence in the estimates, and reduced their usefulness in setting water usage prices or estimating avoided costs in economic analysis.

IPART undertook a review of LRMC methodology in 2022 and highlighted there is merit in applying a new 'algebraic' method as standard.[2,3] The algebraic method contains some simplifying assumptions, however, is less prone to variation across practitioners and avoids a common issue relating to the truncation of water volumes when using an arbitrary model time horizon.

We have worked with IPART and adopted this new algebraic methodology as our primary means of calculating LRMC, validating the outcomes against the other established methods (AIC and Turvey).

Informed by LRMC, our proposed usage price is cost-reflective and signals to customers that water in the Lower Hunter is a precious resource

Figure 8.7 summarises our LRMC for water supply using IPART's algebraic method, and the AIC and Turvey methods as a comparison. The LRMC estimates are similar under each method, providing relative confidence in their precision and usefulness in setting a water usage price.

We have estimated the LRMC of water supply based on the water demand forecast and cost and timing of water source augmentations. We currently have a shortfall in system yield, relative to demand. The timing assumed in our LRMC modelling reflects the investment prioritisation we have undertaken, including deferring planned augmentations, and the feasible time at which they can be constructed – not the theoretical timing of future required augmentations triggered by the supply-demand balance, or outlined in the Lower Hunter Water Security Plan.

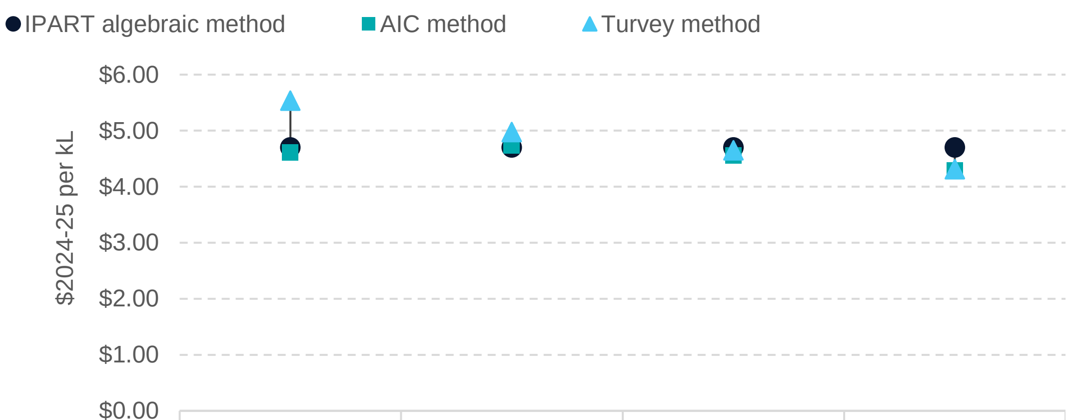
Our best estimate of LRMC is $4.70 per kL. This is above our current water usage price, building on the case to increase this price.

[1] IPART's Water Regulation Handbook, July 2023, p48

[2] Long Run Marginal Cost of water supply, IPART, July 2022

[3] IPART's Water Regulation Handbook, July 2023, p115

Figure 8.7: LRMCs of water supply; algebraic, AIC and Turvey methods; over different time horizons ($2024-25)



	30 years	35 years	40 years	45 years
IPART algebraic method	$4.70/kL	$4.70/kL	$4.70/kL	$4.70/kL
AIC method	$4.61/kL	$4.73/kL	$4.55/kL	$4.29/kL
Turvey method	$5.53/kL	$4.97/kL	$4.65/kL	$4.31/kL

Source: Hunter Water analysis

We propose to increase our water usage price and keep fixed charges low

Hunter Water was the first Australian water utility to introduce a user-pays pricing structure. In 1982, we pioneered this approach that has since been adopted nationwide. More than 40 years later, our water bills need to rise, and it's fitting that we propose most of the increase is gradually passed on through the water usage charge, sending a strong signal to consumers about the value of water.

Table 8.3 shows our recommended water usage price for the upcoming pricing period. In our pricing proposal, where nearly one third of our proposed capital expenditure is for investment in water security, including the construction of the Belmont desalination plant, it is important to provide a price signal that water is scarce and valuable in our region.

Our proposal reflects customer preferences to have the majority of water price increases in water usage price, supports customers to mitigate impending price increases better than other options, and provides an efficient price signal to conserve water with the usage charge moving towards our estimated LRMC of $4.70 per kL (see Figure 8.8).

Table 8.3: Proposed water usage price in the upcoming pricing period ($2024-25)

	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Water usage price ($/kL)	2.89	3.19	3.49	3.80	4.10	4.40
Annual change %	-	10.4%	9.4%	8.9%	7.9%	7.3%

Source: Hunter Water AIR/SIR, 'Price data', Table 7.1

Figure 8.8: Customer and LRMC insights informing our proposed water usage prices

Customer Insights

Water usage price should be shaped by our customers' preferences & needs:

- Our customers have a strong preference for five small price increases rather than one big increase
- Our customers want to have control of their water bills, preferring to have most of the price increases in the water usage charge

Recommendation

Water usage price that gradually increases over the pricing period, ending at $4.40 per kL by 2029-30 ($2024-25)

LRMC Insights

Water usage price recommendations should reference LRMC estimations:

- Our LRMC estimates are relatively consistent, giving us confidence that these LRMC numbers can be used to inform water price levels
- Applying IPART's algebraic method we estimate an LRMC of $4.70 per kL ($2024-25)

The water service charge is effectively a balancing item in our charge calculations – recovering the residual revenue not forecast to be recovered through our efficient water usage price.

Customers told us they value the ability to influence a large a portion of their bill. Our proposed fixed water service charges, outlined in Table 8.4, reflect this priority.

All residential customers (owners of apartments and houses) are 'deemed' to have a single 20mm meter connection. Non-residential water customers pay the service charge based on their actual meter size(s), set in relation to the 20mm base. Non-residential customers served by a common meter share the meter-based service charge.

Table 8.4: Proposed fixed water service charges, upcoming pricing period ($2024-25)

Connection type & size	Current pricing period 2024-25	Upcoming pricing period 2025-26	2026-27	2027-28	2028-29	2029-30
Residential						
All	27.58	42.52	57.47	72.41	87.36	102.30
Non-residential						
20mm	27.58	42.52	57.47	72.41	87.36	102.30
25mm	43.10	66.44	89.80	113.15	136.50	159.85
32mm	70.62	108.86	147.12	185.38	223.64	261.89
40mm	110.33	170.10	229.88	289.65	349.43	409.21
50mm	172.40	265.78	359.18	452.58	545.99	639.39
80mm	441.34	680.39	919.50	1,158.61	1,397.72	1,636.83
100mm	689.59	1,063.11	1,436.72	1,810.33	2,183.94	2,557.55
150mm	1,551.38	2,392.00	3,232.62	4,073.25	4,913.87	5,754.49
200mm	2,758.00	4,252.44	5,746.88	7,241.32	8,735.77	10,230.21
250mm	4,309.38	6,644.44	8,979.51	11,314.57	13,649.64	15,984.70
300mm	6,205.50	9,567.99	12,930.49	16,292.98	19,655.47	23,017.97
350mm	8,446.38	13,023.10	17,599.83	22,176.56	26,753.29	31,330.01
Annual change						
%	-	54.2%	35.1%	26.0%	20.6%	17.1%

Note: Rounding to cents may lead to very small differences is parentage growth rates between meter sizes
Source: Hunter Water AIR/SIR, 'Price data', Table 7.1

8.3.4 Raw water prices will increase

Around 70 residential and non-residential customers have long-standing arrangements with us to draw water directly from the Chichester trunk gravity main (CTGM) – specifically, the section of trunk main connecting the Chichester dam and the Dungog water treatment plant. This water is not treated and, although chlorinated, is not considered safe for drinking without additional measures being taken by customers. We refer to it as 'raw water'.

The raw water service provided differs significantly from the standard drinking water product we supply to all other retail customers. As such, raw water customers do not pay a fixed service charge – they only pay for water usage. The raw water price in 2024-25 is $0.43 per kL.

Our raw water price is calculated using a 'bottom-up', cost-plus approach. We use IPART's building block methodology, but only include costs relevant to raw water: bulk water costs. The box below outlines assumptions behind the revenue requirement calculation.

Calculation of bulk water revenue requirements

Building block costs included in the raw water charge are:

Operating costs

- Includes all operating costs directly allocated to 'bulk water'.
- Includes an overhead allocation of corporate costs to bulk water.

Return on assets

- The opening RAB value on 1 July 2020 is an apportionment of the Water RAB.
  - This is based on Depreciated Replacement Cost asset values related to bulk water resources, as a proportion of the Depreciated Replacement Cost of all water assets.
- The roll forward RAB value includes past and forward capital expenditure classified as 'water resources'.
- Cash capital contributions (developer charges) have been apportioned to reflect headworks costs associated with bulk system assets only.
- Includes a corporate allocation based on the proportion of average RAB values.
- A WACC of 3.6 per cent is applied to the RAB value. This is consistent with the overall revenue requirements.

Return of assets

- Roll forward RAB for the current pricing period includes IPART allowed regulatory depreciation related to raw water.
- Proposed existing and new asset lives are applied to the 01 July 2024 RAB value and forward capital expenditure. 'Existing asset' life is as per the overall water regulatory life. 'New asset' life reflects a bespoke calculation based forecast capital expenditure classified as 'water resources'.
- Includes a corporate allocation based on the proportion of average RAB values.

Other

- Tax and working capital are applied consistent with overall revenue requirements. Inventory and prepayments are apportioned based on costs.
- Revenue adjustments related to DVAM and WACC true-up are included in proportion to value of the RAB.

Other regulated and non-regulated income allocated to 'bulk water' are deducted from revenue

We have updated the price to reflect our previous and forecast costs. Table 8.5 shows our proposed revenue requirement is higher than the current pricing period. The main drivers are:

- higher operating expenditure allocated to bulk water activities
- higher capital expenditure on bulk water assets, increasing the RAB and return on assets
- an increase in the applied WACC from 3.4 to 3.6 per cent – see chapter 6.
- an increase in depreciation allowance, driven by both the higher RAB and lower regulatory asset lives, weighted by 'depreciation' rather than 'asset value'. See chapter 6 for an explanation of asset life calculations.

Table 8.5: Proposed raw water revenue requirements, ($2024-25, $millions)

	IPART allowance 2023-24	2025-26	2026-27	2027-28	2028-29	2029-30
Operating costs	16.4	20.7	20.6	20.6	20.5	20.6
Return on assets	8.4	10.2	10.3	10.4	10.5	10.6
Regulatory depreciation	5.2	6.8	7.0	7.2	7.5	7.8
Tax allowance	0.2	1.1	1.1	1.2	1.2	1.3
Working capital	0.2	0.4	0.4	0.4	0.4	0.4
Revenue adjustments	-	0.1	(0.1)	(0.1)	(0.1)	(0.1)
Notional revenue requirements	**30.4**	**39.2**	**39.4**	**39.7**	**40.0**	**40.6**

Source: Hunter Water analysis

Table 8.6 shows our calculation of this price – we first calculate a raw water price based on the bulk water revenue requirement and total forecast water supply.

We propose to smooth the raw water price increase, like the approach for the potable water usage price. To do so, we forecast demand for the raw water service and then smooth the projected revenues to calculate a smoothed increase in the raw water price over the upcoming pricing period. The revenue achieved by this 'smoothed' charge is the same in NPV terms as would be achieved by the unsmoothed raw water price.

The proposed raw water price increases from around $0.43 per kL in 2024-25 to $0.70 per kL in 2029-30. This level of increase reflects the increasing costs of water security and is an appropriate price signal about the value of water. The rate of increase is broadly in line with that of the overall potable usage price.

Table 8.6 Calculation of proposed raw water price, ($2024-25)

	Unit	2025-26	2026-27	2027-28	2028-29	2029-30	5-year NPV
All water customers							
Revenue requirement	$m	39.2	39.4	39.7	40.0	40.6	
Forecast water supply	GL	68.7	67.8	67.3	67.2	67.1	
Raw water price	$/kL	0.57	0.58	0.59	0.60	0.60	
Raw water customers							
Forecast demand	kL	35,000	35,000	35,000	35,000	35,000	
Projected revenue	$	19,997	20,338	20,674	20,833	21,167	**92,557.5**
Smoothed revenue	$	16,947	18,844	20,741	22,637	24,534	**92,557.5**
Smoothed raw water price	**$/kL**	**0.48**	**0.54**	**0.59**	**0.65**	**0.70**	

Source: Hunter Water analysis
Source: Prices as per Hunter Water AIR/SIR, 'Price data', Table 7.1; Forecast water supply as per Hunter Water AIR/SIR, 'AIR Non-financial', Table 1.5, row 321.

8.3.5 We only have two unmetered non-residential properties

We only have two non-residential unmetered properties. These customers own older commercial buildings located in the Newcastle town centre where we have been unable to install a water meter due to access problems at each connection point.

In 2012, we proposed a water charge for unmetered properties comprising a service charge plus a deemed water usage component of 180 kilolitres – consistent with Sydney Water at the time. IPART's 2013, 2016 and 2020 Determinations adopted this approach.

We propose to continue the existing method to calculate the unmetered property water charge for the upcoming pricing period (see Table 8.7).

Table 8.7: Proposed unmetered property charge, upcoming pricing period ($2024-25)

	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Unmetered property charge ($ per year)	547.78	616.72	685.67	756.41	825.36	894.30

Source: Hunter Water analysis

8.3.6 We will continue to have negotiated service agreements

We have existing wholesale servicing arrangements and negotiated service agreements with several customers. These agreements involve different prices to our standard water price. Such agreements can be entered into on the principle that parties in the agreement are in similar negotiating positions to agree upon terms that are mutually beneficial. The service arrangements we have are set with reference to the potable water usage charge with appropriate adjustments for the services provided.

For this pricing proposal, we expect that these existing agreements will remain in place over the upcoming pricing period. As such, revenues associated with these agreements are ring-fenced and deducted from target water revenues in the calculation of proposed retail prices.

8.3.7 Our drought water usage price helps ensure cost recovery during droughts and encourages water conservation

IPART's 2020 Determination established a dynamic drought water usage price that is added to the standard water price when specific triggers are met. The purpose of the drought water usage price is to:

- signal to our customers the increased value of water when water storage levels are low, further encouraging water conservation
- ensure cost recovery during periods of water restrictions as we experience higher operating costs and lower water sales revenues

The current drought water usage price is $0.50 per kL in 2024-25 and charged in addition to the base water price.

The drought water usage price is triggered if storages fall below 60 per cent

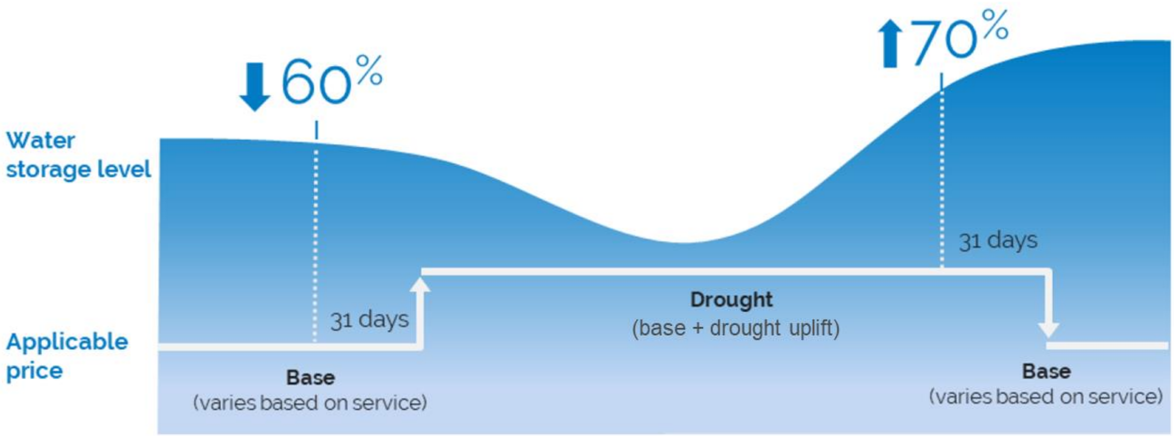
The drought water usage price is triggered 31 days after our storage levels fall below 60% (Level 1 water restriction storage level trigger). It remains in place until 31 days after our storage levels rise to 70%, as summarised in Figure 8.9.

'On' and 'off' triggers are asymmetric, so only a significant increase in water storage levels will turn off the drought water usage price. This avoids a situation where it is triggered multiple times within a short period, causing confusion with our customers, and helps ensure certainty of funding for our drought management projects.

The 31-day delay provides time for us to inform our customers about the new higher water price and gives our customers time to prepare. Customers may avoid some, or all, of the increase in their water bills by adjusting their water use behaviours, or using more water efficient appliances, fixtures or fittings.

The drought water usage price has not been triggered during the current pricing period.

Figure 8.9 Summary of drought water usage price triggers



We propose to retain the drought water usage price, including key features

Chapter 10 explains why the drought water usage price is an important and efficient mechanism to ensure cost recovery and manage revenue risk from a foreseeable but unlikely event. It provides an additional signal to customers when storages deplete that water is scarcer and has a higher value, encouraging conservation.

We have not consulted customers on whether to retain the drought water usage price, for two reasons:

1. Customers lack experience with the practical application of the drought water usage price, since it has not been triggered in the current pricing period. We already have customer views on a hypothetical drought water usage price from customer and community engagement in 2018.
2. During other customer engagement for this pricing proposal, we were often asked why our costs need to be covered through customer charges.[1] Welfare theory would suggest that most customers acting in their own self-interest would not elect to pay more to help manage Hunter Water's financial sustainability risk during periods of drought.

In 2018, during customer and community engagement for the LHWSP, we tested perceptions about various supply and demand options. Unsurprisingly, only a minority of participants in deliberative forums (42%) supported price increases as part of a drought response, with a majority of those in favour also supporting its early introduction and use (see Table 8.8).

[1] Customers and community members often digressed from the topic at hand, suggesting a 'magic pudding' arrangement whereby they could receive a higher level of service at the same cost. This view was expressed despite us making it clear that our business model, including who owns us, how the business is structured, how we are funded, the profits we generate, and dividend pay to the NSW Government are out-of-scope.

Table 8.8 Customer and community feedback on the use of scarcity pricing during drought

Restrictions/regulation option	At all times	Early drought	Late drought	Never acceptable
Increase the price of water as storages fall to encourage water saving and pay for additional water efficiency programs	7%	24%	11%	58%

Source: Hunter Water, April 2020, Review of prices for Hunter Water - Response to IPART draft decisions. Available at:https://www.ipart.nsw.gov.au/sites/default/files/documents/online-submission-hunter-water-corporation-e.-turner-9-apr-2020-211800000.pdf.

The water sales revenue shortfall is based on a 1 in 100-year drought

Consistent with IPART's 2020 Determination, we will continue to base our drought water usage price on the water sales revenue shortfall that can be expected under a 1 in 100-year drought. This represents a severe drought with significant under-recovery of costs and revenues but is not excessively improbable or conservative as to generate an unreasonably high drought water usage price.

The 1 in 100-year drought sequence predicts six months of normal water storage levels (>70% water storage) and 11 months in our preparatory stage (70% → 60% water storage) before entering Level 1 water restrictions (60% → 50% water storage), remaining in that level of restriction for the duration of the drought.[1]

Incremental operating costs reflect our published drought response plan

In 2023 we completed our Lower Hunter Drought Response Plan outlining the actions we will undertake during different levels of drought.[2] The incremental operating costs we propose, reflect the actions outlined in this plan. These actions fall into three broad categories:

1. **Governance:** minor internal actions needed to efficiently prepare for drought.
2. **Demand side**: the actions needed to increase water conservation.
3. **Supply side:** the actions needed to improve the resilience of our water supply.

We have not included any additional costs associated with operating our proposed Belmont desalination plant. The plant will be completed in 2028 and then have a two-year performance guarantee period where we will test different operating modes and water output levels. We will bear the financial risks of increasing operation of the plant during this period, if needed to respond to drought.

We have included incremental operating costs, based on a 1 in 100-year drought, that we incur immediately prior to entering water restrictions (preparatory stage), and during level 1 restrictions. We reduce the costs to account for lower water supply costs (transport and treatment) during restricted demand periods.

Over the full drought sequence, we estimate a $22 million per year shortfall in costs and revenues

The incremental operating costs and lost water sales revenues used in the drought water usage price are based on a weighted average of six months in normal storage levels, 11 months in the preparatory stage, and 43 months in Level 1 water restrictions (five years in total). Lost water sales occur once Level 1 restrictions are implemented. We incur incremental operating costs in both the preparatory and Level 1 restriction stages.

[1] In July 2023 Hunter Water announced it would be reducing the maximum water storage capacity of Grahamstown Dam to address concerns about dam safety in the case of an earthquake. The stated probabilities do not reflect this lower water storage capacity.

[2] The Lower Hunter Drought Response Plan, Hunter Water, Nov 2023: https://www.hunterwater.com.au/documents/assets/src/uploads/documents/HW2016-622-52-9.002-Plan-LHDRP_Nov-2023.pdf

Table 8.9 shows the total exposure during the five-year drought sequence is about $22 million per year. If we based it on only the time spent during Level 1 restrictions, we estimate it to be $30 million per year.

Table 8.9: Estimated water revenue shortfall and incremental operating costs per year for a one in one-hundred- year drought sequence ($2024-25, $millions)

$millions, per year	Full drought sequence	Level 1 restrictions only
Estimated water revenue shortfall		
Water revenue shortfall	**14.0**	20.1
Estimated incremental OPEX costs		
Governance actions	**0.1**	0.1
Demand side actions	**4.3**	5.5
Supply side actions	**4.3**	4.9
Total incremental operating expenditure	**8.6**	10.5
Lower water supply cost reduction	**(0.4)**	(0.6)
Water revenue and operating expenditure exposure	**22.2**	30.0

Note: where numbers do not sum is due to rounding
Source: Full drought sequence costs can be found at Hunter Water AIR/SIR, 'SIR Contingent & drought', Table 7.2, rows 120, 121, 122, 123 & 134

We propose a lower drought water usage price than the current period

The proposed drought water usage price is shown in Table 8.10. This would be applied, as it is currently, on top of the normal water price.

Table 8.10: Proposed drought water usage price ($2024-25)

	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Drought water usage price ($ per kL)	0.50	0.44	0.44	0.44	0.44	0.44

Source: Hunter Water AIR/SIR, 'Price Data', Table 7.1

We have not increased our drought water usage price to account for customers' potential demand-response due to the water price uplift

The demand for water, like most products, is sensitive to price changes. Measurement of customer's sensitivity to price is referred to as the price elasticity of demand. We have not made a price elasticity adjustment, within the calculation of the drought water usage price, to reflect additional lost water sales due to customers facing the higher price, as we have low confidence in the available price elasticity estimates (described in Section 7.6).

Not applying an elasticity adjustment is conservative in customers' favour. An adjustment would further reduce forecast demand and lost water sales revenues, increasing the estimated drought water usage price.

8.4 Wastewater

8.4.1 Our wastewater charges are predominantly fixed

Our wastewater charges are split into a usage charge and a fixed service charge.

The wastewater usage charge includes a price per kilolitre of wastewater discharged or deemed to have been discharged into our sewer system. The calculation of this charge is dependent on customer type:

- Residential customers pay for a deemed volume of wastewater discharge (discharge allowance). Due to the 'fixed' nature of this charge, it is included within the fixed service charge rather than as an explicit usage charge on customer bills.
- Non-residential customers pay an explicit wastewater usage charge.
  - A very small number of our largest customers have a sewer meter connection. For these customers, the wastewater usage charge may be based on actual metered discharge.
  - Most of our customers do not have a sewer meter connection. For these customers, the wastewater usage charge is based on metered water usage and a customer specific sewer discharge factor. The sewer discharge factor is set to reflect the estimated portion of metered water usage discharged into the sewer system.

The wastewater service charge is a fixed charge set at a level to recover the capital and operating costs of the wastewater system. Most of the costs associated with providing wastewater services are fixed and do not vary with the volume of wastewater discharged. As such, fixed service charges recover nearly all our wastewater revenue. The current wastewater service charge:

- Recovers residual wastewater target sales revenue not recovered via wastewater usage charges.
- Is calculated with reference to water meter size, and a sewer discharge factor. As above, the sewer discharge factor is set to reflect the estimated portion of metered water usage discharged into the sewer system. The 'unadjusted' service charge refers to the price prior to application of a sewer discharge factor. The 'adjusted' service charge refers to the price after the application of a sewer discharge factor. This is the amount ultimately paid by customers.
- All residential dwellings are deemed to have a 20mm water meter and 75 per cent sewer discharge factor.

  The overall wastewater service charge for residential customers currently applies at two different levels – a charge for those who own a multi-premises (i.e. apartments), and a charge for those who own a stand-alone residence (i.e. houses). In the current pricing period, IPART continued a transition arrangement that aims to standardise residential wastewater charges and eliminate differences between house and apartment service charges.
- Non-residential customers are charged according to actual water meter size(s) and a customer-specific sewer discharge factor.
  - Properties with a 20mm water meter are levied the same base charge as residential customers, prior to the application of a discharge factor. Customers with larger meters pay a proportionately higher charge.
  - Sewer discharge factors depend on the nature of an individual customer's business. Businesses that typically discharge most of their water-use to the sewer, such as hotels, restaurants and petrol stations, have higher discharge factors. Businesses that use most of their water on-site, such as a garden nursey have lower discharge factors.

8.4.2 A modest increase in wastewater revenue requirements

Revenue from our wastewater usage price and wastewater service charges in combination need to recover the efficient revenues required to deliver our wastewater services.

Chapter 6 shows the calculation of our wastewater revenue requirements for the upcoming pricing period. The target wastewater revenue to be recovered is shown in Table 8.11. These target sales revenues increase on average 3 per cent per year and given forecast connection growth, this will result in modestly higher wastewater charges.

Table 8.11: Target sales revenue from wastewater service and usage charges, upcoming pricing period ($2024-25, $millions)

	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Wastewater sales revenue - target	212.7	221.6	227.7	233.8	240.2	246.8

Source: Hunter Water analysis
Source: Hunter Water AIR/SIR, 'Revenue', Table 6.1, rows 44, 70 & 71

8.4.3 Development of wastewater usage and service charges

We continue to be guided by IPART's pricing principles and consider our customers' views in setting cost-reflective wastewater charges

Given the substantial restructuring and refinement of wastewater charges in previous price reviews, we propose to retain the existing pricing structure. IPART's 2023 Water Regulation Handbook includes a set of principles that are relevant to setting wastewater prices, specifically:[1]

- service charges should recover the residual wastewater revenue requirement not collected by wastewater usage charges
- service charges should reflect the capacity available for the customer (based on size of water connection)
- service charges for houses and apartments should be similar where costs to serve cannot be differentiated
- smoothed prices are preferable.

Figure 8.10 and Figure 8.11 summarise the steps we have taken in proposing wastewater usage and service charges. We have calculated target wastewater sales revenues, set a wastewater usage price that references the LRMC and short run marginal cost (SRMC), considered the preferences of customers, and calculated wastewater service charges as a residual based on water meter size and discharge factors.[2]

Figure 8.11 specifically provides more detail about how we calculate wastewater usage for residential and non-residential customers.

[1] IPART's Water Regulation Handbook, July 2023, p48

[2] The SRMC is a measure of the marginal cost of water supply but assumes that capacity cannot be altered – i.e. it includes only the additional operating costs of supplying the water, not capital investment.

Figure 8.10: Development of our wastewater usage and service charges

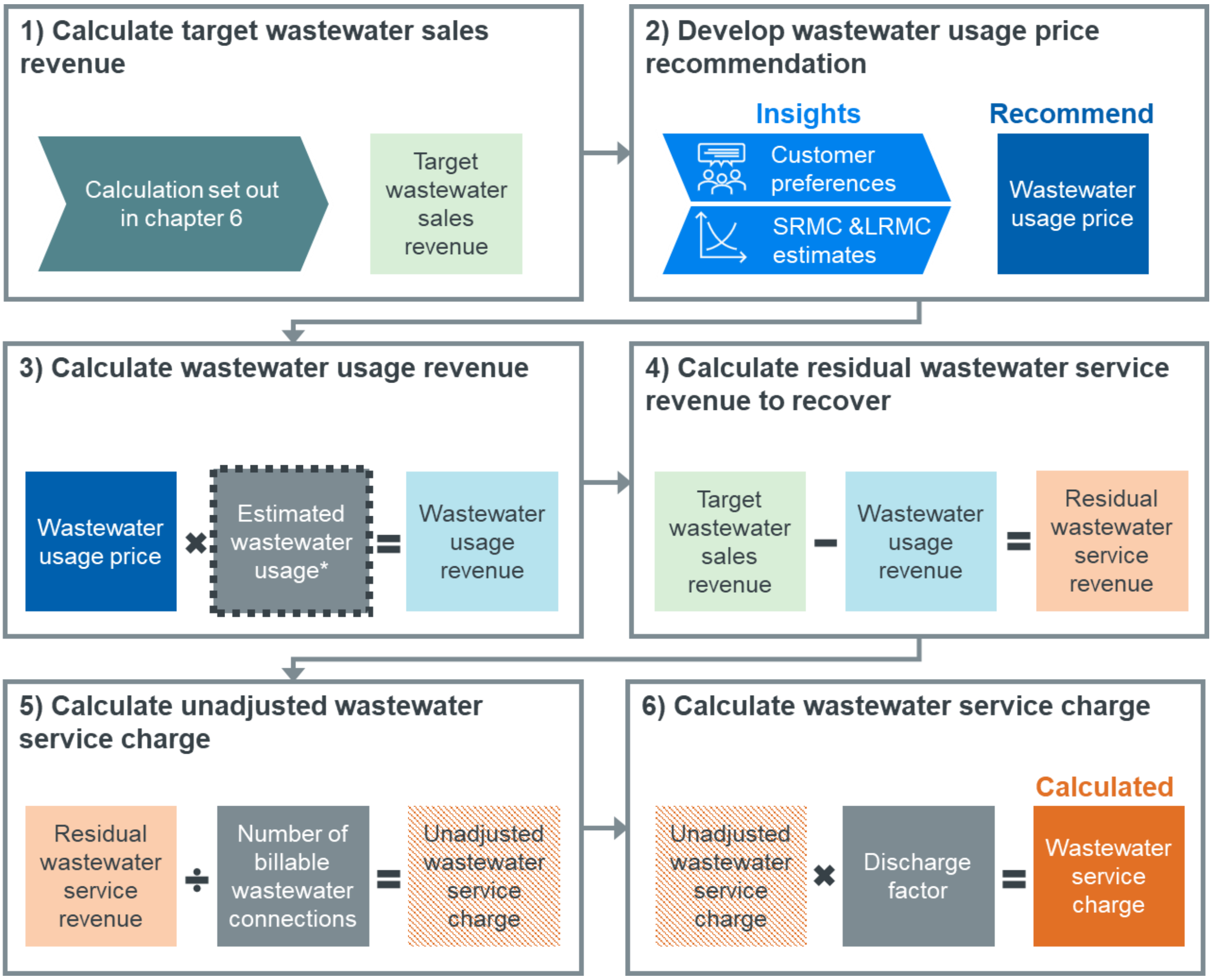
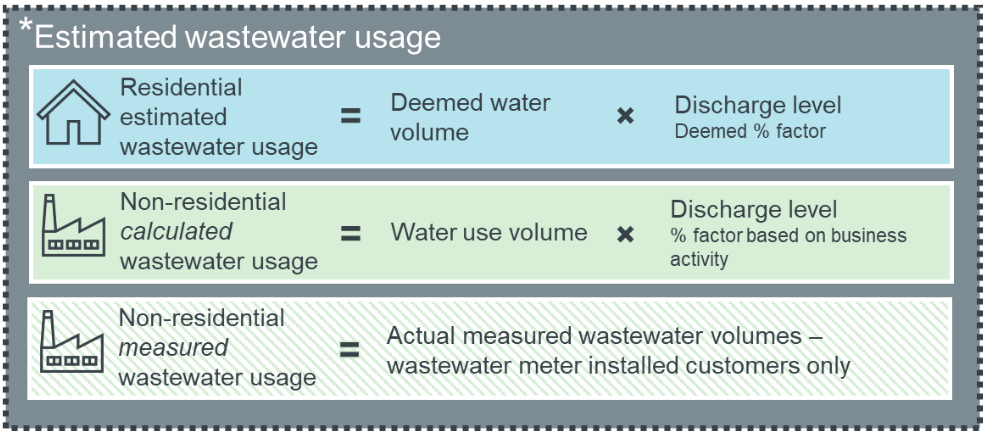


Figure 8.11 Calculation of estimated wastewater usage levels



Many residential customers would prefer an explicit residential wastewater usage charge, however, we propose to retain the status quo

In Section 8.3.3 we explained that our customers wanted to discuss price structures. Driven by their desire to reduce bills, and complaints about residential wastewater charges being entirely fixed, we engaged on this key question:

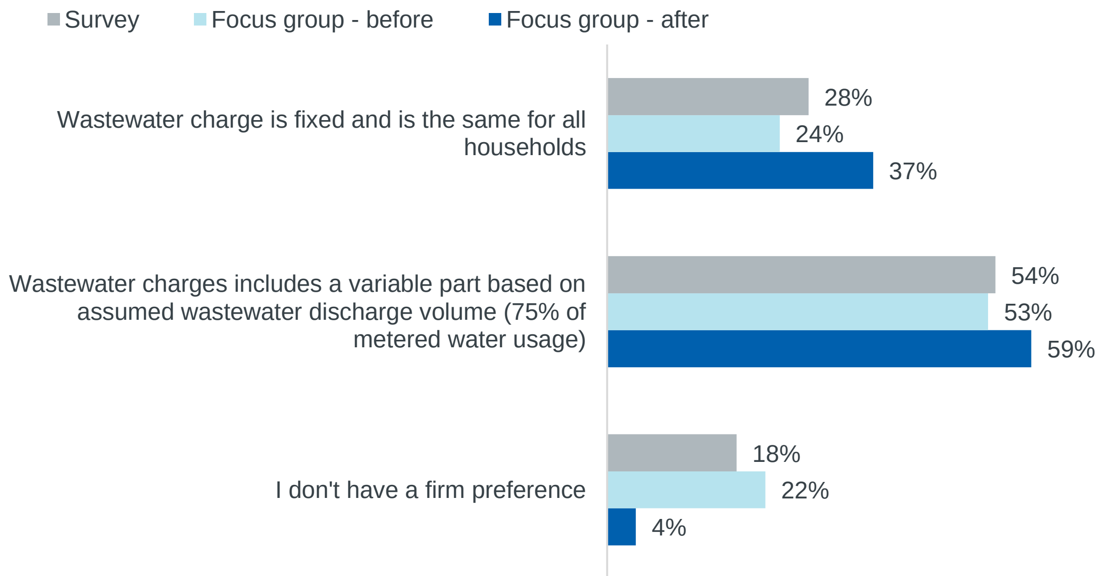
> ***Question 3 – Wastewater prices for residential customers:*** Should we continue with a 100% fixed charge (based on deemed usage) or (re)-introduce an explicit variable component based on estimated discharge volume for each customer?

We asked our customers through a survey and focus groups. The focus groups involved in-depth discussion and participants were asked to provide their views before, and after, the discussion.

The results (see Figure 8.12) showed mixed support for reintroducing an explicit residential wastewater usage charge. A majority favoured the change; however, we do not consider the level of support compelling enough to shift to what we consider to be a more complicated and less equitable charging approach.

In Attachment I, we summarise why we moved away from explicit residential wastewater usage charges in 2009, further explain our engagement approach and findings, and the decision process that led to us retaining the status quo.

Figure 8.12 Customers' views about residential wastewater usage charges



Source: Hunter Water Tariff Design Research, June 2024

8.4.4 Residential apartments will continue to pay slightly less than houses for their wastewater services

We have gradually been transitioning houses and residential apartments to pay the same wastewater charges, as there is no significant difference in the costs for us to provide wastewater services to these customers.

The discount applied to apartments has been reducing by 2.5 per cent each year. If this trajectory were continued, we would see houses and apartments pay the same by 2027-28.

We summarised the history and justification for this transition in our 2019 pricing proposal.[1]

Our existing approach could see most of our apartment customers paying too high a (deemed) wastewater usage charge

Currently all residential customers, houses and apartments, are deemed to discharge 120 kL of wastewater per year. This is calculated based on a historical 'typical' residential average water usage of 160 kL per year, multiplied by an estimated discharge factor of 75 per cent.[2]

Chapter 7 explains that residential water consumption has declined over the past few years. We forecast average water consumption for residential apartments to be about 102 kL per year in the upcoming pricing period.

This means if we maintain the deemed residential wastewater discharge of 120 kL per year for apartments (and houses), we would be charging most of our apartment customers for a deemed wastewater discharge volume that is greater than their water consumption. We don't think that is coherent or equitable.

Deemed wastewater discharge for houses and apartments will be determined based on their forecast average water consumption

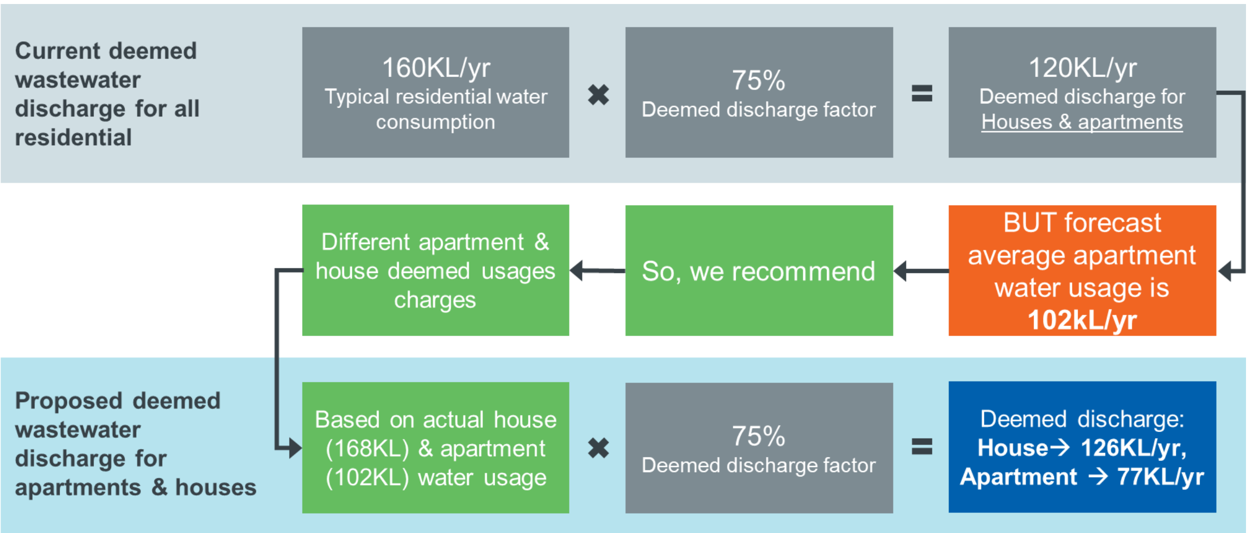
To resolve this issue, we propose that the deemed wastewater discharge allowance for houses and apartments should be based on the average forecast water consumption for each property type.

For houses, our forecast of average water consumption is 168 kL per year[3]. Applying a 75 per cent discharge factor results in an estimated deemed discharge of 126 kL per year.

For apartments, our forecast of average water consumption is 102 kL per year. Applying a 75 per cent discharge factor results in an estimated deemed discharge of 77 kL per year.

This issue and our proposed approach are explained in Figure 8.13.

Figure 8.13: Proposed method for estimating deemed wastewater discharge allowance



[1] [1] Hunter Water's 2019 Pricing Proposal, *Technical Paper 8: Pricing of water, wastewater and stormwater services,* p28

[2] This means that for every 100 litres of water consumed by a residential customer, we expect approximately 75 litres will be discharged as wastewater.

[3] The wastewater deemed discharge applies to all residential customers and the sum of deemed discharges should approximate the total wastewater discharged by all residential customers. Therefore, it is appropriate to use a mean average (rather than a median or mode) to estimate water usage as a basis to calculate the deemed discharge.

We propose to maintain our current residential deemed discharge factor of 75 per cent, but will review this assumption in the future

The current residential deemed discharge factor of 75 per cent (for both houses and apartments) was introduced as part of IPART's 2016 Price Determination for Hunter Water.

We propose to retain this value to consistently set both the residential wastewater service charge and deemed wastewater discharge allowance. We do not have strong evidence to support an alternative assumption.

The iSDP model we use to forecast residential demand contains assumptions about how residential customers use water, including internal and external uses. Our model forecasts the wastewater discharge factor for houses as closer to 67 per cent and 80 per cent for apartments. Given the relative stock of houses and apartments, this suggests an average discharge factor of 75 per cent may be too high.

We are currently developing a business case for a residential end-use study that will improve the assumptions in the iSDP model, helping us better plan water supply and demand interventions. The end-use study would provide information that could inform a review of our residential discharge factor(s) for our subsequent pricing proposal.

In proposing to change residential deemed usage volumes, it's simpler and reasonable to remove our current discount on wastewater charges for apartments

As mentioned, we have been transitioning apartments to the same wastewater usage and service charge as houses.

Under our proposed change to residential deemed usage, apartments and houses would, by design, have different wastewater usage charges reflecting different deemed discharge volumes. We would therefore discontinue the current transition to make these charges equal.

We also propose to immediately bridge the gap between wastewater service charges for apartments and houses. If we were we to continue a discount for an apartment's wastewater service charge; while concurrently reducing the apartment deemed usage charge, we would see a widening in the gap between the total wastewater bill for houses and apartments. Given the cost-to-serve arguments previously prosecuted, it is simpler for houses and apartments to immediately pay the same wastewater service charge.

Our proposed change to deemed discharge volumes mean residential apartments will pay slightly less than houses in total for a wastewater service

While a difference between houses and apartments will remain, the gap will be small: approximately $30 a year by the end of the upcoming pricing period. In 2024-25, customers in an apartment are paying about $60 less per year than a house for their wastewater service.

8.4.5 Our proposed wastewater usage charge

In past retail price reviews, IPART has generally expressed a preference for setting the wastewater usage charge with reference to the SRMC of wastewater. More recently, in its 2020 determination and new water regulatory framework, IPART indicated a preference for setting the wastewater usage charge with reference to the LRMC of wastewater.[1]

IPART subsequently released an information paper for consultation and established a working group of water utilities and other stakeholders to reach a consensus position on methodological issues associated with estimating LRMC for water and wastewater.[2] We thank IPART for constructively and collaboratively progressing these issues.

[1] IPART, 2020, Final Report: Review of prices for Hunter Water Corporation from 1 July 2020, page 114-115

[2] IPART, 2022, A more accurate way to estimate LRMC, information paper. This paper, and stakeholder submissions, are available at: https://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Metro-Pricing/How-we-regulate-the-water-businesses

The working group recognised the complexities involved in estimating an area-wide or catchment-specific wastewater LRMC, and identified several limitations in how effectively they would send an efficient price signal to customers.

IPART's Water Regulation Handbook, was updated to reflect the working group's consensus position that it is not necessary to estimate a LRMC for wastewater for the purpose of setting retail wastewater prices.[1]

Estimates of SRMC and LRMC of wastewater form an indicative range for a cost-reflective wastewater usage charge

Notwithstanding the complexities, we see merit in attempting to estimate the LRMC of wastewater for other business reasons and have made a preliminary attempt to do so. We posit that the LRMC of wastewater is the sum of the LRMC estimates for wastewater networks and wastewater treatment, and that each component is at least equal to the SRMC estimate. We then estimated the LRMC of wastewater treatment for each of our 19 wastewater catchments using both the AIC and Turvey methods.[2]

The AIC and Turvey estimates differ for several reasons. When comparing the cost across catchments of new development or a new large customer, the Turvey estimate may be most applicable. When considering the costs avoided by an initiative that will take wastewater volumes out of the network, the AIC estimate may be most applicable.

We have therefore used the catchment-specific AIC estimates to derive a weighted average area-wide estimated LRMC of wastewater treatment of $0.62/kL ($2024-25).[3] With an LRMC of wastewater networks at least $0.07/kL, our combined estimate of LRMC wastewater is $0.69/kL ($2024-25).

We also updated our estimated SRMC of wastewater, calculating an area-wide SRMC of wastewater networks and catchment-specific SRMC of wastewater treatment.[4] Our combined estimate of SRMC wastewater is $0.25/kL ($2024-25).

Our current 2024-25 wastewater usage price is $0.77 per kL, which in all cases is higher than the area-wide SRMC and LRMC estimates.

We propose maintaining our current wastewater price of $0.77 per kL in nominal terms

We propose maintaining our current wastewater usage price of $0.77 per kL in nominal terms, providing consistency across pricing periods. We summarise our proposal in Figure 8.14. While we considered a slight decrease in wastewater usage price to be within the range of SRMC and LRMC of wastewater usage, we believe that a reduction in price could potentially incentivise inefficiently high discharge in wastewater catchments that have higher SRMC and LRMC of wastewater treatment.

By maintaining our current wastewater usage price in nominal terms, we allow for the gradual reduction of wastewater price after accounting for inflation, meaning that the wastewater usage price will slowly become more reflective of our wastewater costs.

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[1] IPART, July 2023, Water Regulation Handbook, July 2023, p48

[2] The estimates are measured in dollars, per unit of equivalent population. This measure is used widely in the wastewater sector for measuring average wastewater demand. It can readily be converted into a measure of LRMC per kilolitre of domestic wastewater.

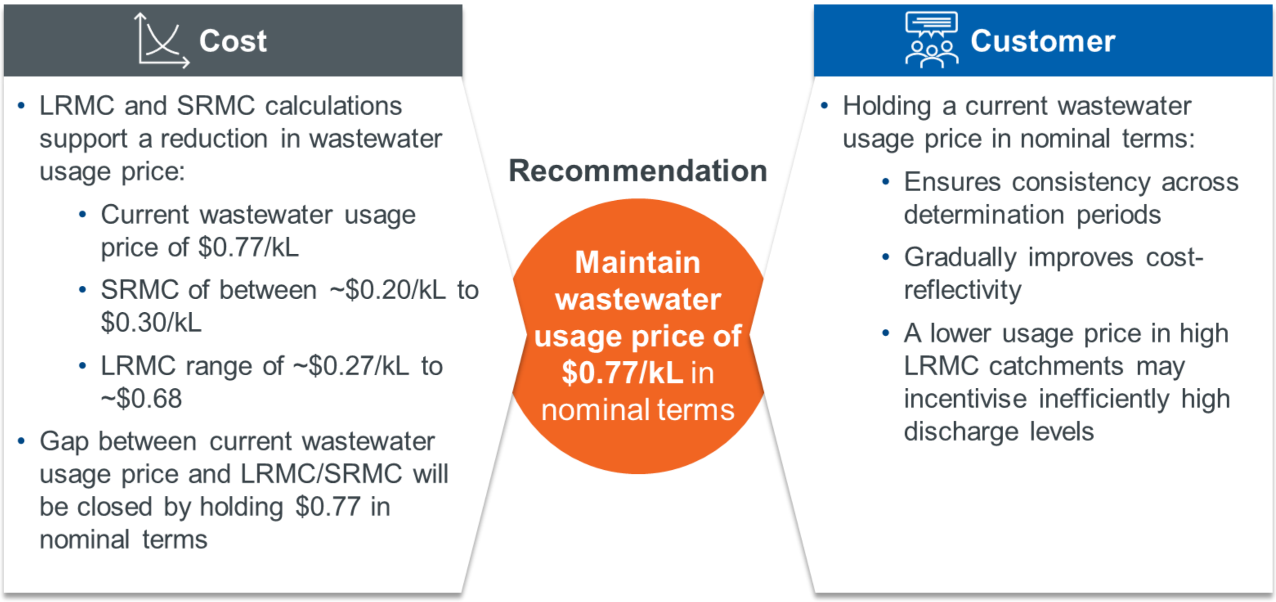
Estimates of LRMC measured in this way may be useful for quantifying benefits from initiatives that would reduce the volumes of wastewater sent to treatment plants in dry weather. These initiatives could include sewer mining, recycling upstream of treatment plants, greywater reuse systems, and repairing cracked pipes to reduce infiltration.

The estimates are not applicable to measuring the benefits of initiatives reducing peak instantaneous flow, such as fixing illegal connection of rainwater downpipes to the wastewater network. They are also not well suited to measuring the costs of trade waste with higher nutrient loads than domestic wastewater.

[3] LRMC wastewater treatment (AIC) range $0.12/kL to $6.87/kL. Weighted average $0.60/kL.

[4] SRMC wastewater treatment range $0.06/kL to $0.94/kL. Weighted average $0.16/kL.

Figure 8.14: Summary of wastewater usage price proposal



Proposed deemed usage for residential customers

The proposed deemed wastewater discharge and usage for residential customers is shown in Table 8.12.

Table 8.12 Deemed wastewater discharge and usage for residential customers

	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
House						
Deemed discharge (kL)	120	126	126	126	126	126
Deemed usage ($)	92.40	94.10	91.81	89.57	87.38	85.25
Apartment						
Deemed discharge (kL)	111	77	77	77	77	77
Deemed usage ($)	85.47	57.51	56.10	54.74	53.40	52.10

Source: Hunter Water SIR/AIR, 'Price data', Table 7.2

8.4.6 Our proposed wastewater service charges

We calculate our proposed wastewater service charge in relation to the number of dwellings for residential customers, and in relation to meter size for non-residential customers. All residential customers, both houses and apartments, are deemed to have a single 20mm meter connection. Non-residential customers pay based on their actual water meter size, set in relation to the 20mm base.

Table 8.13 shows our proposed unadjusted (before applying a discharge factor) service charges. The adjusted wastewater service charges for residential customers, based on a 75 per cent discharge factor, are shown in Table 8.14.

In Section 8.3.3 we explained that most customers would prefer price increases to be introduced as five smaller steps. We support this position and have proposed to gradually introduce higher wastewater service charges.

Table 8.13 Proposed unadjusted wastewater service charges for the upcoming pricing period ($2024-25), charge per year

Connection type & size	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Residential						
House	929.04	947.65	966.26	984.87	1,003.49	1,022.10
Apartment	859.37	947.65	966.26	984.87	1,003.49	1,022.10
Residential annual change %						
House	-	2.0%	2.0%	1.9%	1.9%	1.9%
Apartment	-	10.3%	2.0%	1.9%	1.9%	1.9%
Non-residential						
20mm	929.04	947.65	966.26	984.87	1,003.49	1,022.10
25mm	1,451.63	1,480.70	1,509.78	1,538.86	1,567.95	1,597.03
32mm	2,378.35	2,425.98	2,473.63	2,521.27	2,568.93	2,616.58
40mm	3,716.17	3,790.60	3,865.04	3,939.48	4,013.96	4,088.40
50mm	5,806.52	5,922.81	6,039.13	6,155.44	6,271.81	6,388.13
80mm	14,864.68	15,162.40	15,460.16	15,757.92	16,055.84	16,353.60
100mm	23,226.07	23,691.25	24,156.50	24,621.75	25,087.25	25,552.50
150mm	52,258.66	53,305.31	54,352.13	55,398.94	56,446.31	57,493.13
200mm	92,904.27	94,765.00	96,626.00	98,487.00	100,349.00	102,210.00
250mm	145,162.50	148,070.31	150,978.13	153,885.94	156,795.31	159,703.13
300mm	209,034.00	213,221.25	217,408.50	221,595.75	225,785.25	229,972.50
350mm	284,518.50	290,217.81	295,917.13	301,616.44	307,318.81	313,018.13
Non-residential annual change %						
All non-res.	-	2.0%	2.0%	1.9%	1.9%	1.9%

Note: Rounding to cents may lead to very small differences is parentage growth rates between meter sizes
Source: Hunter Water SIR/AIR, 'Price data', Table 7.2, and Hunter Water analysis

Table 8.14 Proposed adjusted wastewater service charges for residential customers over the upcoming pricing period ($2024-25), charge per year

	Current pricing period			Upcoming pricing period		
Property type	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Residential						
House	696.78	710.74	724.70	738.65	752.62	766.58
Apartment	644.53	710.74	724.70	738.65	752.62	766.58
Annual change %						
House	-	2.0%	2.0%	1.9%	1.9%	1.9%
Apartment	-	10.3%	2.0%	1.9%	1.9%	1.9%

Note: Non-residential service charges will vary between customers based on their specific wastewater discount factor
Source: Adjusted wastewater service changes can be found in Hunter Water AIR/SIR, 'Price data', Table 7.5, rows 186 & 192

Residential customers' total wastewater charge is comprised of the adjusted wastewater service charge and the deemed usage component, summarised in Table 8.15.

Table 8.15 Total residential wastewater charge, adjusted service plus deemed usage ($2024-25)

	Current pricing period			Upcoming pricing period		
Property type	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
House	789.18	804.84	816.51	828.22	840.00	851.83
Apartment	730.00	768.25	780.80	793.39	806.02	818.68

Source: Hunter Water AIR/SIR, 'Price data', Table 7.2

8.5 Stormwater drainage

8.5.1 We only provide a stormwater drainage service to about 25 per cent of billable connections

We have about 72,000 billable stormwater drainage connections. The breakdown of these customers by property type is provided in chapter 7. We use the terms 'stormwater', 'stormwater drainage', and 'drainage' interchangeably.

8.5.2 Stormwater revenue requirements are increasing

Chapter 6 explains why our stormwater revenue requirements are increasing during the upcoming pricing period. The increase in required revenues is forecast to outpace growth in stormwater customers, meaning stormwater charges will need to rise in the upcoming pricing period. Target stormwater sales revenue to be recovered is shown in Table 8.16. Target sales revenues increase on average 13 per cent per year.

Table 8.16: Target sales revenue from stormwater charges ($2024-25, $millions)

	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Stormwater revenue – target	6.4	7.4	8.5	9.5	10.6	11.7

Source: Hunter Water AIR/SIR, 'Revenue', Table 6.1, rows 48 & 77
Note: 2024-25 revenue reflects a forecast for the year based on actual prices and forecast demand and connections.

8.5.3 We will retain our existing stormwater pricing structures

Residential customers are charged stormwater according to property type. Non-residential customers are charged stormwater based on land size. While imperfect, land size is seen as a readily available proxy for the impact that stormwater customers have on our system. Other complex determinants of stormwater impacts include topography, the extent of permeable surfaces, vegetation, and use of the property.

In our 2019 pricing proposal we tested the cost reflectivity of stormwater charges. This assumed that a customer's land area is the only factor that drives stormwater expenditure. We propose to maintain the same relativity of charges proposed in 2019, and subsequently implemented in the current pricing period for reasons outlined in our 2019 Technical Paper.[1]

In recognition of the variability of stormwater impact across individual properties, customers can apply to have their property designated as 'low impact' and may receive a lower stormwater drainage charge. The low impact designation is for customers who go above and beyond to manage the stormwater on their property to ensure any runoff has a low impact on our stormwater infrastructure. In assessing stormwater impacts, we consider both the buildings and surrounding land. Our low impact stormwater application process can be found on our website.[2]

[1] Hunter Water, 2019, Technical Paper 8, pg.44.

[2] https://www.hunterwater.com.au/home-and-business/managing-your-account/low-impact-stormwater-charge

8.5.4 Stormwater prices need to rise

Table 8.17 shows our proposed stormwater charges. The charges need to rise materially to recover our efficient costs.

Table 8.17: Proposed stormwater charges, upcoming pricing period ($2024-25)

Property type	Current pricing period	Upcoming pricing period				
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Residential						
House [1]	97.04	111.79	126.55	141.30	156.05	170.81
Apartment [2]	35.91	41.37	46.83	52.29	57.75	63.21
Low impact assessed residential property	35.91	41.37	46.83	52.29	57.75	63.21
Non-residential						
Small property area (≤1,000 m^2)	97.04	111.79	126.55	141.30	156.05	170.81
Medium property area (1,001m^2 to 10,000m^2)	316.94	365.13	413.31	461.50	509.68	557.87
Large property area (10,001m^2 to 45,000m^2)	2,015.70	2,322.15	2,628.61	2,935.06	3,241.51	3,547.97
Very Large property area (>45,000m^2)	6,404.36	7,378.03	8,351.71	9,325.38	10,299.06	11,272.73
Non-residential property within a mixed multi-premises [3]	35.91	41.37	46.83	52.29	57.75	63.21
Low impact assessed non-residential property	97.04	111.79	126.55	141.30	156.05	170.81
Vacant land						
Vacant land	97.04	111.79	126.55	141.30	156.05	170.81
Low impact assessed vacant land	35.91	41.37	46.83	52.29	57.75	63.21
Annual change						
All property types	-	15.2%	13.2%	11.7%	10.4%	9.5%

Notes:

1. Includes standalone houses within a community development
2. Does not include standalone houses within a community development
3. Irrespective of property area

Rounding to cents may lead to very small differences is parentage growth rates between meter sizes
Source: Hunter Water AIR/SIR, 'Price data', Table 7.3

8.6 Proposed changes for non-residential properties who share a common meter

Currently, properties in a non-residential strata or community title multi-premise pay fixed service charges based on their metering arrangement:

- Properties who share a common meter only pay a proportion of the common meter water and wastewater service charges.
- Properties with an individual sub-meter pay a full meter-based water and wastewater service charge based on the sub-meter size.

This charging approach creates a couple of issues:

1. Two customers with the same property type, who impose the same cost on our system, receive different charges just due to their different metering arrangements.
2. There is no incentive for these non-residential properties to install sub-metering. Our preference is individual metering for all properties. Individual meters provide a more accurate demand signal and ensure customers pay for the water they use.

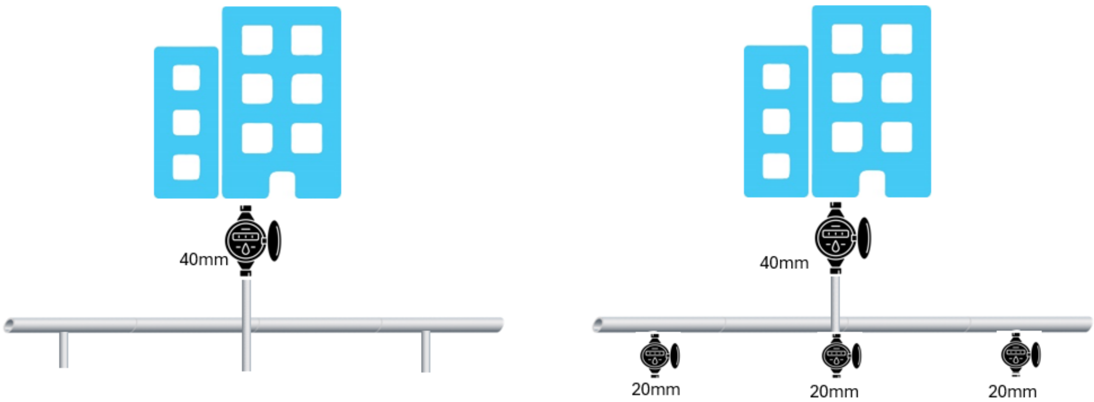
Figure 8.15 illustrates how similar non-residential customers can receive different service charges if they are metered differently. The example shows service charges for three hypothetical customers - a nursery, a shop and a takeaway. These three customers are part of a non-residential multi-premise of eight properties.

In scenario one, the eight properties share a common 40mm meter.

In scenario two, the eight properties are individually sub-metered.

The three hypothetical customers are the same in all other respects – including the demand they place on our system. Service charges, however, are much higher for those properties in scenario two – up to $740 per property different in the case of the nursery.

Figure 8.15: Service charges for non-residential multi-premises with eight properties, $2024-25



Service charges $2024-25	1. 40mm charge divided between 8 properties						2. Each property receives 20mm charge					
	Small nursery SDF - 15% Water usage 1,000kL		Shop SDF - 85% Water usage 100kL		Takeaway SDF - 85% Water usage 1,000kL		Small nursery SDF - 15% Water usage 1,000kL		Shop SDF - 85% Water usage 100kL		Takeaway SDF - 85% Water usage 1,000kL	
	FY2025	FY2030	FY2025	FY2030	FY2025	FY2030	FY2025	FY2030	FY2025	FY2030	FY2025	FY2030
Water	13.79	51.15	13.79	51.15	13.79	51.15	27.58	102.30	27.58	102.30	27.58	102.30
Wastewater	69.68	76.66	394.84	434.39	394.84	434.39	696.78[1]	766.58[1]	789.68	868.79	789.68	868.79
Total	**83.47**	**127.81**	**408.63**	**485.54**	**408.63**	**485.54**	**724.36**	**868.88**	**817.26**	**971.09**	**817.26**	**971.09**

Source: Hunter Water analysis
[1] Minimum sewerage service charge has been applied to the 20mm meter

Our pricing structure currently includes the application of a minimum adjusted wastewater service charge to meters exclusively serving non-residential properties and non-residential multi-premises. Non-residential properties in a mixed residential and non-residential multi-premise already pay the same as residential apartments, per dwelling.

In scenario one above, existing application of the minimum charge would be to the common meter service charge - the collective charge of all properties combined. In scenario two, the minimum charge would be individually applied to all properties. This creates a greater divide between charges for properties to which the minimum has applied – in this case the nursery.

IPART introduced the application of this minimum to ensure non-residential customers do not pay significantly less than residential customers. The costs of a wastewater system are largely fixed, and a minimum charge shares these fixed costs between customers equitably.[1] The application of the minimum charge in its current state has gone partway to enforce this equity between residential and non-residential customers but has left some inequity between our non-residential customers.

We have noticed the current pricing structure has influenced the behaviour of our customers. To avoid higher service charges, we have had non-residential customers decline a sub-metering arrangement or request the removal of sub-meters from existing arrangements. As mentioned above, the sub-metering of properties is our preference. Sub-metering provides support to our water conservation measures by allowing customers greater

[1] IPART, 2020, Review of prices for Hunter Water Corporation – Final Report, p.112.

control over their water usage and bill. For this reason, the application of a minimum charge is also relevant to our water service charges.

Our proposed prices include:

- Extending the application of the current minimum adjusted wastewater service charge. We have applied this minimum charge to individual properties in a non-residential strata or community title multi-premise who share a common meter. This minimum charge is applied at a property level, rather than at the meter level. This increases our wastewater billable connection count by 987.
- The introduction of a minimum water service charge to properties in a non-residential strata or community title multi-premise that share a common meter. Each property pays a minimum 20mm meter-based charge. This increases our water billable connection count by 1,677.

This proposal aligns with IPARTs pricing principle that customers imposing similar costs of the system should pay similar charges and ensures that these costs are fairly distributed among our customers.

8.7 Recycled water

Diversifying water sources for fit-for-purpose use has contributed to reducing demand for drinking water and improving the environmental sustainability of our region.

We currently supply around 6,500 million litres of recycled water each year. Recycled water schemes may be funded in several ways, in accordance with IPART's pricing arrangement for recycled water, which include prices paid by recycled water customers (see Figure 8.16).

We consider recycling when assessing options to deliver water and wastewater services, investing when it is the best way to deliver the services and environmental outcomes that customers want. In the current pricing period, we delivered additional recycling for community greening at Edgeworth sporting field in Lake Macquarie (also referred to as Lake Macquarie recycled water scheme). This will help save precious drinking water and provide drought-resilient community green spaces, thereby contributing to health, wellbeing and liveability outcomes. Further details are provided in Attachment K.

In addition to our current recycling schemes, in developing this pricing proposal we specifically considered with our community using recycled wastewater or stormwater, instead of drinking water, for:

- community greening including parks and sporting fields
- business or industry.

There was support for continuing to invest in these areas where the cost of saving water is no higher than the cost of providing the water or where the project is fully funded by the end-users. However, it is not currently a priority for the broader community to subsidise additional higher-cost recycled water schemes given cost of living pressures.[1]

8.7.1 IPART pricing arrangements for recycled water

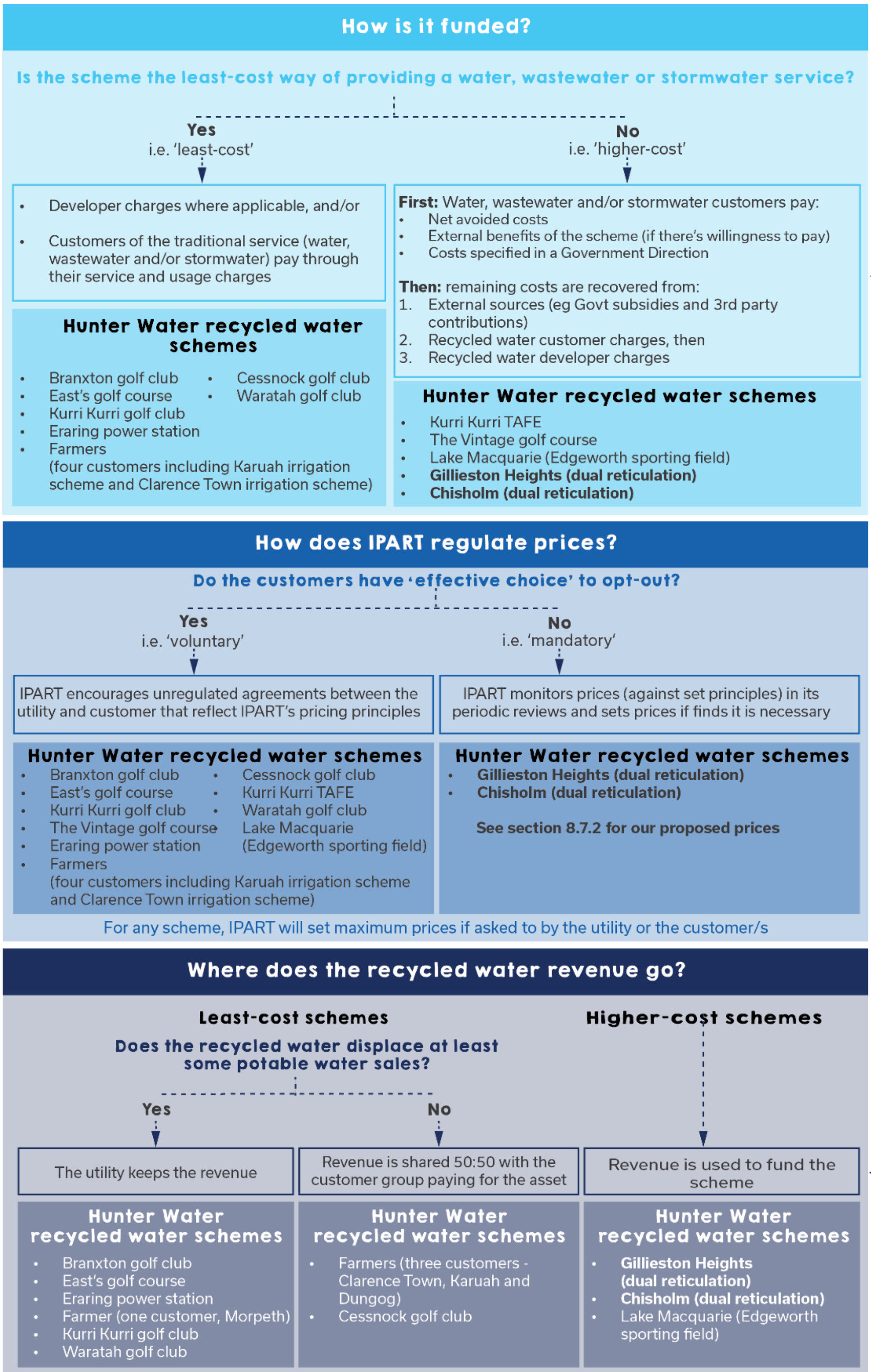
IPART's funding frameworks encourage water utilities to invest in recycling when it is the best way to deliver water and wastewater services to customers, along with the environmental outcomes that the community values.[2] It recognises the system-wide benefits of recycled water and ensures that recycling will be viable where the benefits it creates for customers exceeds its costs.

Our application of IPART's framework and guiding questions to our recycled water schemes is shown in Figure 8.16. In this chapter we focus on prices for mandatory, higher-cost recycled water schemes.

[1] Materials provided to the Community Panel for their deliberations, and a report on the process and its outcomes are available on our website under the heading "Stage 3": https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal#contentArea-2514795

[2] IPART, *Review of pricing arrangements for recycled water and related service,* 1 July 2019.

Figure 8.16: Alignment of Hunter Water's recycled water schemes with key elements of IPART pricing arrangements for recycled water



Source: Based on IPART, *Review of pricing arrangements for recycled water and related service,* 1 July 2019 and IPART, *Review of prices for Hunter Water Corporation from 1 July 2020: Final Report,* June 2020, p. 138.

8.7.2 Prices for recycled water services for non-potable end uses in residential areas at Gillieston Heights and Chisholm

In 2018-19, we commissioned two residential, dual reticulation recycled water schemes.

The Gillieston Heights and Chisholm schemes supply 1,127 properties with about 74 ML per year of recycled water.[1]

We intend to continue our current approach of setting the recycled water usage charge for both mandatory schemes at ten per cent below our base retail drinking water usage price that applies from 1 July 2025, without a recycled water service charge (see Table 8.18).

We adopted this approach in 2020 to align with IPART's pricing principles for mandatory recycled water services, in response to customer feedback, and so that recycled water customers do not suffer a cost disadvantage relative to customers outside of these areas who only receive drinking water services.[2] Affected customers have not raised any concerns about pricing structures since then.

Table 8.18 Proposed usage and service charges for mandatory schemes ($2024-25)

Proposed recycled water prices for Gillieston Heights and Chisholm	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Water usage charge (non-drought) ($ per kL)	2.89	3.19	3.49	3.80	4.10	4.40
Recycled water usage charge ($ per kL)	2.60	2.87	3.14	3.42	3.69	3.96

Source: Hunter Water AIR/SIR, 'Price data' – row 50 and Hunter Water AIR/SIR, 'Recycled water & RH' – row 179

8.7.3 Avoided and deferred costs

IPART's funding framework for recycled water services considers recycled water schemes in the context of the system-wide outcomes they achieve. The framework allows public water utilities to seek a contribution to a recycled water scheme's costs from water, wastewater or stormwater retail prices and/or developer charges, if the scheme allows the water utility to avoid or defer the need for augmentation of the drinking-quality water system, wastewater system and/or stormwater system. The value of the avoided and deferred costs accounts for the lower revenue from water sales due to the end-user buying recycled water instead of drinking-quality water.

For this price review, we are not making a claim for any new net deferred or avoided costs to be recovered from the broader customer base.[3]

[1] Hunter Water AIR/SIR, 'Recycled water & RH'- rows 81 and 110

[2] For a detailed analysis of our proposed prices against IPART's pricing principles for mandatory recycled water services, see Hunter Water, *Pricing Proposal to IPART, Technical Paper 9,* 1 July 2019, p 19-22; IPART, *Review of prices for Hunter Water Corporation from 1 July 2020: Final Report,* June 2020, Table 12.1, p. 140

[3] Hunter Water AIR/SIR, 'Capex' – row 284

8.8 Trade waste

8.8.1 Customers are charged based on their risk classification

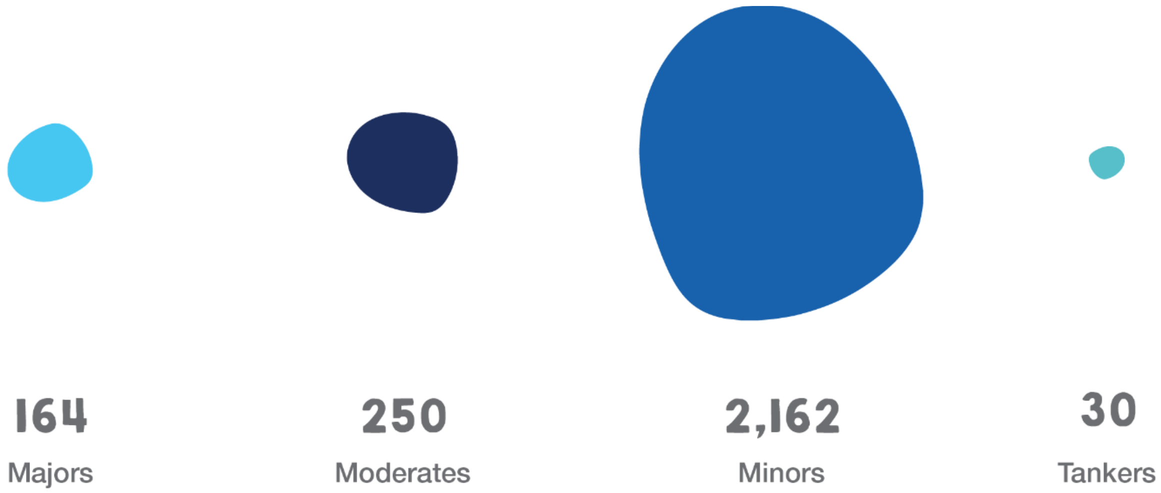
We provide trade waste services to commercial and industrial customers where our receiving wastewater treatment plants have available capacity and capability. We receive trade waste from customers in two ways:

- sewered trade waste: via property connections to the sewer network
- tankers that deliver waste directly to wastewater treatment plants.

Trade waste discharges can have higher strength than domestic wastewater, placing a greater load on our treatment facilities. Additionally, we incur administrative costs to manage customers and monitor discharges, to ensure we continue to comply with all regulatory obligations.

We classify sewered trade wastewater customers as Minor, Moderate, or Major based on the risk their discharges pose to the safe and reliable operation of our wastewater system (see Figure). The risk classification determines our management approach, and the trade waste prices customers pay.

Figure 8.17: Our trade waste customers



We comprehensively revised our trade waste pricing structures in the 2020 price review. This time, we plan to retain most of our existing price structures, with targeted changes in specific areas.

To ensure our trade waste prices remain cost-reflective, we have updated all our pricing calculations to account for current customer numbers, contaminant loads, wastewater treatment costs, administrative expenses and trade waste management practices.

8.8.2 High-strength charges for sewered trade waste customers

High-strength charges will continue to recover incremental operating costs at our wastewater treatment plants

Our sewered trade waste customers already pay non-residential wastewater usage and service charges. High-strength trade waste charges are also applied to our Moderate and Major customers to recover the incremental operating costs incurred in treating wastewater that exceeds domestic-strength.

IPART, in their 2020 Final Report, indicated a preference for pricing trade waste services to reflect LRMC.[1]

In this pricing proposal, we have taken a step forward by estimating catchment-specific LRMCs for wastewater. This was challenging and demonstrated the complexity of load-based LRMC calculations. Given the extent of change in IPART's new 3Cs framework, we chose to focus on wastewater LRMCs and other novel aspects of the framework, rather than estimating LRMCs for trade waste. We will further consider this approach during the upcoming pricing period.

For now, sewered trade waste customers will continue to pay a share of wastewater capital costs via their wastewater service and usage charges – though this share will not reflect the strength of their loads.

High-strength charges will increase in some catchments and reduce in others

We have updated the key assumptions and modelling inputs that underpin our catchment-based high-strength trade waste prices including:

- the operating costs we incur at each of our wastewater treatment plants
- the contaminant loads received at each treatment plant
- the proportion of operating costs at each treatment plant that is driven by various contaminant parameters, reflecting the specifics of each plant's treatment process.

Given the inherent variability in these key inputs for each catchment over a five-year period, we expect the level of high-strength charges to fluctuate each pricing period. We will continue to charge customers based on the two parameters that drive our costs the most: biological oxygen demand (BOD) and total suspended solids (TSS). Table 8.19 shows our proposed high-strength charges.

The BOD charge for Tanilba Bay will have a large proportional increase. Only one customer in this area currently receives high-strength charges – a shopping centre. Their bill is expected to increase from about $2,000 to $5,000 per year. We will work with this customer to identify pre-treatment options and improve the quality of their discharge to help reduce their future high-strength volumetric bills.

[1] IPART, 2020, Final Report: Review of prices for Hunter Water Corporation from 1 July 2020, page 148

Table 8.19: Proposed BOD and TSS high-strength charges ($2024-25)

Wastewater catchment	BOD ($ per kg)			TSS ($ per kg)		
	2024-25	Proposed 2025-30	% Change	2024-25	Proposed 2025-30	% Change
Belmont	1.50	1.32	(12%)	0.41	0.32	(21%)
Boulder Bay	1.55	1.28	(18%)	0.43	0.41	(4%)
Branxton	3.49	3.86	11%	2.50	2.91	16%
Burwood Beach	0.72	0.79	10%	0.24	0.18	(26%)
Cessnock	1.89	1.71	(10%)	0.31	0.10	(69%)
Clarence Town	5.67	6.13	8%	4.73	5.11	8%
Dora Creek	2.25	2.29	2%	0.20	0.22	8%
Dungog *	See Table 8.22					
Edgeworth	1.22	1.19	(2%)	0.42	0.26	(38%)
Farley	1.69	1.06	(37%)	0.42	0.69	64%
Karuah *	See Table 8.23					
Kearsley	2.30	0.62	(73%)	0.98	0.24	(75%)
Kurri Kurri	3.59	2.98	(17%)	0.83	0.77	(8%)
Morpeth	1.75	1.70	(3%)	0.51	0.51	1%
Paxton	4.67	4.15	(11%)	3.27	3.36	3%
Raymond Terrace	2.54	2.85	12%	0.78	0.76	(3%)
Shortland	4.02	2.49	(38%)	0.77	0.45	(42%)
Tanilba Bay	2.83	4.83	71%	0.78	0.55	(29%)
Toronto	1.90	2.34	23%	0.30	0.35	15%

Source: Hunter Water Analysis

Incentive charges help safeguard environmental outcomes

Non-compliant trade waste discharges can potentially lead to serious consequences including failure of the treatment process and breach of environmental regulations, imposing significant costs on the environment and Hunter Water.

Our BOD and TSS incentive charges apply when a Moderate or Major customer discharges trade waste above the agreed load limit for these parameters. The incentive charge provides a price signal and works in conjunction with trade waste compliance management activities to help ensure agreed load limits are met. When a customer triggers an incentive fee, we aim to work with them to improve their discharge quality.

The charge is arbitrarily set at three times the base high-strength charge – it provides a price signal to disincentivise non-compliance and drive the right behaviour. It is not set to recover the actual costs of non-compliant discharges (i.e. it is not cost-reflective) and is intended to generate zero revenue.

Table 8.20 shows our proposed incentive charges for the upcoming pricing period.

Table 8.20: Proposed BOD and TSS incentive charges ($2024-25)

Wastewater catchment	BOD ($ per kg)			TSS ($ per kg)		
	2024-25	Proposed 2025-30	% Change	2024-25	Proposed 2025-30	% Change
Belmont	$4.50	$3.95	(12%)	$1.23	$0.97	(21%)
Boulder Bay	$4.65	$3.83	(18%)	$1.29	$1.23	(4%)
Branxton	$10.47	$11.57	11%	$7.50	$8.72	16%
Burwood Beach	$2.16	$2.37	10%	$0.72	$0.53	(26%)
Cessnock	$5.67	$5.12	(10%)	$0.93	$0.29	(69%)
Clarence Town	$17.01	$18.38	8%	$14.19	$15.32	8%
Dora Creek	$6.75	$6.88	2%	$0.60	$0.65	8%
Dungog *	See Table 8.22					
Edgeworth	$3.66	$3.58	(2%)	$1.26	$0.78	(38%)
Farley	$5.07	$3.19	(37%)	$1.26	$2.06	64%
Karuah *	See Table 8.23					
Kearsley	$6.90	$1.86	(73%)	$2.94	$0.72	(75%)
Kurri Kurri	$10.77	$8.94	(17%)	$2.49	$2.30	(8%)
Morpeth	$5.25	$5.09	(3%)	$1.53	$1.54	1%
Paxton	$14.01	$12.45	(11%)	$9.81	$10.07	3%
Raymond Terrace	$7.62	$8.55	12%	$2.34	$2.28	(3%)
Shortland	$12.06	$7.46	(38%)	$2.31	$1.35	(42%)
Tanilba Bay	$8.49	$14.48	71%	$2.34	$1.66	(29%)
Toronto	$5.70	$7.03	23%	$0.90	$1.04	15%

Source: Hunter Water Analysis

We propose to phase-in and cap price increases for high-strength charges in the Karuah and Dungog wastewater catchments

During the current pricing period, we have upgraded our wastewater treatment plant at Dungog to treat effluent to meet more stringent effluent discharge standards. As a result, the operating costs at this plant have increased substantially. Due to the limited population in this area, this results in a substantial impact on the $ per kg load-based price.

Similarly, while there are no substantial upgrades occurring in Karuah, the limited population in the catchment results in smaller adjustments in operating costs having large impacts on the load-based price.

The adjustments in operating costs suggest the increased prices should apply as shown in Table 8.21.

Table 8.21: Notional calculation of high-strength charges for Dungog and Karuah

Wastewater catchment	BOD ($ per kg)			TSS ($ per kg)		
	2024-25	2025-30	% Change	2024-25	2025-30	% Change
Dungog	2.44	12.27	403%	1.64	6.31	285%
Karuah	8.36	11.19	34%	1.44	1.43	(1%)

Source: Hunter Water Analysis

There are currently no customers subject to volumetric charges (i.e. Moderate or Major customers) in either Dungog or Karuah – there are only Minor trade waste customers.

In the Dungog catchment, however, there are two customers who may possibly shift from a Minor agreement to a Moderate agreement, and start receiving high-strength charges, during the pricing period. To provide time to implement pre-treatment options, where financially efficient for the businesses to do so, we propose to phase-in a higher price as shown in Table 8.22. We also propose to cap the increase at three times the current rate, to avoid unreasonably impacting economic activity in the area. Infrastructure contribution charges will continue to provide a price signal to new businesses looking to establish in this catchment.

The BOD price for Karuah is already the highest of all our catchments at $8.36 per kg. We propose to cap the charge at that rate rather than increase it further (see Table 8.23).

As we are not forecasting any volume of high-strength loads in these catchments, the phasing and capping of these prices does not reduce revenue or result in any cross-subsidy from other customers. The charges will be recalculated for the 2030 price review and reconsidered at that time.

Table 8.22: Dungog wastewater catchment, proposed high-strength charges ($/kL, $2024-25)

Dungog	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
BOD	2.44	2.44	2.44	7.32	7.32	7.32
BOD – incentive rate	7.32	7.32	7.32	21.96	21.96	21.96
TSS	1.64	1.64	1.64	4.92	4.92	4.92
TSS – incentive rate	4.92	4.92	4.92	14.76	14.76	14.76

Source: Hunter Water Analysis

Table 8.23: Karuah wastewater catchment, proposed high-strength charges ($/kL, $2024-25)

Karuah	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
BOD	8.36	8.36	8.36	8.36	8.36	8.36
BOD – incentive rate	25.08	25.08	25.08	25.08	25.08	25.08
TSS	1.44	1.43	1.43	1.43	1.43	1.43
TSS – incentive rate	4.32	4.30	4.30	4.30	4.30	4.30

Source: Hunter Water Analysis

8.8.3 A modest increase in administrative fees for sewered trade waste customers to better manage risks

Additional sampling of Moderate customer discharges will help us better understand discharge quality and manage compliance risks

We sample and analyse Moderate customers' trade waste discharges to monitor the quality. This helps ensure the customer's risk classification is correct, they comply with their trade waste agreement, and risks to our wastewater treatment processes and the environment are adequately managed.

We have recently assessed the effectiveness of our trade waste management practices and risk controls. We determined the current frequency of sampling is insufficient to understand the ongoing quality of a customer's discharges and effectively manage environmental compliance risks.

We propose sampling Moderate customers more frequently and recovering additional sampling and laboratory costs through a higher Moderate annual agreement fee.

Introducing a charge for non-compliant customers will help safeguard the reliability of our wastewater system and environmental outcomes

Trade waste customer agreements contain a range of conditions that must be met. These conditions are crucial in ensuring we comply with environmental regulations and operate safe and reliable wastewater services.

During the current pricing period our trade waste services team has spent a disproportionate amount of time working with customers that are non-compliant with their trade waste agreements. We propose implementing a non-compliant discharge testing and management fee to recover the additional management and discharge monitoring costs we incur when working with these customers.

We would apply this charge to Major and Moderate customers that have discharge which is non-compliant with the existing customer trade waste deed or standard. This includes continuous breaches requiring intervention from us, or when there is adequate reason to believe there is a discharge of prohibited contaminants.

The $3,030 fee is to be charged in addition to other existing charges and agreement fees the customer may be liable to pay.

We plan to renew Major trade waste agreements more often

The renewal term for our Major trade waste customer agreements is currently five years. We plan to reduce this to three years to better monitor the changing nature of customers' business operations and the risks they pose to our wastewater system.

Some of our administrative fees will increase modestly

Our proposed trade waste administrative charges are shown in Table 8.24.

Several charges will increase modestly to reflect changes in corporate overheads, which is being offset in some cases by undertaking administrative activities more efficiently.

Table 8.24: Proposed trade waste administrative charges ($2024-25)

Trade waste charge	Current pricing period 2024-25	Upcoming pricing period 2025-30	Change ($)	Change (%)
Minor agreement				
Establishment	201.37	227.10	25.73	13%
Renewal	169.21	169.88	0.67	0.4%
Annual	140.10	161.10	21.00	15.0%
Moderate agreement				
Establishment	520.50	433.39	(87.11)	(16.7%)
Renewal	319.20	344.73	25.53	8.0%
Annual	805.16	984.89	179.73	22.3%
Agreement variation	172.71	131.51	(41.20)	(23.9%)
Major agreement				
Establishment	818.26	932.42	114.16	14.0%
Renewal	525.26	600.59	75.33	14.3%
Annual	2754.94	3125.07	370.13	13.4%
Inspection	269.18	282.49	13.31	4.9%
Variation	172.71	149.14	(23.57)	(13.6%)
Non-compliant customers (all risk classifications)				
Non-compliant discharge testing and management fee	N/A	3,030	New charge	New charge

Source: Hunter Water Analysis

8.8.4 Proposed prices for tankered trade waste customers

We enter into specific agreements with customers to receive tankered wastewater discharged directly at wastewater treatment plants where permitted. The source of the tankered waste discharge varies, but includes pump-outs of residential septic systems, portable toilet wastewater, and commercial waste.

We propose to reduce tankered waste administrative charges

Table 8.25 shows our proposed administrative charges for tankered trade waste.

The charges are lower for two reasons:

- Minor cost reductions in administration activities.
- Transferring monitoring and sampling costs to the volumetric fee. This approach better reflects the portion of these activities driven by specific tanker customers than applying an equal fee to all – some tanker customers discharge far more loads and volume of trade waste per year than others. The effect of this change is shown in Table 8.26.

Table 8.25: Proposed tankered waste administrative charges ($2024-25)

Tankered waste charge ($ per year)	Current pricing period 2024-25	Upcoming pricing period 2025-30	Change ($)	Change (%)
Tankered waste agreement				
Establishment	659.39	571.24	(88.15)	(13.4%)
Renewal	274.48	235.22	(39.26)	(14.3%)
Annual	871.86	763.98	(107.88)	(12.4%)
Variations	174.34	134.41	(39.93)	(22.9%)
After-hours access fee (up to four hours)	524.07	539.79	15.72	3.0%
After-hours access (Hourly rate beyond four hours)	98.86	101.83	2.97	3.0%

Source: Hunter Water Analysis

Increased monitoring and sampling of tankered waste discharge will help us better understand and manage operational risks

Tankers pose an inherent risk to our treatment facilities due to the inconsistent nature and varying strength of their discharges. Some individual tankers are discharging extremely concentrated loads directly to the treatment plant. These loads aren't diluted in the wastewater network by other customer's discharge as occurs for sewered trade waste customers. We don't have automated tanker receival facilities and sampling, making it difficult to identify the source of high-strength loads. It is cost prohibitive to manually sample all incoming tanker loads.

To help us manage these risks, we are proposing to do additional monitoring and testing of tanker customers. It will also provide a better understanding of tanker load quality to inform resetting of the tanker volumetric charge at the next price review.

It's more equitable to recover these costs through the volumetric rate than annual agreement charges.

The volumetric price for tankers will remain at a similar level

We have recalculated the load-based volumetric price. For the upcoming period it is slightly lower due to our relatively stable treatment costs for a higher volume of tanker loads. This decrease is offset by our decision to add the administrative monitoring and sampling costs to the volumetric fee ($0.95 per kL of discharge).

Table 8.26: Proposed tankered waste volumetric charge ($2024-25)

Tanker volumetric charge ($ per kL)	Current pricing period 2024-25	Upcoming pricing period 2025-30
Administrative volumetric price	-	0.95
Load-based volumetric price	6.91	6.07
Total Volumetric Price	**6.91**	**7.02**

Source: Hunter Water Analysis

We propose introducing an incentive charge for tankers

We propose introducing an incentive charge for tanker customers when testing of their discharge reveals disproportionately high concentrations of BOD or TSS.

While not all tanker loads are sampled, customers that test above the 95th percentile of samples taken in the last three years will be subject to a three-fold increase in their volumetric price for the sampled load.

Tanker customers testing at the 95th percentile equates to concentrations of 7,500 mg/L of BOD and 6,500 mg/L of TSS. The average tanker customer only discharges 1,901 mg/L of BOD and 1,168 mg/L of TSS.

Based on existing sample history and the proposed increase to total samples per year, we expect this change will impact approximately 17 tanker loads per year. However, we also expect this number to reduce as the incentive starts to drive behavioural change.

The purpose of this one-off charge is to incentivise tanker companies to take more responsibility for the waste they collect and subsequently discharge at our wastewater treatment plants. This charge will be part of a layered approach to managing non-compliance by tanker companies including increased monitoring and testing of customers, direct engagement and education programs, and suspension of discharge licencing for repeat offending customers.

The proposed incentive charge is set at $21.06, as shown in Table 8.27.

Table 8.27: Proposed tankered waste incentive charge ($2024-25)

Tanker volumetric incentive charge ($ per kL)	Current pricing period 2024-25	Upcoming pricing period 2025-30
Total volumetric tanker incentive charge	-	21.06

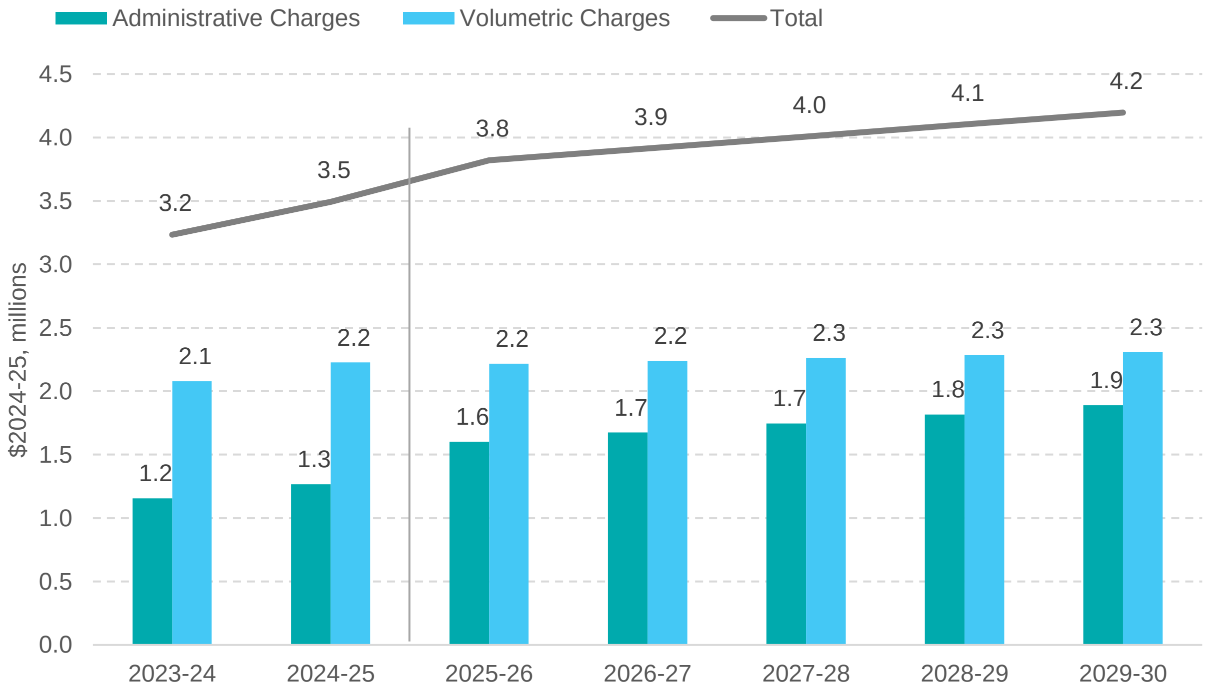
Source: Hunter Water Analysis

8.8.5 Revenue from trade waste charges is forecast to be slightly higher than the current pricing period

Figure 8.18 shows forecast revenue. Overall, revenue will remain steady, with a similar recovery across tanker and trade water customers, consistent with the current pricing period.

Administrative charges will increase in the 2025-30 period due to the proposed increases in monitoring requirements of our major and moderate customers. In addition, we have an increasing number of customers classified as moderate and major now exposed to high-strength charges and higher administrative fees.

Figure 8.18: Forecast revenue from trade waste charges ($2024-25)



Source: Hunter Water AIR/SIR, ‘Revenue’, Table 6.1, row 72

8.9 Miscellaneous charges

Ancillary and miscellaneous customer services for which no alternative exists are a declared monopoly service and price-regulated by IPART.

These are 'fee-for-service' activities involving discrete, often one-off activities, usually initiated by customer-request and utilised by a smaller subset of customers. We charge for them separately like this to ensure those who drive the need for a service, pay for the service – it reduces cross-subsidy between customers.

We categorise our miscellaneous charges as relating to either development or customer services:

Development

Administrative and assessment fees relating to enabling new developments

Customer services

Requests typically related to individual properties

We comprehensively review these charges each price review for three reasons:

1. To ensure they remain cost reflective. It's important that the benefits of becoming more efficient are passed on to our customers through lower charges.
2. To make life easier for our customers by reducing administrative complexity where possible.
3. To identify the need for any new charges. Recovering our costs directly through a fee-for-service, user-pays approach makes a small contribution to keeping water, wastewater and stormwater bills as low as possible.

8.9.1 Our proposed miscellaneous charges

We list all our proposed miscellaneous charges in Table 8.31. Below we explain the key changes.

We are introducing two new charges

The new charges shown in Table 8.28 will recover the cost of services we currently provide free-of-charge, subsidised by the broader customer base. The volume of these activities has increased during the current pricing period.

Table 8.28 Two new miscellaneous charges for the upcoming pricing period

Proposed new charge	Description
Accredited supplier assessment fee	We currently assess designers and constructors for accreditation free of charge. The proposed new charge reflects the time taken to review the potential accredited groups' application, speak with nominated references, undertake a formal technical assessment and administer process updates.
Billing record search statement a) Over the phone (post- 2017) b) Electronic (pre- 2017) c) For multiple properties (per hour fee)	We are getting more requests from customers to access their historical billing records. We currently provide these free of charge, however, the higher volume has made the cost of this more material. (a) Records from 2017 onwards are extracted from our existing billing system, so can be easily provided over the phone. (b) Records from before 2017 must be extracted from our old billing system, requiring special access and additional time, therefore we require an electronic application. (c) The time taken to access data for multiple properties can vary depending on the scope of the request. An hourly charge rate is most suitable for these varied requests.

We are removing five existing charges

Table 8.29 explains why we propose to remove them.

Table 8.29 Miscellaneous charges to be removed for the upcoming pricing period

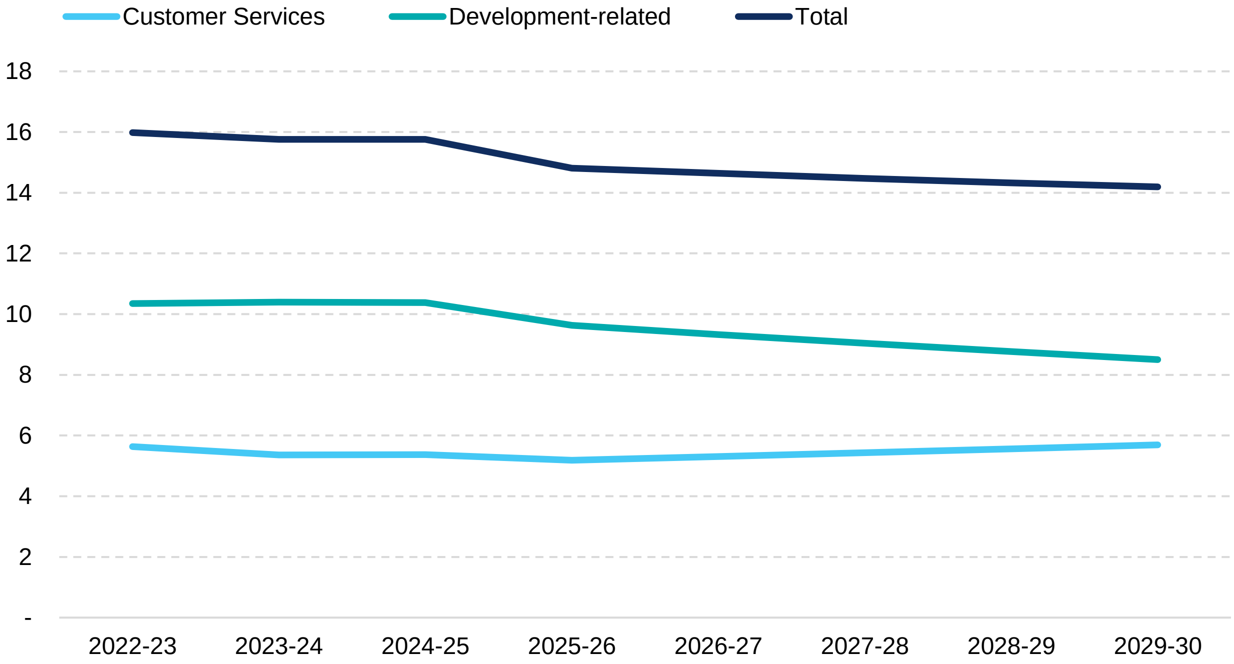
Proposed charges to remove	Reason for removing
Conveyancing certificate a) Over the counter	We receive a low volume of over-the-counter requests and want to encourage customers to use the more efficient and lower-cost, electronic service channel for requesting conveyancing certificates. We will no longer advertise the over-the-counter service, promoting electronic service, and charge the lower 'electronic' rate for any request type.
Property sewerage diagram	Many of our property diagram records are outdated and no longer fit for purpose. Councils also keep these records. We propose to no longer provide this service.
Application to assess a water main adjustment Application to assess sewer main adjustment Application for additional sewer connection point	We are rationalising and simplifying our charging structure to improve customer understanding and reduce administrative complexity. These three activities will now all be combined under existing charge #29: *Application for water or sewer main extensions and/or adjustments*

We are delivering our customer and development services more efficiently

During the current pricing period, process improvements and automation have made our service delivery more efficient. This increase in efficiency has led to reduced labour hours and costs for many of our miscellaneous customer services, allowing us to lower the price of some services.

Figure 8.19 shows the overall decrease in total full-time-equivalent (FTE) employees to deliver our miscellaneous services. We forecast that required FTE employees to deliver our customer-service related charges will remain steady, while required FTE employees for development-related charges will decrease.

Figure 8.19 Forecast FTE required to deliver our miscellaneous charges



Source: Hunter Water analysis

Some efficiency gains are offset by a higher, but fairer, overhead rate

We recently reviewed our methodology for estimating indirect customer service overheads to include in the charges. The previous method, inherent in our current prices, only included head office costs and some information and communications technology (ICT) costs. Our improved calculation of overheads includes some additional ICT, corporate, and management support costs. We believe this better reflects the true costs of delivering our miscellaneous customer services.

The greater allocation of overheads places upward pressure on the price of some of our miscellaneous services, offsetting some of the efficiency gains we have made.

Six of our charges will increase by more than 15%

We explain why these charges need to increase in Table 8.30.

Table 8.30 Explanation of charges with substantial price increases

Charge	Explanation
Complex works inspection fee	Higher customer service overhead rate
Shutdown and charge-up for water connection/disconnection	Review highlighted that the existing price materially understated time spent commuting to site and was under-recovering costs.
Technical services hourly rate	Updated costs to reflect our typically used resources for providing these services
Damaged meter replacement	Third-party cost. During the current pricing period we were forced to change to a more expensive supplier due to repeated quality issues with the previous supplier
Affix a separate meter to a unit	Third party contractor costs have increased over time
Application for recycled water service connection – domestic 200mm	Higher customer service overhead rate and updated contractor costs

Table 8.31: Our proposed miscellaneous charges, upcoming pricing period ($2024-25)

#	Miscellaneous service	Current charge ($)	Proposed charge ($)	Change ($)	Change (%)
1	**Conveyancing certificate**				
	a) Over the counter	17.15	**Removed**	-	-
	b) Electronic	12.20	**11.80**	(0.40)	(3%)
2	**Property sewerage diagram**	15.55	**Removed**	-	-
3	**Service location diagram**				
	a) Service location plan (both water and sewer)	12.50	**13.90**	1.40	11%
	b) Sewer location diagram (Section 47 and sewer location diagram sewer conveyancing)	10.10	**11.15**	1.05	10%
4	**Building over or adjacent to sewer advice**	72.80	**75.85**	3.05	4%
5	**Water reconnection – after restriction**				
	a) Restriction	64.10	**72.25**	8.15	13%
	b) Reconnection during business hours (8am to 3pm)	71.40	**81.20**	9.80	14%
	c) Reconnection outside business hours (3pm to 8am)	114.00	**129.00**	15.00	13%
6	**Workshop flow rate test of meter**				
	a) 20-25mm	295	**301**	6	2%
	b) 32mm	345	**334**	(11)	(3%)
	c) 40mm	346	**345**	(1)	(<1%)
	d) 50mm light (being a meter weighing less than 10kg)	430	**345**	(85)	(20%)
	e) 50mm heavy (being a meter weighing 10kg or more)	466	**449**	(17)	(4%)
	f) 65mm	471	**453**	(18)	(4%)
	g) 80mm	702	**659**	(43)	(6%)
	h) 100mm	1,053	**962**	(91)	(9%)
	i) 150mm	1,294	**1,175**	(119)	(9%)

#	Miscellaneous service	Current charge ($)	Proposed charge ($)	Change ($)	Change (%)
7	**Application for water and recycled water disconnection**				
	a) Application for water disconnection (all sizes)	31.20	**35.55**	4.35	14%
	b) Application for recycled water disconnection	46.80	**53.00**	6.20	13%
8	**Application for water service connection**	39.00	**44.25**	5.25	13%
9	**Application to assess a water main adjustment**	339	**Removed**	-	-
10	**Metered standpipe hire – security bond**				
	20mm metered standpipe	333	**317**	(16)	(5%)
	32mm high flow metered standpipe	983	**876**	(107)	(11%)
	50mm metered standpipe	983	**876**	(107)	(11%)
11	**Metered standpipe hire – annual fees**				
	20mm metered standpipe	126	**86.85**	(39.15)	(31%)
	32mm high flow metered standpipe	256	**199**	(57)	(22%)
	50mm metered standpipe	256	**199**	(57)	(22%)
12	**Statement of available pressure**	111	**120**	9	8%
13	**Application to connect or disconnect sewer services or for a special internal inspection permit**	50	**47.75**	(2.25)	(5%)
14	**Application to connect or disconnect water & sewer services (combined application)**	62.35	**53**	(9.35)	(15%)
15	**Request for separate metering of units (per plan)**	54.55	**61.25**	6.70	12%
16	**Building plan stamping**	23.35	**26.70**	3.35	14%
17	**Determining requirements for building over/adjacent to sewer or easement**	170	**174**	4	2%
18	**Hiring of a metered standpipe**				
	a) Application to hire a metered standpipe	64.15	65.40	1.25	2%
	b) Breach of standpipe hire conditions:				
	Breach 1	9.20	**10.50**	1.30	14%
	Breach 2	9.20	**10.50**	1.30	14%
	Breach 3 – step 1	9.20	**10.50**	1.30	14%
	Breach 3 – step 2 (customer fails to return standpipe)	33.75	**38.50**	4.75	14%
19	**Meter affixtures/handling fee**				
	20mm (delivery and installation by Hunter Water)	54.35	49.65	(4.70)	(9%)
	25mm (delivery and installation by Hunter Water)	53.90	**49.35**	(4.55)	(8%)
	32mm (delivery and installation by Hunter Water)	67.30	**61.10**	(6.20)	(9%)
	40mm (delivery and installation by Hunter Water)	67.30	**61.10**	(6.20)	(9%)
	50mm light duty (delivery and installation by Hunter Water)	126	**112**	(14)	(11%)
	50mm or larger (delivery by Hunter Water)	252	**223**	(29)	(12%)
	50mm or larger (collected by customer)	18.50	**18.15**	(0.35)	(2%)
20	**Inspection of non-compliant meters**	61.35	**46.45**	(14.90)	(24%)
21	**Connect to or building over/adjacent to stormwater channel for a single residence**	106	**109**	3	3%

#	Miscellaneous service	Current charge ($)	Proposed charge ($)	Change ($)	Change (%)
22	**Stormwater channel connection**	282	**287**	5	2%
23	**Hydraulic design assessment**				
	Less than 80mm	222	**219**	(3)	(1%)
	80mm or larger	330	**334**	4	1%
24	**Complex works design review**				
	Water-point asset (water pump stations, pressure reduction valves)	5,106	**5,571**	465	9%
	Sewer-point asset (wastewater pump stations, odour control, pressure sewer)	5,830	**6,409**	579	10%
	Linear water and sewer asset				
	Tier 1 (0-99m) Linear water and sewer asset (including pressure sewer)	869	**939**	70	8%
	Tier 2 (99-1000m) Linear water and sewer asset (including pressure sewer)	3,658	**3,943**	285	8%
	Tier 3 (Greater than 1000m) Linear water and sewer asset (including pressure sewer)	5,324	**5,720**	396	7%
25	**Application to assess sewer main adjustment**	378	**Removed**		
26	**Revision of development assessment**	353	**388**	35	10%
27	**Bond application**	2,803	**2,713**	(90)	(3%)
28	**Development assessment application**	376	**379**	3	1%
29	**Application for water or sewer main extensions and/or adjustments**	378	**393**	15	4%
30	**Application to connect to/disconnect from water supply system**	205	**199**	(6)	(3%)
31	**Shutdown and charge-up for water connection/disconnection**	479	**719**	240	50%
32	**Application for additional sewer connection point**	378	**Removed**		
33	**Complex works inspection fee**				
	Water-point asset (water pump stations, pressure reduction valves)	7,468	**9,224**	1,756	24%
	Sewer-point asset (wastewater pump stations, odour control)	6,794	**8,404**	1,610	24%
	Linear water and sewer asset (including pressure sewer)				
	Tier 1 (0-99m)	806	**1,046**	240	30%
	Tier 2 (99-1000m)	1,132	**1,412**	280	25%
	Tier 3 (Greater than 1000m)	1,544	**1,918**	374	24%
34	**Technical services hourly rate**	141	**165**	24	17%
35	**Remote from services application fee**	102	**78.55**	(23)	(23%)
36	**Preliminary servicing advice**	575	**615**	40	7%
37	**Servicing strategy review**	1,731	**1,928**	197	11%

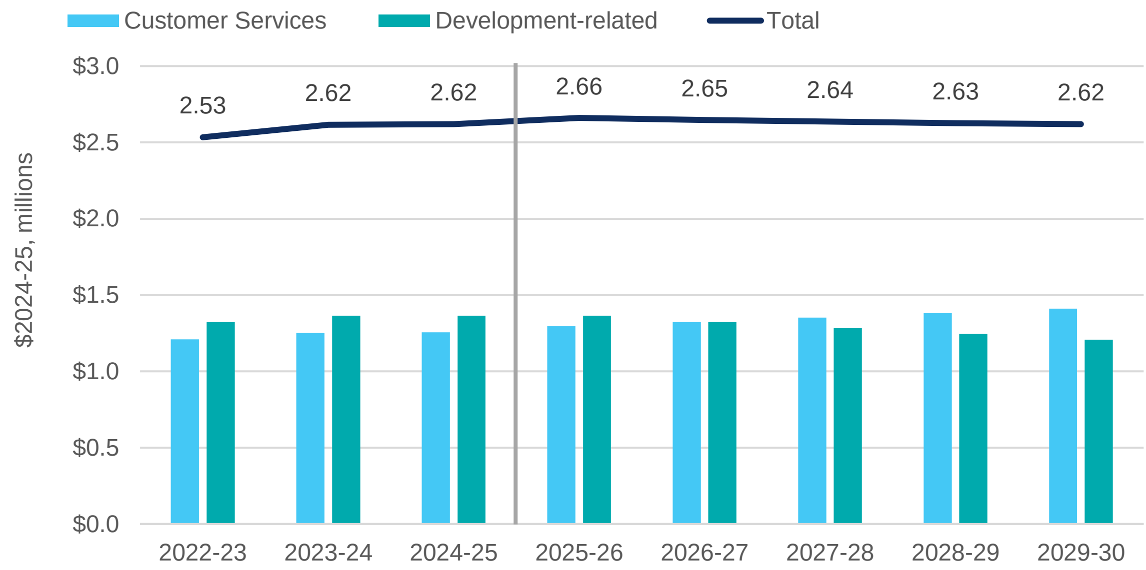
#	Miscellaneous service	Current charge ($)	Proposed charge ($)	Change ($)	Change (%)
38	**Environmental assessment report review**	1,062	**1,122**	60	6%
39	**Water cart tanker inspection**	52.80	**57.80**	5	9%
40	**Damaged meter replacement**				
	Meter Exchange (Customer Request) 20mm	101	**107**	6	6%
	Meter Exchange (Customer Request) 25mm	171	**170**	(1)	(1%)
	Meter Exchange (Customer Request) 32mm	234	**267**	33	14%
	Meter Exchange (Customer Request) 40mm	321	**339**	18	6%
	Meter Exchange (Customer Request) Light 50mm	333	**1,176**	843	253%
	Meter Exchange (Customer Request) Heavy 50mm	370	**1,176**	806	218%
	Meter Exchange (Customer Request) 65mm	683	**Removed**		
	Meter Exchange (Customer Request) 80mm	595	**1,288**	693	116%
	Meter Exchange (Customer Request) 100mm	989	**1,702**	713	72%
	Meter Exchange (Customer Request) 150mm	2,893	**2,802**	(91)	(3%)
	Meter Exchange (Customer Request) 250mm	5,746	**5218**	(528)	(9%)
	Meter Exchange (Customer Request) 300mm	7,118	**6,465**	(653)	(9%)
41	**Affix a separate meter to a unit**	38.15	**48.90**	10.75	28%
42	**Recycled water meter affix fee**	69.60	**63.20**	(6.40)	(9%)
43	**Application for recycled water service connection – domestic**				
	Pre-laid Service	24.65	**27.55**	2.90	12%
	Redevelopment - recycled water main size drillings				
	(i) 80mm	229	**246**	17	7%
	(ii) 100mm	221	**241**	20	9%
	(iii) 150mm	229	**263**	34	15%
	(iv) 200mm	321	**397**	76	24%
	(v) 250mm	368	**336**	(32)	(9%)
	(vi) 300mm	447	**343**	(104)	(23%)
	(vii) 375mm	754	**438**	(316)	(42%)
44	**Accredited supplier assessment fee**	New charge	**954**	-	-
45	**Billing record search statement**				
	a) Over the phone - up to 2017	New charge	**31.25**	-	-
	b) Electronic - beyond 2017 - via case logged (triage team)	New charge	**48.65**	-	-
	c) For multiple properties (per hour)	New charge	**104**	-	-
46	**Bank Authority - Payment Dishonour[1]**	32.36	**6.55**	(25.81)	(80%)

[1] We note that this is not a fee for the provision of a monopoly services, and therefore IPART is unable to determine these fees under Section 11 of the IPART Act. We have included our proposed cost for this fee for transparency to IPART and our customers. In line with IPART's 2020 determination, only the lowest possible third-party costs from banks are included.

8.9.2 Revenue from miscellaneous charges is forecast to be similar to the current pricing period

Forecast revenue is shown in Figure 8.20. Overall, revenue will remain steady, with a growing proportion received from customer services.

Figure 8.20 Forecast revenue from miscellaneous charges ($2024-25)



Source: Hunter Water AIR/SIR, 'Revenue' - rows 54, 123, 127, 129, 134. Also includes approximately $1,000 each year in revenue from recycled water that is not detailed within the Hunter Water 2023-24 AIR. Note: 2023-24 revenue is based on forecast volumes

8.10 Performance against the current pricing determination

During the current pricing period, we had one instance of not charging in accordance with IPART's Determination. This was formally reported as a non-compliance in 2023. From July 2013 to May 2023, we incorrectly classified manufactured home estates as residential customers for billing purposes – this property type is designated as non-residential under IPART's Determination. Six manufactured home estates were impacted resulting in a combined overcharge of $1.6 million. We rectified the issue in May 2023.

While impacted properties have the essential characteristics of residential homes, the *Local Government Act* specifies that land used for a manufactured home estate is not to be categorised as residential (*Local Government Act* 1993 (NSW) s516(2) & Local Government (General) Regulation 2021 (NSW) s121).

Manufactured home estates pose a challenge in defining fair and equitable charges. We intend to revisit this classification issue during the upcoming pricing period.

Attachments related to this chapter

Attachment I – Residential wastewater usage charges

9 Customer impacts

Key points

- Customers will face higher bills in the upcoming pricing period.
- Most of the increase is in the water component of the bill. We propose to recover most of the higher water revenue requirement through a higher water usage charge, keeping the fixed charge low:
- Most customers are relatively better off under this approach than if we passed on most of the required bill increase in the fixed service charge.
  - This provides our customers greater opportunity to reduce their bill by using less water, compared to increasing the fixed service charge.
- For customers receiving water, wastewater and stormwater services:
  - A typical house (using 146 kL of water) will see their bill increase in real terms from $1,338 this year to $1,767 in 2029-30 – an average annual increase of $86 (5.7 per cent).
  - A typical apartment (using 87 kL of water) will see their bill increase in real terms from $1,047 this year to $1,367 in 2029-30 – an average annual increase of $64 (5.5 per cent).
  - A pensioner household (using 100 kL of water) will see their bill increase in real terms from $825 this year to $1,065 in 2029-30 – an average annual increase of $48 (5.3 per cent).
- Most of our customers don't receive a stormwater service. For these customers:
  - A typical house (using 146 kL of water) will see their bill increase in real terms from $1,241 this year to $1,597 in 2029-30 – an average annual increase of $71 (5.2 per cent).
  - A typical apartment (using 87 kL of water) will see their bill increase in real terms from $1,011 this year to $1,304 in 2029-30 – an average annual increase of $59 (5.2 per cent).
  - A pensioner household (using 100 kL of water) will see their bill increase in real terms from $728 this year to $894 in 2029-30 – an average annual increase of $33 (4.2 per cent).
- The main reasons for higher bills are: extending the current pricing period by one year which reduced bills in real terms; our proposed new capital investments; an increase in operating costs; and, a higher WACC.
- We recognise it is sometimes difficult for customers to find the money to cover all their household bills. We offer a range of assistance measures to support, and we engage proactively with customers and consumers at risk of experiencing financial vulnerability.
- We will increase our account assistance spend by almost a million dollars – about 25% more – over the pricing period.

9.1 Bill impacts for residential customers

In this pricing proposal, we describe the 'bill impacts' for residential and non-residential customers in annual terms, including annual dollar and percentage increases. Residential customers receive three bills per year; therefore, the amount seen each bill is lower than the annual impacts we are describing as 'bill' impacts.

9.1.1 Summary of bills for example residential customers

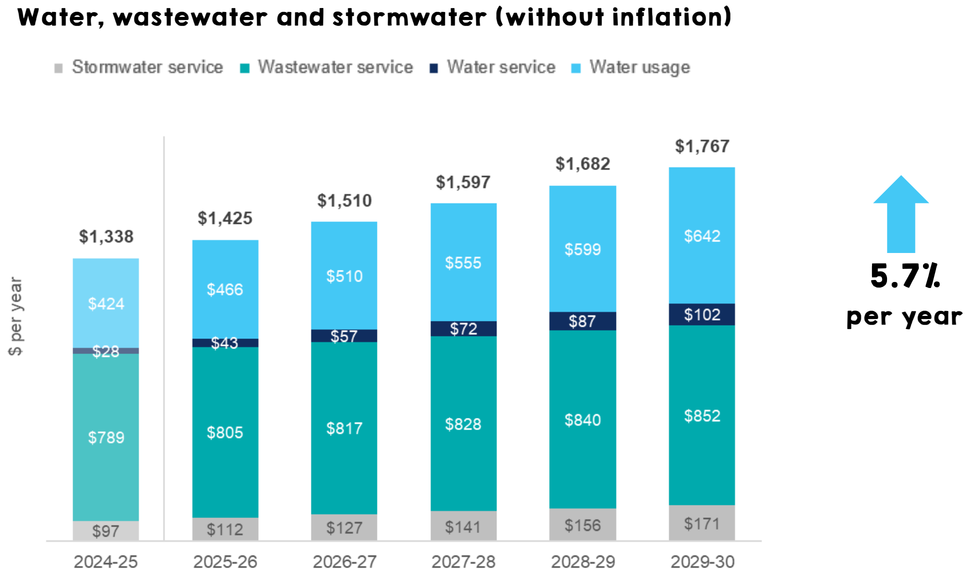
Customers' bills depend on factors such as how much water they use, whether they live in a house or an apartment, are in a Hunter Water stormwater drainage area, own or rent their home or receive a concession in the form of a pensioner rebate.

In Figure 9.1 and Table 9.1, we show the impact of our proposed price changes on bills for several indicative residential customer archetypes. These are shown in this year's dollars ($2024-25), without inflation being applied, unless otherwise stated.

Figure 9.1: Bill impacts for key residential archetypes, graphical ($2024-25)

Typical household

Household of three or four people who own their own home, live in a house and have mid-range water use (146 kL per year)[1]

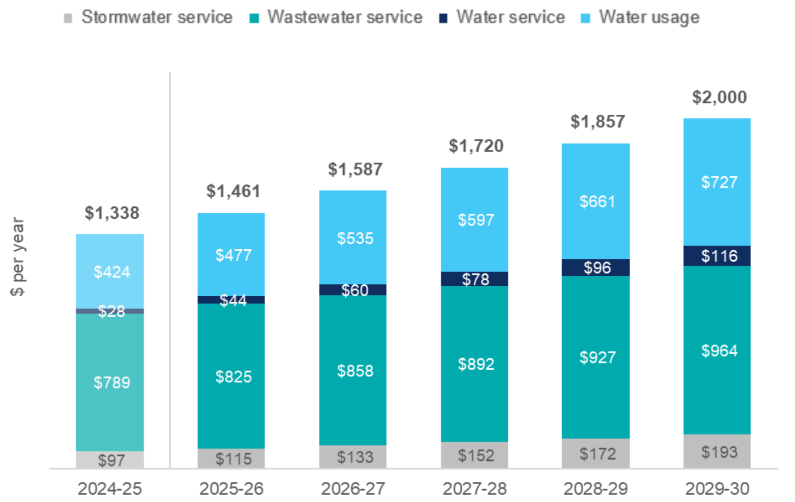


[1] Water use for a typical household is based on an approximated median of forecast water demands.

Typical household

Household of three or four people who own their own home, live in a house and have mid-range water use (146 kL per year)[1]

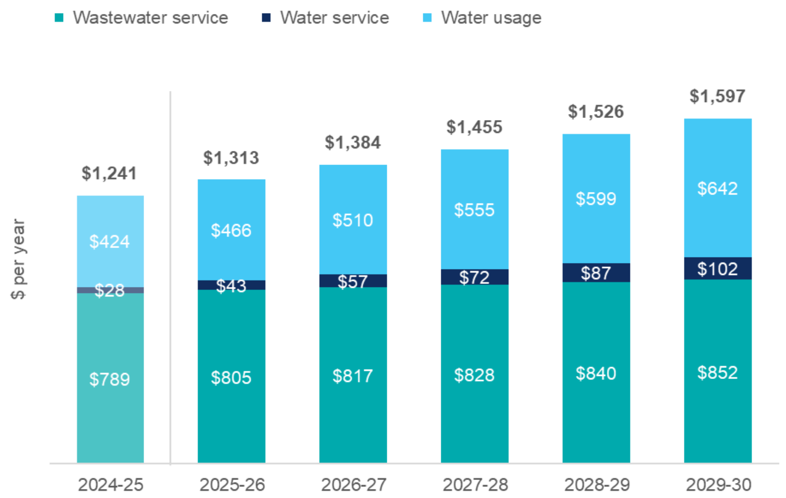
Water, wastewater and stormwater (with inflation estimate)



8.4%
per year

Note: We have assumed annual 2.5% inflation throughout the pricing period

Water and wastewater only (without inflation)

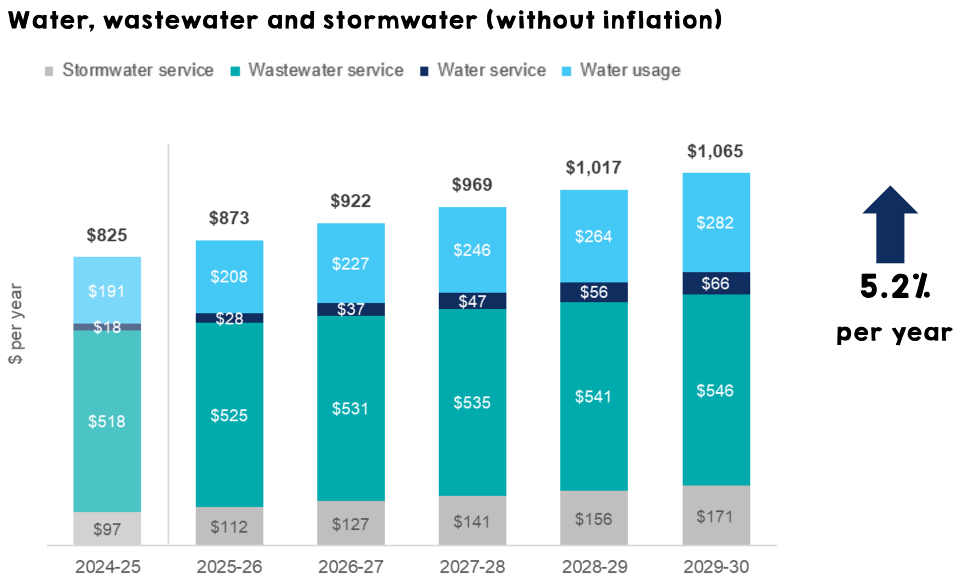


5.2%
per year

[1] Water use for a typical household is based on an approximated median of forecast water demands.

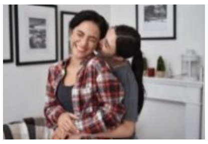
Pensioner household

Household of one or two people who own their own home, live in a house, have relatively low water use (100 kL per year), and receive a concession in the form of pensioner rebate.

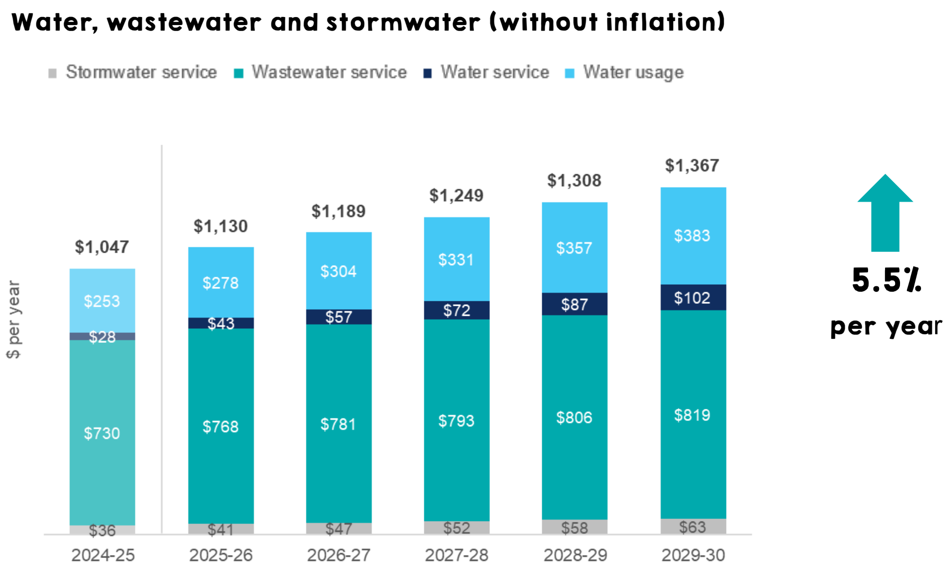


Note: Pensioner rebate is applied proportionally across water and wastewater charges

Small household



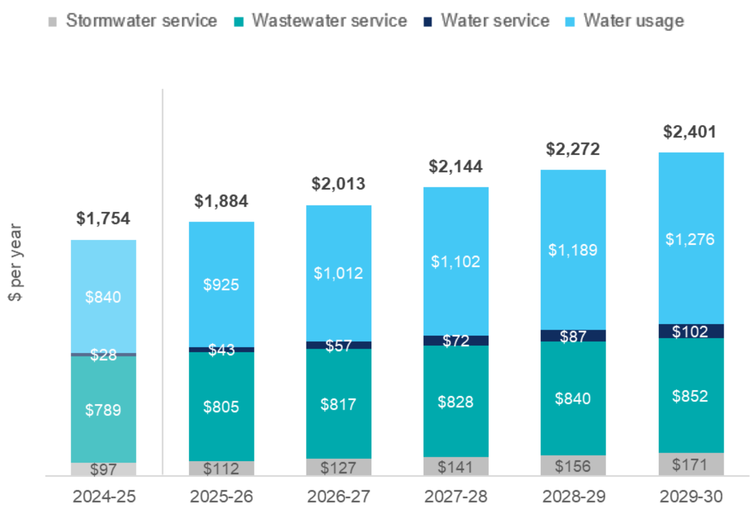
Household of one or two people who own their own home, live in an apartment and have relatively low water use (87 kL per year).



Large household

Household of five or more who live in a house with a big garden and/or pool, who own their own home and have high water use (290 kL per year)

Water, wastewater and stormwater (without inflation)



6.5%

per year

Source: Hunter Water analysis.

Table 9.1 Bill impacts for key residential archetypes, tabulated ($2024-25)

	Unit	Typical household^	Large household	Small household^	Pensioner household
Water demand per year	kL	146	290 *	87	100
Including stormwater					
Current annual bill (2024-25)	$	1,337.67	1,753.83	1,046.85	824.73
Annual bill at the end of the upcoming pricing period (2029-30)	$	1,767.34	2,400.94	1,366.99	1,064.94
Average annual real bill increase (%)	%	5.7	6.5	5.5	5.2
Average annual real bill increase ($)	$	85.93	129.42	64.03	48.04
Total real bill increase (%): 2024-25 vs 2029-30	%	32.1	36.9	30.6	29.1
Total real bill increase ($): 2024-25 vs 2029-30	$	429.67	647.11	320.14	240.21
Excluding stormwater					
Current annual bill (2024-25)	$	1,240.63	1,656.79	1,010.94	727.69
Annual bill at the end of the upcoming pricing period (2029-30)	$	1,596.53	2,230.13	1,303.78	894.13
Average annual real bill increase (%)	%	5.2	6.1	5.2	4.2
Average annual real bill increase ($)	$	71.18	114.67	58.57	33.29
Total real bill increase (%): 2024-25 vs 2029-30	%	28.7	34.61	29.0	22.9
Total real bill increase ($): 2024-25 vs 2029-30	$	355.90	573.34	292.84	166.44

* A “large household” customer with a demand of 290 kL per year represents the 89th percentile in house water demand

^Typical household volumes reflect our estimated median water demand for a house of 146 kL per year, and small household reflect our estimated median water demand (87 kL per year) for an apartment

Source: Hunter Water analysis

9.1.2 Residential bills will vary based on customers’ water use

Water use is the main reason that bills differ across households.

Some residential customers use a lot of water

Our residential customer base has a wide range of water demand. The distribution is not symmetric. It is a non-normal distribution, with a long tail – the data is skewed with a larger than normal proportion of customers using much more water than others:[1]

- About 10 per cent of houses use 300 kL or more per year, and 4 per cent use 400 kL or more.

[1] Residential distribution of water demand calculated over the 12 months ending December 2023

- About 7 per cent of apartments use 200 kL or more per year, and 3 per cent use 250 kL or more.

This distribution means the average (mean) water use is skewed higher due to the higher water users. It is the same principle as average incomes being influenced by outlying high earners. The median is not affected by outliers and is a better representation of 'typical' than the average. The median can be interpreted as 'half of customers use more water, and half of customers use less water'.

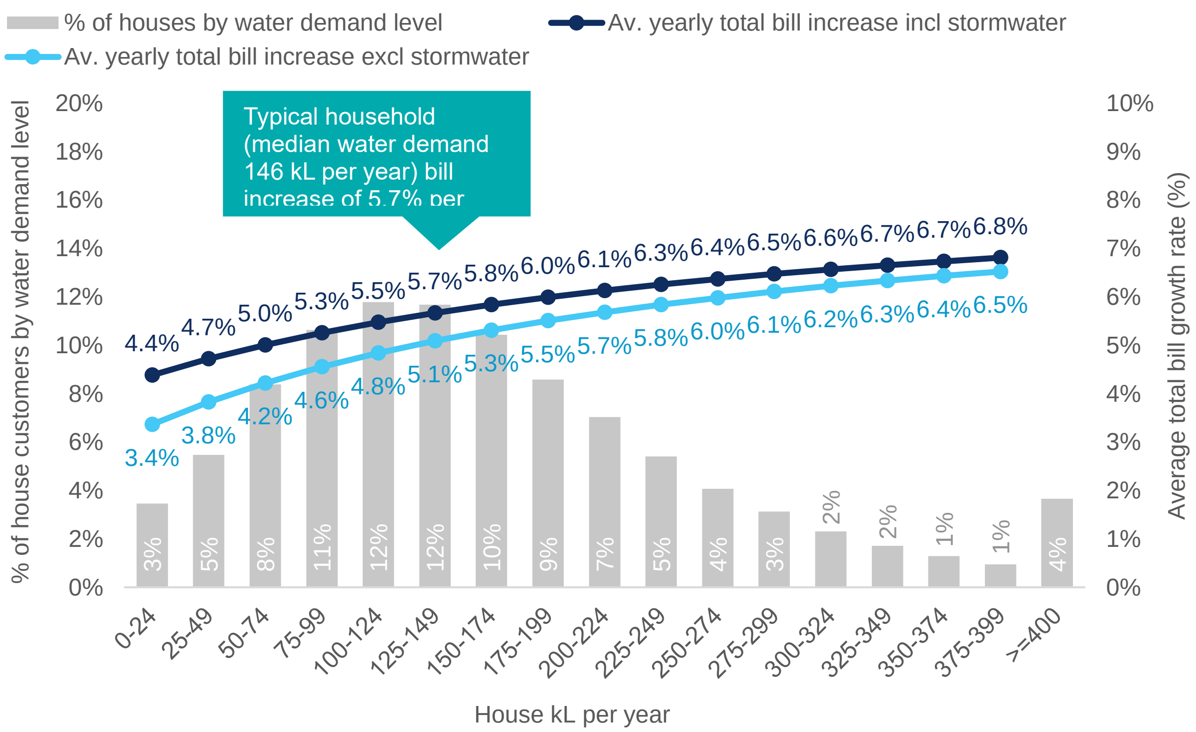
We estimate typical (median) water demand for a house over the upcoming pricing period will be 146 kL per year, with a typical apartment using 87 kL per year.[1]

Most houses and apartments will have bill increases less than 6% each year

Figure 9.2 shows the distribution of water use for all houses. The bill impacts for each water usage band are also shown, distinguishing between houses who do and don't receive a stormwater service from us. Stormwater charges are increasing (proportionally) more than water and wastewater; therefore, bill increases are higher for stormwater customers. Only about 25 per cent of billable connections receive a stormwater service from us.

We expect typical households (146 kL per year) to have a bill increase of about 5.7 per cent ($86) per year, and 5.2 per cent ($71) each year for typical households without stormwater charges. Conservatively, we expect about 70 per cent or more of all houses will have yearly bill increases of 6 per cent or less.

Figure 9.2 Total yearly bill impacts (%) for houses, shown by water usage band



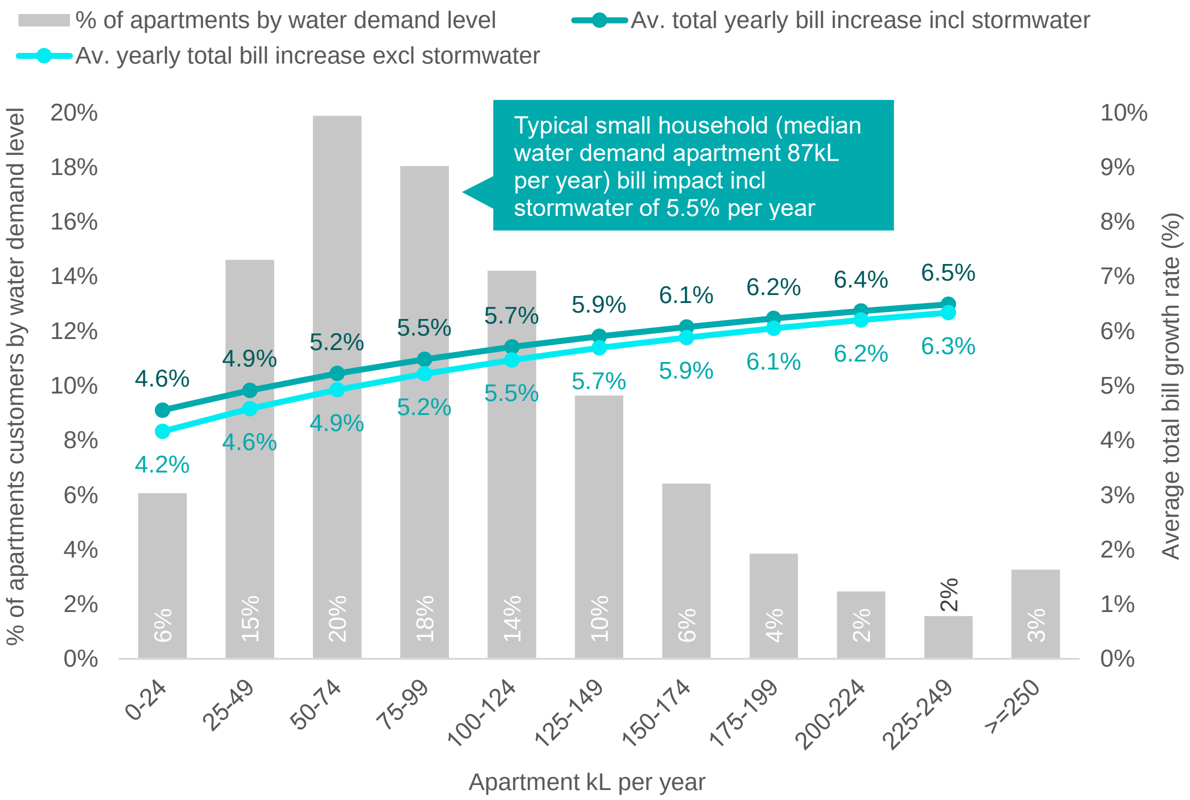
Source: Hunter Water analysis.
Notes: Bill impacts are calculated on the mid-points of the water usage bands. For example, for the 125-149 kL per year usage band, the bill impact is calculated based on 137 kL per year usage. Impacts are all calculated with reference to the current year: 2024-25.

[1] We have estimated our typical residential customer demand over the

by taking the average residential forecast water demand as predicted by our demand modelling (see Chapter 7), adjusting it based on the observed gap between the mean and median over the 12 months ending December 2023. Mean residential water demand over the 12 months ending December 2023 was within one kL per year of that forecasted for the pricing period; providing confidence that gap to median can be applied over the upcoming pricing period's forecasted mean.

Figure 9.3 shows the bill impacts for apartments, by water usage. The typical small household customer (apartment with 87 kL per year water usage) is expected to have a total bill impact of 5.5 per cent per year ($64), or 5.2 per cent per year ($59) for apartments without stormwater. Conservatively we estimate approximately 80 per cent of apartment customers are forecast to have yearly bill increase less of 6 per cent or less.

Figure 9.3 Total yearly bill impacts (%) for apartments, shown by water usage band



Source: Hunter Water analysis.

Notes: Bill impacts are calculated on the mid-points of the water usage bands. For example, for the 125-149 kL per year usage band, the bill impact is calculated based on 137 kL per year usage. Impacts are all calculated with reference to the current year: 2024-25.

Using less water will lead to lower water bills

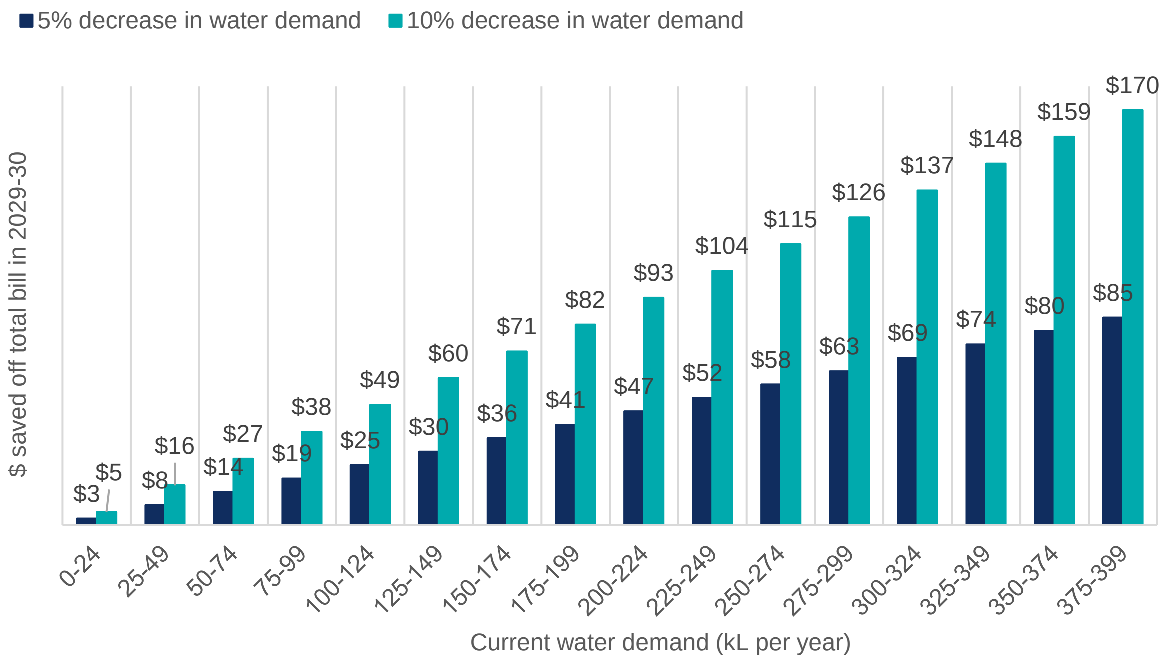
We propose to recover most of the higher water revenue requirement through a higher water usage charge. This provides our customers greater opportunity to reduce their bill by using less water, compared to increasing the water service charge.

Figure 9.4 shows how a 5 per cent and 10 per cent reduction in water usage would reduce residential customers' total water bill. For example:

- A large household (290 kL per year) will save $64 in 2029-30 if they use 5 per cent less water, and $128 if they use 10 per cent less.
- A typical household (146 kL per year) will save $32 in 2029-30 if they use 5 per cent less water, and $64 if they use 10 per cent less.

If a typical household immediately responded to the higher price by using 10 per cent less water, every year, the savings over the five-year pricing period would total $277, and for a large household the savings would be $550.

Figure 9.4 Potential annual residential bill savings from using less water 2029-30 ($2024-25)



Source: Hunter Water analysis.

Notes: Savings are calculated using the 2029-30 water usage price of $4.40 per kL (in $2024-25). The mid-points of the current water usage bands are used. For example, for the 125-149 kL per year usage band, the bill saving is based on 137 kL per year.

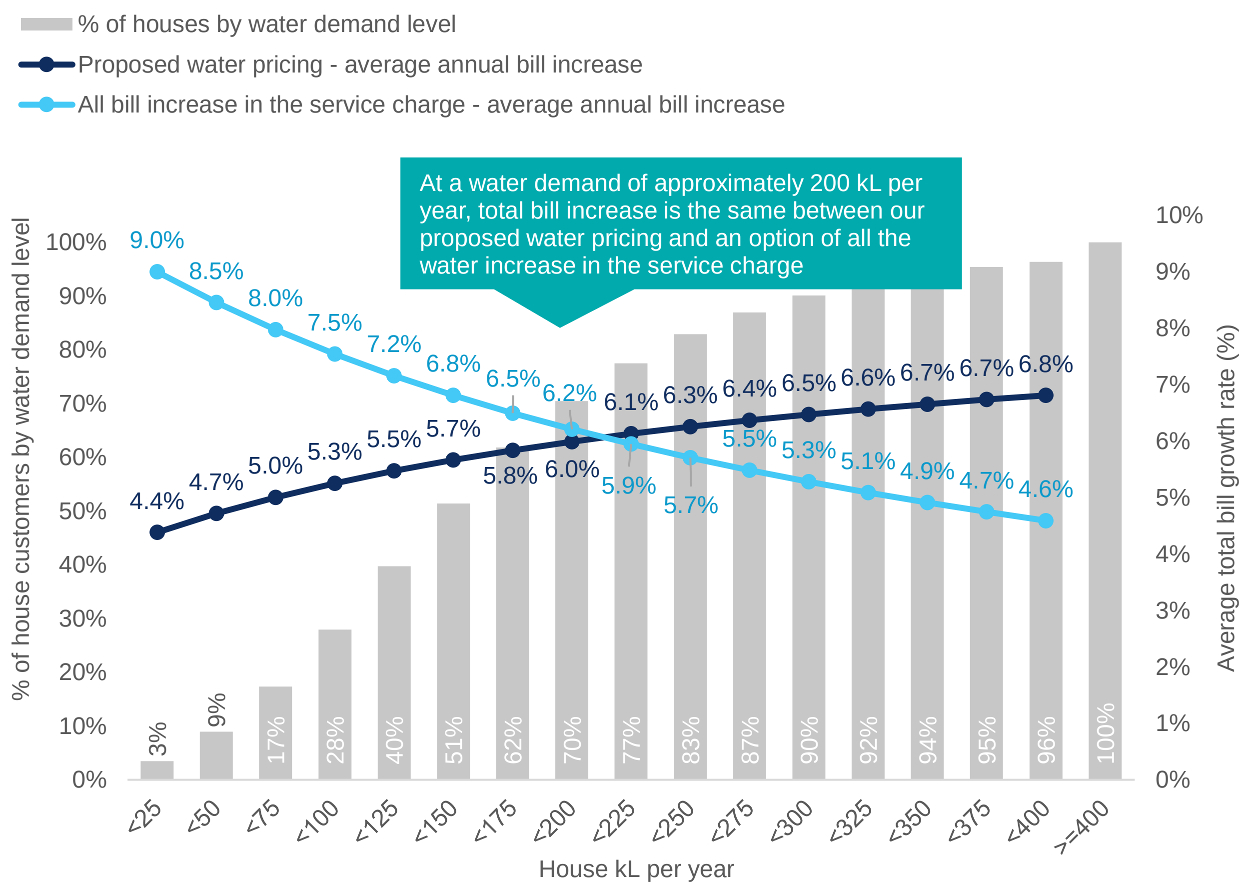
More of our residential customers would have received higher total bills had we passed on more of our costs through the fixed water service charge

In deciding how to set the balance between fixed and variable charges, we considered the relative impact on different customer types. Large water users are better off with a higher fixed charge, and low water users are better off with a higher variable charge.

Passing on most of the price increase through the water usage charge led to a smaller proportion of residential customers receiving higher bill impacts, compared to passing on all or most of the water price increase through the fixed service.

Figure 9.5 presents residential water use as a cumulative distribution. It shows that approximately 70 per cent of our residential customers who live in a stand-alone house use less than 200 kL and are better off under our proposed water pricing, compared to an option where all the water price increase is in the fixed service charge.

Figure 9.5 Bill increases (%) under our proposed water pricing verses an option of having all water price increases in the water service charge



Source: Hunter Water analysis.

Note: Total bill includes stormwater

A higher water usage charge directly impacts tenants

Our proposed prices mean that for tenants who pay water usage charges, the level and proportion of the bill they directly pay is greater than if we had set the water usage charge lower and fixed service charge higher.[1]

However, passing more of our costs through in a higher fixed charge, would likely place upward pressure on rents as landlords seek to recover these costs from tenants.

We have considered the impact of our relatively higher water usage charge on tenants. We consider our proposed approach is ultimately better for tenants than if we introduced a high fixed charge:

- We can provide support to tenants who need help in paying water usage charges through our payment assistance scheme (see Section 9.6). We cannot provide the same level of assistance to tenants if landlords pass on the higher fixed water service charges to tenants via higher rents.
- A higher usage charge provides tenants more control over the total amount directly or indirectly paid for water services. It maintains the usage price as an efficient price signal to conserve water.
- As landlords pay a relatively lower fixed charge, upward pressure on rents would be reduced.

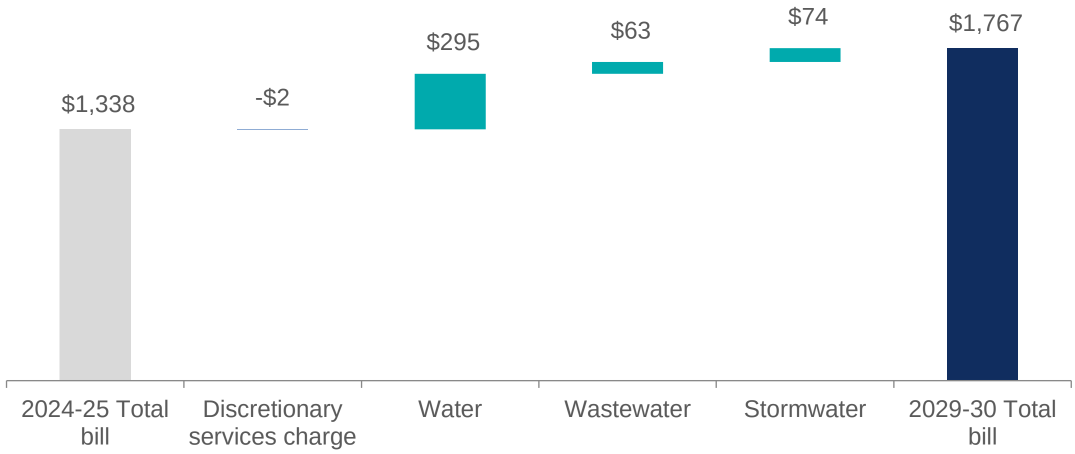
Higher water charges are the main driver of rising customer bills

This reflects the increase in target revenue required for the water product.

As shown in Table 9.1, we expect the total increase in bills for a typical household by the end of the upcoming pricing period to be about $430, or five average yearly incremental increases of $86. Figure 9.6 shows how for our typical household, of the $430:

- Higher water bills make up $295, or 69 per cent, of the total bill increase over the pricing period. The water component of a typical household bill will rise by 66 per cent over the pricing period.
- Higher stormwater bills make up $74, or 17 per cent, of the total bill increase over the pricing period. The stormwater component of a typical household bill will rise by 76 per cent over the pricing period.

Figure 9.6 Total bill increase for a typical household, split by product ($2024-25)



Source: Hunter Water analysis.

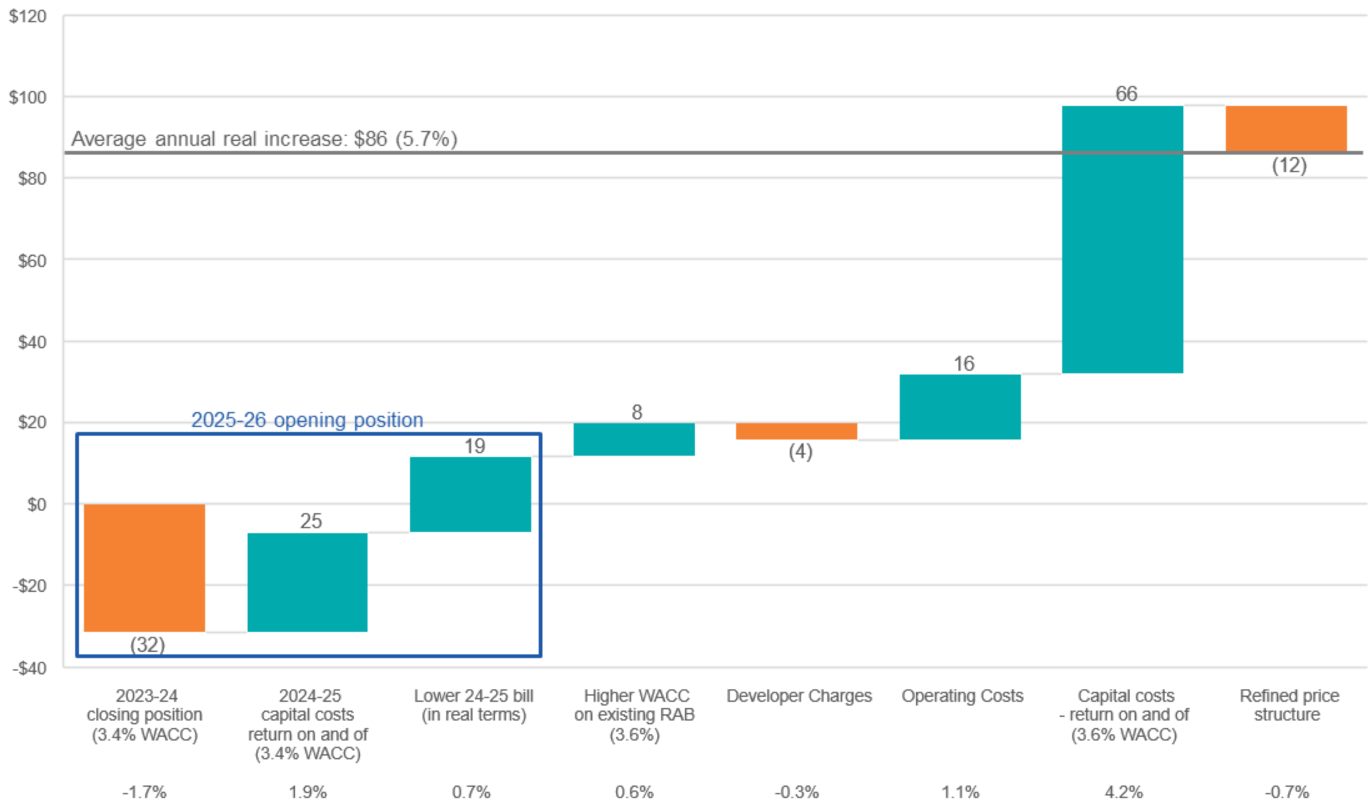
Note: The discretionary service charge (residential only) has been discontinued for the upcoming pricing period.

[1] In NSW, landlords of residential rental properties are required to pay all sewer and fixed water charges. If certain conditions are met, including minimum water efficiency standards, a landlord can ask a tenant to pay water usage charges.

Breakdown of key components driving overall bill increases

There are several factors driving overall bill increases. Figure 9.7 provides a breakdown of these and the level of impact of each, for an indicative typical household with a stormwater service. The sum of all impacts equals the yearly increase in bill proposed for this customer type.

Figure 9.7 Drivers of average yearly bill increase, Typical household, ($2024-25)



Source: Hunter Water analysis

A key insight from this chart is that even with zero proposed new capital expenditure or any higher operating expenditure for the upcoming pricing period, customer bills would need to rise. Of the $86 average yearly bill increase, $36 (42 per cent) is driven by the deferral year and higher WACC, considering the reductions from developer charges revenue and a refined price structure.

Below we explain each of the components of this chart in detail.

2025-26 opening position (net + $12)

The upcoming pricing period starts 1 July 2025. The 2025-26 opening position, shown by the blue box in Figure 9.7, reflects a $12 average yearly bill increase prior to any additional expenditure in the upcoming period. This includes:

- **2023-24 closing position (- $32).** This bill impact is calculated based on the roll forward of the 30 June 2024 RAB, prior to any new capital expenditure. It includes a regulatory depreciation allowance on 30 June 2024 'existing' assets, and a return on the reducing RAB over the upcoming pricing period at 3.4 per cent – the WACC in the current pricing period. Operating costs over the period are assumed to remain at the average allowed level for the current pricing period, and therefore have a nil bill impact.

  The bill decrease reflects both:

- Forecast growth in demand and connections. Growth in our customer base means revenue requirements can be spread over a larger number.
- A reduction in the RAB over the upcoming pricing period. This is prior to adding any new capital expenditure.

- IPART agreed to extend Hunter Water's current pricing period by one-year. In 2024-25, prices remained constant at the 2023-24 level in nominal terms, consistent with IPART's direction. As prices did not grow with inflation, customers received a real (excluding inflation) reduction in bills.

  The bill impact of extending our current pricing period is $44 of the $86 annual average increase (51 per cent). Two main **impacts of the deferral year** are:

  - **2024-25 capital expenditure (+ $25).** The bill impact due to proposed capital spend in 2024-25 being added to the RAB. This effectively means we are trying to recover six years of capital expenditure in five years of prices.
  - **Lower 2024-25 bill in real terms (+ $19).** Our costs and RAB continued to increase with inflation over 2024-25 while our prices remained constant. Bill increases in the upcoming period are with reference to an artificially lower 2024-25 customer bill – one that did not grow with inflation.

Bill impact drivers that are relevant to other factors within the upcoming pricing period include the following:

Higher return on assets for the opening RAB (+ $8)

A higher return on assets for the opening RAB due to a higher WACC of 3.6 per cent.

Developer charges revenue (- $4)

An offset due to revenue received from the gradual phase-in of developer charges (- $4). This component will increase over time.

Operating costs (+ $16)

Proposed operating expenditure is higher than what underpinned our prices for the current pricing period.

New capital expenditure (+ $66)

We earn a return on assets (WACC of 3.6 per cent), and regulatory depreciation on capital expenditure we propose to spend in the upcoming pricing period. Conceptually, the increase in bill driven by new capital expenditure offsets the bill decrease of the 2023-24 closing position.

New capital expenditure added to the RAB theoretically replaces the regulatory depreciation being removed as we renew our assets. However, the rate of new capital being added to the RAB is outpacing regulatory depreciation and the RAB is growing.

As described in Chapter 6, we shouldn't necessarily expect new capital expenditure to be equal to regulatory depreciation for three reasons:

- In 2000, IPART drew a 'line-in-the-sand' and set our RAB value at around 42 per cent of the depreciated replacement cost at the time.
- We are building new assets (e.g. Belmont desalination), not just replacing existing assets.
- Recent capital cost escalation has been higher than CPI. The RAB is inflated by CPI, but renewal costs are growing faster than that.

Refined price structure (- $12)

Putting most of the bill increase in the water usage charge has led to a lower bill for a typical household than if we put the increase all in the fixed service charge. This amount will be different for different customers and a positive number (i.e. higher bill increase) for some households with high water use.

9.2 Non-residential customer total bill impacts

Unlike our residential customers, non-residential customers have variable wastewater usage charges as well as variable water usage charges. In addition, some non-residential customers are provided with trade waste services. To capture this wide range of different non-residential customers and their associated total bill impacts, we have identified 16 non-residential archetypes that reflect the range of non-residential customers we provide services to.

As with residential customers, non-residential customers that have higher levels of water demand experience higher total bill increases. Table 9.2 summarises the total bill impacts over the upcoming pricing period for the non-residential archetypes, with yearly total bill increases ranging between 3.8 per cent to 8.9 per cent for these indicative customers. A detailed breakdown for each non-residential archetype is provided in Attachment J.

Table 9.2 Summary of non-residential archetype total bill impacts, $2024-25

Non-residential property archetype	Water kL / year	Total bill $ 2024-25	Total bill $ 2029-30	Total bill impact over pricing period		Yearly total bill impacts	
Service station	70	$1,303	$1,651	$349	26.8%	$70	4.9%
Small shop	150	$1,349	$1,717	$368	27.3%	$74	4.9%
Small/medium shop	165	$1,959	$2,509	$550	28.1%	$110	5.1%
Large licenced club	8,450	$49,641	$65,325	$15,684	31.6%	$3,137	5.6%
Medium licenced hotel	1,200	$6,803	$9,175	$2,372	34.9%	$474	6.2%
Regional shopping centre – with high strength trade waste	73,100	$293,540	$405,394	$111,854	38.1%	$22,371	6.7%
Large office – Newcastle	3,600	$17,804	$23,898	$6,094	34.2%	$1,219	6.1%
Regional office – Maitland	230	$3,725	$4,601	$877	23.5%	$175	4.3%
Small industrial business	50	$1,691	$2,098	$407	24.0%	$81	4.4%
Medium industrial business	73,300	$264,581	$375,125	$110,544	41.8%	$22,109	7.2%
Large industrial business – no sewer	190,000	$550,762	$842,164	$291,402	52.9%	$58,280	8.9%
Large industrial business – with sewer	243,300	$818,494	$1,183,426	$364,932	44.6%	$72,986	7.7%
Plant Nursery	5,500	$16,941	$25,551	$8,611	50.8%	$1,722	8.6%
Fast food outlet	1,450	$8,403	$10,988	$2,585	30.8%	$517	5.5%
Shopping centre – with high-strength trade waste	7,800	$44,896	$54,075	$9,179	20.4%	$1,836	3.8%
Large industrial business – with high strength trade waste	42,000	$152,704	$219,561	$66,858	43.8%	$13,372	7.5%

Note: Bill impacts for non-residential archetype customers who are trade waste customers, do not include any potential incentive charges on excessive BOD and TSS levels. We have also not included agreement renewals in the above bill impacts.
Source: Hunter Water analysis

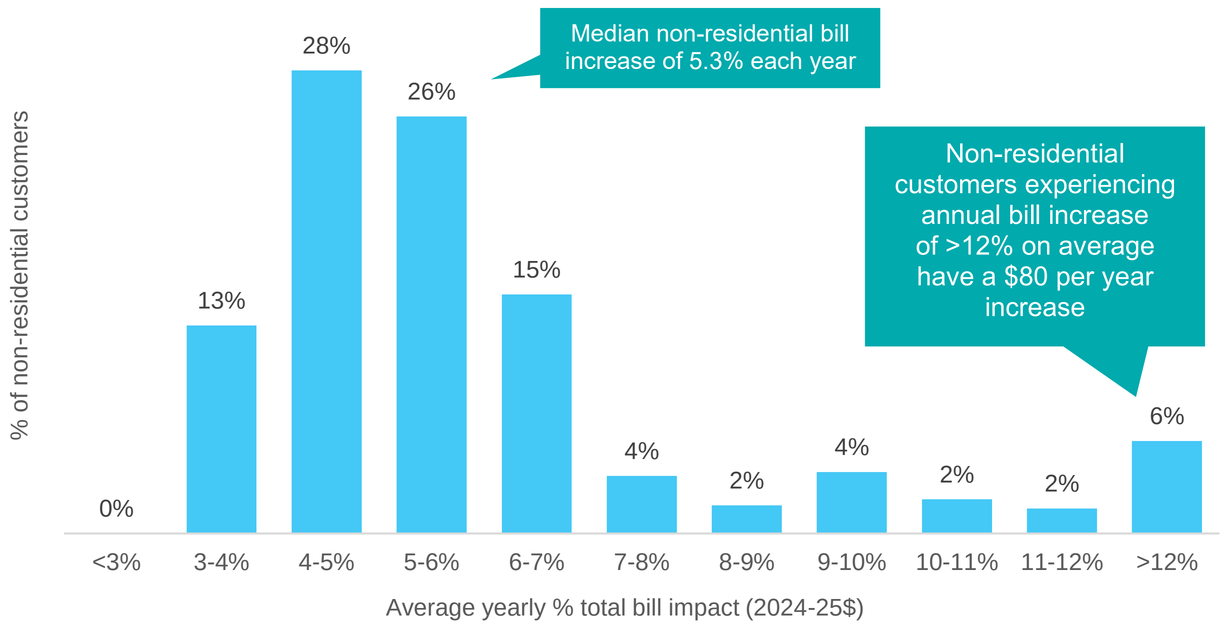
Across our non-residential customer base, we expect a median bill increase of 5.3 per cent per year

Figure 9.8 presents a distribution of average annual percentage bill increases for non-residential customers. For this analysis we have excluded trade waste charges and included both stormwater and non-stormwater customers.

The median total annual bill increase is 5.3 per cent. Approximately 65 per cent of non-residential customers would receive a yearly total bill increase of 6 per cent or less.

Bill impacts across our non-residential customer based are not normally distributed, with a long tail of non-residential customers expected to receive higher per cent bill impacts. However, total dollar bill impacts for customers with high per cent increases, are in many cases, low. For example, for the 6 per cent of customers with annual increases of greater than 12 per cent, the estimated average dollar bill increase is $80 per year.

Figure 9.8 Distribution of estimated non-residential customer total bill percentage increases, excluding trade waste ($2024-25)



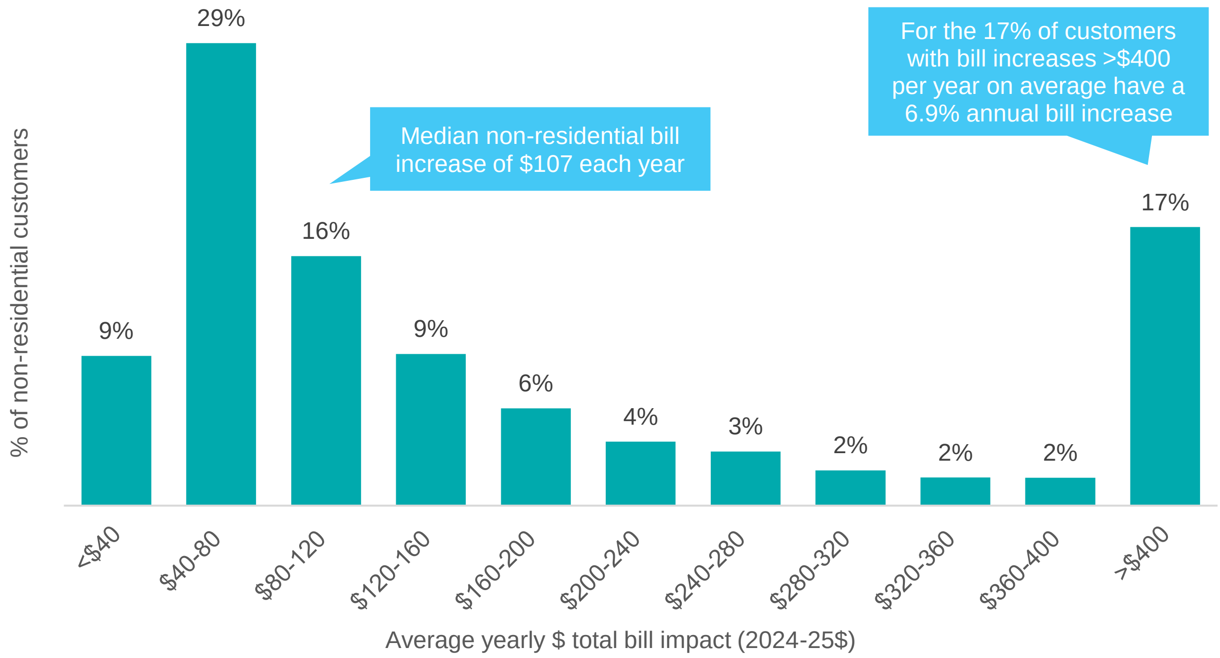
Note: Includes bill increases for customers with and without stormwater services. Distribution excludes non-residential strata units.
Source: Hunter Water analysis

Figure 9.9 presents the distribution of average annual bill impacts in dollar terms. The median increase is $107 per year. We forecast more than 50 per cent of our non-residential customers will receive bill increases of $120 or less per year, and more than 70 per cent will receive bill increases of $240 or less per year.

There is a long tail of customers with higher dollar bill increases, as observed for the percentage increase. 17 per cent have annual bill increases of more than $400. The approximate average annual bill percentage increase for these customers is 6.9 per cent. Figure 9.10 drills down for this subset of non-residential customers, showing that about a third are estimated to have bill increases between $400-600 per year and an average yearly bill percentage increase of 6.7 per cent.

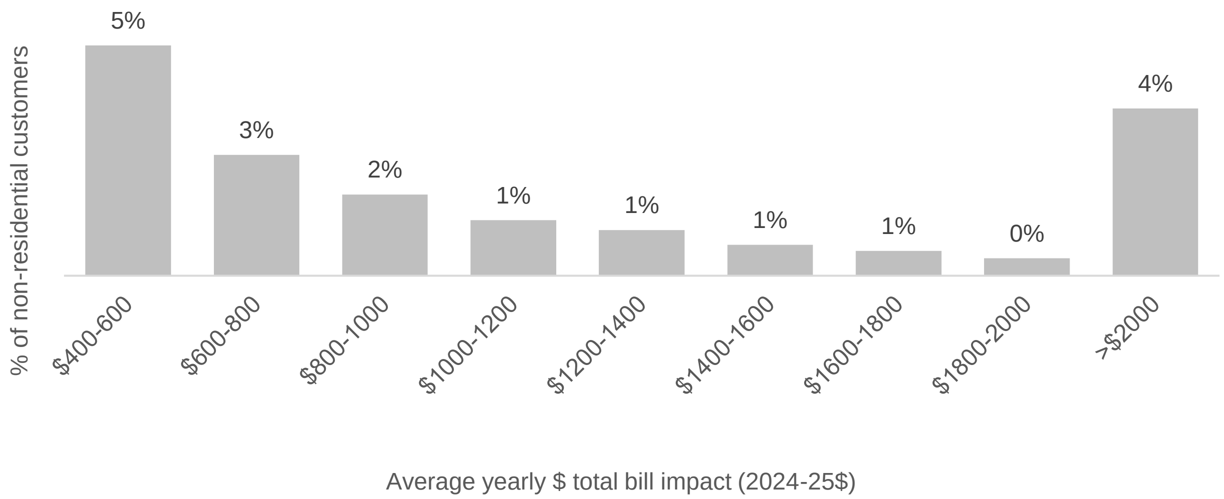
Four per cent of our non-residential customers are estimated to have yearly bill increases exceeding $2,000 each year, with an average yearly bill increase of 7.3 per cent. Typically, these are high water users, with an average usage of about 13,000kL per year.

Figure 9.9 Distribution of estimated non-residential customer total bill $ increases, excluding trade waste ($2024-25)



Note: Includes bill increases for customers with and without stormwater services. Distribution excludes non-residential strata units.
Source: Hunter Water analysis

Figure 9.10 Distribution of estimated non-residential customer total bill $ increases with bill impacts >$400 per year, excluding trade waste ($2024-25)



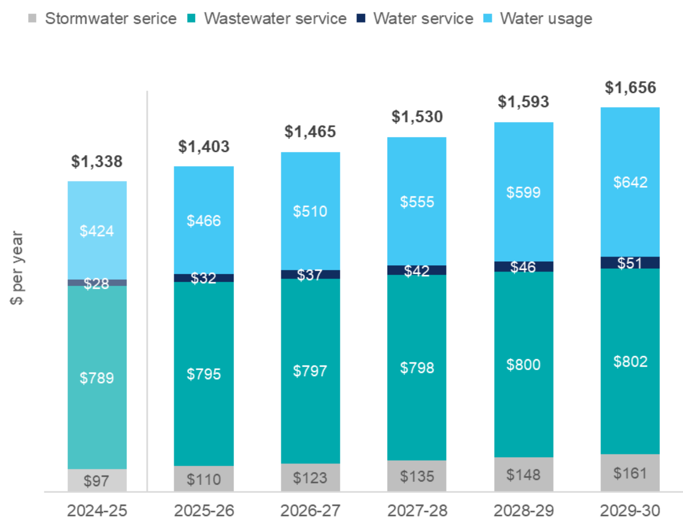
Note: Includes bill increases for customers with and without stormwater services. Distribution excludes non-residential strata units.
Source: Hunter Water analysis

9.3 Sensitivity of pricing outcomes to forecast WACC

The WACC we have used to calculate proposed prices reflects our forecast of the WACC at March 2025. IPART will calculate the actual WACC at that time for use in determining Hunter Water's prices. The actual WACC used by IPART to set prices may differ to our current forecast due to fluctuations in external market parameters and actual prices may therefore be higher or lower than contained in this proposal.

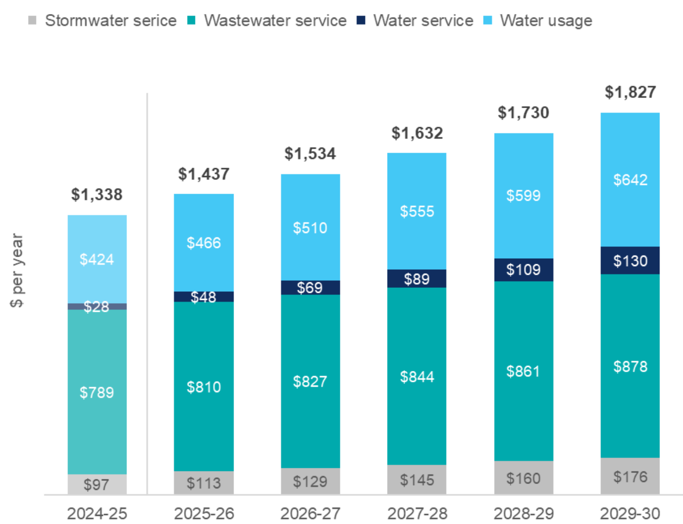
Figure 9.11 and Figure 9.12 show the sensitivity of bills to WACC estimates of 3.3 per cent and 3.8 per cent, for a typical house receiving water, wastewater and stormwater services.

Figure 9.11: Sensitivity, 3.3 per cent WACC - Annual bill for a typical house ($2024-25)



4.4% ($64)
per year

Figure 9.12: Sensitivity, 3.8 per cent WACC - Annual bill for a typical house ($2024-25)



6.4% ($98)
per year

9.4 Estimated bill impacts for 2030-35 pricing period

Longer-term bill impacts have helped inform our proposal for 2025-30

Our pricing proposal is underpinned by long-term investment plans and a vision for the future. We have developed indicative capital and operating expenditure forecasts for the 2030-35 pricing period. We are less certain about these forecasts; however, they have been crucial in helping us determine a prudent and efficient level of expenditure for 2025-30 that promotes customer's long-term interests.

As described in Chapters 4 and 5, we have increasing expenditure requirements in the 2030-35 period. This means that the prioritisation challenge we have faced for this pricing proposal will likely continue for the next ten years and potentially beyond.

Understanding the likely trajectory of customer bills in 2030-35 has helped inform prioritisation decisions and steered us away from proposing regulatory mechanisms that 'kick the can down the road' and defer cost recovery now, increasing the burden on future generations.

Forecast 2030-35 target revenues

The key building block modelling assumptions in this forecast target revenue include:

- The long-term capital expenditure outlined in Chapter 4.
- The long-term operating expenditure outlined in Chapter 5.
- A post-tax WACC of 4.4 per cent, estimated using IPART's WACC methodology with long-term bond and credit spread assumptions based on NSW Treasury Corporation forecasts.
- Regulatory asset lives for 'existing' assets are the same as proposed for the upcoming pricing period. Regulatory assets lives for 'new' assets are calculated based on the capital expenditure forecast for the 2030-35 period. These are higher than the upcoming pricing period for water and wastewater assets. Stormwater and corporate asset lives are similar to that proposed in the upcoming pricing period.
- A nil forecast of end-of-period WACC and DVAM true-ups.
- An NPV-neutral smoothing technique applied to smooth out bill impacts across the pricing period.

The forecast notional, net unsmoothed, and target revenue are shown in Table 9.3, highlighting growing revenue requirements. Higher operating expenditure (primarily due to operating Belmont desalination and replacing our ERP), a growing RAB, and increased return on assets due to the significantly higher WACC are the key contributing factors.

Table 9.3 Revenue requirement and target revenues, 2029-30 and subsequent pricing period ($2024-25, $millions)

All products	Proposed 2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	5-year NPV
Operating expenditure	196.9	204.5	210.4	214.4	223.4	215.8	939.9
Return on assets	177.7	218.8	223.3	232.2	242.6	250.9	1,025.4
Regulatory depreciation	128.2	118.0	123.0	129.8	137.4	144.4	572.0
Tax allowance	24.0	23.0	24.0	25.6	27.5	29.1	113.1
Working capital	2.9	3.8	3.3	2.9	3.2	3.6	14.8
Less: Revenue adjustments	-	-	-	-	-	-	-
Notional revenue requirement	**529.8**	**568.0**	**584.1**	**604.8**	**634.1**	**643.8**	**2,665.3**
Less: Other regulated revenues	(7.3)	(7.3)	(7.3)	(7.3)	(7.3)	(7.3)	(32.1)
Less: Non-regulated profits	(2.1)	(2.1)	(2.1)	(2.1)	(2.1)	(2.1)	(9.2)
Unsmoothed sales revenue	**520.4**	**558.7**	**574.8**	**595.5**	**624.7**	**634.4**	**2,624.0**
Sales revenue – target	**556.8**	**570.1**	**583.3**	**596.7**	**610.3**	**624.2**	**2,624.0**

Source: Hunter Water analysis

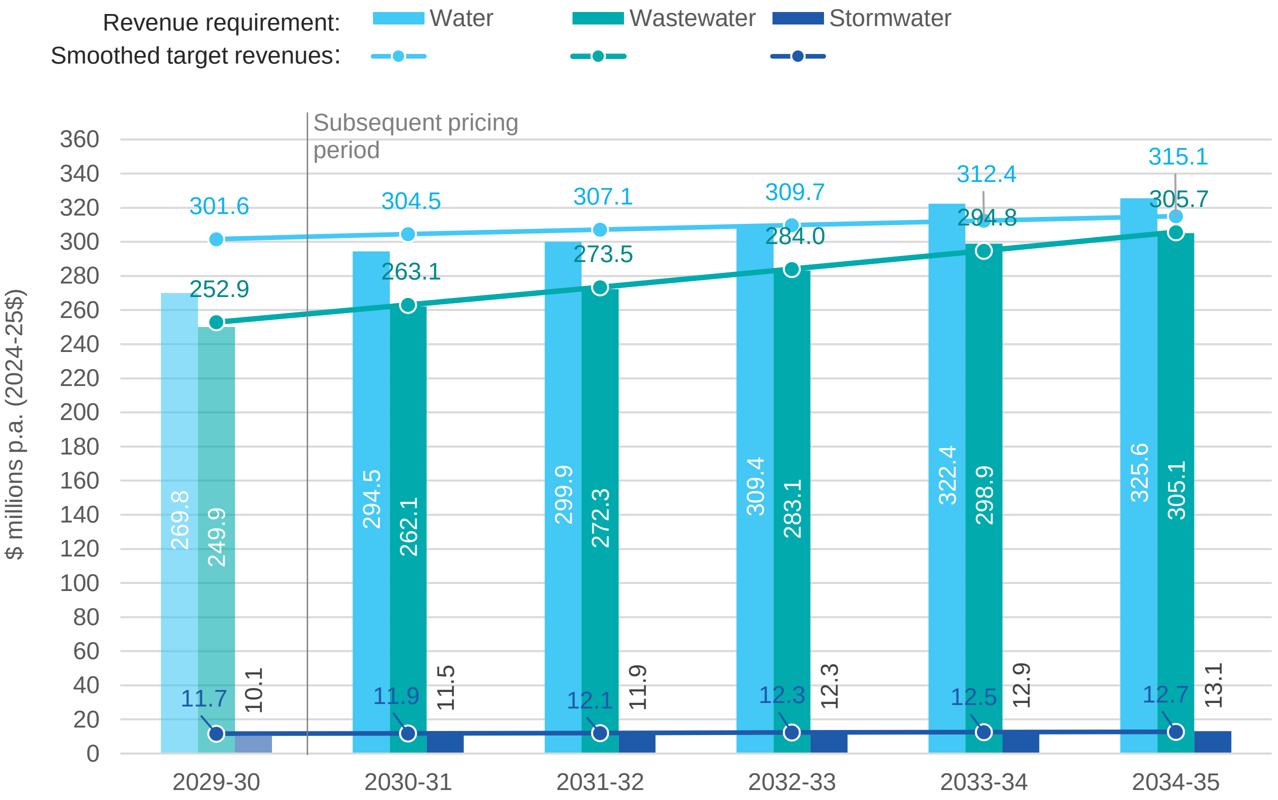
Forecast operating expenditure aligns with that reported in Figure 5.15.

Figure 9.13 shows projected revenue requirements and target revenues from 1 July 2029 by product. The increase in the forecast WACC from 1 July 2030 of 4.4 per cent (up from 3.6 per cent) results in an initial uplift in revenue requirement for each product. The ongoing increase in required revenues over the period reflect our forecast operating and capital costs.

On average, revenue requirements for water, wastewater and stormwater services increase by 4 to 5 per cent per year. Due to the NPV-neutral revenue smoothing technique applied, average increases in target revenues are dampened. This is particularly relevant to the water and stormwater products. The opening target revenues, those proposed for the end of the upcoming pricing period in 2029-30, are higher than the unsmoothed revenue requirement. This means that revenues do not have to increase as much to achieve an NPV neutral revenue outcome over the subsequent pricing period. The yearly increase in the light blue water target revenue line in Figure 9.13 is flatter than the increase in the light blue water revenue requirement columns.

On average, target revenues for water, wastewater and stormwater services increase by 0.9, 3.9 and 1.7 per cent per year, respectively.

Figure 9.13 Revenue requirements and target revenues by product, 2029-30 and subsequent pricing period ($2024-25, $millions)



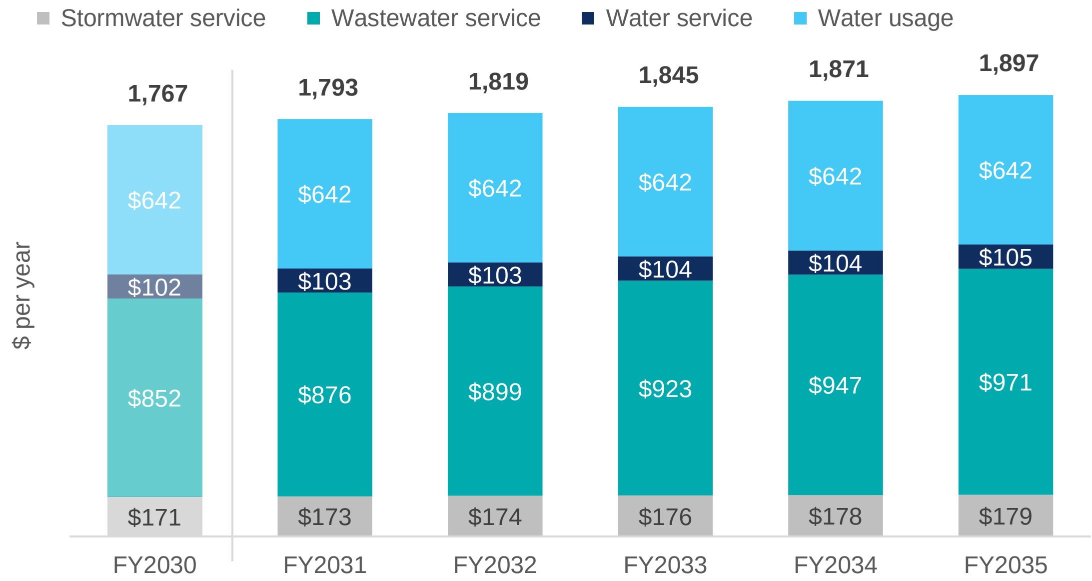
Source: Hunter Water analysis

Given estimated target revenues, we expect increasing bills over 2030-35

To forecast future prices and customer bills in 2030-35, we have held water and wastewater usage charges constant at the level proposed for the upcoming pricing period, implying that any revenue requirement increase is recovered through higher fixed service charges.

Based on the estimates of target revenues for each product as outlined in Figure 9.13, we expect that a typical house (using 146 kL of water per year) may experience a 1.4 per cent ($26) per year increase in their total bill including stormwater. For customers without a stormwater service, we forecast a 1.5 per cent ($24) per year increase (see Figure 9.14).

Figure 9.14 Forecast typical household total bill increases over 2030-35 ($2024-25)



Source: Hunter Water analysis

Note: We assume that we retain a water price of $4.40 per kL, and a wastewater usage price of $0.68 per kL ($2024-25) over the 2030-35 period. All price increases are passed through in fixed service charges. We also assume that deemed wastewater discharge volumes remain constant at 126 kL per year for a typical household.

Estimated bill increases are sensitive to changes in key factors

We have tested key assumptions to understand sensitivity in the 2030-35 prices. Assumptions tested are primarily focused on testing an upper limit of customer bill impacts related to current known risks and uncertainties. Table 9.4 summarises assumptions tested and the average impact on annual revenue requirements.

Table 9.4 Sensitivity testing on 2030-35 revenue requirements

Assumption	Sensitivity tested	Explanation	Average yearly revenue impact ($2024-25, millions)
WACC	4.0 per cent	The cost of debt does not increase as high as forecast. We earn a lower return on assets.	(24)
WACC	4.8 per cent	The cost of debt increases higher than forecast. We earn a higher return on assets.	23
WACC true-up	+$76 million one-off revenue adjustment	The increase in forecast WACC from 3.6 per cent in the upcoming pricing proposal, to 4.4 per cent in the subsequent pricing proposal reflects an increase in forecast cost of debt. The yearly trailing average cost of debt during the 2025-30 pricing period is higher than that recovered through the WACC. We are compensated for these higher costs through an upward WACC true-up revenue adjustment in financial year 2030-31.	18

Assumption	Sensitivity tested	Explanation	Average yearly revenue impact ($2024-25, millions)
Capital expenditure	+ $80 million per year	The 2030-35 period includes some large scale, uncertain projects. The higher capital expenditure could feasibly be required to address safety issues at Grahamstown Dam, deliver biosolids upgrade solutions, address emerging water quality contaminants, or hydrogen sulphide standards. With higher capital expenditure we earn a higher return on assets and regulatory depreciation allowance.	13
Capital expenditure	- $80 million per year	As above, the 2030-35 period includes some large scale, uncertain projects. Reduced project scope or deferral of timing could reduce capital expenditure required in the period. Technological advancement or softening of regulatory requirements could help reduce costs. With lower capital expenditure we earn a lower return on assets and regulatory depreciation allowance.	(13)
Operating costs	+ $10 million per year	We expect to need to replace our end-of-life ERP in the 2030-35 pricing period. The costs of doing so are highly uncertain and may require higher than forecast investment. The increase could also be due to above-CPI price trends (e.g. energy prices, or labour costs) – we have not forecast any for 2030-35.	10
Water and wastewater demand	5 per cent lower water and wastewater demand	The demand forecast is revised downwards based on observed customer behaviour during the 2025-30 period. This is a potential outcome of the higher water usage price during the period. It could also be due to loss of major non-residential customers. This is a conservative estimate, as we assume no change in costs. Lower demand for services would result in lower costs, and potentially a negative revenue impact.	-

Source: Hunter Water analysis

The revenue requirement changes in Table 9.4 would flow through to changes in prices and customer bills. Table 9.5 shows estimated bill changes for a typical household, under each sensitivity test.

Table 9.5 Forecast typical household total bill increases in the 2030-35 pricing period, by sensitivity ($2024-25)

Sensitivity	Including Stormwater		Excluding Stormwater	
	Annual Bill increase %	Annual Bill increase $	Annual Bill increase %	Annual Bill increase $
Base case	1.4%	$26	1.5%	$24
4.0% WACC	-0.1%	-$2	0.0%	-$1
4.8% WACC	2.8%	$53	2.9%	$48
+ $76m WACC true-up	2.5%	$46	2.5%	$43
+ $80m pa capital expenditure	2.2%	$41	2.2%	$38
- $80m pa capital expenditure	0.6%	$11	0.7%	$11
+ $10m pa operating costs	2.0%	$38	2.1%	$35
5% lower demand	2.3%	$42	2.4%	$40

Source: Hunter Water analysis

Note: We assume that we retain a water price of $4.40 per kL, and a wastewater usage price of $0.68 per kL ($2024-25) over the 2030-35 period. As such, price increases are passed through in fixed service charges. We also assume that deemed wastewater discharge volumes remain constant at 126 kL per year for a typical household.

As described earlier, 2030-35 base case bill increases assume no end-of period revenue true-ups. Given the material increase we forecast in the WACC over the upcoming pricing period, an end-of-period WACC true-up is an important sensitivity to note. Based on current forecasts of interest rate movements during the period, we could be compensated $76 million in the subsequent pricing period. Section 10.2.4 discusses WACC true-up methodology and important considerations about when this true-up should occur.

9.5 Affordability

We've analysed the impacts our proposed prices will have on our customers at a household level.

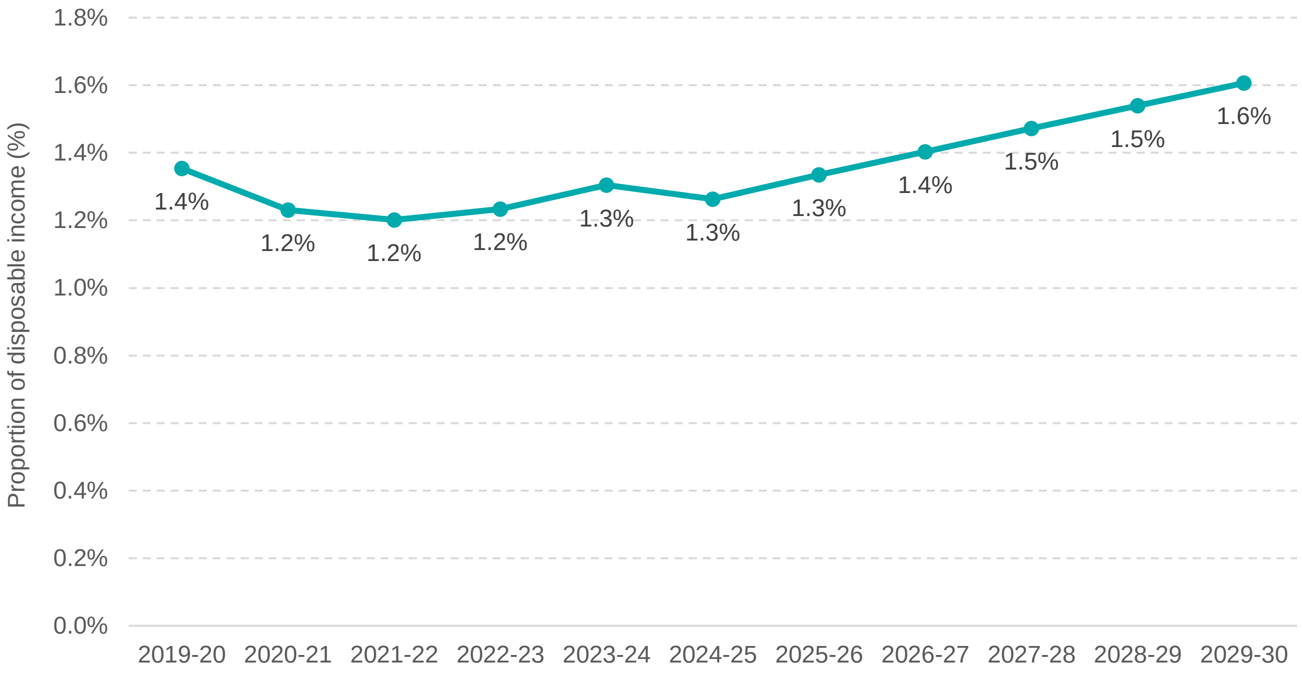
We've compared the total proposed household bill for water, wastewater and stormwater, to the mean disposable household income in New South Wales (outside of Greater Sydney). The Australia Bureau of Statistics (ABS) provides household disposable income data, with the last release from 2019-20.[1] We used real wages to forecast the change in wages since then, and to 2029-30.

Our proposed prices increase slightly more quickly than forecast wages growth. Therefore, the proportion of disposable income that typical households spend on their Hunter Water bill is forecast to steadily increase over the five years to 2030.

The average household will now spend about 1.6% of their disposable income on a typical bill, up from a low of 1.2% in the previous five-year period (see Figure 9.15). This remains below the United Nations' benchmark for affordable services in developed countries, which aligns with the UK's definition of water stress – when water and wastewater bills exceed 3% of household disposable income.

[1] Australian Bureau of Statics, 2022. Available at https://www.abs.gov.au/statistics/economy/finance/household-income-and-wealth-australia/latest-release#data-download. Note: a private consultancy was undertaken to attain disposable household income data at a 'rest of NSW' level.

Figure 9.15: Typical household bills as a proportion of average, disposable household income



Source: Hunter Water analysis based on data from the ABS, KPMG[1] and consumer price index forecasts provided by IPART.

Our analysis is based on the mean disposable household income and median water use in a stand-alone house in our service area. We were unable to obtain household disposable income at our preferred granularity of the Lower Hunter region, or finer, so we progressed our analysis using 'rest of NSW' data. The income data was also only available as a mean. We acknowledge that households below this mean income will be exposed to greater cost-of-living pressures and affordability challenges. An assessment at lower quintiles of income would provide a better understanding of the potential extent and distribution of affordability incomes across our area, enabling us to better target our customer support programs.

It's important to note that the type of affordability analysis that we have done is useful at a macro level to consider impacts on the entire customer base, but it is equally important to understand the outliers – such as those with lower-than-average incomes, or with fixed incomes – as well as qualitative assessments of individual households' ability to pay utility bills.

We've heard directly from our customers that they are feeling cost-of-living pressure (see Section 3.4). It's critical that we continue to provide support to customers struggling to pay their bill, now and into the future. In the next section we explain our approach to customer assistance, including expanding our programs given our proposed price increases.

[1] KPMG, 2024. Available at https://www.aer.gov.au/system/files/2024-04/AER%20-%20Final%20Decision%20-%20Power%20and%20Water%20Corporation%202024-29%20-%20KPMG%20-%20Wage%20price%20index%20forecasts%20-%20April%202024.pdf

9.6 Supporting our customers

9.6.1 We help customers struggling to pay their water bills

We recognise it is sometimes difficult for individual customers to find the money to cover all their household bills

These periods of financial pressure may be short- or long-term and usually cause considerable stress for both individuals and families.

We're committed to helping customers struggling to pay their water bills and ensuring everyone has access to affordable, safe water and wastewater services. Our customers, community and stakeholders agree this is important, as we heard throughout our pricing proposal engagement program.

We are recognised by our peers as providing leading assistance programs:

- We focus on debt prevention, rather than aged debt collection.
  - We do not take debt collection action for customers participating in our customer assistance programs. This has enabled us to keep complaints to the Energy and Water Ombudsman of NSW (EWON) in relation to aged debt, to two or less each year.
  - Our average aged debt per customer with debt is lower than the average for Australian water utilities and is the second lowest as a proportion of the average water and wastewater bill.
- We provide a helping hand, addressing customer debt with compassion and treating customers experiencing vulnerability with dignity.
  - In our 2023 customer vulnerability support research our provider interviewed 18 people who had participated in our financial support program. These customers were unable to suggest anything they thought would have improved their experience with Hunter Water. They were surprised and delighted by the service they received.
- We train all employees about the many triggers that impact a customer who is experiencing vulnerability, and water utility-specific triggers such as unexpected changes to the way we provide our services and bill shock.
- We provide innovative programs such as the buddy system whereby any employee can nominate to ride along with our customer assistance team on home visits, to gain insights and build empathy (see section 9.6.4).

We have undertaken research to gain a deeper understanding of the customer experience when receiving financial bill support from us. From these findings:

- Customers are complimentary about the empathy and kindness of staff, resulting in high levels of satisfaction with both the support received and the organisation in general.
- Customers feel like the support they receive is personalised to their circumstance, which is pleasantly surprising. It means customers do not feel embarrassed or ashamed to be placed in a wider group of customers experiencing financial hardship, which may result in social stigmas.
- The amount or type of support given is not what is most important to customers, instead it is the understanding, unjudgmental and empathetic response they receive from us.

> **I just really appreciate the way I was made to feel.**
>
> **I felt like a human who was just having a rough time and not like a terrible person begging for something.**
>
> **I cannot express how grateful I am.**
>
> Customer assistance program participant

Although we are proposing price increases, these will vary across our water, wastewater and stormwater services and affect customers differently depending on their circumstances. To give customers more control over their bills, we have proposed most of the increase on water usage charges, which make up the variable part of bills. We will implement these price increases gradually in five small steps instead of one large increase. This phased approach allows time for adjustment, though we understand some customers may find it challenging to pay.

Feedback from customers underscores the importance of supporting vulnerable customers. Over the last two years, 60-75% of surveyed customers want us to help customers who struggle to pay their water bills. More recently, it has been the number one community expectation with 75% of survey respondents expecting us to provide assistance.[1]

Our commitment to supporting vulnerable customers remains a cornerstone of our service. We will track the effectiveness of our support programs through performance measures to ensure we remain accountable to our customers. To achieve this, we're expanding the survey questions we ask as part of our regular customer experience monitoring program. You can see how we will keep ourselves accountable for delivering outcomes in Section 2.3.

Across the pricing period we will continue our focus on refining our programs to improve their reach and effectiveness. Our current programs and planned improvements are detailed in Sections 9.6.39.6.3 and 9.6.49.6.4.

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[1] Hunter Water Quarterly Community Survey, August 2022 to May 2024. Available at: https://www.hunterwater.com.au/haveyoursay/quarterly-community-survey

We will increase our customer assistance spend by almost a million dollars - about 25 per cent more - over the pricing period

We acknowledge that ongoing cost-of-living pressures, coupled with our proposed price increases, may increase demand for our customer assistance and other support. We be ramping up our assistance efforts accordingly with the proposes increased expenditure supporting the following activities:

- Enhancing how we proactively identify factors that could affect people experiencing
- Almost double the number of water audits to help find leaks and provide advice on ways to save water
- Additional outreach and other awareness raising activities

9.6.2 The number of customers needing support has increased

We have a relatively high proportion of customers who may need assistance

As discussed in Section 3.2.6, our community has a higher degree of relative socioeconomic disadvantage than Sydney and other metropolitan areas. With a higher proportion of low-income earners and higher proportion receiving some form of government benefits, our customers are particularly vulnerable to cost-of-living pressures.

In Section 3.1.6 we also described that our customers are finding it increasingly difficult to pay their bills. We are seeing increasing numbers of customers accessing our assistance programs. With our prices proposed to increase in the upcoming pricing period, it is crucial to have well-designed and well-targeted customer assistance programs. The number of customers and level of support we provide through our Payment Assistance Scheme is growing.

9.6.3 Providing a hand up rather than a handout

We offer a range of assistance measures

These measures help manage bill payment for customers, including tenants who pay for water usage, providing personalised support tailored to their individual circumstances (see Figure 9.16 and Figure 9.17).

We provide concessions to eligible pensioners and exempt properties (such as non-profit charities, retirement villages and nursing homes etc), in the form of rebates, as well as providing payment assistance to customers who are experiencing financial hardship.

These three forms of support are funded by the NSW Government, via payments known as Community Service Obligations, at a cost of around $21 million per year:

- Payment Assistance Scheme (PAS) provides a one-off credit to customers who are having difficulty paying the water bill. The Hunter Water team will offer the PAS payment as credit on the bill if the customer commits to a repayment arrangement, typically a fortnightly pre-paid plan that covers the outstanding amount and the upcoming bill. In this way, the PAS payment encourages positive behaviours that help address current and future affordability problems, ensuring early engagement with Hunter Water, and reducing the need for aged debt collection. It is available to owner occupier households and residential tenants. We recently expanded eligibility to include small business customers that experience financial hardship, such as cafés and hairdressers.
- Exempt rebates provide an 80 per cent reduction in water and wastewater service charges, and full exemption from stormwater (drainage) service charges, for properties that are owned and occupied by religious, charitable and public benevolent bodies. An exemption from water and sewer usage charges is also available for ‘eligible residents in high care facilities’ on quantities up to ‘approved allowances.’
- Pensioner rebates provide discounts to eligible pensioners on their water and wastewater charges. The rebate is available to residential owner occupiers that hold either a Pensioner Concession Card issued by Centrelink or a Department of Veteran's Affairs Gold Card. In 2024-25 the rebate is $380 per year for customers receiving both water and wastewater services from Hunter Water, and $190 per year for water-only customers. Around 47,000 of our 260,000 customers are eligible to receive a pensioner rebate. Historically this has grown by around 1.3 per cent, per year.
- We also provide the option to our customers to make smaller, regular payments through EasyPay to better help them manage payment of their water bill, paying instalments aligned with when they are paid (e.g. weekly, fortnightly or monthly). Payments are calculated based on the prior 12 months water usage, with customers receiving water usage statements every four months notifying them whether adjustments need to be made. Whilst this doesn’t change the total dollar amount across a full year, it does make it easier to pay when they have money and helps to avoid potential “bill shock” from our usual three times per year billing.

We understand that some of our customers have medical needs that require large amounts of water to be used at home, especially those who require haemodialysis machines. To help our home haemodialysis customers manage the financial burden, we provide a free water allowance of up to 250 kilolitres (kL) per annum, which is approximately up to 83kL per bill. Eligibility is assessed automatically in conjunction with our service partner, the Wansey Dialysis Centre.

Figure 9.16: Customer assistance case studies

Setting customers up for success

> You guys are life savers. That helped me a lot.

Customer situation

- Customer owed $320 on their bill and was unable to pay
- Seriously injured in car accident 3 years prior and purchased their home using the lump sump payout
- Not eligible for Centrelink support for at least a year, and therefore not eligible for pensioner rebate on bill
- Very stressed, having already requested payment extensions
- New opportunity for employment soon through an acquaintence

Our response

- Immediate bill stress relief provided using Payment Assistance credit
- Set up Easy Pay option to pay more manageably by installments once employed again

Value for money, and affordable

Anticipating customer needs

Customer situation

- Customer owed $4,000 on their bill and was unable to pay. They suspected that the high bill was due to an undetected water leak on their property.
- Customer suffered from a brain injury and was being supported by a social worker
- Having attended an outreach event, they reached out to us to understand whether they were eligible for a rebate, and if so, how to apply.

Our response

- Immediate support provided to help fill in an online form on our website to apply for an undetect leak rebate
- Customer was made aware that payment assistance was also available, if required, once the leak was fixed

> I felt like I was receiving VIP treatment

Value for money, and affordable

Figure 9.17: Our customer assistance programs

Easy Pay
Make your bills more manageable with smaller regular payments such as weekly, fortnightly or monthly.

CentrePay
A voluntary bill paying service which is free for Centrelink customers. You can use Centrepay to arrange regular deductions from your Centrelink payment.

Payment extension
If you need more time to pay your bill, we can extend the date your bill is due to be paid.

Pensioner rebates
Customers can apply for discounts on their bills if they own and occupy property and hold either a Pensioner Concession Card or Department of Veteran's Affairs Gold Card.

Medical concessions
We understand that haemodialysis patients need to use large amounts of water at home. We provide a free water allowance of up to 250 kilolitres (kL) per year.

Help fixing plumbing problems
We may be able to assist if yoou own and accupy your home and are unable to afford essential plumbing repairs.

Community Days
We attend various local events, such as:

- Seniors Expo
- Hunter Homeless Connect
- Bring Your Bills Day
- Social Housing Outreach Day
- Disability Expo

Proactive engagement with customers at risk of experiencing vulnerability

We partner with local service providers and offer referrals to support services as part of our approach. We partner with three to seven community agencies in each local government area (e.g. neighbourhood centres, community services, Wesley Mission and Northern Settlement Services. That's a total of 14 locally specific services and three area-wide (St Vincent de Paul, Salvation Army and Samaritans). Our referrals include 12 services such as Moneycare Newcastle, Cancer Council, NILS (No Interest Loan Scheme) and Hunter Tenants; Advice and Advocacy Service.[1]

By attending events across the Lower Hunter, we ensure customers know assistance is available, especially in the current context of ongoing cost-of-living pressures when many are facing financial challenges for the first time and may be unfamiliar with how to get help, see Figure 9.18.

Figure 9.18: Outreach and awareness-raising case studies

Hunter Disability Expo and tap grip launch

We are still overwhelmed by your amazing generosity. We never expected such a wonderful gesture, and we are both truly grateful. Thank you.

In May 2024, our customer assistance team attended the Hunter Disability Expo. The team were overwhelmed with the number of customers in need of support.

Across the two days we provided a record amount of $8,000 in payment assistance (account credits), as well as pension rebates and Easy Pay plans. We are also helping with water audits to be conducted to identify potential leaks at properties.

From our attendance at previous events, an employee identified that customers with a disability, aged customers, those with hand weakness or poor grip (e.g. arthritis sufferers) can sometimes be unable to turn a tap off properly. This can increase a customer's water usage and therefore lead to a higher bill. We can now offer a durable, BPA-free silicone disc Tap Grip tthat provides a non-slip surface to help grip the tap spindle.

Value for money, and affordable

[1] A full list of our partners and referrals is provided on our website. [Payment Assistance Scheme - Hunter Water]

Home visits with buddy system

Our customer assistance team conduct home visits to proactively engage with customers who may be experiencing financial vulnerability but are not engaging with us (about 20 per week). We do this to understand their situation and assess what support options would work best (one size does not fit all).

One visit can result in connecting someone to the right support they need and helping a customer that may be too embarrassed to discuss their situation with us.

To drive empathy, customer centricity and increase safety, we put the call out across the organisation for staff to ride along and create a 'customer support buddy program'. Staff get involved to:

- Gain real insights into how we are supporting our customers directly
- Observe how we engage and manage these conversations with our customers
- Be part of our support to some of our most vulnerable customers
- Support our customer assistance team and share learnings

Our buddy program has been so successful it is typically booked-out by staff 6 to 9 months in advance!

> I had such a rewarding day doing this, to experience an aspect of our business that I wouldn't have seen. Such important work this team does and so much learning and empathy to take back into my role.

Value for money, and affordable

9.6.4 We are continuously improving our assistance programs

We've undertaken research to help us to better understand our customer's experiences when they are accessing support. Key findings were:

- people experience vulnerability in **different** ways
- addressing vulnerability can be **emotionally** fraught
- we can improve **empathy** in our frontline and help earlier
- experiences with other utilities, shape expectations of <u>every next</u> interaction with a utility provider

This insight has guided improvements in three key areas (Figure 9.19).

Figure 9.19: Improving our assistance programs

Enhancing how we proactively identify factors that could affect people experiencing vulnerability

Improving communication to the community to increase awareness of our assistance options

Upskilling staff across all touchpoints to reinforce our reputation as the ‘approachable utility provider’

We’ve improved our proactive identification of vulnerable customers

This has involved:

- Strengthening our partnerships with local agencies, specialised services, and financial counsellors to connect customers with appropriate support.
- Offering *Easy Pay* bill options to help smooth bills and make payments more manageable, resulting in increased adoption.
- Initiating early interventions in the case of high water consumption meter reads to detect leaks early and minimise customer bills.
- Engaging in community events to expand outreach and awareness of our support services.

We have upskilled our staff

Recognising that effective support and compassion extends beyond frontline staff, we have:

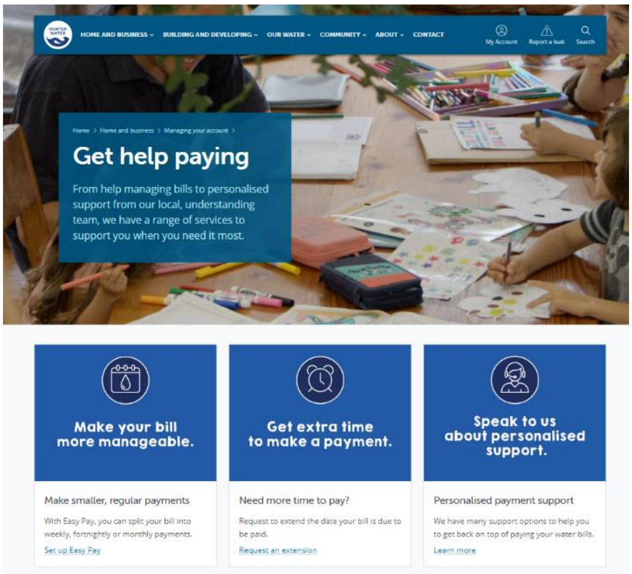
- Provided refresher training for contact centre employees about recognising customer vulnerability indicators and actions to compassionately escalate so that assistance is offered.
- Implemented mandatory vulnerability training for all employees to improve their ability to identify and assist vulnerable customers.
- Introduced the 'buddy program' we described earlier.

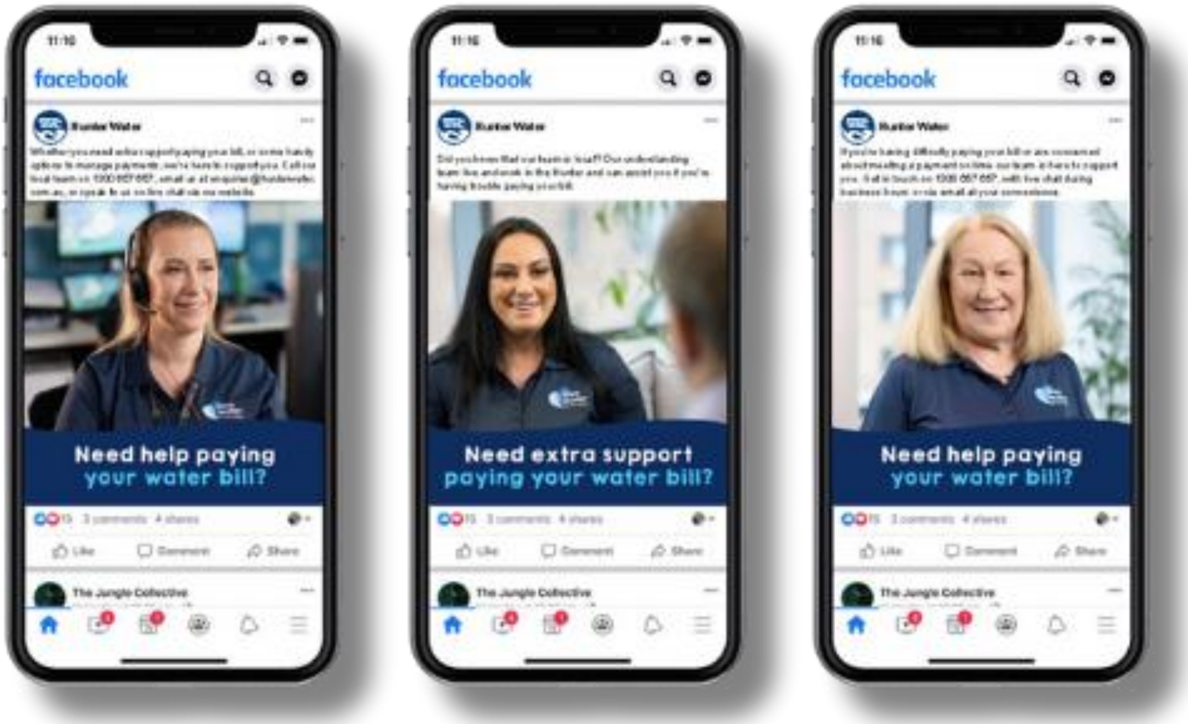
Better communication to raise awareness and improve accessibility

We've conducted targeted qualitative research to better grasp customer needs. This has informed our multi-channel *Supporting You* campaign that raises awareness of support options.

We have also:

- collaborated with service providers to create easy-to-understand documents for our most common enquiries
- reviewed our website structure and content related to payments, billing and accounts to improve overall usability and help customers to get support.





Attachments related to this chapter

Attachment J – Bill impacts for non-residential customer archetypes

PART FOUR: Credibility

10 Regulatory settings

Key points

- We support the default five-year determination period.
- Over the pricing period, there is a risk that:
    - we over- or under-recover target revenues, meaning that customers have over- or under-paid relative to the efficient cost of providing services
    - we face significant additional costs, not included in the target revenues, that may impact our financial sustainability.
- The main source of revenue risk is from deviations between actual and forecast water demand, due to variations in weather (drought and non-drought) and other factors described in Chapter 7.
    - Our proposal to increase the water usage charge at a faster rate than the water service charge will increase this risk. However, we still consider it an appropriate response to customer preferences and our water security challenges, and manageable through conventional regulatory approaches.
- The main sources of cost risk are:
    - An increasingly variable climate, including more severe weather events such as extended drought and higher intensity wet weather events.
    - Financing costs as our actual cost of debt during the pricing period may differ from that assumed in the WACC when setting prices at the start of the pricing period.
- We propose retaining the current price-cap form of price control. This approach is more straightforward and transparent for customers. We would bear more of the demand-related revenue risk than our customers, which we think is both appropriate and manageable.
- We propose retaining the existing mechanisms we have for managing risk:
    - An end-of-period DVAM with a 5 per cent materiality threshold.
    - A drought water usage price that is triggered in periods of low water storage.
    - A WACC cost of debt true-up. We generally prefer an end-of-period true-up to annual true-up's, however, the decision should be based on Hunter Water's financeability outlook is more certain, when IPART's makes its draft determination. There may be merit in a mid-pricing period cost of debt true-up that is only triggered if a pre-set materiality threshold is met.
- These mechanisms appropriately distribute risk between us and customers. We propose end-of-period adjustments where we can bear the short-term financeability implications. This means we can keep prices and bills predictable within the pricing period.

10.1 We propose a five-year pricing period

We propose to adopt IPART's default pricing period of five years (2025 to 2030). We consider that our pricing proposal provides sufficient certainty and confidence in our forecasts to robustly set efficient prices for this period.

We include forecasts of indicative prices for the subsequent 2030-35 pricing period, however, the assumptions underpinning these forecasts are less certain than in the upcoming pricing period.

10.2 Managing revenue risks

Our proposed water pricing structure and regulatory settings include:

- set annual water prices that include relatively high usage charges and low fixed service charges,
- an end-of-period DVAM
- a drought water usage price that is triggered in periods of low water storage.

Our water prices reflect customer's preference for greater control over their bill. It also incentivises efficient usage, signalling that water is precious, given the water security challenges we face. As shown in Figure 10.1, this results in a high variable component of target revenues and increases the risk of over or under-recovery of revenues with variation in actual demand.

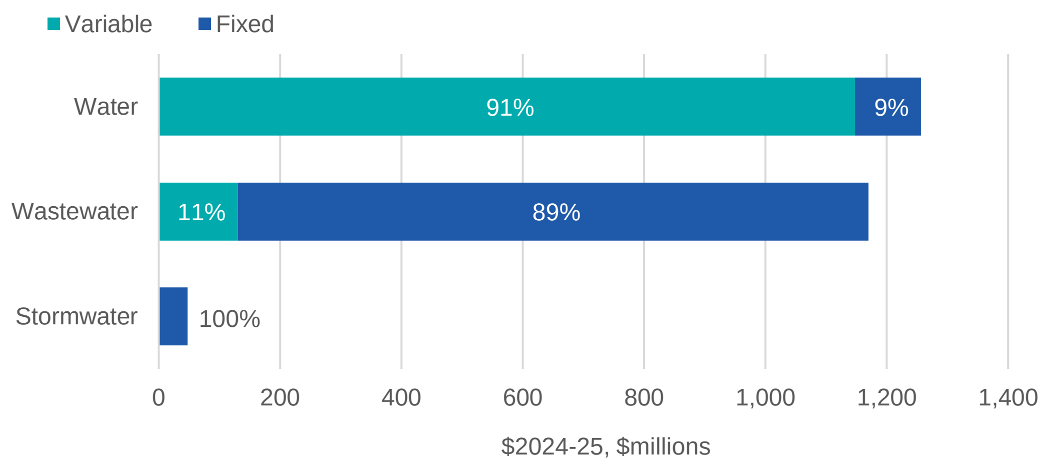
We propose an end-of-period DVAM and drought water usage price to address this risk. This reduces volumetric risk for us and our customers in periods of non-drought, while protecting us in periods of drought when actual water demand is restricted.

Our proposed wastewater pricing structure includes set annual wastewater prices that include high fixed service charges and low usage charges.

Our proposed stormwater pricing structure includes set annual fixed service charges.

The highly fixed nature of wastewater and stormwater target revenues, as seen Figure 10.1, mean that revenue-risk is low for these products.

Figure 10.1 Target sales revenue, upcoming pricing period, total ($2024-25, $million)



Source: Hunter Water analysis

10.2.1 We propose retaining the current price-cap approach to set prices

IPART has traditionally set maximum usage and service charges for each year of the pricing period, allowing for annual CPI pass-through. Widely known as a 'price-cap' form of price control, this approach provides predictable prices for customers but exposes us to annual variability in water revenues as weather conditions impact water use. Prices do not perfectly recover target revenues during a pricing period in the case where actual water demand differs to forecast.

IPART's recent review of the regulatory framework examined the merits of different forms of price control. The 2023 handbook outlines the expectation that businesses will propose the form of price control that is supported by and aligns with the long-term interests of customers.[1]

An alternative form of price control is a 'revenue-cap.' Under this approach, we would receive our target revenues over the pricing period, regardless of the volume of services provided. Compared to a price-cap, volume-related risk is typically transferred to customers through annual price increases or decreases throughout the pricing period. The size of price changes can be limited through rules such as materiality thresholds, collars and caps.

We propose to maintain the current price-cap approach in the upcoming pricing period.

The price-cap approach:

- Is relatively straightforward to implement and to understand for our customers. Our customers have told us that they value transparency and predictability in price movements within the pricing period.[2]

  A revenue-cap approach can introduce the use of complex formulae to calculate year on year price adjustments. This reduces transparency as to how our prices have been calculated and why movements occur. This also increases administrative complexity.

- Allows us to implement a tariff structure that is preferred by our customers and encourages efficient consumption (by being set with reference to the LRMC of water).

  Our customers have told us that they prefer to be able to influence their bill through their actions and behaviours. As previously discussed, we have reflected this in proposed price structures through relatively higher water usage charges and lower water service charges (see Chapter 8).

  A revenue-cap approach would require yearly adjustments to either the fixed service or variable usage price. This could decrease our ability to maintain this preferred price structure or preserve efficient price signals, depending on how adjustments are implemented.

- Our customers have told us that they prefer smaller incremental increases in prices, rather than larger one-off increases.[3] A price-cap allows us to control the level of increase in price year to year. A revenue-cap approach could lead to volatility in price levels in response to yearly demand variances.

- Shares demand risk more equitably between us and our customers. A simple revenue-cap approach can transfer demand risk to customers.

We undertook financial credit metric analysis to assess the financial risk of a price-cap approach over the five-year pricing proposal period. Outcomes of this analysis indicate that, combined with the support of the drought water usage price during periods of drought, financial risk is manageable over the short to medium term. The continuation of IPART's DVAM helps reduce financial risks in the medium to long term.

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[1] IPART, 2023, Water Regulation Handbook

[2] Insync, June 2024, Tariff design research, for Hunter Water, pages 18 to 20. Available under Stage 4 – confirm and validate at: https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal

[3] The reasons for preferring a phased approach included avoiding price shocks, being sympathetic to cost-of-living pressures, impacts on the financially vulnerable, and for non-residential customers, lower pressure to pass increased water costs on to their customers with higher prices. The main reason for preferring a larger one-of increase was predictability in price movements, which is mentioned under the first bullet point above.

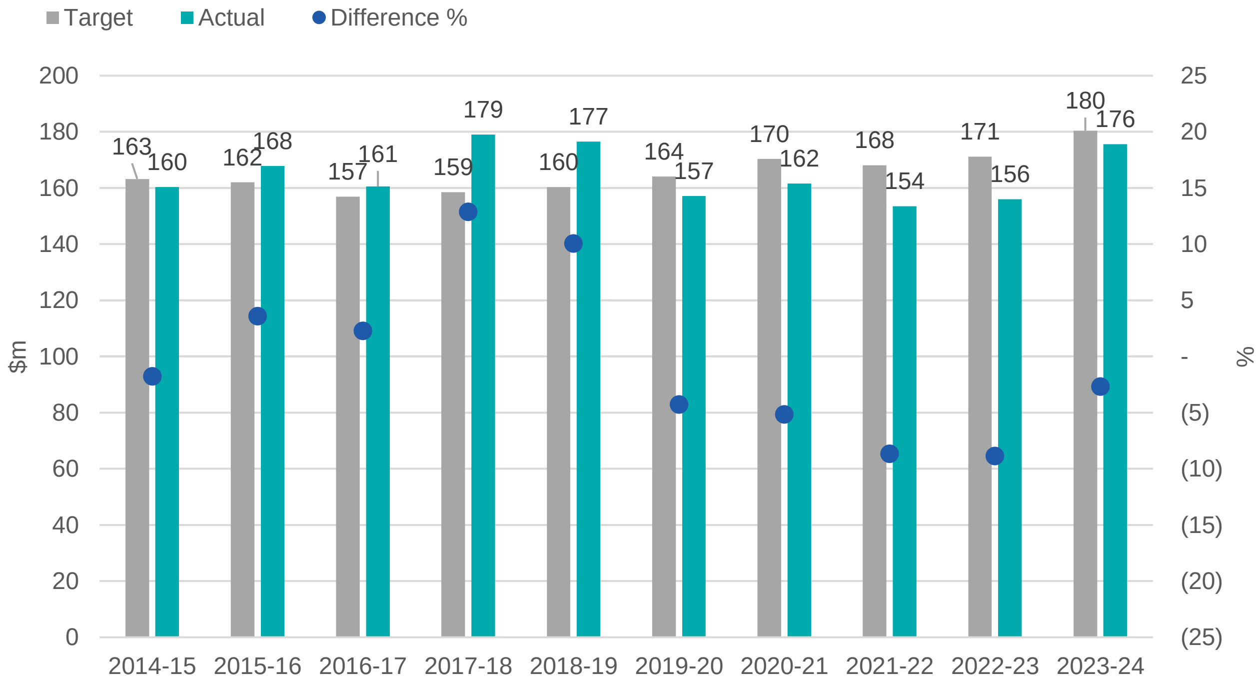
10.2.2 Retaining the end-of-period DVAM with 5 per cent materiality threshold.

In Chapter 7 we explain the importance of our demand forecast in price-setting, the care we take in making forecasts and the reasons why actual demand may deviate from our forecast. Demand forecasting risk, where actual customer demand during a pricing period differs materially from forecasts, is one of the biggest financial risks faced by water businesses with a high proportion of variable charges.

To safeguard our financial health in the event of a sustained and severe reduction in water sales, IPART currently applies a DVAM.[1] Under the DVAM, combined water sales variances across the pricing period, above or below a 5 per cent materiality threshold, are recovered or paid back in the following period.

Figure 10.2 provides history of actual water sales compared to IPART's target allowances. We enjoyed strong sales revenue in 2017-18 and 2018-19 as relatively dry and hot conditions leading into the drought pushed water use higher. Water restrictions in 2019-20 and multiple La Nina years have resulted in low water revenues over the last five years. The comparison shows we have both overestimated and underestimated water demand in recent years. Deviation from forecast is mainly driven by climatic conditions.

Figure 10.2 History of actual water sales compared with IPART target ($2024-25, $million)



Source: Hunter Water analysis

Note: Target water sales have been converted to $nominal using the IPART pricing index, prior to being inflated to $2024-25 using June CPI. This replicates the application of inflation to prices in actual water sales.

[1] IPART, 2020, Review of prices for Hunter Water Corporation – Final Report, p.31.

We considered removing the 5 per cent materiality threshold so that all variance to water sales would be recovered or paid back in the following period. We tested this method on water sales variances in the current pricing period. Where the 5 per-cent threshold resulted in an estimated revenue adjustment of $5.8 million for the upcoming pricing period (see Chapter 6), removing the threshold would result in a large revenue adjustment of $52.6 million.

While we have previously commented that the 5 per cent level is somewhat arbitrary, lacking an empirical basis, it is appropriate for water businesses to face some level of revenue risk. This encourages accurate forecasting and reflects the sales risk that businesses operating in competitive markets typically face.

The DVAM, with a 5 per cent materiality threshold, achieves the intended purpose of safeguarding our financial health, ensuring revenues are not unreasonably over-recovered from customers, and avoids excessive revenue adjustments in the following period that may occur with no threshold.

At the time of our next price review, we would use IPART's DVAM calculator to determine an appropriate demand volatility adjustment. This would be applied as a revenue adjustment in the following pricing period (2030-35) and smoothed over prices within that period.

10.2.3 We propose a drought water usage price under cost pass-through arrangements

A cost pass-through arrangement allows a business to automatically pass costs of an uncontrollable, material event within a pricing period, through to customers. IPART has established principles for considering cost pass-through arrangements. There must be a defined trigger event, a reliable forecast of efficient costs, and the cost must be material. The cost pass-through must result in customer prices that better reflect the efficient cost of the service.

IPART's 2020 Determination accepted our proposed drought water usage price. This cost pass-through arrangement allows the recovery of lower revenues due to water restrictions and various drought-related operating costs.

We propose to continue the drought water usage price. Drought, and in particular, water restrictions, is a special case in which our financial risk is heightened:

- Our operating costs are higher during drought – we need to administer drought restrictions, operate more expensive water sources and some of our other infrastructure needs additional reactive maintenance (e.g. tree roots seeking water can cause more sewer main breaks).
- Our revenues are also lower – customers must comply with mandatory restrictions on how and when they can use water, which means our revenues from water usage charges will be lower.

A drought water usage price based on additional costs incurred is a modest, efficient cost-pass through mechanism protecting against a foreseeable, but relatively unlikely event. Table 10.1 demonstrates the suitability of the proposed drought water usage price against IPART's cost pass-through arrangement principles.

We recognise the drought water usage price does however give rise to additional equity considerations.[1] We think the equity issues are best managed through well-targeted assistance programs, including additional awareness-raising for customers experiencing temporary financial vulnerability.

[1] As an example, a large household in a rental property that is already water efficient on a per person basis may not have the same opportunities to adjust their water use behaviours or install water efficient fittings, as a smaller household in an owner-occupied dwelling with a lower water usage per household but higher use per person.

Table 10.1 Drought water usage price and IPART's cost pass-through principles

	Principles	Drought water usage price
01	There is a trigger event to activate the cost pass-through, which can be clearly defined and identified in the price determination.	The drought water usage price is implemented under clearly defined water storage levels. See Chapter 8 for details. The 2020 price determination defines application of the trigger event in relation to 'Drought Response Days'.
02	The resulting efficient forecast cost associated with the trigger event can be fully assessed, including whether there are other factors that fully or partially offset the direct cost of the event.	Our Drought Management Plan has a clear list of activities for implementation under water restrictions. Forecast efficient costs have been developed against these actions by water restriction level, where possible cross-referencing actual costs experienced in the recent 2019-20 drought. An offsetting adjustment is made for lower water supply costs during restrictions. Lost revenue is forecast based on expected demand reductions under pre-defined restriction levels.
03	The resulting cost is assessed to exceed a materiality threshold. It must also represent a material risk for customers in the absence of a pass-through.	Incremental operating costs in drought are forecast at $8.6 million per year over the full drought sequence. Offsetting this is a small saving of $0.4m per year associated with lower water demand. Expected lost revenue scenario is about $14.0 million per year over the full drought sequence.
04	The regulated business demonstrates that a cost pass-through is the most efficient and equitable way to deal with the event.	Drought is a foreseeable, but uncontrollable and unlikely event. Since it is not 'p50', our most likely estimate of costs, it is more equitable to only pass on the drought costs/lost revenue if it eventuates. Recovery via the base price risks over-recovery. Recovering drought costs via a cost pass-through arrangement allows the base potable water usage charge to be set at an efficient level, with reference to the LRMC of water supply under average climatic conditions.
05	If the mechanism is triggered, there is a symmetric treatment of any over- or under-recovery of actual costs, relative to the efficient forecast cost included in the cost pass-through.	The mechanism is symmetrical but does not adjust for under- or over- recovery of actual costs and lost revenues relative to those built into the drought water usage price. IPART may choose to contemplate an end-of-period true-up if the drought usage price is triggered and has materially under- or over-recovered cost and revenue from customers.
06	The cost pass-through will result in customer prices that better reflect the efficient cost of service.	When implemented, a drought water usage price: • provides a signal to our customers of the increased value of water when water storage levels are low • allows customers to retain choice in how/when water is used • better reflects the efficient costs being incurred at the time than the base potable water usage price.

Source:
Principles: IPART, 2023, Water Regulation Handbook, page 56.
Drought water usage price: Hunter Water analysis

10.2.4 The WACC cost of debt true-up approach for the upcoming pricing period should depend on our financeability outlook

The cost of debt true-up is a tool to help manage our refinancing risk

IPART's WACC method includes a trailing average cost of debt. Each year, new tranches of debt are introduced while the oldest tranches drop out. This results in a change in the calculated WACC from year to year. To lessen refinancing risk, our current approach to debt management is to aim to refinance our debt portfolio to align with the trailing average approach.

IPART sets the WACC at the start of the pricing period and then decides whether to 'true-up' the cost of debt on an annual basis, or at the end of the pricing period (i.e. to adjust revenues in the following pricing period). All remaining components of the WACC, including the cost of equity and inflation, remain unchanged across the pricing period.

We forecast the cost of debt will rise materially

We are assuming a rising cost of debt across the five-year pricing period as new debt tranches replace the oldest tranches within the trailing averages. Some of the older tranches were at historically low levels. Based on this analysis, we forecast the WACC will increase from 3.6 per cent to 4.4 per cent across the period.

This assumed rising cost of debt, along with the uncertain economic environment and the longer pricing period of five years, increases our refinancing risk and may threaten our financeability.

In Section 9.4, we presented analysis showing the potential materiality of this increasing cost of debt on a WACC true-up. The true-up could be around $76 million for the upcoming pricing period. If applied as an end of period adjustment, this would have a material impact on customer bills in the 2030 to 2035 pricing period.

There are several factors to balance in proposing when to apply the WACC cost of debt true-up

We consider the annual true-up option the most financially responsible, as it ensures we are fairly compensated for changes in our cost of debt in a timely manner.

However, this option needs to be balanced against other factors:

- Providing predictable and stable prices for customers over the pricing period. An end-of-period true-up avoids annual volatility and means pricing impacts are smoothed over the following pricing period.
- Customer bill impacts and affordability. We are proposing material annual bill increases for 2025-30. With a rising cost of debt, an annual or other within-period WACC cost of debt true-up would further increase bills within the period. It may be more suitable to have an end-of-period true-up, given we forecast smaller annual increases in our long-term bill impact forecast for 2030-35.
- Simplicity for our customers to understand, and for Hunter Water to implement.

Given these factors, an annual or within period true-up would only be justifiable if it was critical to ensure Hunter Water's financial health throughout the pricing period.

Based on current estimates, we are financially resilient to rising cost of debt

In Chapter 6, we showed our financeability tests are in relatively sound position based on this pricing proposal. We estimate our financial health is resilient to a rising cost of debt across the upcoming pricing period.

However, these metrics can rapidly change depending on macroeconomic conditions.

They will also depend heavily on the final determination outcomes of IPART's pricing review. This includes the setting of the initial WACC (e.g. if it is less than the 3.6 per cent we have forecast in our proposal), other revenue decisions made by IPART, and how much the cost of debt increases during the upcoming pricing period.

The most suitable approach for the WACC cost of debt true-up depends on our financeability outlook that is based on IPART's final decisions

Deciding whether an annual or end-of-period WACC true-up approach is most suitable depends partly on how resilient Hunter Water's financeability and credit metrics are.

Therefore, we welcome the opportunity to work with IPART in the lead up to, and following release of their draft decisions, to determine an equitable and balanced option for the timing and design of a WACC true-up. This would be based on Hunter Water's estimated financeability at that time.

A mid-period true-up may suitably balance various factors

In the price review process, we ask IPART and stakeholders to consider a further true-up option – a mid-pricing period cost of debt true-up that is only triggered if a pre-set materiality threshold is met.

For example, ahead of year four of the pricing period, the materiality of cumulative foregone/over-recovered revenue to that point could be tested using IPART's WACC true-up calculator and, if material, applied as a smoothed true-up to the final two years of prices.

An end of period true-up would still be required, however, it can be adjusted to accommodate the outcome of the mid-period true-up. If the materiality threshold was not reached by the mid-period checkpoint, an end-of-period true-up would be applied instead.

This approach has merit for three reasons:

- If the materiality threshold is not met, it provides the pricing certainty, stability and simplicity associated with the end-of-period true-up option.
- If the materiality threshold is met:
  - In the case of a rising cost of debt, it protects Hunter Water's financial health and credit metrics. The move from a four to a five-year pricing period increases financeability risk related to changing cost of debt during the pricing period.
  - In the case of a falling cost of debt, benefits are passed on earlier to customers through lower prices, rather than waiting until the following pricing period. Note: we forecast a rising cost of debt and see this as highly unlikely to be relevant for the upcoming pricing period.
- If the cost of debt increases or reduces markedly throughout a pricing period, applying a true-up mid-period may reduce the size of the required end-of-period true-up.

Since we are proposing greater annual price increases in the 2025-30 pricing period than we forecast for the 2030-35 period, a mid-period true-up is only justifiable if the change in cost-of-debt is material enough to threaten Hunter Water's financeability. Hunter Water's financeability outlook will be clearer in early 2025 following IPART's draft decisions.

10.2.5 Management of uncertain projects and events

It is inevitable that our operating environment will change during the upcoming pricing period. This could result in unforeseen events that increase costs, and opportunities to reduce costs. We have proposed efficient expenditure targets based on a forecast operating environment in average climatic conditions.

As explained in Chapters 3, 4 and 5, we have prioritised expenditure and taken on additional business risk to keep bills as low as possible for customers.

Throughout the pricing period, where possible we will manage unforeseen costs and events within our expenditure targets. We will reprioritise projects and consider cost increases in line with the following questions in IPART's 2023 handbook: [1]

- Can we offset cost increases through other cost reductions or additional revenues?
- Can we re-prioritise other projects without sacrificing customer outcomes?
- Will incurring the costs today deliver better long-term customer outcomes?
- Can we absorb the costs while maintaining long-term profitability and financeability?

We acknowledge the suite of tools and process available by IPART in their 2023 Water Regulation Handbook should material changes in our revenue needs occur.

[1] IPART, 2023, Water Regulation Handbook, pg. 57.

11 3C's grading

Advanced

11.1 Our Board shaped this proposal

The Board consider the proposal is in customer's best long-term interests and are committed to delivering on the proposed outcomes. The Board has played an active role in developing the proposal, governing and assuring the process, and has made all key decisions, in accordance with our Board attestation framework.

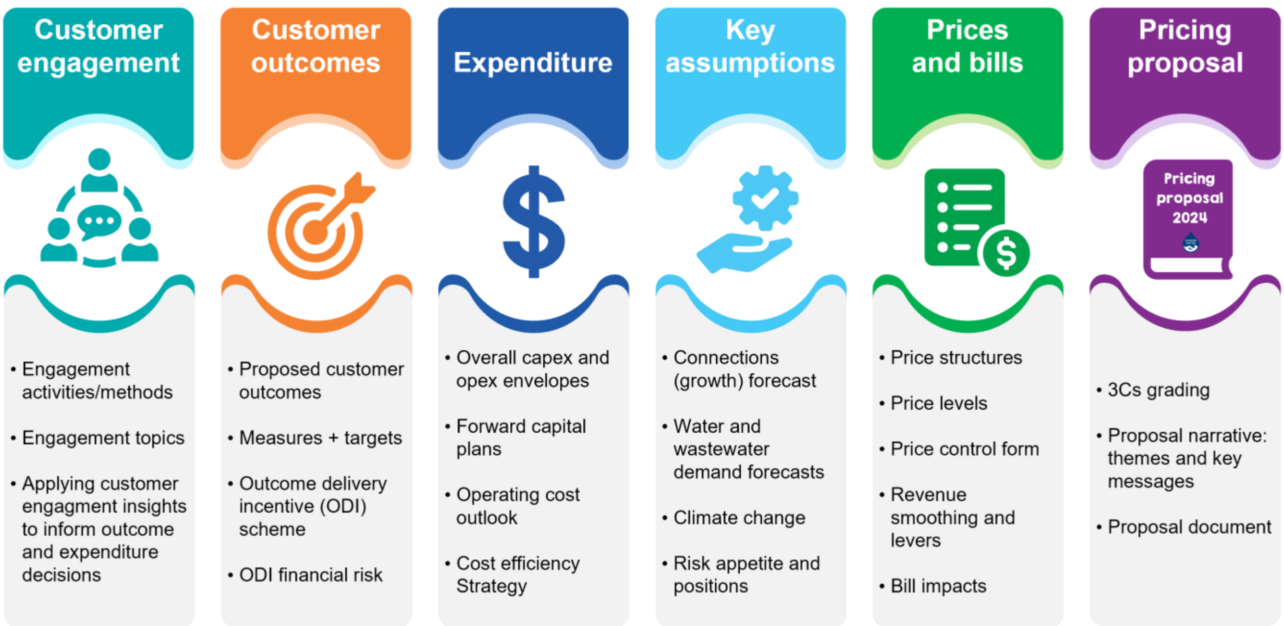
Board involvement has included:

- Reviewing and discussing over 50 papers related to IPART's new regulatory framework and this pricing proposal.
- Listening to our customers and community's desire to keep bills affordable, make targeted improvements, and ensure our proposal best promotes customer long-term interests.
- Dedicating full-day sessions to prioritise investments and strike the right balance between risks, long-term service performance, and affordability.
- Attending and observing over 90 hours of community workshops, focus groups, and deliberative forums with the Community Panel.
- Making key decisions related to customer affordability and bill impacts, investments and expenditure, risk and outcomes, cost efficiency, community engagement, and pricing structures.

Figure 11.1 summarises the key pricing proposal decisions made by the Board.

Our Board has signed the attestation indicating they endorse the proposal, and that the proposal: promotes long-term customer interests, reflects our best customer value proposition consistent with our customer engagement, delivers lowest sustainable costs consistent with our efficiency strategy, and is based on our best available financial and operational information.

Figure 11.1 Key decisions made by the Board

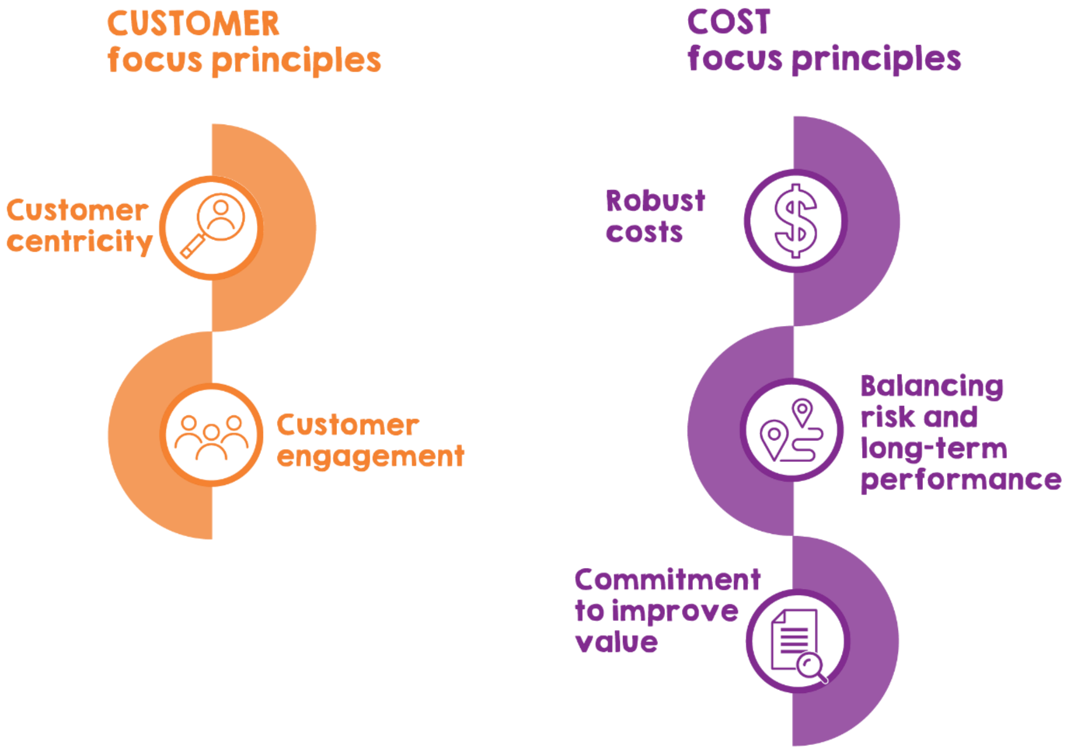


11.2 Our self-assessed grading

Hunter Water has self-assessed our pricing proposal as **advanced.**

We have struck the right balance of value for customers in terms of 'what they get' and 'what they pay'.

We have focused our pricing proposal on the five principles we think reflect the most important current priorities for our customers: two customer principles and three cost principles.



Our choice of focus principles has been informed by a strong understanding of our customers – gained from our ongoing customer and community engagement and that undertaken for this pricing proposal. This is further explained in Section 1.4.

To determine our grade, we undertook a comprehensive process including establishing a self-assessment framework and ensuring a consistent approach across different elements of our proposal.

While not a specific requirement of IPART's Water Regulation Handbook, we self-assessed ourselves across each principle in the 3Cs framework. This helped inform our overall grade and provides transparency to IPART and other stakeholders about how we have arrived at this grading.

We placed greater emphasis on our focus principles in determining the overall self-assessed grade for our proposal.

Our self-assessment is shown in Table 11.1. In the following section we summarise why we believe our proposal is advanced. We engaged Frontier Economics to peer review our assessment.

In Attachment L, we provide additional detail to support our self-assessment.

Table 11.1 Self-assessment of each 3Cs principle and overall quality and ambition

3Cs Element	Principle	Self-rating
Customer	**1. Customer centricity**	**Advanced**[1]
	2. Customer engagement	**Advanced**[1]
	3. Customer outcomes	Advanced
	4. Community	Advanced
	5. Environment	Standard
	6. Choice of services	Standard
Cost	**7. Robust costs**	**Advanced**[1]
	8. Balance risk and long-term performance	**Advanced**[1]
	9. Commitment to improve value	**Advanced**[1]
	10. Equitable and efficient cost recovery	Advanced
Credibility	11. Delivering	Not applicable[2]
	12. Continual improvement	Not applicable[2]
Overall		**Advanced**

Notes:

1. **Bold** denotes focus principles.
2. IPART has the same requirements at all levels for the two Credibility principles, therefore no grade is applicable.

11.3 Customer principles

11.3.1 Customer centricity - Advanced

We have made good progress towards becoming a customer centric organisation, where customers and the community are at the heart of all we do.

We have implemented a deep and robust customer engagement strategy that has provided customers with a high degree of influence over key topics most important to them. We have aligned our engagement processes with best practice and gained customer insights through a diverse range of methods. We used these insights to develop customer outcomes and embedded these directly into our corporate strategy to support accountability.

Our customer experience strategy is guiding us in developing more customer-centric processes that make it easy for customers to interact with us – including better accessibility – and demonstrate respect for them and their time. We have empathetic and effective support programs for customers experiencing vulnerability.

We recognise that more can be done with digital technology to provide better experience for customers.

11.3.2 Customer engagement - Advanced

We are regularly engaging with our customers and community to understand their needs and preferences and adapting our plans and expenditures to reflect them. We let customers set the engagement agenda, engaged deeply, without bias, and 'Collaborated' with customers on the issues that mattered most to them. Early and throughout the process, we were transparent with customers about the expected unavoidable baseline bill impact, and the implications of their choices. Our engagement process and methods for this pricing proposal are aligned with best practice.

We will work to improve how effectively we reach and are able to engage with Traditional Custodians, younger members of our community, and our non-residential customers.

11.3.3 Customer outcomes - Advanced

We have developed outcomes and associated performance measures and targets. Our outcomes are shaped by the insights we have gained through listening to customers since 2018. We have continued to refine the outcomes throughout development of our pricing proposal based on what we have heard, and tested/confirmed them with our Community Panel.

Our proposed expenditure, projects and service levels have been aligned to the outcomes. Through listening to our customers preference to keep bills as low as possible, we are targeting improvements only in the areas they considered to be most important.

Mechanisms including a customer report card and ongoing Community Committee will ensure we are held accountable to delivering on our outcome commitments during the upcoming pricing period.

We have made some progress towards outcome delivery incentives, and welcome the opportunity to work with IPART, other water utilities and other stakeholders on implementation challenges and collaborative benefit valuation opportunities during the upcoming pricing period.

11.3.4 Community - Advanced

Hunter Water has a long history of strong links to its broader community. We partner with a variety of local groups and stakeholders, and provide a range of financial and other forms of community support such as sponsorships, partnerships, grants, and education programs.

Engagement with, and understanding of, the broader community has been integral to the development of our pricing proposal. One of our outcomes is to be community-focused which involves listening and learning with our community, and contributing to the community.

We tested our customer's willingness to pay to deliver other broader community benefits, such as improved amenity of stormwater channels and greener spaces through providing recycled water. There was little support to invest in these initiatives in the upcoming pricing period. The community value reflected in our outcomes, measures and targets reflects the balance agreed with our customers and the broader community, including the preference to keep bills as low as possible.

Hunter Water is continuing to build and deepen its relationship with Traditional Custodians of the land and water, including with support from Aboriginal and Torres Strait Islander communities. This will take time, and we expect that this will continue to develop over the upcoming pricing period.

11.3.5 Environment - Standard

Our pricing proposal builds on our strong track record of ensuring compliance with all applicable environmental standards and meeting our community's expectations about sustainability.

Our Sustainability Strategy ensures that environmentally sustainable considerations are embedded in our decision-making across our planning, capital works, procurement and operational practices. We will also continue to manage our environmental risks and meet our regulatory obligations through the framework of our Environmental Management Plan.

Hunter Water is undertaking a proactive approach to climate change adaptation. We've developed a climate change adaptation plan to build resilience and adaptive capabilities to respond to the risks presented by climate change. We'll also continue to screen for climate impacts as part of our business case process, with a view to further improving our approach to adaptation in the future.

We engaged deeply with our customers to inform our approach to climate change mitigation as part of our proposal. We will reduce operational emissions by 80 per cent by 2030 (compared to 2020-21 levels).

11.3.6 Choice of services - Standard

We explored but are not proposing any mass-market tariff options or differentiated service offering for residential customers, instead choosing to focus on implementing other aspects of IPART's new 3Cs framework. We have not had strong interest from residential customers for innovative tariffs and products above our licence obligations. We continue to engage with non-residential customers on bespoke service offerings where these are cost-efficient.

We have several examples where we have worked with Government and developers to offer additional services and supply options, for example: stormwater and recycled water irrigation schemes, supply options for a new hydrogen industry, and working with WICA (Water Industry Competition Act) Licensees.

11.4 Cost principles

11.4.1 Robust costs - Advanced

Our proposed expenditure reflects the efficient costs of delivering our services consistent with customer preferences while maintaining compliance with our regulatory requirements.

Proposed capital expenditure aligns with our suite of investment plans and is subject to our robust and mature investment governance and assurance processes including Gateway approvals. All investment items require business cases that clearly articulate the need for investment, and contain options analysis including cost-benefit analysis and consideration of lifecycle costs. Our mature investment prioritisation and asset creation processes ensure that all forecasts are justified, evidence-based and deliverable.

We have adopted IPART's base-trend-step approach for operating expenditure. We have ensured our base operating expenditure is efficient and have clearly explained the prudency of any increases through proposed steps or trends. Our proposed step changes are supported by evidence from business cases, long-term investment plans or other evidence as justification. Our application of trends is supported by modelling and data that justify they are appropriate.

11.4.2 Balance risk and long-term performance - Advanced

Our proposal is based on long-term investment plans that cover all key outcome and service areas, indicating how we will manage long-term risks including climate change.

Throughout the proposal, we have made the case for how our investment and asset management decisions balance the risks to customers and the business in terms of long-term asset and service performance.

We have materially prioritised our expenditure and are proposing to accept more risk where it benefits customers. We have the resilience to absorb cost impacts arising from changes in our operating environment and to manage these risks during the period without negatively impacting service levels for customers and the environment.

11.4.3 Commitment to improve value - Advanced

Our published cost efficiency strategy demonstrates our strong commitment to improving value for our customers. It highlights our recent performance, identifies a credible plan for achieving the targets, and how we can be held accountable.

Our proposed operating and capital expenditure incorporates an annual ongoing efficiency factor of 1 per cent per year. This is higher than the 40-year average annual multi-factor productivity improvements in the market sector of the Australian economy of 0.8 per cent (IPART's previous economy-wide benchmark that it applied to the water industry).

11.4.4 Equitable and efficient cost recovery - Advanced

We are proposing full cost recovery of our revenue requirement. The prices we propose are cost-reflective and build on the efficient and equitable price structures developed over past price reviews. We have based our water usage price on long-run marginal cost (LRMC) and it is supported by customer preferences elicited through engagement.

We have addressed identified shortcomings of the 2020 price review by developing wastewater LRMCs to inform setting of a wastewater usage charge.

We have smoothed prices within the upcoming pricing period, in line with the views of our customers. Although we have deferred investments, we have decided not to defer the recovery of costs incurred now to later periods, given it would not send an efficient price signal, and may impose unreasonable price increases on future generations.

Chapter 9 of our proposal presents forecast bill impacts for the 2030-35 period. These are uncertain, given the range of strategic and external challenges we face, however, they have been development through a considered and credible process and provide context to support evaluation of our proposal for the upcoming pricing period.

11.5 Credibility principles

11.5.1 Delivering

We are confident we can deliver the services and investments in our pricing proposal. We have demonstrated a strong track record of delivering on our proposed investments and meeting service level obligations. Our approach to delivering our major projects is explained in Chapter 4.

We will set out our performance against delivering key investments, with regular monitoring and communication of progress to customers. We will keep ourselves accountable for delivering on our proposal through public reporting of our outcome performance measures. We will also establish a Community Committee to help keep us accountable. You can read more about how we're keeping ourselves accountable in Section 2.3.

We acknowledge challenges now and, on the horizon, including climate change and cost-of-living pressures. Our Investment Plans demonstrate our foresight in planning for the future. In Chapter 3, we explained the steps we have taken to prioritise, and the processes we have in place to reprioritise during the pricing period and adapt as risks change and the future unveils itself. We have demonstrated this capability over the two pricing periods and have managed several unexpected risks in recent years including the COVID-19 pandemic, water security challenges, changing stakeholder and customer expectations, and extreme weather events.

Our proposal has been subject to a robust quality assurance process and has been endorsed by our Board.

11.5.2 Continual improvement

We have undertaken a robust and realistic approach to the grading of our proposal. We held dedicated workshops, deliberated and investigated the proposed grading for each of IPART's guiding principles. We based our focus principles on customer insights.

This pricing proposal explains our performance over the current pricing period.

We are committed to continual improvement and have drawn on lessons from past pricing periods, using these to improve this proposal. A key example is estimating the LRMC of wastewater supply. Our self-assessments against IPART's principles have identified areas of 'future focus' that we recognise we can improve on in future periods. Throughout the proposal, we have been upfront and transparent about opportunities for improvement.

Attachments related to this chapter

Attachment L – Self-assessment against the 3Cs framework

12 Financial incentives

Key points

- IPART's new regulatory framework relies on financial, reputational, and procedural incentives to drive performance, efficiency and improve customer value.
- There are three new financial incentive schemes designed to work together to reward businesses that outperform their forecasts for operating expenditure, capital expenditure, and/or service delivery. They are also designed to encourage water businesses to reveal their efficient costs over time, which will support the introduction of procedural incentives in subsequent price reviews (e.g. streamlined expenditure reviews).
- We are proposing to participate in all three schemes since we are a self-rated advanced business, and we support IPART's intent to drive improved long-term performance.
- We continue to have some reservations about the schemes. In particular, the capital expenditure sharing scheme (CESS), and whether deviations in actual expenditure from a pre-determined level necessarily reflect efficiency gains or losses.
- The rewards and penalties under these schemes are calculated at the end of the pricing period, with adjustments made in the following pricing period.
- As this is the first application of the schemes:
  - our participation will not affect bills for customers in the current pricing period as the rewards or penalties are to be incurred at the start of the subsequent 2030-35 pricing period
  - we support capping the schemes at 1 per cent of the notional revenue requirement
  - we urge IPART to retain its regulatory discretion in applying the schemes, if unintended consequences arise.

12.1 We propose to implement IPART's incentive schemes

We have self-assessed our proposal as advanced.

IPART's Water Regulation Handbook expects that the incentive schemes will be applied in the initial determination period by businesses with self-assessed advanced or leading regulatory proposals.

We intend to adopt IPART's three financial incentive schemes to demonstrate we are committed to maximising customer value in the long term. These are the:

- operating expenditure benefits sharing scheme (EBSS)
- capital expenditure sharing scheme (CESS)
- outcome delivery incentives (ODI) scheme.

The schemes work together to reward businesses that outperform their forecasts for operating expenditure, capital expenditure, and service delivery, encouraging continuous improvement in long-term customer value.

The schemes are novel, with limited precedent in the water industry. We commented on the merit and design of the schemes throughout IPART's review of its water regulation framework, and by actively participating in IPART's subsequent financial incentive schemes working group.

We continue to have some reservations about the schemes. In particular, the CESS, and whether deviations in actual expenditure from a pre-determined level necessarily reflect efficiency gains or losses. However, we acknowledge the purpose of these schemes in driving better long-term performance – and we support that position.

As stated by IPART, to lift performance of the water sector there must be *"a credible commitment from the business and regulator. … It also requires an acknowledgement that there may be room for improvement and the journey should be taken together"*.[1]

One of our key customer outcomes is to provide value for money, affordable services – driving efficiency and performance is core to achieving this outcome.

Notably, the schemes will not affect bills for customers in the current pricing period as the rewards or penalties are to be incurred at the start of the subsequent 2030-35 pricing period. Customers will receive a total of 80 per cent of the long-term benefit provided by any rewards under these schemes.

12.2 We propose to cap the schemes at 1 per cent

The mechanics of the schemes are complicated. Since this is the first time they have been implemented in the NSW water industry, it remains to be seen whether they drive the desired behaviours and are well-designed, resulting in justifiable and fair penalties and rewards.

IPART's Handbook indicates that IPART's default position is to limit the schemes to a 1 per cent cap of the Notional Revenue Requirement ($22.6 million).[2] We support this position, and do not propose to move away from IPART's default, given the uncertainty and potential shortcomings relating to the schemes we have mentioned.

The cap would apply in total across all three schemes for the 2025-30 period.[3] Limiting the power of the schemes is important in this first instance to protect both us and our customers.

We are also hesitant due to the context of the current review – cost-of-living pressures drove us to keep bill increases as small as possible by:

- challenging ourselves with an ambitious cost efficiency target.
- deliberately taking on additional risk that may necessitate spending beyond our regulated expenditure targets during the period to ensure we comply and to protect service levels if risks are realised or can't be managed.

12.3 Capital and operating expenditure incentives

The two financial incentive schemes covering capital expenditure (CESS) and operating expenditure (EBSS) allow businesses to retain 20 per cent of temporary and permanent reductions in expenditure. This serves to encourage businesses to achieve cost savings beyond proposed efficiency targets and pass these benefits on to customers.

We will similarly be exposed to financial penalties equal to 20 per cent of the net present value of the overspend of operating and capital expenditure in the period. This encourages businesses to accurately forecast planned expenditure and achieve cost savings where reasonably practical throughout the pricing period.

[1] IPART, 2021, Promoting a customer focus, Discussion Paper 2, p. 9.
[2] i.e. determining the payments due for each scheme, summing these, and then applying the overarching cap.

[3] We have based this on the 5-year NPV smoothed notional revenue requirement, which is equal to the NPV-smoothed target revenue.

In our response to IPART's draft new 3Cs framework for regulating water businesses we did not oppose the introduction of the EBSS and CESS, particularly since these are conditions eventually precedent for streamlining the expenditure review process.[1]

In the spirit of a working trial, we are not proposing any up-front exclusions or carve-outs additional to those considered through IPART's financial incentive schemes working group. We are willing to try the schemes as designed – rather than try to pre-empt what should and shouldn't justifiably be included.

However, we urge IPART to apply regulator discretion to review and adjust scheme payments if the incentive schemes do not work as intended, or where the payments do not reflect an efficient movement in costs.

Proposed capital and operational expenditure targets for the CESS and EBSS schemes are outlined in Table 12.1 below – they are the same as the total capital and operating expenditure proposed in Chapters 4 and 5.

Table 12.1: Proposed CESS and EBSS targets ($2024-25, $millions)

Incentive Scheme	2025-26	2026-27	2027-28	2028-29	2029-30
Capital expenditure (CESS)	420.1	366.5	272.8	270.5	224.3
Operating expenditure (EBSS)	193.0	194.2	197.0	197.8	196.9

Source: 'SIR CAPEX 2a' Table 4.1 (Rows 31:51) & 'SIR Opex 2 bts' (rows 501:506)

12.4 Outcome delivery incentives

An ODI directly ties financial rewards and penalties to the delivery of key customer outcomes. This scheme works in tandem with the EBSS and CESS to ensure a business does not earn a reward by inefficiently underspending operating or capital expenditure allowances, while willingly underachieving on customer outcome commitments and inefficiently reducing service levels.

The financial penalty or reward is equal to 20 per cent of the equivalent NPV of a given customer outcome compared to the baseline targets for that outcome – that is, the same approach to benefit-sharing as for EBSS and CESS.

We propose to adopt a leakage reduction ODI linked to our performance measure and target to reduce leakage from our water supply system (see Section 2.2). This supports the customer outcome of 'water security' and a recommendation from our Community Panel to increase expenditure and improve performance in an aspect of our services valued by customers. In addition to the reputational accountability for achieving our target, we will be exposed to a direct financial penalty for under-performance, or may receive a reward for out-performance.

We are not proposing any changes to the implementation detail clarified through IPART's financial incentive schemes working group meetings:

- Baseline performance for the ODI has been set consistent with the forecast expenditure contained in this pricing proposal to meet that baseline.
- The value of leaked water will be set to the usage price of water that customers pay (where this price is set with regard to the LRMC of water). This approach ensures we effectively face the same incentive to reduce water leakage as our customers face to use water more efficiently.
- The financing benefit or cost will be calculated using the prevailing SRMC of water. That is, it will be calculated using the SRMC of water realised during the pricing period (whether in drought or not).

The proposed performance target in Table 12.2 shows our target level of leakage across our network for the 2025-30 period. The incentive is based on our ability to reduce leakage in our network beyond these ambitious targets.

[1] Hunter Water, August 2022, Draft water regulatory framework: response to IPART's draft report, Regulating water businesses special review, pages 4 and 5.

Table 12.2: Proposed leakage reduction Outcome Delivery Incentive Targets

Performance Measure	Units	Current Performance	2025-26	2026-27	2027-28	2028-29	2029-30
Leakage outcome target [1]	Litres per connection per day	83	≤70	≤65	≤60	≤55	≤50
Leakage performance baseline [2]	ML/day	22.9	19.5	18.4	17.2	15.9	14.7

1. This is the measure and targets shown for Water security: leakage in our supply system in Section 2.2.

2. The leakage performance baseline is based on the total number of connected properties forecast based on the average 1.25% annual growth rate from 2020-24. These forecast rates are multiplied by the leakage outcome target and converted to ML/day

In our response to IPART's draft new 3Cs framework for regulating water businesses, we supported introducing an ODI scheme since it could help drive greater customer value. However, we did also note the complexity and challenging implementation issues.[1] Some of these are evident across multiple iterations of the ODI scheme by Ofwat and the UK water industry.

For this pricing period we were only able to identify one suitable ODI that met the following criteria[2]:

- Outcome performance needs to be readily measurable, influenced by expenditure, and create customer value.
- The baseline level for the outcome should be well-justified.
- Methods used to estimate customer value should be reasonable and robust.
- ODIs should be succinct and not overlap.

While we are only proposing a single ODI, reducing leakage, as a financial incentive scheme for the 2025-30 period, we agree with the intent of holding businesses accountable for delivering customer outcomes and, in-principle, ODIs, to do so.

Additional targets, measures, and our proposed approach to reputational accountability for other customer outcomes are detailed in Section 2.3.

We look forward to working with IPART and other stakeholders to explore further options for ODIs in future proposals. One area where we see opportunities for collaboration is the quantification of 'customer value' (or 'customer benefit').

[1] Hunter Water, August 2022, Draft water regulatory framework: response to IPART's draft report, Regulating water businesses special review, pages 5, 20, and 21.

[2] IPART, 2023, Water Regulation Handbook, pg.83.

13 Acronyms

Term / Acronym	Description
3Cs	IPART's regulatory framework focusing on customers, costs and credibility (the 3Cs)
AAA	The highest possible credit rating for a corporation or government
ABS	Australian Bureau of Statistics
ADWG	Australian Drinking Water Guidelines
AIC	Average Incremental Cost
AIR	Annual Information Return
AMS	Asset Management System
ASRS	Australian Sustainability Reporting Standards
Baa2/BBB	A medium-grade credit rating for a corporation or government
BASIX	Building Sustainability Index
BNR	Biological Nutrient Removal
BOD	Biological oxygen demand
CAPEX	Capital Expenditure
CCAG	Customer and Customer Advisory Group
CEAP	Customer Engagement Advisory Panel
CESS	Capital Efficiency Sharing Scheme
CGT	Capital Gains Tax
CO_2e	Carbon Dioxide Equivalent
CPI	Consumer Price Index
CSP	Construction Services Panel
CTGM	Chichester Trunk Gravity Main
CWT	Clear Water Tank
DESP	Design and Engineering Services Partnership
DIP	Data Insights Panel
DRC	Depreciated Replacement Cost
DVAM	Demand Volatility Adjustment Mechanism
EBSS	Efficiency Benefits Sharing Scheme
EIS	Environmental Impact Statement
EP	Equivalent Persons
EPA	Environmental Protection Authority
EPL	Environmental Protection Licence
ERP	Enterprise Resource Planning

Term / Acronym	Description
EWON	Energy and Water Ombudsman
FFO	Funds from operations
FSM	Field Services Management
FTE	Full-time equivalent employees
GIS	Geographic Information System
GSL	Guaranteed Service Levels
HAF	Housing Acceleration Fund
HREMP	Hunter River Estuary Master Plan
HW/HWC	Hunter Water Corporation
IAP2	International Association of Public Participation
ICT	Information and communications technology
IPART	Independent Pricing and Regulatory Tribunal
iSDP	Integrated Supply-Demand Planning
kL	Kilolitre
LHWSP	Lower Hunter Water Security Plan
LRMC	Long Run Marginal Cost
mg/L	Milligrams per litre
ML	Megalitre
NARCLim	NSW/ACT Regional Climate Modelling
NPR	National Performance Report
NPV	Net Present Value
ODI	Outcome Delivery Incentive
OECD	Organisation for Economic for Co-operation and Development
OPEX	Operating Expenditure
PAS	Payment Assistance Scheme
PFAS	Per- and polyfluoroalkyl substances
PNO	Private Network Operator
PPM	Program and Project Management
PRW	Purified Recycled Water
PSP	Plumbing Services Panel
PV	Present Value
RAB	Regulatory Asset Base
RBA	Reserve Bank of Australia
RFQ3	Reforecast of Quarter Three of the Financial Year

Term / Acronym	Description
SIR	Special Information Return
SRES	Special Report on Emissions Scenarios
SRMC	Short-Run Marginal Cost
TCorp	New South Wales Treasury Corporation
TSS	Total suspended solids
WACC	Weighted-Average Cost of Capital
WELS	Water Efficiency Labelling and Standards Scheme
WICA	Water Industry Competition Act
WIP	Work in Progress
WSAA	Water Services Association of Australia
WTP	Water Treatment Plant
WWTW	Wastewater Treatment Works