Our Water, Our Voice

Strategic Customer Engagement Program Phases 1-6 Final Report

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Sydney WATER

Welcome to Sydney Water's Customer Engagement Program: *Our Water, Our Voice*

Sydney Water is serious about listening to customers and planning for the future with customers at the heart of the process. Starting in July 2022 and spanning 24 months, Sydney Water has been undertaking a thorough listening exercise. The purpose is to understand customer expectations and priorities, and customer Willingness To Pay (WTP) for investments that align with these expectations. The program was named by customers: *Our Water, Our Voice* and runs alongside a wide range of other ongoing customer research programs currently being undertaken by Sydney Water.

This report is a summary of the customer insights (including priorities, preferences, expectations and recommendations) priorities from all six phases of the customer engagement program, including conversations with 13,345 customers.

The program was customer-led from the outset, starting broadly where customers were asked to identify what their key priorities / areas of focus were for Sydney Water and what their expectations are regarding service levels. The program then became gradually more focused, with customers sharing their preferences and expectations around individual investment areas, including their WTP for further investment in them.

This is a summary document, designed for an internal Sydney Water audience, and an interested external audience. It is not intended to be distributed at a community level. It is also a summary of all the phases in combination. To cover all the findings from two years' worth of continuous engagement in one report would be impossible and would lead to a 500-page report. As such, this is a summary of the journey and more comprehensive findings and analysis from individual phases can be found in individual phase reports.

To supplement this document, a shorter, top level Executive Summary will be prepared – designed to be published and promoted to keep customers informed of the knowledge gathered.

Our Water, Our Voice aimed to involve customers actively and genuinely let them guide Sydney Water's decision-making process. Customers selected the name for the program in Phase 1 and, through it, they have actively shaped the focus of Sydney Water's 2025-30 price proposal, Operating Licence and Long-Term Capital and Operational Plan (LTCOP).

Sydney Water has the target of achieving the regulator's expectations of an 'Advanced' level for this customer engagement program, resulting in a customer-led and customer-supported Price Proposal.

I hope you find this an informative read and that it sets the scene for the entire *Our Water, Our Voice* customer engagement program.

Kirsty Macmillan
Managing Director Australia

Acknowledgement of Country

Sydney Water and Verian respectfully acknowledge the Traditional Custodians of the land and waters on which we work, live and learn.

Their lore, traditions and customs nurtured and continue to nurture the waters (bulingang or saltwater and muulii ngadyuung or sweet water) in Sydney Water's operating area, creating well-being for all. We pay our deepest respect to Elders, past and present. We acknowledge their deep connections to land and waters. In the spirit of reconciliation, we remain committed to working in partnership with local Traditional Owners to ensure their ongoing contribution to the future of the water management landscape, learning from traditional and contemporary approaches, while maintaining and respecting their cultural and spiritual connections.

Executive Summary

Introduction

Sydney Water is Australia's largest water utility, providing safe, high-quality drinking water to nearly 5.3 million people in and around Greater Sydney every day, along with providing wastewater, stormwater, and recycled water services to many homes and businesses.

On 15th November 2022, the Independent Pricing and Regulatory Tribunal (IPART) introduced a new regulatory framework, which requires major NSW water businesses to demonstrate how their investment and price proposals are in the long-term interests of customers, evidenced by customer preferences and willingness to pay (WTP) for services and outcomes.

Overall, Sydney Water's engagement program aimed to deeply involve customers in shaping priorities and outcomes related to water and wastewater management in Greater Sydney. Through broad consultation, detailed prioritisation, and thematic grouping of customer concerns, Sydney Water ensured a comprehensive understanding of community expectations. This approach facilitated informed decision-making and empowered customers to shape the long-term sustainability and service standards of Sydney Water.

The *Our Water, Our Voice* program is a six-phase program conducted between 2022–24 that provides critical input to understanding customer preferences for informing Sydney Water's pricing submission. Originally it was designed to be a five-phase program, then changed to a four-phase program where two phases were combined. Finally, it changed into a 6-phase program when Sydney Water made a pivotal change in methodology for Phase 5 and 6, moving to a deliberative panel format. More information about the design changes can be found in section 2 under adaptive changes.

Phase 1 gave customers the chance to outline their priorities and expectations for Sydney Water in delivering outcomes and to rank the relative importance of alternative outcomes. These priorities were unprompted in nature and customers were not provided with background information about the challenges facing Sydney Water in the future. Customers were also given the opportunity to express their WTP for these outcomes. The design of this phase was broad and highly explorative in nature. Sydney Water approached it with a blank sheet of paper with the aim of understanding what customers value and prioritise most.

Phase 2 focused on allowing customers to inform the service standards and performance metrics that are used to guide the evaluation of Sydney Water's Operating Licence and Customer Contract. It also evaluated the current measures and settings of Sydney Water's existing service performance standards and how these align with customer expectations and priorities. During this Phase, the priorities from Phase 1 were grouped into key outcome themes to be used throughout the remaining phases.

Phase 3 let customers guide Sydney Water around how it might deliver outcomes to align with the customer priorities from Phase 1. This included evaluating a range of service level options and settings and selecting the choices that best meet their needs. This phase also asked customers to make trade-offs by showing ballpark bill impacts for improvements in existing standards.

Phase 4 introduced the possibility of Sydney Water needing to significantly increase water bills over the next 10 years to fund responses to key challenges facing Sydney Water. Using a discrete choice experiment (DCE), Phase 4 assessed customers' WTP for specific outcomes and service level changes relative to the level that could be delivered through the proposed bill increases. Through customer forums, it also explored, in detail, what is important to customers when spending in areas such as waterway health, cool green spaces and water supply resilience. This was used to help guide Sydney Water around what it needs to consider when prioritising investment in these areas.

Phase 5 sought customer guidance around their preferences and expectations for a range of outcomes that were not only the most important to customers, but also had the most material impact on their bills. These outcomes included, water supply security, managing wastewater and preventing the pollution of Sydney's waterways. Customers outlined their preferred performance, risk and cost profiles for Sydney Water. Investment options were explored within the context of Sydney Water needing to increase water bills over the next 5 years to meet its service delivery obligations.

Phase 6 engaged with customers on the topic of how customer bills are structured, pricing controls and how performance might be incentivised. The phase allowed customers to deliberate about which options best suit their needs from a highly informed position. It also explored Fairness Principles to help guide Sydney Water's future strategic thinking in this area.

Customer priorities

The customer engagement program, *Our Water, Our Voice* was based on a foundation of customer priorities. These priorities reflect what is important to customers and where they feel Sydney Water should prioritise over the next 10 years. In addition, the findings identify investment areas that customers view as having lesser priority and explored whether customers were willing to trade off lower levels of service in return for lower bills.

It is important for an organisation like Sydney Water to engage with customers in this way when setting its investment priorities because, by understanding what matters most to customers, it can align its services and investments with its customers' best interests.

IPART recognises the value of this and has stated that customer priorities should help identify efficient levels of service and target outcomes. It is also worth noting that effective engagement goes beyond simply informing customers about what Sydney Water is planning. It involves actively

listening to their concerns, providing clear information about trade-offs, and incorporating their feedback into decision-making.

This collaborative approach promotes trust and ensures Sydney Water remains responsive to its customers. Leaning into this philosophy, Sydney Water engaged with its customers in Phases 1 and 2 to establish a list of outcome focused priorities that informed further phases of the project. Henceforth, the *Our Water, Our Voice* program increasingly focused on individual outcomes.

Table 1. 15 customer priorities unranked

Phase 1: 15 customer priorities (unranked)	
Minimise and reduce breakages in the pipe network	Ensure water and wastewater bills remain affordable
Improve stormwater management, storage and capture in local areas and homes	Proactively modernise communications with customers (e.g. live updates on dam levels, traffic light levels for water restrictions)
Improve resilience to drought (through increased uptake and usage of recycled water or desalination)	Contribute to a cooler environment through the maintenance of green public spaces
Reduce the period in which Greater Sydney experiences or requires water restrictions	Reduce the discharge of wastewater pollution to rivers and the ocean
Increase water savings and improve community knowledge about how to save water	Reduce the risk of drinking water experiencing issues with odour or taste after occasional changes in the environment (flooding, heatwave, etc)
Maintain water quality and cleanliness at current levels	Reduce net carbon emissions to zero by 2050
Ensure waterways and water recreation areas remain clean and safe to use	Minimise the impact of outages (planned and unplanned)
Maintain a standard of customer service that meets or exceeds customer expectations	

Rationalising priorities and establishing WTP using a DCE methodology

Following an extensive review of the priorities, Sydney Water elected to take 11 attributes forward to use in the Phase 1 DCE. The attribute importance scores in Figure 1 show the ranked order of 11 priorities.

Note that this was the first of two DCEs run as part of the Our Water, Our Voice program. Sydney Water deliberately planned two DCEs as part of this engagement, the first in Phase 1 and the second in Phase 4.

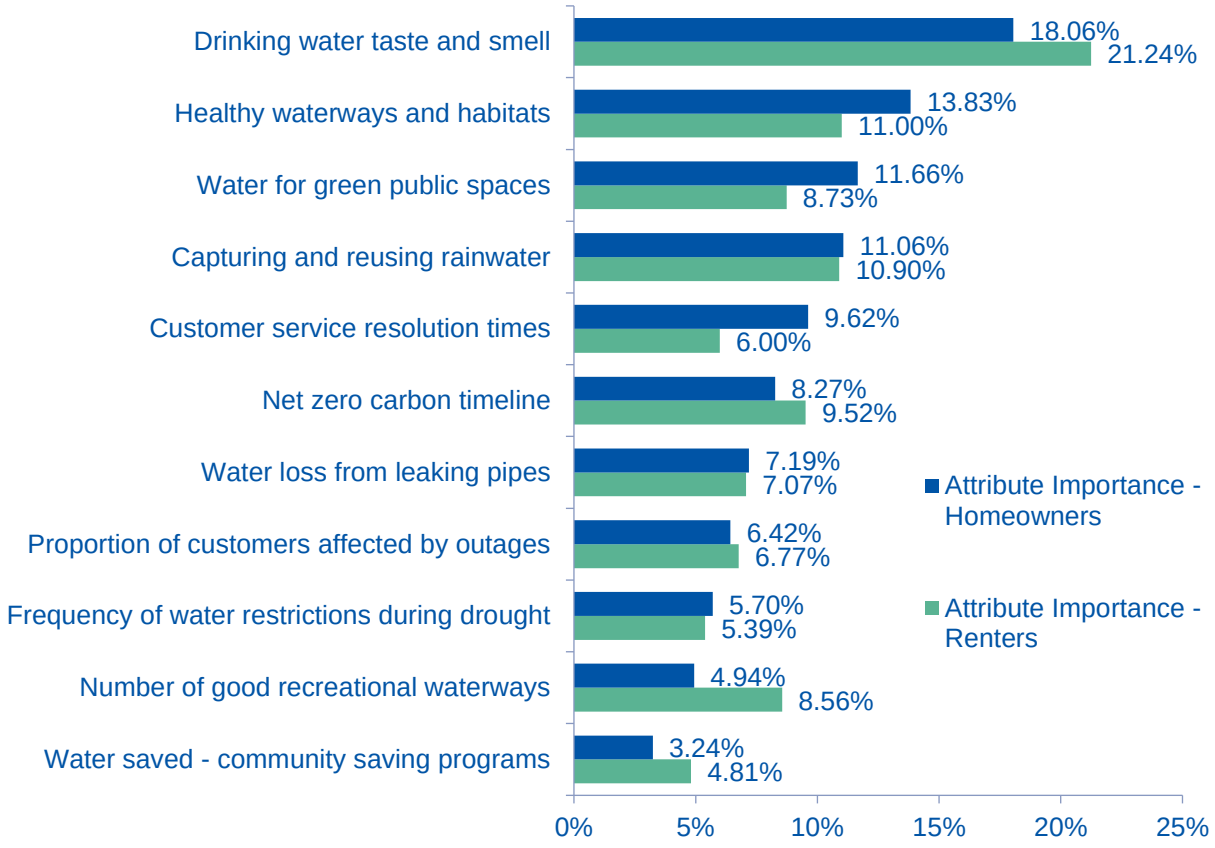
The first DCE was intended to be more broadly focused and was used to establish the most important outcomes to customers. This provided insight around where there is potential for additional investment and helped inform topic prioritisation for the rest of the engagement program.

The second DCE in Phase 4 was more narrowly focused and looked at a list of outcomes that had been refined further in response to customer feedback across four phases of customer

engagement. The attributes were more specific and aligned closely to customers' most pressing priorities for Sydney Water. The Phase 4 DCE was also able to account for the 36% bill increase Sydney Water was (at the time) forecasting it would require to fund infrastructure investments to meet its legal and regulatory requirements and minimum service levels over the next 10 years.

The two DCEs tested both enhancements in service levels and, where possible, tested reductions in service levels as well.

Figure 1. Attribute importance scores and rankings of the different attributes used in the Phase 1 DCE.



Base: Total sample (n=2,472) *(Note: This did not take into account any future estimated increases as these were highly uncertain at the time).

These priorities were reconciled into four outcome theme areas in Phase 2 including:

- **The Customer Experience theme:** this involved looking after customers by meeting their needs with regards to service standards, minimising the impact of restrictions and outages, keeping bills affordable, and ensuring the community is informed and educated.
- **The Quality theme:** This involved Sydney Water continuing to provide customers with a quality product. Examples included anything relating to the safety, cleanliness, smell and

drinkability of the water that comes out of their taps, including during extreme events and unforeseen circumstances.

- **The Environmental Protection theme:** This involved providing clean and natural waterways, habitats, and recreational areas. It also included future-focused priorities, such as contributing to a cooler environment and reducing carbon emissions.
- **The Water Security and Conservation theme:** This included all things related to water security and enhancing the network's resilience to drought. This includes building additional supply (desalination and recycled water), reducing water loss by minimising leaks and breaks, improving management of water resources, and community usage through water saving programs. It is worth noting that while these are separate topics, customers often discussed them together, which is why they were explored and reported together.

A final step in establishing customer priorities was categorising them into theme areas under which customer outcomes could be developed in collaboration with customers. Customers in Phase 2 were presented with the original 15 priorities from Phase 1. They were tasked with grouping and naming these groups of priorities to help narrow down the key focus areas for Sydney Water. Once grouped, customers gave each theme area an overarching name.

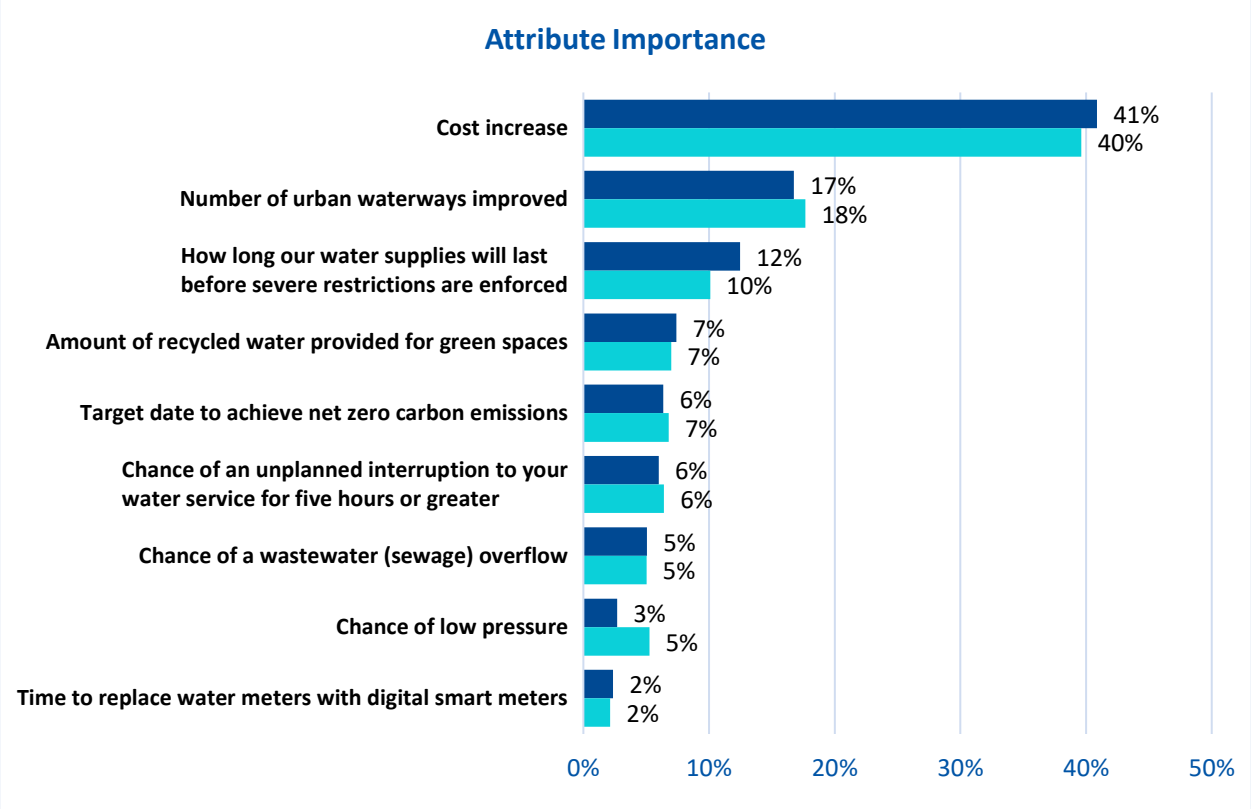
This process of asking customers to theme and name the priorities encouraged customers to participate, own, and lead the future direction of water and wastewater in Greater Sydney. The task also encouraged their involvement in Sydney Water's long-term strategy. Sydney Water used these groupings and names to understand where certain priorities fit together.

Sydney Water used these outcome theme areas to influence the choices presented to customers in Phase 3. These theme areas also informed the content of the remaining phases.

The priorities and how customers ranked them, evolved further in the Phase 4 DCE, when the prospect of a base bill increase was introduced (Customers were told that this 36% was required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years, which requires maintenance and renewal of infrastructure to maintain service levels at their current standard as Greater Sydney's population grows).The most important customer outcomes (as per the Phase 4 DCE) are shown below (in figure 2).

Note that some attributes were ranked differently in the two DCEs than they were in the MaxDiff (a survey method that helps customers to rank their priorities from the most to least important by evaluating multiple best-worst scenarios). The most notable example is the relative importance of how long water supplies last before severe restrictions are enforced. In the MaxDiff, this was ranked as the 14th most important priority. In the Phase 1 DCE it was ranked 9th most important, and 3rd most important in the Phase 4 DCE. Reasons for this difference in ranking include, the Phase 4 DCE providing better framing of the alternatives and forcing respondents to make trade-offs against cost and there was also a clearer description in the Phase 4 DCE about what restrictions would involve.

Figure 2. Attribute importance scores from Phase 4 DCE for homeowners vs renters



Base: Total sample (n=4,003) **Dark blue represents homeowners; light blue represents renters.**

Once the key priority areas were established, the program became more narrowly focused with the customer engagement honing in on individual priorities.

Reducing carbon emissions

Our Water, Our Voice engaged with customers on the topic of Sydney Water **reducing carbon emissions** and **the timeline for reaching Net Zero**. This extends from Phase 1, where it was identified as a customer priority for Sydney Water, through to its inclusion in the Phase 4 DCE.

In short, customers place considerable value on achieving Net Zero by 2030. They are also willing to pay around three times as much on their quarterly bills or monthly rent to achieve this, than it would cost Sydney Water to deliver it.

- The Phase 4 DCE showed that in addition to a 36% bill increase*, homeowners were willing to pay an additional $9.50 per quarter (over a 10 year period) to achieve Net Zero by 2030 instead of 2050.
- Renters were willing to pay an extra $6.50 per month on their rent to achieve the same outcome.

*All WTP amounts from Phase 4 are above the 36% bill increase that Sydney Water was (at the time) forecasting it required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years.

Based on costs estimated at the time of the Phase 4 DCE both amounts were above the estimated cost of delivering this outcome by 2030 ($5.00-$7.00 per year**). This reaffirmed the findings in Phase 1 and suggests that there is appetite amongst customers to pursue this outcome.

**DCE results will be re-assessed against detailed costings to confirm if there is a consumer surplus as part of a cost-benefit analysis for the program business case.

Other environmental protection outcomes: Healthy Waterways and Creating Cool, Green Spaces

Our Water, Our Voice examined the additional environmental outcomes of providing **Healthy Waterways** and **Creating Cool, Green Spaces**. These customer priorities featured from Phase 1 where they were identified, through to the Phase 4 DCE and the Phase 5 and 6 customer panel. Overall:

- The Phase 4 DCE showed that in addition to a 36% bill increase*, homeowners were willing to pay an extra $12.50 on their quarterly water bill to fund improvements to 120 waterway sites (compared to 40 currently) over the next 10 years. Renters were willing to pay an additional $7.00 on their monthly rent for the same outcome.
- In Phase 5, customers indicated that, to achieve a medium level of risk and performance for Sydney Water's 'Prevent Pollution' activities (that contribute to waterway health), customers recommended/accepted a bill increase between $15.00 and $20.00 per quarter over the next 5 years above the average $90 quarterly bill increase (needed to fund infrastructure expenditure for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 5 years). This compares to an increase of $5.00-$10.00 to maintain the status quo service levels.
- Customers value increasing the amount of recycled water available for the irrigation of public green spaces, enabling them to stay greener for longer during times of drought. On average, in addition to a 36% bill increase*, homeowners were willing to pay an extra $6.20 on their quarterly water bill to deliver an extra 2.5 billion litres worth of recycled water each year for irrigating green spaces, on top of the $4 billion currently delivered. Renters were willing to pay an additional $2.70 on their monthly rent for the same outcome.

*All WTP amounts from Phase 4 are above the 36% bill increase that Sydney Water was (at the time) forecasting it required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years. Caution needs to be applied when interpreting results from Phase 5, as this was conducted qualitatively with a small panel (n=60) of highly informed customers with a much greater base of knowledge than the general public. They also received different framing around the attribute levels and more deeply considered risk factors. Phase 5 results generally align with the DCE and are not intended to be replacement values but offer another perspective around customer preferences for risk, performance and cost.

Water supply security

Our Water, Our Voice examined preferences for increasing the **security of Greater Sydney's water supply,** measured in terms of deferring the need to trigger severe water restrictions in drought. This outcome area is featured in all phases, from Phase 1, where it was identified as a customer priority, through to its inclusion in the Phase 4 DCE experiment as well as in Phases 5 and 6, where customer preferences for investment alternatives were explored.

The findings highlight that customers are WTP for improved water supply security.

For example:

- In Phase 4, in addition to a 36% proposed bill increase*, homeowners were willing to pay an extra $13.00 on their quarterly water bill to lengthen the time until severe water restrictions are enforced from five and a half years (base case) to eight years. Renters were willing to pay an extra $2.80 on their monthly rent for the same outcome.
- In Phase 5, customers recommended/accepted a bill increase between $15.00-$20.00 per quarter over the next five years extra for additional investment in the security of the region's water supply. It would mean current water conservation efforts would continue but new water supply would be built which would allow a medium-to-low risk profile to be achieved. This was above the average $32.00-$53.00 increase already required to cover additional infrastructure investment and operating expenditure for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 5 years.

  Note that the alternative to paying $15.00-$20.00 per quarter (above the initial $32.00-$53.00 increase) for a medium to low-risk outcome, was paying $5.00-$10.00 extra per quarter (above the initial $32.00-$53.00 increase) for a high-risk outcome. In the high-risk outcome, the current water conservation efforts would continue, and no new supply would be built.

All WTP amounts from Phase 4 are above the 36% bill increase that Sydney Water was (at the time) forecasting it required to fund infrastructure expenditure for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years. Caution needs to be applied when interpreting results from Phase 5, as this was conducted qualitatively with a small panel (n=60) of highly informed customers with a much greater base of knowledge than the general public. They also received different framing around the attribute levels and more deeply considered risk factors. Phase 5 results generally align with the DCE and are not intended to be replacement values but offer another perspective around the strength of WTP.

Minimum service levels, customer expectations and performance targets

Our Water, Our Voice, from Phase 1 through to Phase 6, sought to understand customer preferences and expectations around service levels and performance targets. When presented with the current levels, customers were supportive of current service levels remaining. They also said they'd pay slightly more for small improvements. For example, customers were willing to pay a modest amount to see improvements in service levels around outages, wastewater overflows and water pressure. Sydney Water ultimately need to determine whether this amount is enough to cover the cost of delivering these improvements.

On average*:

- Homeowners were willing to pay an additional $2.50 on their quarterly bills to see the number of properties impacted each year by an unplanned water outage (that lasts five hours or more) reduce from 200 in every 10,000 to 100 in every 10,000. Renters were willing to pay an additional $1.70 on their monthly rent for the same outcome. However, if this increased to 300 in every 10,000 properties, homeowners expected that their quarterly bill would reduce by $12.00. Renters expected a rent reduction of $4.30 per month under this scenario.
- Homeowners were willing to pay an additional $9.40 on their quarterly bills to see the number of properties impacted each year by a wastewater overflow reduce from 70 in every 10,000 to 40 in every 10,000. Renters were willing to pay an additional $4.20 on their monthly rent for the same outcome. However, if this increased to 100 in every 10,000 properties, homeowners expected that their quarterly bill would reduce by $1.80. For renters there was little difference between 70 and 100 impacted properties in terms of their WTP.
- Homeowners were willing to pay an additional $4.30 on their quarterly bills to see the number of properties impacted by low water pressure reduce from 1 in every 10,000 to 0 in every 10,000. Renters were willing to pay an additional $3.40 on their monthly rent for the same outcome. However, if this increased to 2 in every 10,000 properties, homeowners expected that their quarterly bill would reduce by $2.10 and renters expected a rent reduction of $1.60 per month under this scenario.

Customers also expressed strong support for the concept of Outcome Delivery Incentives (ODIs) / Customer Commitments (which link a proportion of Sydney Water's revenue to its performance) in the areas of River Health and Water Leakage.

*All WTP amounts from Phase 4 are above the 36% bill increase that Sydney Water was (at the time) forecasting it required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years.

Bill affordability

Our Water, Our Voice explored affordability, including WTP for outcomes in the context of a rising cost of living environment. This began in Phase 1, where bill affordability was identified as a customer priority, through each phase of the program including the Phase 4 DCE and the Phase 5 and 6 customer panel. Affordability underpinned the entire customer program and was a fundamental consideration throughout.

For many customers, rising water bills feel inevitable and unavoidable. In the past two years, customers have experienced above-average inflationary pressures in many areas of their lives, from power bills to the cost of food, interest rates, and the cost of housing. This is commonly characterised in the media as an 'affordability crisis', which was mentioned frequently by customers throughout the program. Many also acknowledge, given how valuable clean drinking

water is, that it is currently quite cheap. Nonetheless, many also see clean drinking water as a basic human right, necessary for life, and although they appreciate its value, they feel prices should be kept low.

A key development relating to affordability that came to light mid-way through the program of engagement was the magnitude of the bill increases required for Sydney Water to be able to continue to meet its legal and regulatory requirements and minimum service levels over the next 10 years. Despite these increases, customers continued to express a preference to achieve outcomes that were a priority for them; in the Phase 4 DCE and Phase 5 panel, customers expressed a considerable WTP for the top-rated customer priorities.

For example:

- In the Phase 4 DCE, despite the 36% proposed bill increase (required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years) customers were still willing to pay extra on their quarterly bills to ensure improved service levels in their top priorities areas including water supply security, cool, green landscapes, and the health of Greater Sydney's waterways.
- In Phase 5, customers again recommended / accepted notable average bill increases (over and above the considerable bill increases already proposed for Sydney Water to meet its legal and regulatory requirements) to achieve a medium level of performance and a medium to low level of risk, with regard to preventing pollution and water supply security.

Both examples are detailed within the report and highlight a willingness to pay for improvements in priority areas that matter most to customers, even given the prospect of notable bill increases.

Tariffs and how bills are structured

Our Water, Our Voice also explored tariffs and how bills are structured with customers. From the start, it was clear that tariff and bill structures is a topic that is typically not a 'top-of-mind concern' for customers, so long as the structure of bills are deemed to be fair.

Tariffs and how bills are structured tends to be a complex conversation for the average customer. Many customers were hesitant to push for change as they often recognised their limited expertise in this area. In many cases, customers would prefer to defer decisions to 'the experts' and, as long the fairness principles are respected, they were confident in Sydney Water's recommendations. Despite this, given the prospect of rising bills over the coming years, Sydney Water wanted to ensure that customers were involved in shaping these decisions, which required educating customers to a level where they were comfortable sharing their preferences and considerations with Sydney Water around tariffs and how bills are structured.

The topic of tariffs and bill structures was first raised with customers in Phase 3. During this phase, it became clear that due to the complexity of the topic, customers needed more time to understand it. This led to the topic's inclusion in the Phase 6 customer panel discussions, where considerable time was taken to provide customers with factual, balanced information about the various tariff

structures and the features of each alternative. This ensured that customers had a clear understanding of the topic and were able to guide Sydney Water from an informed position.

Ultimately, customers expressed a preference for:

- **Flat pricing structure** (users pay the same rate per kilolitre regardless of how much they use plus a fixed charge) over a **tiered pricing structure** (the more customers use, the higher the cost per kilolitre (multiple tiers) plus a fixed charge).
- **A revenue cap** (the revenue Sydney Water can collect is fixed) model over a **pricing cap** (where the prices Sydney Water can charge for services is fixed).

This report provides more detail on the findings outlined above. A deeper exploration of the findings can also be found in the individual Phase reports.

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1 Introduction: About Sydney Water and the regulatory process

1.1 About Sydney Water

Sydney Water is Australia's largest water utility, a world-class organisation delivering essential services to Greater Sydney. Sydney Water provides safe, high-quality drinking water to nearly 5.3 million people in and around Greater Sydney every day, along with providing wastewater, stormwater, and recycled water services to many homes and businesses.

Sydney Water stands out from other Australian water utilities, most notably due to its scale and the vast geographic area it serves. Unlike its counterparts, for instance Hunter Water and Victorian water utilities, Sydney Water supplies water to a significantly larger and more diverse population spread across a much wider region, with a greater diversity of urban form. This immense size necessitates a complex infrastructure network and high demand for resource management. Much of Sydney Water's infrastructure is ageing and replacing such a large network is extremely costly. This distinct set of challenges should be recognised when making any direct comparisons between Sydney Water and other Australian water utilities. Running a program of customer engagement is also different for Sydney Water, the challenges Sydney Water faces due to its size, and the scale and diversity of its customer base means it stands alone in the Australian water utility space. The design of the program and the approaches it has taken are, tailored to Sydney Water and take into consideration challenges that don't exist for other water utilities.

Sydney Water has a long-term strategy and vision: 'Creating a better life with world-class water services'. The strategy has been built from customer insights and provides the foundation of Sydney Water's work every day.

1.2 Customer voices, supporting Sydney Water's Regulatory Submission

Sydney Water is a statutory corporation, wholly owned by the NSW Government. Sydney Water's Operating Licence is regulated by the Independent Pricing and Regulatory Tribunal (IPART), which sets minimum standards for customers and government expectations in key performance areas. IPART also regulates what Sydney Water can charge customers for water, wastewater, and stormwater services, sets Sydney Water's system performance standards, and monitors compliance against those standards.

On 15th November 2022, the Independent Pricing and Regulatory Tribunal (IPART) introduced a new regulatory framework, which requires major NSW water businesses to demonstrate how their investment and price proposals are in the long-term interests of customers, evidenced by customer preferences and willingness to pay (WTP) for services and outcomes. It is important that Sydney Water engages meaningfully with customers to explore their values and preferences for outcomes and uses these insights to inform its pricing submission and long-term business strategy.

IPART's requirements, in relation to customer engagement, highlights the need for tailored and supportive engagement to assess the outcomes that customers expect, preferences for how the outcomes will be delivered, and overall WTP for those outcomes and service levels. Research and engagement are to include, at a minimum, topics such as: changes to service standards, changes to price structures, and any proposal for expenditure on customer agreed outcomes (i.e.., to achieve outcomes not covered by regulation).

IPART's expectation is that Sydney Water runs an advanced customer engagement program. The *Our Water, Our Voice* customer engagement program was developed in response to this requirement. It provides the insights needed to develop Sydney Water's Enterprise Plan, which is a precursor to the regulatory submissions to IPART and used to revise/refine Sydney Water's strategy. These regulatory submissions specifically incorporate the revised Operating Licence and Customer Contract, issued by IPART on 1 July 2024, and the price proposal, due in September 2024 and come into effect by July 2025. The price proposal will help shape customers' water bill prices for the 2025-2030 period.

Sydney Water's submissions to IPART for changes to prices and the Operating Licence will be aligned with the Sydney Water strategy and plans at all levels. The *Our Water, Our Voice* program is a critical input to these regulatory submissions, strategy and plans.

This two-year (2022-24) program of customer engagement covers a wide range of topic areas and gives customers an opportunity to tell Sydney Water what is important to them.

Customers are already at the heart of everything Sydney Water does. Sydney Water continually engages with customers to understand their experiences, through research studies tracking customer sentiment and satisfaction with products and services. Sydney Water also engages with customers through additional activities as well (e.g. it engages on local and major projects, as well as ongoing community education and engagement).

The *Our Water, Our Voice* customer engagement program takes a long-term view. The insights gathered from this program will help shape the future of Sydney Water's operations in Greater Sydney, including the Illawarra and Blue Mountains, for generations to come.

Phase 1



Phase 2



Phase 3



Phase 4



Phase 5



Phase 6



Customers, moderators, Sydney Water staff and stakeholders attending the customer forums, workshops, & panel sessions in Sydney CBD, Parramatta, Penrith, Hornsby, and Wollongong across Phase 1 to Phase 6 from Tuesday 6th September 2022 to Sunday 3rd March 2024.

2 Engaging our customers in the regulatory process: program overview

2.1 Customer engagement context

Customer engagement is a two-way communication process that helps foster a positive relationship between Sydney Water and its customers. Ongoing dialogue with its customers allows Sydney Water to understand the needs, priorities, and expectations of the community it serves.

Engaging with customers is critical for Sydney Water's success for several reasons.

- Firstly, it ensures that Sydney Water's services are aligned with community priorities.
- Secondly, it allows for transparent communication about the costs associated with maintaining and improving water infrastructure.
- Thirdly, customer engagement directly influences Sydney Water's regulatory price submissions to the Independent Pricing and Regulatory Tribunal (IPART).

This report summarises the findings from Sydney Water's customer engagement program *Our Water, Our Voice* that was run across six phases of customer engagement between 2022 and 2024.

2.2 Customer Engagement Approach

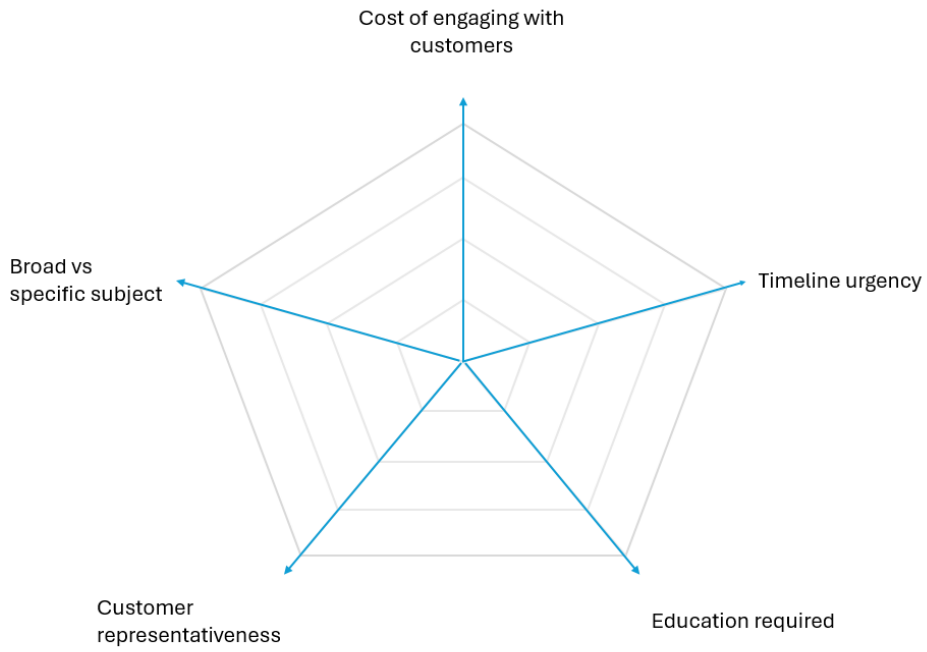
Sydney Water took a balanced approach to this customer engagement. They had a clear plan but stayed flexible, ready to adapt to new information and incorporate unexpected customer feedback. The customer engagement plan was a careful balance of:

- **Depth vs. Breadth:** Sydney Water sought to gather in-depth feedback from a representative sample of customers, while also ensuring a broad range of perspectives were captured.
- **Rigour vs. Accessibility:** The program strived to be methodologically sound, while remaining accessible and easy to understand for participants with varying levels of knowledge or experience.
- **Cost vs. Comprehensiveness**: Striking a balance between a program that was comprehensive in its scope yet remained cost-effective to deliver.
- **Timeliness vs. Participant Burden**: Ensuring the program delivered results within a reasonable timeframe, whilst not placing an undue burden on participants' time commitment.

Sydney Water carefully balanced trade-offs to create a customer engagement program that was both robust and adaptable to evolving information and customer needs. They started with a broad, open conversation, allowing customers to voice their top priorities for Sydney Water. Based on this feedback, Sydney Water developed potential outcomes to address these priorities.

Sydney Water also explored the trade-offs customers made around cost, risk, and performance. Decision principles were introduced to help customers consider investment decisions from multiple perspectives, ensuring informed choices. Throughout the program, Sydney Water was transparent about the costs and risks of different service levels, helping customers understand these factors and establish their preference for outcomes. Figure 3 highlights the considerations most relevant to this program and the paragraphs that follow describe how these considerations impacted the final program design.

Figure 3. Design consideration and trade-offs.



- **Timeline urgency**

  The project design was notably influenced by a need to satisfy internal and external timelines for this project. For example, the Long-Term Capital and Operational Plan (LTCOP) and Customer Contract submissions were due early in the project timeline and customer engagement inputs were needed for these. Timelines significantly influenced the extent of engagement possible at different stages of the program, the sequence of topics covered, and the overall design structure. Both internal and external timelines had a major impact on how the customer engagement program was conducted. Increasing the time available for such engagements by around 25% is recommended to enhance future programs.

- **The nature of the subject matter i.e., breadth vs depth**

  Different customer engagement topics require varying levels of customer knowledge for informed decision-making. Therefore, the nature of each topic influenced the methods used in each phase. This also affected the number of topics covered in each phase, the number of customers engaged, and the level of customer representation achieved.

  In the early phases, broad topics allowed for larger sample sizes and more quantitative research. In contrast, the later phases were more specific and required more education and critical analysis skills, for customers to make informed recommendations. This meant covering fewer topics, involving fewer customers, and needing more time for deliberation. It

also meant the depth of customer knowledge was greater and they were making decisions from a more informed position.

- **Customer representativeness**

  Maximising customer representation is crucial, especially in the Greater Sydney region which has a large and diverse customer base. Ensuring broad representation captures the varied needs and experiences of all customers, leading to more relevant insights and strengthening the validity of the engagement.

  Quantitative methods achieve greater reach and representation than qualitative methods but provide less opportunity for educating customers and less time for them to deliberate and consider issues from multiple perspectives. Insights from quantitative research tends to reflect the experiences of customers who have not had the opportunity to explore issues deeply and subsequently, they base their impressions on limited or incomplete information.

  On the other hand, deliberative qualitative research offers deeper insights as customers become more knowledgeable and more informed. However, due to cost and time constraints, fewer customers can be engaged this way.

  Sydney Water deliberately chose a mix of both methods for this program. Quantitative methods provided a broad understanding, while qualitative methods offered detailed perspectives. For establishing WTP for outcomes, a DCE with a large sample size is the most reliable, but validating with qualitative research is also useful in understanding the reasoning behind customer preferences - particularly when understanding trade-offs in performance, risk and cost.

- **Level of education required to make informed decisions.**

  The level of education required for customers to understand a topic and make informed decisions influences the engagement methods selected for different phases of the program. In the early phases, education requirements were lower due to the exploratory nature of the research.

  As the research objectives became more specific in the later phases, more extensive background information was needed for customers to make an informed choice. This meant covering fewer topics and providing more content to sufficiently educate customers. Sydney Water engaged more customers in the earlier phases to boost representation, using large quantitative samples and recruiting hundreds of customers per forum, per phase. Throughout the program customers from diverse backgrounds such as Culturally and Linguistically Diverse (CALD), First Nations, Value Makers, Developers, Businesses and Government Stakeholders etc. were well represented in the customers that were engaged.

- **The cost of engaging with customers**

  Like all projects, the cost of engaging customers was a significant consideration for Sydney Water. Engaging a large and representative number of customers can be expensive, especially when employing highly deliberative, qualitative approaches. Balancing between

maximising customer representation and the depth of conversation was crucial in selecting the type of research and determining the number of participants. Qualitative research, which provides deeper insights, is typically more expensive than quantitative research, which reaches a larger audience but with less detailed exploration.

Involving and collaborating with customers

As part of Sydney Water's journey to becoming a highly **customer-centric organisation**, it sought to engage customers on what is most important to them by using a range of approaches. These approaches included:

- Seeking a deeper level of engagement by involving customers in setting the priorities that matter to them the most.
- Choosing effective methods to provide all customers (including more difficult-to-reach customers) with an opportunity to have their say around how services are delivered. This included triangulating and testing responses against other information Sydney Water routinely collects as part of a wider customer research program.
- Providing clear explanations of different approaches Sydney Water could take (including price differences and any potential trade-offs), so that participants are able to offer meaningful and relevant feedback on the development of future plans.

Where possible, Sydney Water also aimed to:

- Collaborate with customers (and/or customer representatives) to develop solutions that are in their long-term interests.
- Continually seek to improve engagement methods and explore innovative new methods of obtaining customer input.

Sydney Water were also Sydney Water also engaged with its Customer and Community Reference Group (formerly known as the Community Advisory Committee). This group:

- Served as a key platform for direct engagement with a representative group of customers.
- Provided valuable insights into customer priorities and concerns regarding water services and pricing.

Sydney Water incorporated the CCRG's feedback throughout the program. For example, the design of the customer engagement, engagement materials and reporting deliverables were all designed in close collaboration with this group.

Other considerations:

- Flexibility: The need to be flexible and able to adapt to new developments, learnings and customer feedback was critical to the success of this project. Taking an overly dogmatic approach to the program would not allow it to be agile and respond to new information. Examples of this include:

- The release of IPART's Water Regulation Handbook and Grading Rubric, mid-way through the program (July 18, 2023).
- New information about minimum increases to the base customer bills over the next 10 years.
- Suggestions for enhancements and changes to the program following a peer review from Utilities Regulation Agency (URA) were taken on board. Utilities Regulation Advisory (URA) was commissioned by Sydney Water to peer review the Our Water, Our Voice program (mid-2023) and provided advice on how to enhance the program, including adding Phases 5 and 6.
- The need to respond to feedback from the Sydney Water Customer and Community Reference Group (CCRG). The CCRG were brought on board around Phase 3 and their feedback led to a rethink of some project methodologies and designs.

Methods by phase

The collective objectives of each phase are documented below.

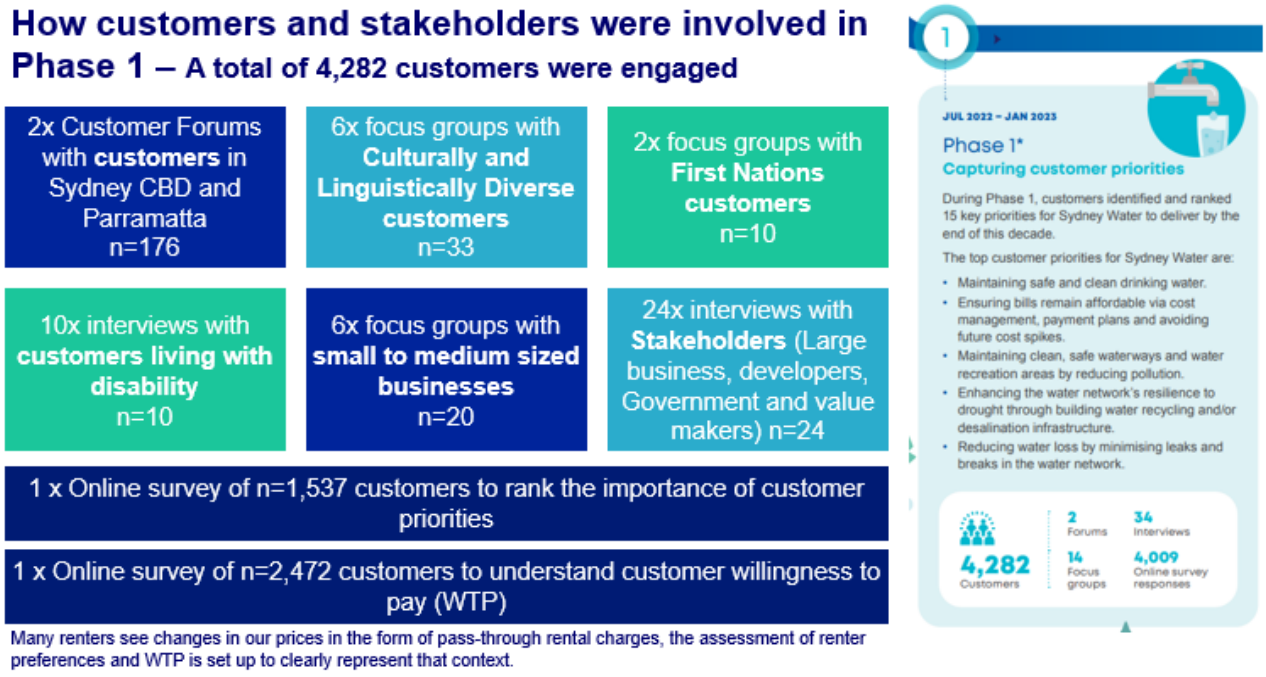
Phase 1

In total, 4,282 customers were engaged in Phase 1.

The ultimate objectives of Phase 1 were to:

- Let customers identify priorities for Sydney Water to focus on over the next 5 to 10 years.
- Allow customers the opportunity to rank these priorities in order of relative importance using a MaxDiff survey to guide Sydney Water on where it should focus its attention.
- Assess, through a DCE, how much customers are willing to pay via increases in their water bills or monthly rent to achieve customer outcomes.

Figure 4. The research components that made up the Phase 1 customer engagement



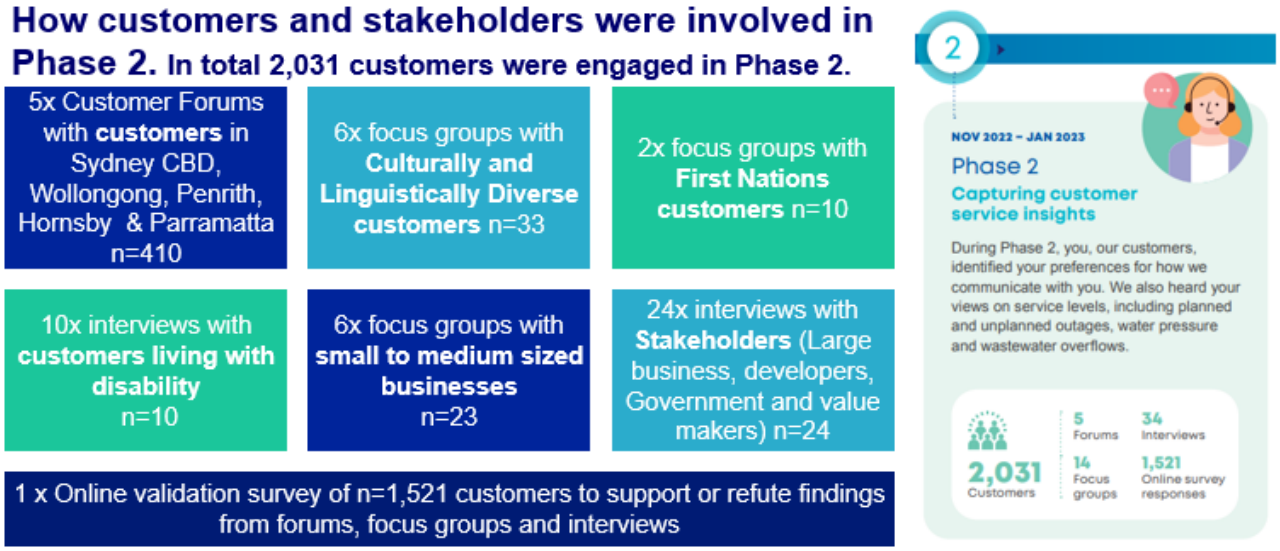
Phase 2

In total, 2,031 customers were engaged in Phase 2.

The objectives of Phase 2 were to:

- Give customers the opportunity to share their expectations and preferences regarding the service and performance standards delivered by Sydney Water.
- Explore customer reactions to changes in minimum service standards.
- Let customers guide Sydney Water around the design of performance metrics that can help with the evaluation of Sydney Water's service delivery.

Figure 5. The research components that made up the Phase 2 customer engagement



Phase 3

In total, 2,418 customers were engaged in Phase 3.

The objectives of Phase 3 were to:

- Understand customer preferences for a range of potential services and service levels that Sydney Water could offer in the outcome areas identified in Phases 1 and 2.
- Let customers guide Sydney Water around what they see as the potential benefits and drawbacks of potential service levels that Sydney Water might offer.
- Give customers the opportunity to share their preferred service levels within each outcome area, along with the considerations underpinning these choices.
- Workshop pricing and investment decisions being considered as part of Sydney Water's Long Term Capital and Operating Plan (LTCOP), Price Proposal and Operating Licence.

Figure 6. The research components that made up the Phase 3 customer engagement

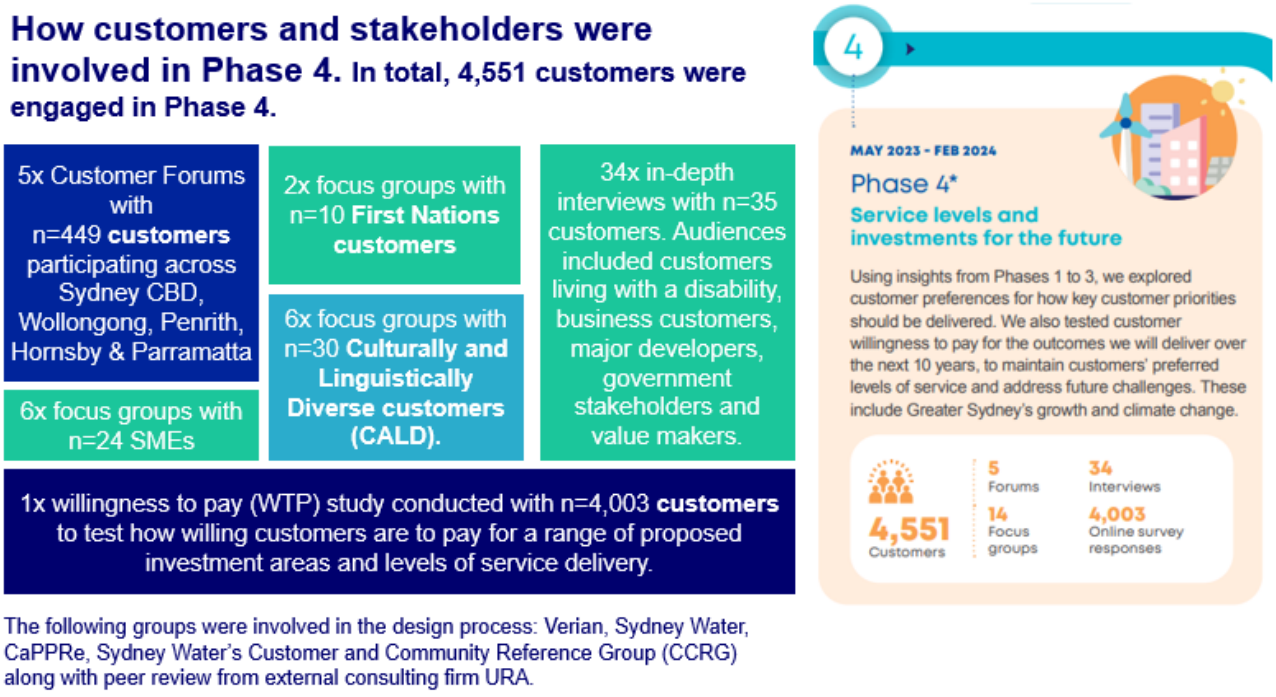
Phase 4

In total, 4,551 customers were engaged in Phase 4.

The objectives of Phase 4 were to:

- Understand customer preferences and expectations for proposed investment areas, and how Sydney Water makes decisions over the next 10 years.
- Gauge customer reactions and feedback to the prospect of Sydney Water needing to significantly increase water bills to fund responses to the key challenges facing Greater Sydney and its water and wastewater network.
- Involve customers in addressing how best to promote bill affordability in the face of these rising costs.
- Identify whether customers are willing to pay more to fund additional investments on top of these potential bill increases. This included quantitatively establishing customer WTP for a range of service levels using a DCE in an online survey with 4,551 customers.

Figure 7. The research components that made up the Phase 4 customer engagement



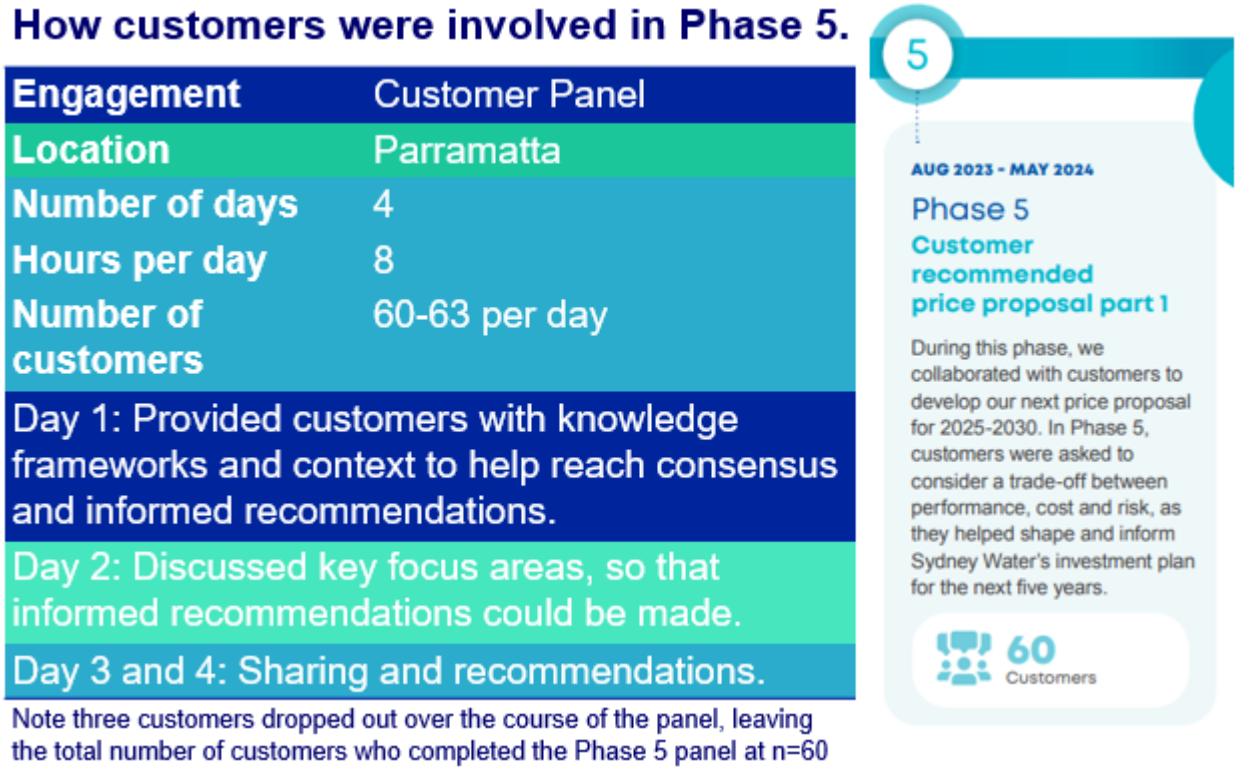
Phase 5

In total, n=60-63 customers were engaged deeply in Phase 5 over four full days allowing them to become highly informed (not informed prior to panel).

The objectives of Phase 5 were to:

- Let customers shape and guide how Sydney Water provides the services that customers want and need, while managing costs now and in the future.
- Obtain a degree of consensus around the overall bill impact that would be tolerable for customers, when delivering these services.
- Ensure that investments in high-cost customer outcomes are delivered to promote affordability and best meet the needs of Sydney Water's customers.

Figure 8. The research components that made up the Phase 5 customer engagement



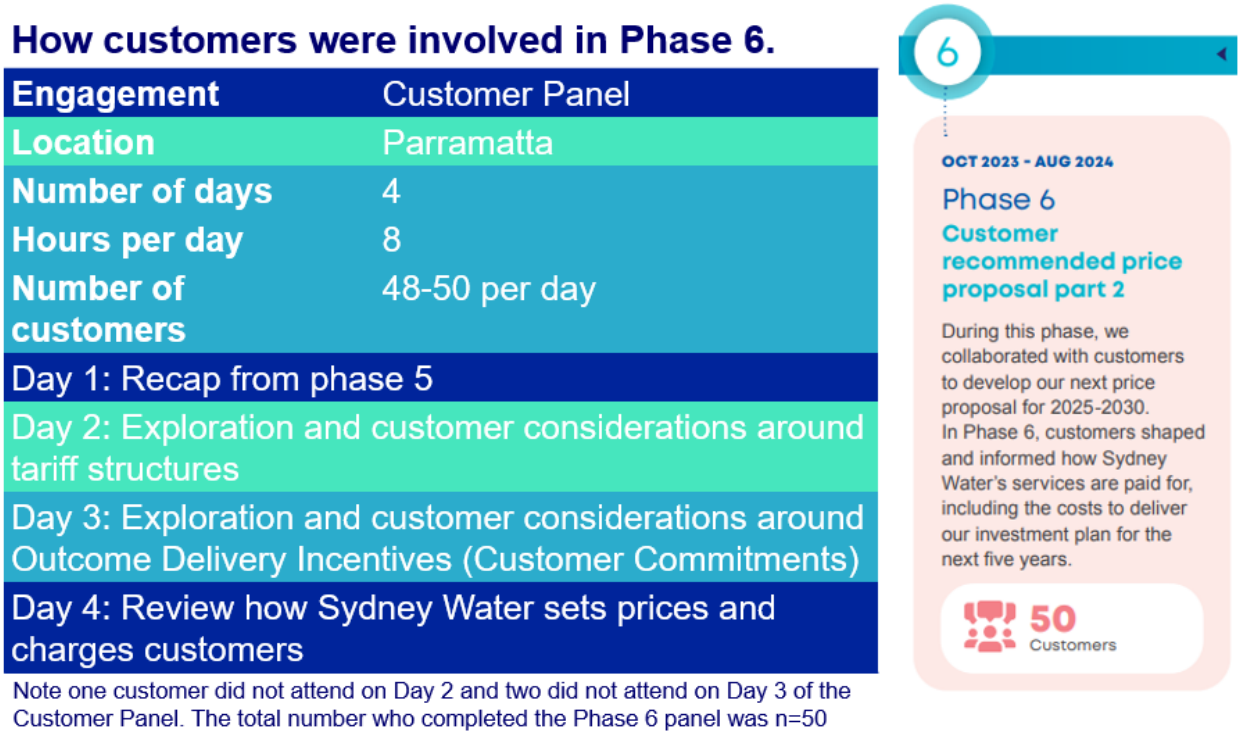
Phase 6

In total, n=48-50 customers per day were engaged deeply in Phase 6 over four full days. This was in addition to the four full days in Phase 5 which made them highly informed customers (albeit not informed prior to Phase 5).

The objectives of Phase 6 were to:

- Shape and guide how Sydney Water charges its customers for water, to provide the services that customers want and need.
- Work directly with customers to ensure that their concerns and aspirations are consistently understood and considered over the next 5 years.
- Obtain a degree of consensus from customers around how bills are structured and to let them guide Sydney Water around how to charge for services to promote affordability and best meet the needs of customers.

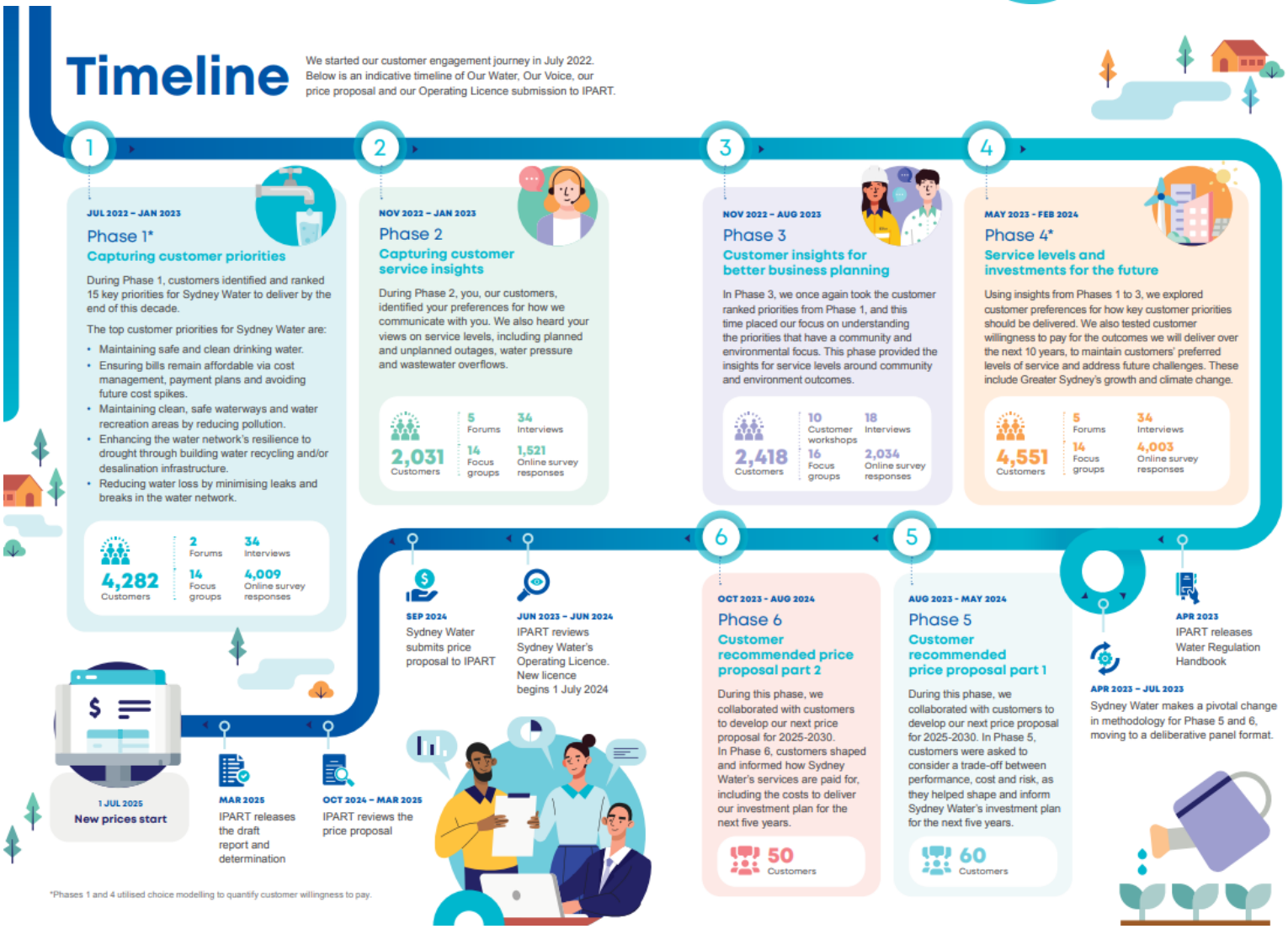
Figure 9. The research components that made up the Phase 6 customer engagement



All research conducted as part of this customer engagement was done in accordance with ISO20252:2019 standards

Our Water, Our Voice timeline

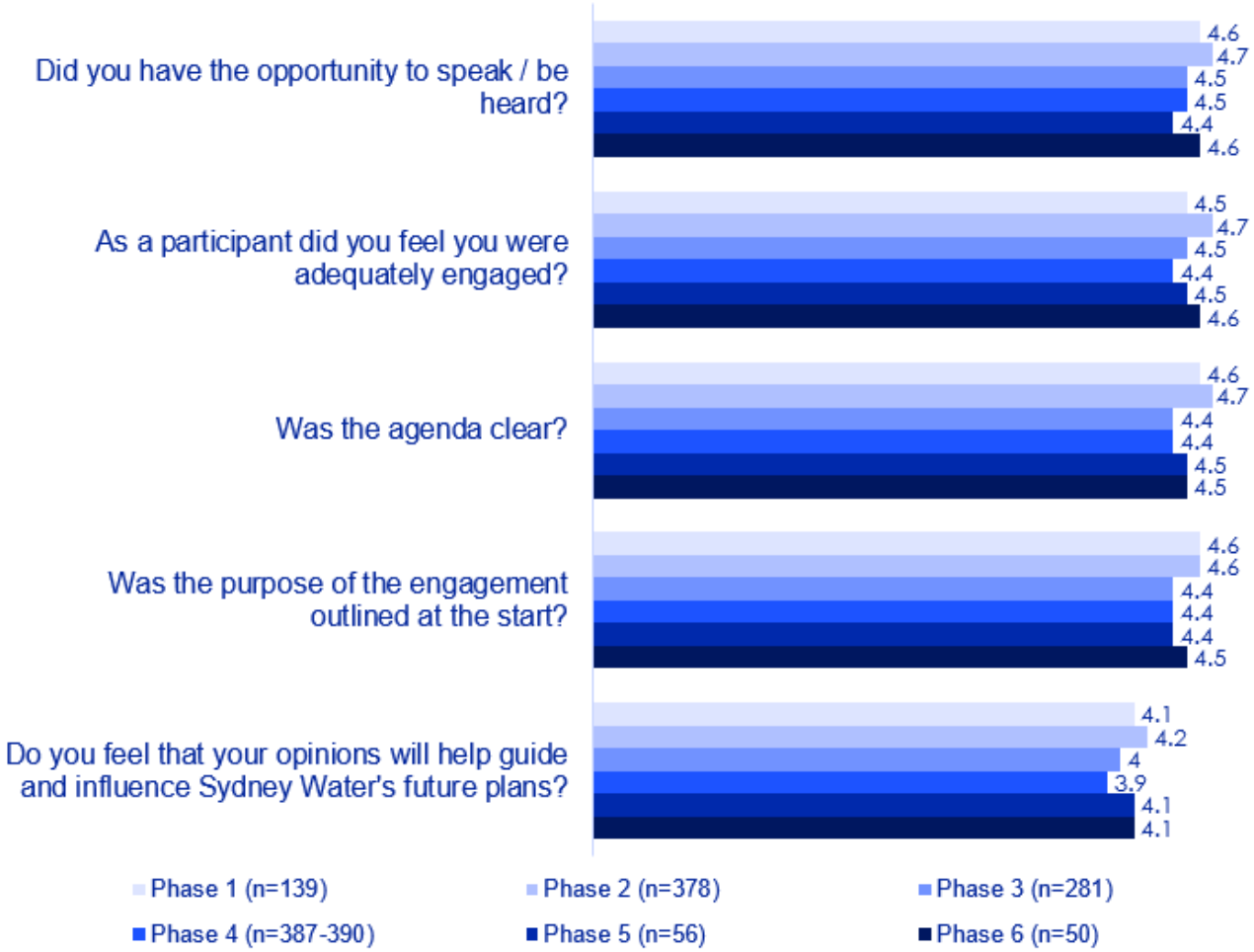
Figure 10. The Our Water, Our Voice Customer Engagement Timeline



Customer feedback

Overall, customers responded positively in feedback forms about the customer engagement, across all phases of the program, with average scores above four out five for each of the questions asked. In other words, on average, customers agreed strongly that they had an opportunity to be heard, were adequately engaged, and were able to help guide and influence Sydney Water's plans. They also strongly agreed that the customer engagement agenda was clear, and that the purpose of the customer engagement was outlined well at the start.

Figure 11. Customer feedback, on a five-point scale (combined customer engagement feedback results from all six phases).



Mean score out of five – using an agreement scale. Base: Customers who completed a feedback sheet. Note that some respondents didn't fill in a feedback form to respond to all questions bases in the chart.

2.3 Adaptive changes made to the design throughout the customer engagement program.

Table 2 highlights how the *Our Water, Our Voice* program evolved, and how adaptive changes were made to the design.

Table 2. Adaptive changes made to the customer engagement program.

Original design July 2022	Amended design August 2022	Final design September 2023
5 phases	4 phases	6 phases
The original design required Phase 1 and 2 to be run concurrently and for WTP elements in Phase 3 to be brought forward to meet LTCOP reporting deadlines. Other considerations included: • A delayed start to the program (kick-off meeting mid-August 2022 rather than early July 2022) • Changes in LTCOP deadlines (where output from Phase 3 was required earlier) • The need for each phase to build on the learnings from the previous phase • An increase in the time needed to allow for increased internal review processes	By August 2022, the plan was adjusted to reflect contracting timelines and changes in priorities. A research design was agreed where the number of phases collapsed from 5 to 4 and the specific methodologies were adjusted. Increasing the coverage of qualitative research and moving some aspects around – e.g., including an initial WTP component in Phase 1, rather than Phase 3, to enable Sydney Water to meet its internal LTCOP requirements. The Phase 1 WTP study also became a catalyst for Sydney Water thinking about a base case, and what customer outcomes would be possible if no additional investment was made.	Further modifications were made as new information became available and key events occurred including: • Engagement of the CCRG and receipt of feedback in late 2022. • The release of IPART's handbook in July 2023 • A peer review from Utilities Regulation Advisory (URA) In response, Phase 5 was added to the design to explore customer preferences around key investment areas that required a greater level of customer knowledge and how Sydney Water sets prices and charges customers. Phase 6 was added to more deeply explore customer preferences around how Sydney Water could charge for its services.

Phase 1: Outcomes, priorities and expectations Identify customer expectations, service level metrics/expectations/targets & customer engagement priorities.	**Phase 1: Understand customer priorities for Sydney Water** Explore and rank customer priorities for Sydney Water; and establish customer WTP for each priority area.	**Phase 1: Understand customer priorities for Sydney Water** Explore and rank customer priorities for Sydney Water; and establish customer WTP for each priority area.
Phase 2: Customer Recommended Plans Build on Phase 1 with customer input on draft business plans/ blueprints (e.g. zero carbon plan; robust & resilient water). Test methods to deliver improved outcomes, identify customer insights; indicative WTP.	**Phase 2: Understand customer expectations for service levels.** Explore customer expectations for service levels (specifically for reliability, outages and communications).	**Phase 2: Understand customer expectations for service levels.** Explore customer expectations for service levels (specifically for reliability, outages and communications).
Phase 3: Customer Recommended Portfolio Identify customer support for major cost elements of the 10-Year Enterprise business Plan and LTCOP; test WTP.	**Phase 3: Test customers' preferred combination of service and expenditure options** Understand customer preferences regarding service level options (including costs/ bill impact). At this point, it became evident that more time was needed for customers to make informed recommendations in some areas.	**Phase 3: Test customers' preferred combination of service and expenditure options** Understand customer preferences regarding service level options (including costs/ bill impact). At this point, it became evident that more time was needed for customers to make informed recommendations in some areas. The CCRG, IPART and URA made recommendations following Phase 3 that led to Phases 5 and 6 being added to the program.

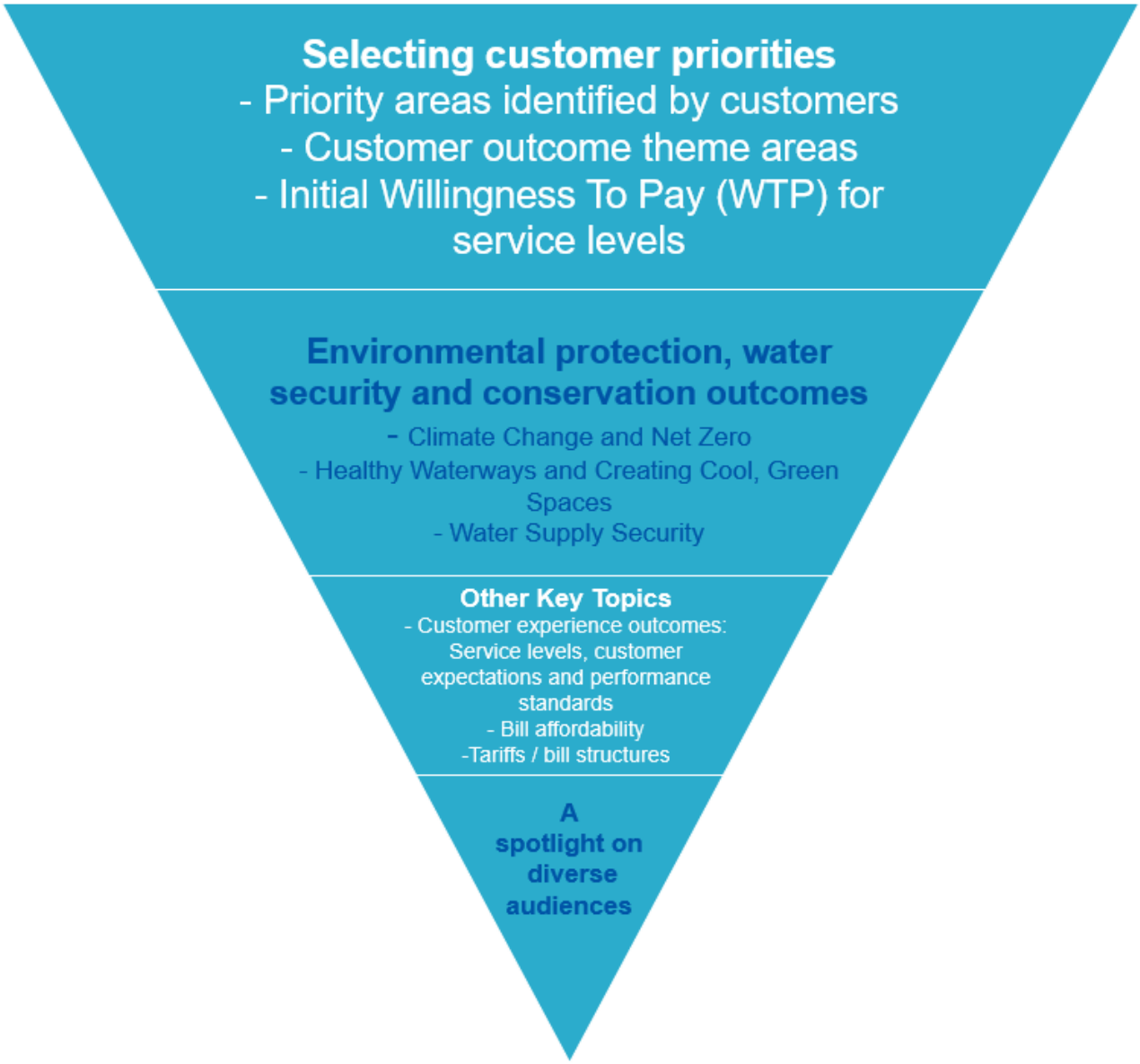
Phase 4: Developing Draft OL and Price Proposals Explore topics identified as priorities but where customer opinions / WTP diverge from business plans as priorities for the next Price Proposal. Explore new topics arising. Customer response to draft Operating Licence submission, including a draft Customer Contract.	**Phase 4: Test customer WTP for service level changes in key expenditure areas** Understand customer WTP for enhanced service levels across key areas of expenditure. Develop a list of principles to guide Sydney Water when making investment decisions.	**Phase 4: Test customer WTP for service level changes in key expenditure areas** Understand customer WTP for enhanced service levels across key areas of expenditure. This accounted for considerable base bill increases required for Sydney Water to meet its obligations. Develop a list of principles to guide Sydney Water when making investment decisions.
Phase 5: Customer Recommended Customer Contract & Price Proposal Determine 'customer recommended price proposal'. Present package of recommended plans etc. Rank / select preferred delivery option / performance settings to arrive at a preferred portfolio, costed at the estimated total bill level (WTP).		**Phase 5: Review how Sydney Water provides services that customers want and need while managing costs** • Deeply explore customer preferences around key investment priority areas such as preventing pollution and water supply security. • Establish preferred cost / performance / risk settings. • Identify key customer considerations when making investment decisions. This phase was added in response to recommendations from the CCRG, URA and upon review of the requirements of the IPART

		Handbook released in July 2023.
		Phase 6: Review how Sydney Water sets prices and structures bills. • Deeply explore customer preferences around price structures, price controls, and Outcome Delivery Incentives (ODIs). • Establish a set of fairness principles to guide Sydney Water decision-making. This Phase was added in response to recommendations from the CCRG, URA and upon review of the requirements of the IPART Handbook released in July 2023.

2.4 Reporting notes

- Any mention of Greater Sydney includes the Blue Mountains and Illawarra.
- This report is a summary of findings from each phase only. It is not intended to be a complete registry of all findings. Much more detailed findings about each phase can be found in the reports that accompanied individual phases. This is intended to map the findings across the engagement journey with only the key headlines covered.
- Figure 12 shows how the report is structured. It starts by broadly mapping out the priority selection process, before delving into specific areas such as specific customer outcomes and other important topics, such as service and performance expectations, bill affordability and tariff / bill structure and pricing controls. Each chapter then maps the progression of each topic; from Phase 1, where it was identified as an area of customer engagement through to the later phases, where investment recommendations and customer WTP was established.

Figure 12. Report structure diagram.



3 Selecting Customer Priorities

3.1 Why letting customers select Sydney Water's priorities is important.

Our Water, Our Voice was shaped by customer recommended priorities. These priorities reflect what is important to customers and where they feel Sydney Water should prioritise their time, energy and investment resources over the next 10 years. In addition, the findings identify investment areas that customers view as having lesser priority, such that customers are willing to trade off lower levels of service in return for lower bills.

It is important for an organisation like Sydney Water to engage with customers in this way when setting its investment priorities, because, by understanding what matters most to customers, Sydney Water can align its services and investments with the priorities of customers.

IPART recognises the value of this and has stated that customer priorities should help identify efficient levels of service and target outcomes. It is also worth noting that effective customer engagement goes beyond simply informing customers about what Sydney Water is planning. It involves educating customer, actively listening to their concerns, providing clear information about trade-offs, and incorporating their feedback into decision-making.

This chapter explains how Sydney Water engaged with its customers in Phases 1 and 2 and how it established a list of outcome focused priorities that informed the rest of the program. Subsequent chapters focus on individual outcomes linked to these priorities as well as additional topics (as described in Figure 12).

3.2 Priority areas identified by the customers.

During Phase 1 of the *Our Water, Our Voice* program, customers identified 15 priority outcomes for Sydney Water to focus on. These priorities were unprompted in nature and customers were not provided with background information about the challenges facing Sydney Water in the future. Table 3 presents these priorities in their initial raw form. This list captures how customers interact with water, and the areas customers value and consider important. These priorities laid the foundations for the entire program and shaped the conversation with customers across all subsequent phases. This is also, however, only the starting point. Potential trade-offs such as bill impacts were explored in depth, later in the program. Table need 3 presents the areas customers value, consider important and would like Sydney Water to focus on or make improvements around, into the future.

Table 3. Customer recommended priority areas for Sydney Water

Priority areas customers want Sydney Water to focus on (the list below is not ranked in order)	Why was this important to customers?
Minimise and reduce breakages in the pipe network	When customers see water gushing, flowing, or even trickling down the road or in a public space they find this frustrating and see it as wasteful. When Sydney Water is slow to react to leaks and breaks (and allows water to continue to leak for days or even weeks), it suggests to customers that Sydney Water must not value water conservation.
Improve stormwater management, storage and capture in local areas and homes	Customers believe Sydney Water could make better use of rainwater and stormwater, by capturing, storing, and reusing this water where a lower quality of water is tolerable (e.g., irrigation), therefore, saving potable water for consumption and hygiene.
Improve resilience to drought (through increased uptake and usage of recycled water or desalination)	Customers recognised the challenges associated with population growth and changing weather patterns, and they recognised how this could lead to more frequent water shortages in times of drought. As such, the need for additional water sources was seen as an important priority for Sydney Water.
Reduce the period in which Greater Sydney experiences or requires water restrictions	Water restrictions are a constraint on people's lives and minimising restrictions was viewed as a priority for Sydney Water. They viewed proactive measures taken now (stormwater capture, increased wastewater recycling), to minimise restrictions in the future, favourably.
Increase water savings and improve community knowledge about how to save water	Customers accepted that even outside of times of drought, they have an individual responsibility to reduce their personal water use. They felt Sydney Water should help customers reduce their usage and suggested education programs, communications and rebates / subsidies for in-home water saving devices as ways Sydney Water could possibly do this.

Maintain water quality and cleanliness at current levels	Maintaining access to a clean and safe drinking water supply was critical for customers. Ensuring current standards do not slip was a high priority for customers.
Ensure waterways and water recreation areas remain clean and safe to use	Customers value waterways that are safe to use, and waterways that are polluted or unsafe for swimming were considered undesirable and should be avoided.
Ensure water and wastewater bills remain affordable	Customers felt strongly that bills must remain affordable for all. Given that water is essential for life, they felt that everyone should be able to access it. They also supported the use of hardship programs for financially vulnerable customers as a way of ensuring this.
Proactively modernise communications with customers (e.g. live updates on dam levels, traffic light levels for water restrictions)	Customers believed that more communication and information would help them manage their water use more effectively and feel more informed about planned and unplanned outages. Suggestions included leveraging technology and smart phone apps to enable this.
Contribute to a cooler environment through the maintenance of green public spaces	Public parks and green spaces are highly valued by customers, even more so following the COVID-19 pandemic. Customers wanted to see public spaces planted and irrigated smartly, to maintain greenery, while keeping water use low. They also expected use of drought-tolerant native plants and irrigation with recycled water, not potable water.
Reduce the discharge of wastewater pollution to rivers and the ocean	Customers felt that far too much wastewater is sent out into the oceans and waterways. They argued that reducing wastewater discharges would allow for healthier waterways and could be treated and re-used for a range of benefits (reducing waterway pollution, irrigation etc.).
Reduce the risk of drinking water experiencing issues with odour or taste after occasional changes in the environment (flooding, heatwaves, drought, etc)	Customers understood that some events impacting water taste, odour and appearance are outside of Sydney Water's control (e.g., in extreme weather events). However, they felt that poor network maintenance also leads to more frequent instances of taste and odour events. For many customers, water that is safe to drink was not enough, it also needed to be pleasant to drink.

Reduce net carbon emissions to zero by 2050	Customers believed that government organisations must lead the way when it comes to achieving Net Zero carbon emissions and, therefore, felt that Sydney Water should also reduce net carbon emissions to zero by at least 2050 as a minimum, but preferably sooner.
Minimise the impact of outages (planned and unplanned)	Outages can disrupt home life and can negatively impact production and sales for businesses. Customers wanted to see outages minimised.
Maintain a standard of customer service that meets or exceeds customer expectations	Customers expected a high level of customer service when interacting with Sydney Water, including easy and seamless digital interactions.

How the priorities were established

The priorities in Table 3 were established through several exercises that looked at how customers interact with water. Tables 4 and 5 describe a range of interactions customers have with water and wastewater. Customers collectively described both positive and negative interactions through an exercise known as ‘the ripple exercise’. This exercise involved customers identifying the positive and negative interactions they have with water and wastewater. These could take place in their homes, their local area and in the wider Greater Sydney region. The discussion facilitated customers to thoroughly consider the value of water and its personal significance which, in turn, made it easier for them to develop the list of customer priorities presented in Table 3.

Given the foundational importance of the customer priorities, Table 4 and 5 contextualise the origins of these priorities.

Table 4. Positive interactions customers have with water and/or wastewater.

Positive interactions with water and/or wastewater	
Individual interactions around the home	When reflecting on positive interactions with water and wastewater around their home, customer priorities centred around the following key areas: • **Constant access to reliable and clean water:** Customers described water as being readily available, clean, odourless, and safe for all household uses (drinking, washing, cleaning, gardening, cooking, showering, toilets, etc.). They appreciate this and want it to stay this way. • **Water facilitating wellbeing:** Customers acknowledged that water plays a key role in facilitating wellbeing at home. Specific examples included relaxing in a warm bath, watching the kids run under a sprinkler on a hot day, keeping pets clean and healthy, helping people to grow fruit and vegetables, and providing water access for local birds and wildlife. • **Fairly priced:** There was a general feeling that water and wastewater bills are reasonably consistent, and appropriately priced at an affordable level.
In the local community or neighbourhood	The role of water in creating attractive and thriving local spaces was mentioned by customers as delivering positive interactions. Specifically, when it came to: • **Keeping local parks clean, healthy, and beautiful:** Customers spoke of local parks, gardens and playgrounds being kept green and healthy, allowing people to enjoy these recreation spaces, and leading to more picturesque local communities. They also said the availability of clean, working toilets allow for longer periods of enjoyment at these open spaces. Customers were particularly positive about the use of recycled water or harvested rainwater to irrigate parks, reserves, ovals, or playgrounds in their local community. • **Local built features in the community:** This helps facilitate positive associations with water, including bubblers, water fountains, as well as public pools and community gardens, which foster a sense of community and wellbeing, as well as providing amenity. • **An essential part of local businesses:** Water allows many businesses to operate, which contributes to the community in many ways. For example, the availability of local car washes, coffee shops, hairdressers and other businesses.

Across Greater Sydney	In addition to the positive interactions already mentioned, at a Greater Sydney level, customers spoke positively about water in the context of: • **Supporting safe communities:** There were two elements raised in this area. Firstly, keeping public health as a priority through the supply of clean and safe water, and the efficient and hygienic removal of wastewater. Customers trust Sydney Water to get this right and felt reassured knowing they don't have to worry where water comes from or whether it's safe to use. Secondly, water contributes to public safety in times of bushfire – with firefighters able to access large volumes of water to fight fires, therefore, keeping the community (people and property) safe. • **Supporting major industry:** Manufacturing (especially drinks manufacturing i.e., Schweppes, Coca-Cola) and farming / agriculture were industries identified as being heavily reliant on water. Access to water helps support these, and other industries, to contribute to the Greater Sydney economy. • **Facilitating recreation across Greater Sydney:** Customers spoke about positive interactions with water across Greater Sydney in major rivers, creeks, lakes, oceans, and other waterways. Specific recreation activities mentioned included fishing, swimming, houseboats, kayaking and water parks. • **Supporting the natural environment:** Customers described the positive impact thriving waterways have on local flora and fauna, as well as public amenity, wellbeing and enjoyment. Customers highlighted the need to consider the future needs of Greater Sydney, to ensure these benefits continue to be enjoyed with continuing population growth. They spoke positively about water conservation efforts they were aware of, for example, new homes now requiring increased rainwater capture and grey water use as part of building / planning codes, saving potable water for the most important uses.

Table 5. Negative interactions with water and / or wastewater

Negative interactions with water and / or wastewater	
Individually or at home	When reflecting on negative interactions with water and / or wastewater around their home, the responses were reasonably consistent across customer forums, and were centred around the following key areas: • **Perceptions of water being 'wasted':** Customers were conscious about conserving water and become frustrated when water is 'wasted'. Specific examples of 'water wastage' included long showers, leaking taps / toilets, full flushes, having to leave taps on waiting for water to run hot and rainwater overflowing gutters, rather than being captured. They also saw non-captured rainwater as being 'wasted' to the stormwater system. • **Lack of lower-quality or recycled water options:** Having to use 'clean' water on the garden also felt wasteful of precious potable water. Customers wanted to see more in-home recycling options for rainwater and / or wastewater (grey water recycling, rainwater tanks, etc). They advocated for a lower-quality or recycled water option for use outside the home. • **Water aesthetic issues during / following extreme weather events:** Although accepting that the network will occasionally be impacted, customers expressed concern about taste and appearance during / following extreme weather events. • **Water aesthetic issues generally:** Outside of extreme weather events, some customers were dissatisfied with the taste (chemical / chlorinated), smell and appearance (murky, floaters) of water, and inconsistencies in water aesthetics between streets / suburbs. • **Perceived inequity in billing:** Some felt that single-person households are unfairly disadvantaged compared to multi-person households. Non-individual billing for apartments also created frustration as people are less accountable for their usage. • **Frustrations with unplanned outages:** When unplanned outages occur, especially during peak times, it interrupts customer routines and creates frustration. • **Forced water restrictions:** Customers understand that in drought, restrictions have a role. However, being unable to water gardens, which contribute to their wellbeing, is a source of frustration. • **Cost and damage to homes and gardens from water / wastewater events:** Customers spoke of damage to homes and gardens from leaks, breaks, poor drainage or blockages. This creates inconveniences of time, cost and damage. • **Fluctuations in water pressure:** • **Water quality and safety:** Customers expressed frustration with water quality scares in previous years, specifically giardia.

In the local community or neighbourhood	In the local community, negative experiences with water and / or wastewater were typically linked to perceptions of water being wasted or impacts on waterway health. • **Seeing water being 'wasted':** This not only included seeing people within the community wasting water (e.g., hosing down concrete driveways or ignoring restrictions), but also extended to the actions of local government (leaving sprinklers on during a storm, perceived lack of stormwater re-use), and Sydney Water itself (allowing water from breaks to continue flowing down the street, not repairing leaks / breaks quickly enough, or not being repaired the first time, resulting in repeat issues). • **Waterway health issues:** Pollution in waterways was a major source of frustration. Customers see litter in stormwater and local waterways and are concerned this will flow into the ocean, negatively impacting marine life. Stagnant water in local parks, reserves and waterways is also a point of frustration, resulting in dead fish and mosquitos, which presents potential public health risks (beyond the frustration of not being able to use or enjoy these spaces). • **Drainage problems:** This was raised repeatedly as being a point of frustration. Poor drainage in local streets, parks and reserves restricts public access to, or enjoyment of, these spaces as pooling water becomes mouldy and stagnant. Customers spoke of a lack of public access to water for humans to drink (bubblers, water stations, etc.) and expressed frustration with restrictions experienced when in drought conditions, and the impact this has on the amenity of streets, parks and other open spaces.

Across Greater Sydney	Customers also frequently commented on water wastage and waterway pollution when considering negative interactions with water / wastewater across Greater Sydney. In addition, customers raised: • **Perceived lack of infrastructure maintenance, leading to increased leaks and breaks:** Customers spoke about being negatively impacted by leaks and breaks, which they attributed to a lack of infrastructure maintenance, and a need for more proactive cleaning, monitoring or maintenance, to minimise the number of unplanned leaks and breaks. • **Concerns for insecure water supply in dry periods:** The frustration for customers isn't necessarily about having to live under water restriction conditions, but that they don't believe enough is being done to future-proof the water supply. Customers expect Sydney Water to future-proof the network from the perspective of a changing climate, but also to guard against the strain that a growing population will continue to place on the network. They wanted to ensure that network capacity is being increased to meet the demands of a growing population. Customers also mentioned feeling frustrated with water restrictions experienced when in drought conditions, and the negative impact this has on people's lives. Customers wanted to see Sydney Water ensure there is sufficient infrastructure to support growth and development in Greater Sydney and questioned whether there is scope to increase the amount of wastewater that is recycled.

In addition, several further areas were presented to customers, to understand the extent to which they felt it is a risk or something that might change, whether Sydney Water should act to address this, and if so, what the outcome should be. These areas included restrictions and water conservation (in times of drought), greening and cooling, wastewater discharge to oceans and rivers, water aesthetic (taste, odour) and carbon emissions.

Ranking Customer Priorities in order of importance

Delivering notable improvements in each of these 15 priority areas alongside existing service standards, amid a growing population, climate change and ageing infrastructure, was likely to have a substantial impact on bills. Establishing a priority order and understanding of customer WTP became crucial in prioritising customer priorities and what Sydney Water can realistically deliver.

Customers participated in a quantitative MaxDiff survey with Best Worst Scaling (BWS) to rank the importance of each of these priorities relative to others identified. The MaxDiff methodology is a ranking tool that simplifies the task for customers by breaking it up into manageable subsets. For example, instead of ranking all 15 priorities from best to worst, they rank five to six priorities at a time.

MaxDiff does not, however, consider customer WTP for enhancements to the priority areas as the cost of achieving the alternative outcomes in the list of potential priorities is not disclosed to customers. A choice modelling experiment is a best practice method of estimating WTP. However,

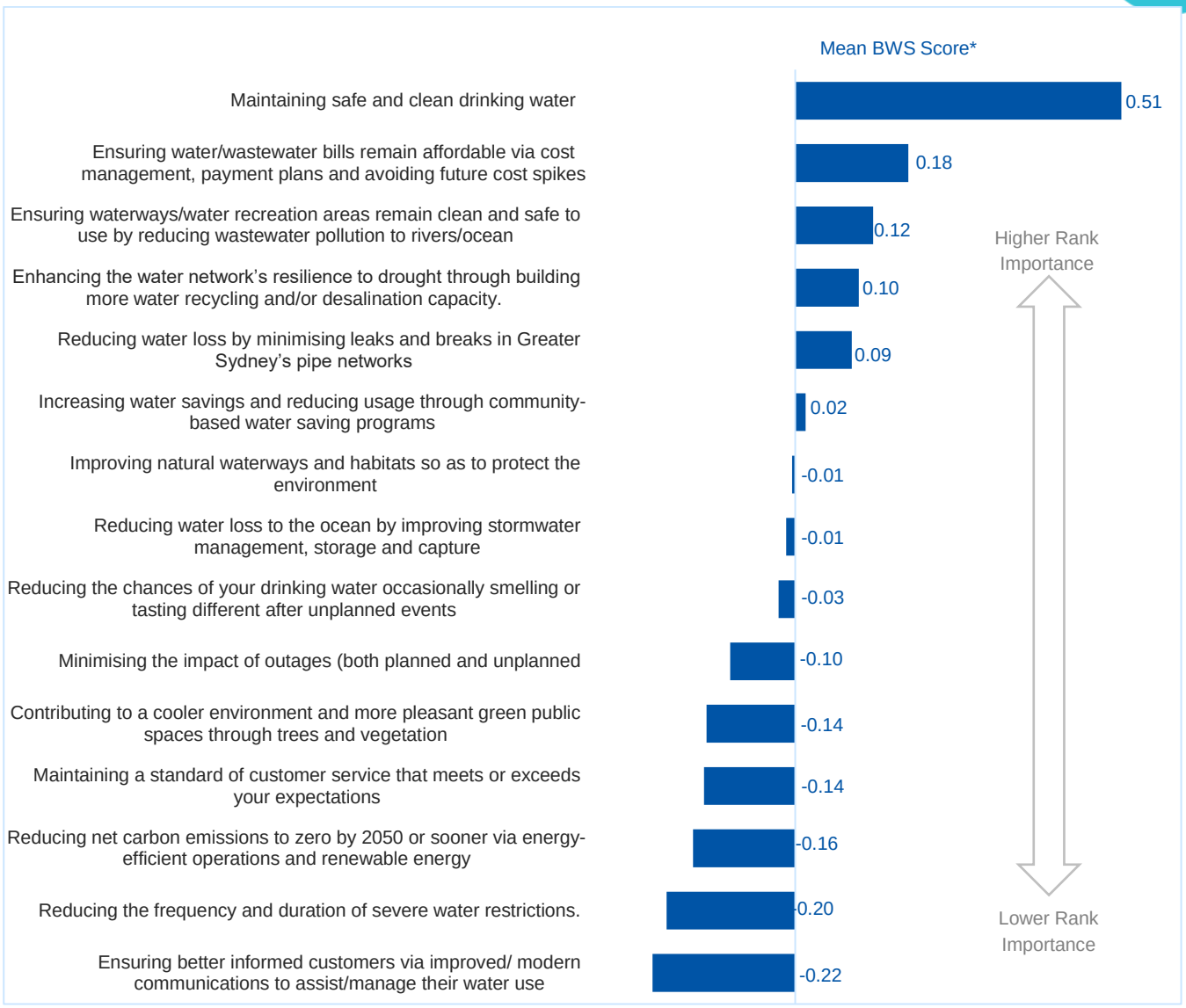
a limitation of the method is that it cannot reliably evaluate WTP for 15 priorities at a time and has been shown to place an excessive cognitive burden on respondents. Therefore, establishing a ranked order of importance, before running a choice model, not only helped Sydney Water to decide which priorities to include in the choice model, but also provided an early indication of what customers consider most important.

Of these 15 priorities, the MaxDiff showed that the top three most important customer priorities were:

1. Maintaining safe and clean drinking water.
2. Ensuring water and wastewater bills remain affordable.
3. Ensuring waterways and water recreation areas remain clean and safe to use by reducing wastewater pollution to rivers and the ocean.

Maintaining safe and clean drinking water is understandably the top priority and generally considered a non-negotiable service that Sydney Water would never compromise on. As such, it is treated as a non-discretionary and non-negotiable customer outcome. This meant that minimal direct customer engagement was required on this topic in many of the subsequent phases. Figure 13 shows the full list of priority areas and which ones were relatively most and least important to customers.

Figure 13. Customer priorities ranked in order of importance using Max diff BWS.



Base: Total sample (n=1,537)

Refining the priorities ahead of the Phase 1 DCE.

Following the MaxDiff, an analysis session was conducted to refine feedback received from customers into clear, outcome-focused, quantifiable customer priorities. This was an extensive exercise that included the team of moderators from the qualitative phases, regulatory economic experts (Synergies), and Sydney Water's project team. The objective of this session was to distil the quantum of customer feedback into actionable, outcome-focused priority areas for Sydney Water.

Table 6 showcases this process, with the column second from the right being an actionable outcome for Sydney Water and the far-right column being an attribute to be included in the Phase 1 DCE to help establish WTP.

Table 6. Priority outcomes refinement exercise

Common customer Feedback	Is this outcome focused or process focused?	What is the potential underlying area of focus?	What are the primary customer motivations underpinning this?	Actionable priority outcome for Sydney Water	Attribute for Phase 1 DCE
Minimise and reduce breakages in the pipe networks	Process (the outcome is reduced water loss)	Efficiency of water use/ resource conservation	1. Keeping bills low 2. Environmental benefits of conserving water	Reducing water loss by minimising leaks and breaks in Greater Sydney's pipe networks	**Water loss from leaking pipes**
Improve stormwater management, storage and capture in local areas and homes	Process (the outcome is reduced water loss to ocean, evaporation, etc.)	Efficiency of water use/ resource conservation	1. Keeping bills low 2. Environmental benefits of conserving water	Reducing water loss to the ocean by improving stormwater management, storage and capture	**Capturing and re-using rainwater**
Increase water savings/ reduced water usage across Greater Sydney	Outcome	Efficiency of water use/ resource conservation	1. Keeping bills low 2. Environmental benefits of conserving water	Increasing water savings and reducing usage through community-based water saving programs	**Water saved from community water saving programs**

Maintain water quality and cleanliness at current levels	Outcome (potential for multiple interpretations – drinking water quality or the quality of waterways for recreation)	Water quality	1. Public Health 2. Environmental health		Maintaining safe and clean drinking water	**(Not used in the Phase 1 DCE as it is a non-negotiable mandatory outcome)**
Improve community resilience to drought (through increased uptake and usage of recycled water or desalination)	Outcome (implies improved water security /less restrictions)	Water security	1. Less impact on customer 2. Less impact on society in general		Enhancing the water network's resilience to drought, through building more water recycling and / or desalination capacity	**Frequency of water restrictions during drought**
Ensure waterways and water recreation areas remain clean and safe to use	Outcome	Recreation / liveability	1.	Improved / safer recreation	Ensuring waterways and water recreation areas remain clean and safe to use (by reducing wastewater pollution to rivers and the ocean)	**Number of good recreational waterways**
Ensure water and wastewater bills remain affordable	Outcome	Affordability	1.	Less impact on customer (financial specific)	Ensuring water and wastewater bills remain affordable (through careful cost management, guarding against future cost spikes and offering payment plans that help to make bills more manageable)	**Not included in the Phase 1 DCE as an individual attribute as it applies across all**

Proactively modernise communications with customers (e.g., live updates on dam levels, traffic light levels for water restrictions)	Process (the outcome is better informed customers – possibly leading to 'desirable behaviours')	Communications and education (also water conservation)	Customers who want to see the whole community use less water are motivated by: 1. Keeping bills low 2. Environmental health	Ensuring better informed customers, by improving and modernising communications to assist them with managing their water use	**Not included in the Phase 1 DCE**
Reduce the period in which Greater Sydney experiences. or requires. water restrictions	Outcome	Water Security	1. Less impact on customer 2. Less impact on society generally	Reducing the frequency and duration of water restrictions	**Frequency of water restrictions during drought**
Contribute to a cooler environment through the maintenance of green public spaces	Outcome	Liveability	1. Health and well being	Contributing to a cooler environment and more pleasant green public spaces through the establishment / maintenance of trees and vegetation	**Water for green public spaces**
Reduce the discharge of wastewater pollution to rivers and the ocean beyond current standards	Process (the outcome could be safer recreation or habitat protection)	Environment / sustainability	1. Safer recreation 2. Healthier environment	Improving natural waterways and habitats so as to protect the environment	**Healthy waterways and habitats**
Reduce the risk of the drinking water experiencing issues with odour or taste after occasional	Outcome	Water quality	1. Public health 2. Aesthetics	Reducing the chances of your drinking water occasionally smelling or tasting different	**Drinking water taste and smell**

changes in the environment (such as flooding, heatwave, fire or high wind events)				after unplanned events	
Reduce net carbon emissions	Outcome (reduced carbon emissions is an intermediate outcome, with the intended outcome being environmental protection)	Environment/ sustainability	1. Environmental health	Reducing net carbon emissions to zero by 2050, or sooner, through more energy-efficient operations and greater use of renewable energy	**Net Zero carbon timeline**
Improve community knowledge about water and how to minimise usage	Process (the outcome is better informed customers – possibly leading to better water use practices)	Communications and education (also water conservation)	Customers who want to see the whole community use less water are motivated by: 1. Keeping bills low 2. Environmental health	Increasing water savings and reducing usage through community-based water saving programs	**Water saved from community saving programs**
Maintain a standard of customer service that meets or exceeds customer expectations	Outcome	Customer experience / service levels	Less impact on customer	Minimising the impact of outages (both planned and unplanned)	**Proportion of customers affected by outages**
Maintain a standard of customer service that meets or exceeds	Outcome	Customer experience / service levels	Improved customer experience	Maintaining a standard of customer service that meets or exceeds	**Customer service resolution times**

Establishing an estimate of customer WTP for a refined list of customer outcomes using a DCE approach

The refined list of customer priorities was used in the Phase 1 DCE to establish an estimate of customer WTP for different levels of service. The outcomes became the Phase 1 DCE attributes and Sydney Water's project team developed and refined three to five realistic levels for each attribute / outcome to include in the model's design. These levels were set to represent the potential range of services that could be delivered by Sydney Water under alternative investment strategies. This process of selecting the attributes for the Phase 1 DCE and designing the attribute levels also helped to further refine and streamline the wording of the attribute descriptions.

The result was a list of attributes described in customer friendly language. Sydney Water deliberately elected not to include extreme attribute levels that would be considered either unrealistic or unfeasible to deliver. Table 7 shows the attribute levels that were tested and a description of each attribute.

Note that this was the first of two DCEs run as part of the *Our Water, Our Voice* program. Sydney Water deliberately planned two DCEs as part of this customer engagement: the first in Phase 1 and the second in Phase 4.

The first DCE was intended to be more broadly focused and was used to establish the most important outcomes to customers. This provided insight around where there is potential for additional investment and helped inform topic prioritisation for the rest of the customer engagement program.

The second DCE in Phase 4 was more narrowly focused and looked at a list of outcomes that had been refined further in response to customer feedback across the first four phases of customer engagement. The attributes were more specific and aligned closely to customers' most pressing priorities for Sydney Water. The Phase 4 DCE was also able to account for the 36% bill increase required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years.

The two DCEs tested both enhancements in service levels and, where possible, tested reductions in service levels as well to allow customers to make trade-offs. It is worth noting that Sydney Water included operating licence levels in the DCE that weren't customers' most pressing priorities. Sydney Water chose to do this as it needed to gain as much certainty that existing levels were appropriate prior to finalising the operating licence for 2024-28.

Table 7. Phase 1 attributes and performance levels (the **current status quo** levels of each attribute as currently delivered are highlighted in bold).

DCE Attributes	Attribute Description shown in DCE	Attribute Levels

Number of good recreational waterways	The number of clean and safe beaches, rivers, creeks, lakes and streams for recreation like swimming, kayaking, fishing, boating, paddling, etc. There are currently 115 swim sites across Greater Sydney, measured by the following grading system: Very good = Excellent water quality, almost always suitable for swimming. Good = Good water quality, suitable for swimming most of the time. Fair = Generally good water quality except for three days after rainfall or when there are signs of pollution. Poor = Water quality is susceptible to pollution and is not always suitable for swimming, avoid swimming during and three days after rainfall. Very poor = Water quality is very susceptible to pollution and often not suitable for swimming. Avoid swimming. Additional sites refer to either the creation of a new site to a quality that is good or very good, or improving an existing site to a quality that is good or very good.	**98 good/very good sites**
		103 good/very good sites
		108 good/very good sites
		113 good/very good sites
		118 good/very good sites
		123 good/very good sites
Water saved from community water saving programs	Water saving programs include ways to help customers use less water (e.g., education and information, subsidies for efficient shower heads and toilets, etc.)	**Customers will save 2% water use**
		Customers will save 4% water use
		Customers will save 6% water use
		Customers will save 8% water use
		Customers will save 10% water use
Healthy waterways and habitats	Urban waterways are those that are impacted by the growth of the city and human activities. The health of urban waterways across Greater Sydney is described as either 'poor', 'fair', or 'good'. Waterways described as 'poor' have low water quality, little biodiversity, and litter around them. They are less natural and vegetation has been removed and replaced with concrete or pipes due to erosion from too much rainwater. Waterways described as 'good' are healthy, beautiful, feel natural and provide habitats for plants and animals and nature to flourish. This means being safe from pollution, natural habitats thriving and	**Most urban waterways in Sydney are in 'poor' health**
		Most urban waterways in Sydney are in 'fair' health
		Most urban waterways in

	restoration of concrete channels to a more natural, pleasant state that supports plants and animals.	Sydney are in 'good' health
Drinking water taste and smell	On average, the number of complaints Sydney Water receives each year about drinking water, while safe to drink, smelling or tasting different. This is often due to major rainfall and flooding events.	Double the complaints
		Same number of complaints
		Half the complaints
Proportion of customers affected by outages	Proportion of customers affected by unplanned outages (greater than five hours) each year caused by broken pipes. Outages affect customers' water supply.	3%
		2%
		1%
Water for green public spaces	Water allocated for green public spaces, helping to build a cooler environment. Public green spaces include parks, sporting fields, golf courses and gardens.	**Public spaces brown and dry over summer**
		Public spaces green over summer, but brown and dry during drought
		Public spaces green over summer and during drought
Customer service resolution times	The time it takes Sydney Water to resolve a general enquiry or issue you raise with them about your account on a non-urgent matter. Contact may be made through a self-service portal, website or call centre and enquiries include things like copies of account statements, change of mailing address, query on water usage, application for pension rebates, hidden leak allowance and change of property classifications.	7 business days
		5 business days
		3 business days
		1 business day
		Instantly (automated system)
Net Zero carbon timeline	How long it takes to achieve Net Zero carbon emissions through more energy-efficient operations and greater generation and use of renewable energy.	**Reach Net Zero by 2050**
		Reach Net Zero by 2040
		Reach Net Zero by 2035
		Reach Net Zero by 2030
Frequency of water restrictions	The average amount of time (over 10 years) you may have to endure water restrictions during drought (e.g., no outdoor water use at home, work and public spaces or rationing water).	9 months of restrictions over 10 yrs

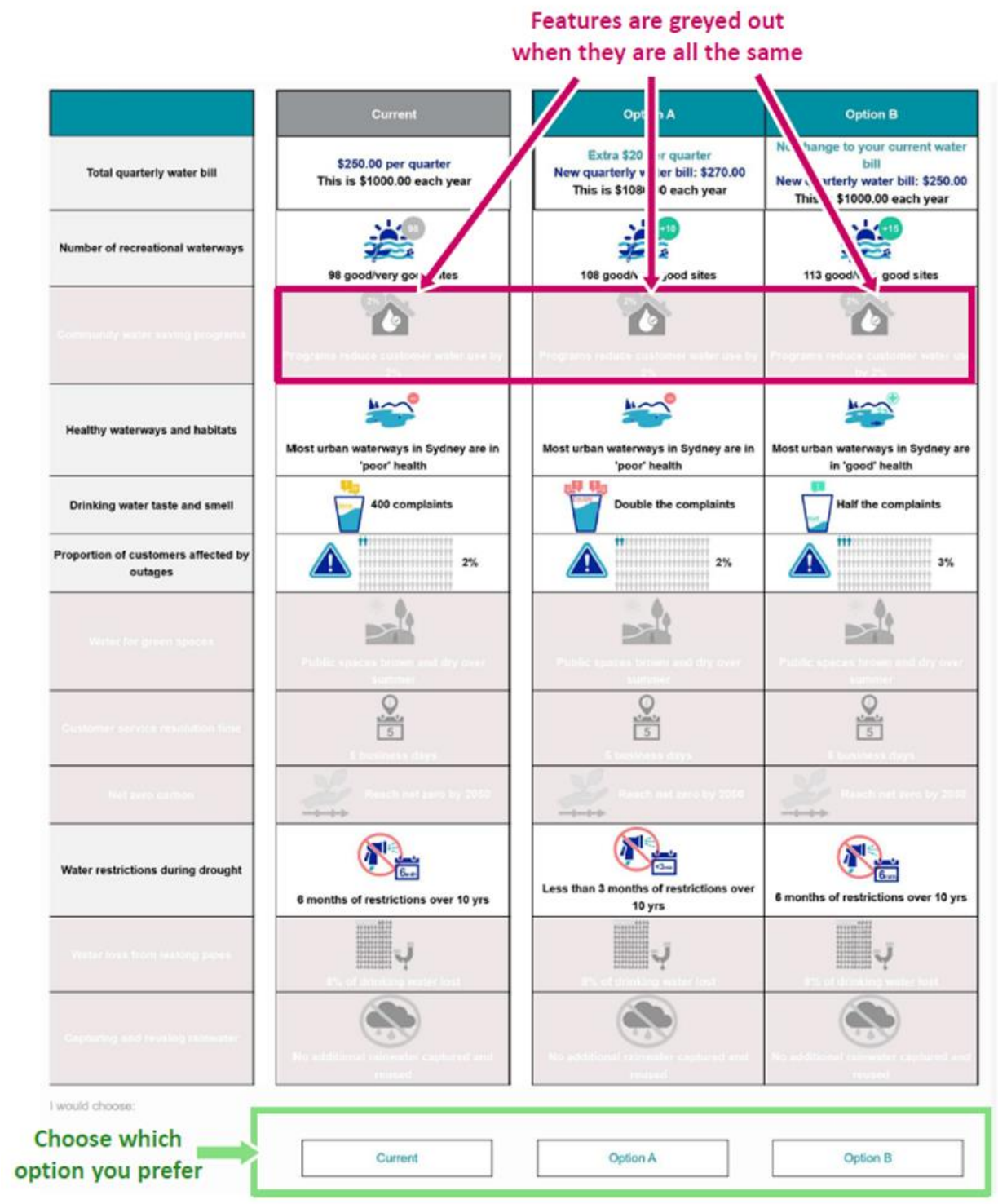
during drought		**6 months of restrictions over 10 yrs.**
		3 months of restrictions over 10 yrs.
		Less than 3 months of restrictions over 10 yrs.
Water loss from leaking pipes	% of drinking water lost through pipe leaks and breaks.	**8% of drinking water lost**
		7% of drinking water lost
		6% of drinking water lost
Capturing and reusing rainwater	The proportion of Sydney Water's water supply that comes from rainwater. This is done through stormwater management, storage and capture in local areas and homes. Water can be used for agriculture, toilet-flushing and other non-drinking uses. This is in addition to rainwater tanks in homes and businesses. For example, 1% of Sydney Water's water supply is 5 billion litres of water or about 2,000 Olympic sized swimming pools. The city currently uses 500 billion litres of water each year.	**No additional rainwater**
		+0.5% (1000 Olympic pools)
		+1% (2000 Olympic pools)
		+1.5% (3000 Olympic pools)

More about DCEs (discrete choice experiments)

DCE or choice modelling is a methodological approach used to study choice behaviour. This method recognises that understanding customer preferences should not be limited to choosing between current service offerings. Instead, there is scope to test stated preferences and demand for new, hypothetical service outcomes that are not already being delivered. In DCEs, survey participants are presented with a series of 'choice sets' with each containing several alternatives described by a common set of attributes. In this instance every choice set includes a 'status quo' option and two or more alternatives. The importance weighting that individuals place on each attribute, and how that impacts decision-making is determined via an experimental design and modelling. Figure 14 shows an example of one of the many 'choice sets' randomly allocated to customers to evaluate as part of the Phase 1 DCE exercise.

The DCE sample was split to compare homeowners versus renters, with homeowners' WTP based on their quarterly bills and renters' WTP based on monthly rent.

Figure 14. One example of the many 'choice sets' randomly allocated to customers to evaluate as part of the Phase 1 DCE.



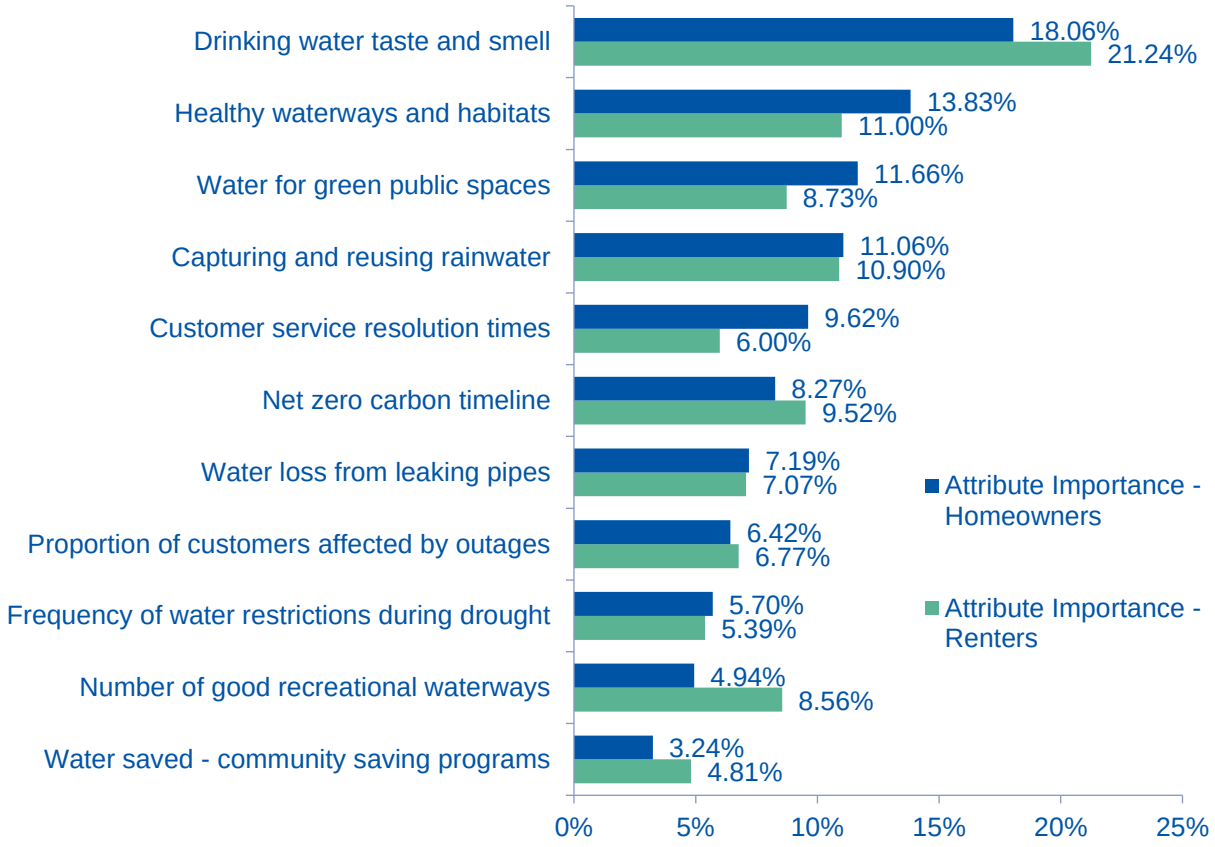
Attribute importance.

The DCE shows how customers make trade-offs between different attributes. This helps Sydney Water understand the importance of different attributes in maximising customer utility. Analysis also enables the calculation of customers' willingness to pay for unit changes in the level of individual attributes. It can also be used to calculate their willingness to pay for a range of

outcomes, by selecting different combinations of attribute levels. While, at the same time enabling the calculation of customer WTP for unit changes in the level of individual attributes and WTP for specified outcomes, constructed by selecting different combinations of attribute levels.

The relative importance of each attribute is calculated by finding the maximum difference in utility between each attribute's level (as a percentage of the total sum of all the maximum differences). Attributes that have the greatest percentage importance are the most influential in driving choice in the experiment. Changes to attributes with higher attribute importance will influence WTP more so than changes to attributes with lower attribute importance.

Figure 15. Attribute importance scores and rankings of the different attributes used in the Phase 1 DCE.



Base: Total sample (n=2,472) *(Note: This did not take into account any future estimated increases as these were highly uncertain at the time).

What this means is that, for homeowners, water aesthetics (the taste and smell of water) had the greatest relative influence over customer WTP. The next most influential attributes were healthy waterways and habitats and water for green spaces. Attributes that were relatively less influential included water saved through community water saving programs, the number of good recreational waterways and the frequency of water restrictions.

For renters, water aesthetics was also the attribute that had the greatest relative influence. The next most influential attributes were healthy waterways and habitats, capturing and reusing rainwater and the timeline for achieving Net Zero carbon emissions. Attributes that were relatively less influential in driving customer utility include water saved through community water saving programs, the frequency of water restrictions, and customer service resolution times.

It is worth noting that customers largely saw water aesthetics as interchangeable with water quality, which was excluded from the two DCEs for reasons mentioned earlier. In the absence of water quality, customers selected water aesthetics as the most important attribute in its place.

3.3 Customer outcome theme areas

Customers then categorised these priorities into theme areas. In Phase 2, customers were presented with the original 15 priorities from Phase 1 and asked to group and name them into thematic areas to focus Sydney Water's efforts. This collaborative process aimed to narrow down key focus areas and empower customers to shape the future of water and wastewater services in Greater Sydney. Customers gave each theme area an overarching name, fostering their participation and ownership in Sydney Water's long-term vision.

Sydney Water used these customer-generated themes to organise outcomes and choices presented to customers in Phase 3 and subsequent phases. These theme areas also informed the content of the remaining phases.

During the theming exercise, customers initially came up with priority theme grouping names but eventually consolidated them into four overarching themes that defined the strategic direction for the program.

The four customer-recommended themes included.

- **The Customer Experience theme:** This involved looking after the customer by meeting their needs with regards to service standards, minimising the impact of water restrictions and outages, keeping bills affordable and ensuring the community is informed and educated.
- **The Quality theme**: This involved Sydney Water continuing to provide customers with a quality product. Examples included anything relating to the safety, cleanliness, smell and taste of water, including during extreme events and unforeseen circumstances.
- **The Environmental Protection theme:** This involved providing clean and natural waterways, habitats, and recreational areas. It also included future-focused priorities, such as contributing to a cooler environment and reducing carbon emissions.
- **The Water Security and Conservation theme:** This included all things related to water security and enhancing the network's resilience to drought. This includes building additional supply (desalination and recycled water), reducing water loss by minimising leaks and breaks, as well as improving management of water resources and community usage through water saving programs. It is worth noting that while these are separate

topics, customers often discussed them together, which is why they were explored and reported together.

Aspects of the **Environmental Protection** and **Water Security and Conservation** themes were explored more deeply in Phases 3, 4 and 5. Many of the aspects of customer experience were covered as part of Phase 2 and within the Phase 4 DCE and bill affordability was covered extensively in every phase. As observed in previous phases, water quality was generally considered to be non-negotiable and is something Sydney Water cannot compromise on and must always treat as a priority.

Table 8. Customer selected outcome theme areas.

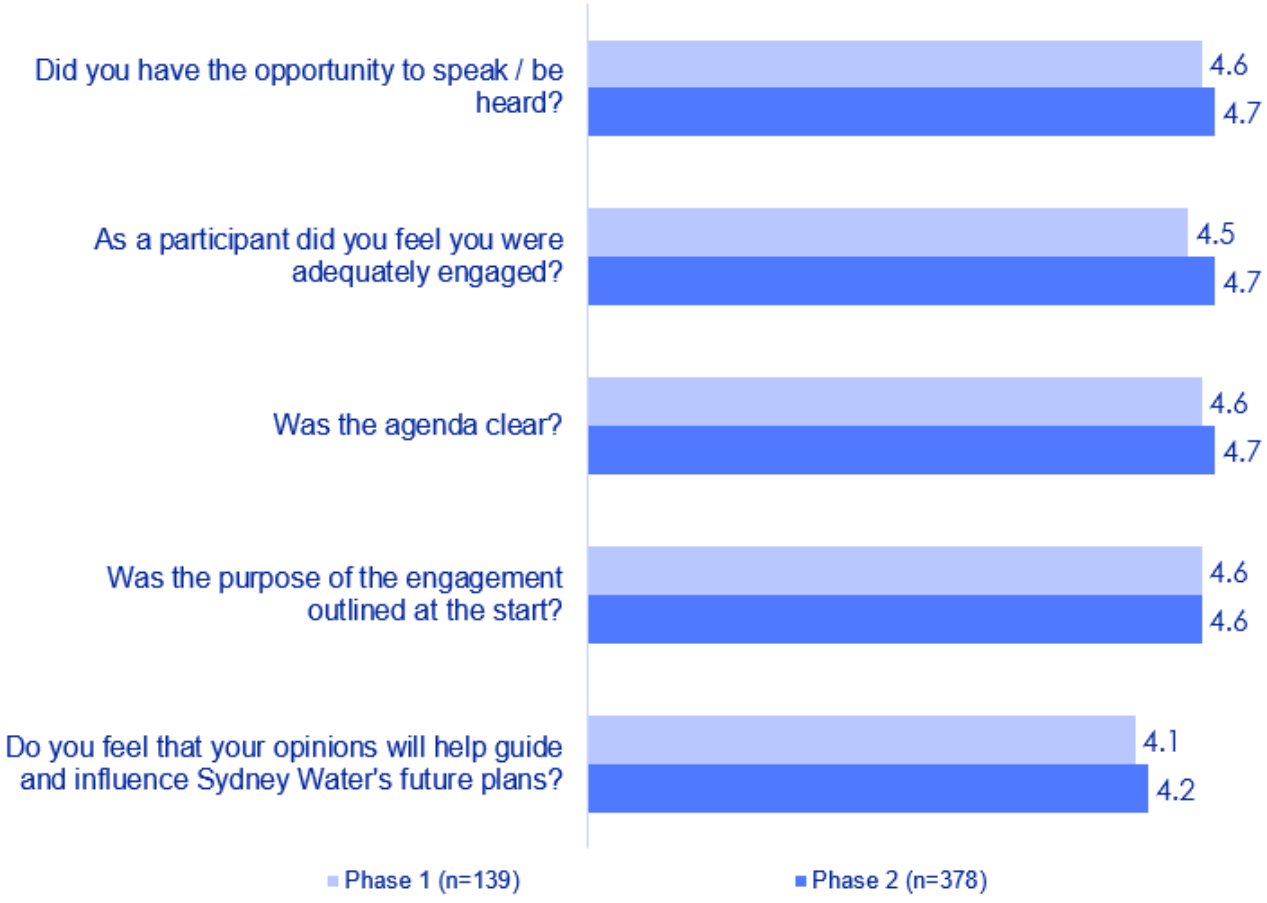
CUSTOMER EXPERIENCE	QUALITY	ENVIRONMENTAL PROTECTION	WATER SECURITY AND CONSERVATION
• Maintaining a standard of customer service that meets or exceeds your expectations. • Reducing the frequency and duration of severe water restrictions • Ensuring water and wastewater bills remain affordable. • Ensuring better informed customers by improving and modernising communications to assist them with managing their water use. • Minimising the impact of outages (both planned and unplanned).	• Reducing the chances of your drinking water occasionally smelling or tasting different after unplanned events (such as flooding, heatwave, fire, or high wind events) • Maintaining safe and clean drinking water.	• Ensuring waterways and water recreation areas remain clean and safe to use by reducing wastewater pollution to rivers and the ocean. • Contributing to a cooler environment and more pleasant green public spaces through the establishment / maintenance of trees and vegetation • Reducing net carbon emissions to zero by 2050 or sooner through more energy-efficient operations and greater use of renewable energy • Improving natural waterways and habitats so as to protect the environment.	• Increasing water savings and reducing usage through community-based water saving programs • Reducing water loss by minimising leaks and breaks in Greater Sydney's pipe networks. • Reducing water loss to the ocean by improving stormwater management, storage and capture • Enhancing the water network's resilience to drought through building more water recycling and / or desalination capacity.

The following chapters of this report map out the customer engagement journey under key themes including Customer Experience, Environmental Protection and Water Security and Conservation. Sydney Water considers quality and safety to be a mandatory aspect of its service delivery and meeting the specified standards is not negotiable. As such there is minimal opportunity to improve or reduce service levels meaning there is less need for engagement. As a result, Sydney Water elected to focus most of the engagement on the other three theme areas.

3.4 Overall customer perceptions of the process of setting priorities

Sydney Water recognises the need for customers to be involved in setting priorities that matter to them for deeper engagement. Throughout Phase 1 and 2, customers expressed high levels of satisfaction with the customer engagement process. On average, they strongly agreed that they had the opportunity to be heard, that they felt adequately engaged, that the agenda was clear, that the purpose of the engagement was outlined at the start, and that they felt their opinion will help guide and influence future Sydney Water plans.

Figure 16. Customer perceptions of the overall customer engagement program evaluated on a 5-point scale.



4 A closer look at climate change and Net Zero

4.1 Looking closer at Climate Change and Net Zero

This chapter lays out the *Our Water, Our Voice* customer engagement journey, which engaged with customers on the topic of Sydney Water **reducing carbon emissions** and **the timeline for reaching Net Zero**. This extends from Phase 1, where it was identified as a customer priority for Sydney Water, through to its inclusion in the Phase 4 DCE.

In short, customers place considerable value on achieving Net Zero by 2030. They are also willing to pay more on their quarterly bills, or monthly rent, to achieve this than it would cost Sydney Water to deliver it.

- Homeowners were prepared to pay an additional $9.50 per quarter to achieve Net Zero by 2030, instead of 2050.
- Renters were willing to pay an extra $6.50 per month on their rent to achieve the same outcome.

Based on the cost estimates at the time of the Phase 4 DCE both amounts were well above the estimated cost of delivering this outcome by 2030 ($5.00-$7.00 per year). This reaffirmed the findings in Phase 1 and suggests that there is sufficient appetite amongst customers to pursue this outcome.

When looking at willingness to pay to achieve Net Zero by 2040, there were notable differences, suggesting considerable appetite for achieving Net Zero sooner.

- Homeowners were willing to pay an additional $2.80 per quarter to achieve Net Zero by 2040, instead of 2050.
- Renters were willing to pay an extra $3.40 per month on their rent to achieve the same outcome.

4.2 The importance of engaging with customers about how Sydney Water can reduce its carbon emissions and achieve Net Zero

Sydney Water acknowledges that reducing its carbon emissions and committing to Net Zero are a priority for its customers in Phase 1. Although it was an area that was prompted with customers, Findings from the Phase 1 and 4 DCEs confirm customer appetite for achieving Net Zero. Throughout the program, Sydney Water engaged customers in a dialogue about their expectations, providing them with an opportunity to guide how quickly Sydney Water optimises its

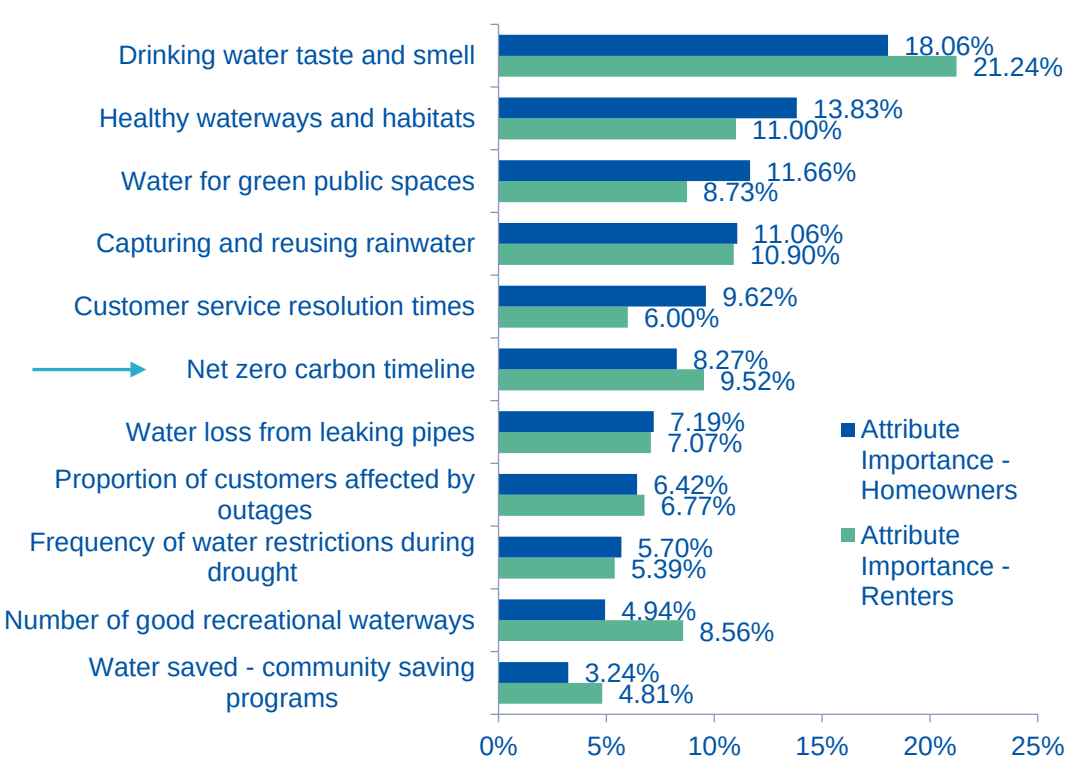
operations to reduce its carbon footprint. This two-way conversation ensured that customer perspectives and expectations were central to Sydney Water's environmental initiatives.

A key consideration is the cost of delivering Net Zero. While this outcome is not as impactful on bills as some other outcomes addressed in this report, Sydney Water still needs to ensure it establishes customer WTP for delivering this outcome ahead of time.

Having this open dialogue is more than just a conversation, it also helps foster trust and empowers customers to feel involved in the process.

4.3 Mapping the journey

Table 9. Mapping the engagement journey – Climate Change and Net Zero

Phase #	Mapping the engagement journey – Climate Change and Net Zero
Phase 1	In Phase 1, customers identified that reducing net carbon emissions to zero by 2050 was a priority for Sydney Water. They argued that government organisations must lead the way and set an example when it comes to achieving Net Zero carbon emissions. Of the 11 priorities that featured in the Phase 1 DCE, bringing forward the timeline for reaching Net Zero had the 6th highest attribute importance score (Figure 17). This translated to customers being willing to pay an extra $12.24 per quarter to bring forward the Net Zero timeline to 2030*. Figure 17. Attribute importance scores and rankings of the different attributes used in the Phase 1 DCE (Ranking of Net Zero)  Base: Total sample (n=2,472) (Note: This did not take into account any future estimated increases as these were highly uncertain at the time).

Phase 2

The process of designing the Phase 1 DCE helped Sydney Water to refine and streamline the wording of the priorities into outcome focused language.

In Phase 2, customers grouped these streamlined priorities into outcome theme areas to guide Sydney Water in its development of potential customer outcomes.

Achieving Net Zero was included under the **Environmental Protection** theme.

CUSTOMER EXPERIENCE	QUALITY	ENVIRONMENTAL PROTECTION	WATER SECURITY AND CONSERVATION
• Maintaining a standard of customer service that meets or exceeds your expectations. • Reducing the frequency and duration of severe water restrictions. • Ensuring water and wastewater bills remain affordable. • Ensuring better informed customers by improving and modernising communications to assist them with managing their water use. • Minimising the impact of outages (both planned and unplanned).	• Reducing the chances of your drinking water occasionally smelling or tasting different after unplanned events (such as flooding, heatwave, fire, or high wind events). • Maintaining safe and clean drinking water.	• Ensuring waterways and water recreation areas remain clean and safe to use by reducing wastewater pollution to rivers and the ocean. • Contributing to a cooler environment and more pleasant green public spaces through the establishment / maintenance of trees and vegetation. • Reducing net carbon emissions to zero by 2050 or sooner through more energy-efficient operations and greater use of renewable energy. • Improving natural waterways and habitats, so as to protect the environment.	• Increasing water savings and reducing usage through community-based water saving programs. • Reducing water loss by minimising leaks and breaks in Greater Sydney's pipe networks. • Reducing water loss to the ocean by improving stormwater management, storage and capture. • Enhancing the water network's resilience to drought through building more water recycling and / or desalination capacity.

Phase 3	During Phase 3, Sydney Water completed forecasts which estimated the cost of achieving Net Zero Carbon emissions. This work estimated that: • The cost of bringing Net Zero forward to 2040 was an additional $1 per year above inflationary costs. • To bring forward Net Zero to 2030, it would cost $5.00-$7.00 per year. These costs were well below the average stated WTP identified in the Phase 1 DCE. Three timeline options were tested with customers during the qualitative research: • Net Zero by 2050, with no bill impact above inflationary pressures. • Net Zero by 2040, with a $1.00 bill increase per year above inflationary pressures. • Net Zero by 2030, with a $5.00-$7.00 bill increase per year above inflationary pressures. In Phase 3, 53% of customers preferred to bring Net Zero forward to 2030 (tested qualitatively). Results from Phase 1 suggested that this might be understated, as the Phase 1 DCE showed customers were willing to pay much more than $5.00-$7.00 per year investment required to achieve Net Zero by 2030. Given these results were somewhat inconsistent, the preferred Net Zero timeline was again tested in Phase 4, to further establish how willing customers were to bring this forward to 2030.
Phase 4	In Phase 4, reducing carbon emissions and the timeline for achieving Net Zero was included in the Phase 4 DCE. The results showed that, on average, in addition to a 36% bill increase*: • Homeowners were prepared to pay an addition $9.50 per quarter to achieve Net Zero by 2030 instead of 2050. • Renters were willing to pay an extra $6.50 per month on their rent to achieve the same outcome. Again, both amounts were well above the estimated cost of delivering this outcome by 2030 ($5.00-$7.00 per year). This confirms the findings from Phase 1 and suggests that there is enough interest among customers to pursue this goal. * All WTP amounts from Phase 4 are above the 36% bill increase that Sydney Water was (at the time) forecasting it required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years
Phase 5	The timeline for Net Zero topic was not covered in Phase 5
Phase 6	The timeline for Net Zero topic was not covered in Phase 6

4.4 Other notable takeaways about reducing carbon emissions and the timeline for achieving Net Zero that emerged from the program.

As mentioned earlier, most customers want Sydney Water to respond to a changing climate by reducing their carbon emissions. On average, customers were willing to pay higher quarterly bills to contribute towards Sydney Water becoming carbon neutral or achieving Net Zero by 2030, instead of 2050. In fact, customers were prepared to pay more than what Sydney Water estimates it would cost to achieve Net Zero by 2030 (estimated at $5.00-$7.00 per year).

Prior to this customer engagement, many customers were previously unaware that Sydney Water is one of the most carbon intensive businesses in Greater Sydney. This is primarily due to the large amount of energy required to produce and transport potable water. Learning this fact emphasised to customers, the urgency of Sydney Water reaching Net Zero as soon as possible.

Customers cited several reasons for valuing the achievement of Net Zero by 2030:

- **Importance of the outcome**: Many customers considered combating climate change crucial for future generations.
- **Value for money**: Customers saw substantial benefits despite a modest increase in their bills.
- **Setting an example**: By aiming for a 2030 target, customers believed Sydney Water would demonstrate leadership and inspire others, including government agencies, businesses, and society at large, to reduce emissions sooner. They also saw potential for Sydney Water to share its knowledge on achieving this goal with others.
- **Encouraging technological innovation**: Setting a more ambitious goal for 2030 was viewed as a catalyst for greater innovation in carbon reduction technologies.

Overall, customers strongly supported Sydney Water's accelerated efforts towards achieving Net Zero emissions by 2030, recognising the broader benefits and leadership potential of such a commitment. It is worth noting there was some scepticism from in Phase 3 about any difference being made with such little investment.

5 A closer look at other environmental protection outcomes

5.1 'Healthy Waterways' and 'Creating Cool, Green Spaces'

This chapter lays out the *Our Water, Our Voice* customer engagement journey examining the outcomes of providing **Healthy Waterways** and **Creating Cool, Green Spaces as a priority for environmental protection**. It details how the journey progressed from Phase 1, where these areas were identified as customer priorities, through to their inclusion in the Phase 4 DCE, and finally establishing investment consensus around healthy waterways in the Phase 5 and 6 customer panel. Overall:

- The Phase 4, DCE showed that, in addition to 36% bill increase*, homeowners were willing to pay an extra $12.50 on their quarterly water bill to fund improvements to 120 waterway sites (compared to 40 currently) over the next 10 years. Renters were willing to pay an additional $7.00 on their monthly rent for the same outcome.
- In Phase 5, customers indicated that, to achieve a medium level of risk and performance for Sydney Water's activities to support healthy waterways by managing wastewater and preventing pollution, they recommended/accepted a bill increases between $15.00 and $20.00 per quarter over the next five years above the average $90.00 quarterly bill that customers already pay for pollution prevention. This compares to an increase of $5.00-$10.00 to maintain the status quo service levels.
- Customers value increasing the amount of recycled water available for the irrigation of public green spaces, enabling them to stay greener for longer during time of drought. The Phase 4 DCE showed that on average, in addition to a 36% bill increase*, homeowners were willing to pay an extra $6.20 on their quarterly water bill to deliver an extra 2.5 billion litres worth of recycled water, each year, for irrigating green spaces on top of the $4 billion currently delivered. Renters were willing to pay an additional $2.70 on their monthly rent for the same outcome.

*All WTP amounts from Phase 4 are above the 36% bill increase that Sydney Water was (at the time) forecasting it required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years. Caution needs to be applied when interpreting results from Phase 5, as this was conducted qualitatively with a small panel (n=60) of highly informed customers with a much greater base of knowledge than the general public. They also received different framing around the attribute levels and more deeply considered risk factors. Phase 5 results generally align with the DCE and are not intended to be replacement values but offer another perspective around customer preferences for risk, performance and cost.

5.2 The importance of engaging with customers about other environmental outcomes – 'Healthy Waterways' and 'Creating Cool, Green Spaces'

Sydney Water recognises that committing to different environmental outcomes is a priority for its customers. Having an open dialogue with customers allows for a transparent exchange of expectations and allows customers to guide Sydney Water around what environmental outcomes it should pursue.

Sydney Water used this program to engage with customers in a dialogue about what they expect from environmental protection. Hearing customers state their preferences influences Sydney Water's strategy and plans for environmental outcomes, such as the health of the region's rivers and waterways, the maintenance of cool green spaces and the reduction in wastewater pollution and overflows.

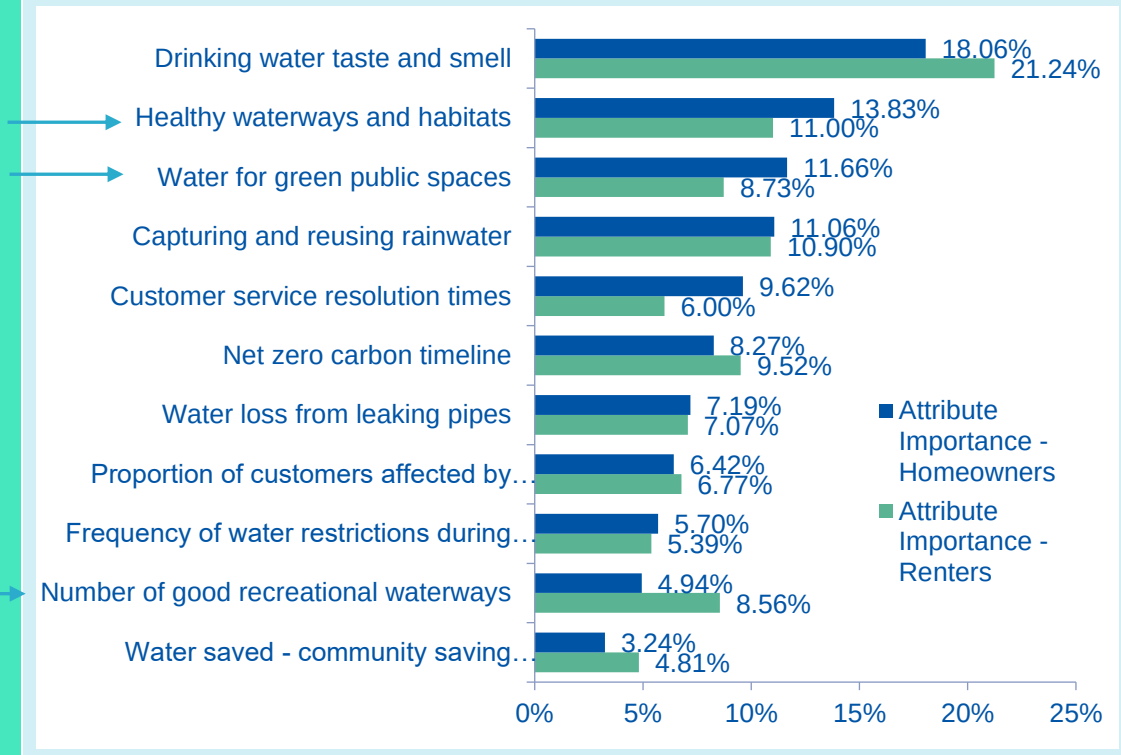
Pursuing these customer outcomes can be costly and may raise water bills. Understanding how much customers are willing to pay, among other trade-offs, is essential to ensure Sydney Water delivers the best possible results.

5.3 Mapping the journey

Table 10. Mapping the engagement journey – Other environmental outcomes: 'Healthy Waterways' and 'Creating Cool, Green Spaces'

Phase #	Mapping the engagement journey – other environmental outcomes: 'Healthy Waterways' and 'Creating Cool, Green Spaces'
Phase 1	**Early in Phase 1, environmental outcomes were regularly raised by customers as important priorities for Sydney Water**. The chart below shows that, of the 11 priorities that featured in the Phase 1 DCE: • Ensuring healthy waterways and habitats had the second highest attribute importance score. This means it was the second most important customer outcome (out of 11) in terms of its potential to deliver improved customer utility from investing in this area. • The number of good recreational waterways was the 10th most important outcome (customers tended to value 'allowing nature to thrive' above 'more recreational opportunities'). • Ensuring the availability of water for irrigating green public spaces was also rated highly by customers and had the third highest attribute importance score.

Figure 18. Attribute importance scores and rankings of the different attributes used in the Phase 1 DCE (Ranking of Healthy waterways and habitats and water for cool, green spaces)



Base: Total sample (n=2,472)

(Note: This did not take into account any future estimated increases as these were highly uncertain at the time).

Phase 2

In Phase 2, customers grouped these priorities into outcome theme areas to guide Sydney Water in its development of potential customer outcomes.

In addition to Net Zero, there were three key environment focused outcomes under the **Environmental protection theme.** These outcomes were explored in depth throughout the remainder of the program**.** These included:

- Ensuring waterways and water recreation areas remain clean and safe to use by reducing wastewater pollution to rivers and the ocean.
- Contribute to a cooler environment and more pleasant green public spaces through the establishment / maintenance of trees and vegetation.
- Improving natural waterways.

Figure 19. Environment-focussed outcomes within the four outcome theme areas

CUSTOMER EXPERIENCE	QUALITY	ENVIRONMENTAL PROTECTION	WATER SECURITY AND CONSERVATION
• Maintaining a standard of customer service that meets or exceeds your expectations. • Reducing the frequency and duration of severe water restrictions. • Ensuring water and wastewater bills remain affordable. • Ensuring better informed customers by improving and modernising communications to assist them with managing their water use. • Minimising the impact of outages (both planned and unplanned).	• Reducing the chances of your drinking water occasionally smelling or tasting different after unplanned events (such as flooding, heatwave, fire, or high wind events). • Maintaining safe and clean drinking water.	• Ensuring waterways and water recreation areas remain clean and safe to use by reducing wastewater pollution to rivers and the ocean. • Contributing to a cooler environment and more pleasant green public spaces through the establishment / maintenance of trees and vegetation. • Reducing net carbon emissions to zero by 2050 or sooner through more energy-efficient operations and greater use of renewable energy. • Improving natural waterways and habitats so as to protect the environment.	• Increasing water savings and reducing usage through community-based water saving programs. • Reducing water loss by minimising leaks and breaks in Greater Sydney's pipe networks. • Reducing water loss to the ocean by improving stormwater management, storage, and capture. • Enhancing the water network's resilience to drought through building more water recycling and / or desalination capacity.

Service standard expectations for wastewater overflows (which directly impact the environment and health of waterways) were also discussed during Phase 2 and customers suggested that tying Sydney Water's performance to a rewards or penalties scheme was a good way to regulate Sydney Water's performance in this area.

Phase 3	**In Phase 3, Sydney Water took the outcome theme areas that were developed in Phase 2 and prepared a range of potential service level options that they could deliver.** During the workshops, customers were presented with three options: Improving services beyond current levels, maintaining the current level of service, or reducing the existing level of service. Each option came with an estimate of how it would affect bills, considering costs above inflation. Customers also received background information on each option, learning about the challenges Sydney Water currently faces in delivering these services, as well as potential future challenges. This information was intended to help them make a well-considered decision that aligned with their values and preferences, taking into account the trade-offs involved. Customers were asked to consider options relating to **Healthy and natural waterways** as well as **swim access, safety and preventing pollution in waterways.** They were also asked about **Creating cool, green landscapes.** • The majority of customers (73%) indicated that they would like to see some improvement in the number of healthy and natural waterways in Greater Sydney (preferring either a small (39% agreed) or large (34% agreed) improvement). The remaining 27% would prefer current levels to stay the same. • Around half the customers (51%) indicated that they wanted no change in efforts to prevent pollution and the current number of safe, accessible swim sites. The rest (49%) would at least like a small improvement. • The majority of customers (76%) indicated that they would like to see some improvement in the amount of recycled water provided to create cool, green landscapes (preferring either a small (35% agreed) or large (41% agreed) improvement). The remaining 24% would prefer no change or a small reduction in the amount of recycled water provided. Note that these discussions in Phase 3 were preliminary in nature. More background information was required for customers to make a truly informed choice. As such, these topics were explored again in Phase 4. Preventing pollution to enable healthy waterways was discussed further in Phase 5.
Phase 4	**In Phase 4, the health of the region's waterways and the provision of recycled water for irrigating public green spaces were primary topics of conversation.** As in other phases, customers placed considerable value on maintaining the health of Greater Sydney's waterways. They reiterated the importance of keeping waterways healthy and reaffirmed it as a key customer priority for Sydney Water. From the Phase 4 customer forums, customers felt that the potential benefits to the community and the impact on public health (physical and/or mental) were among the most important considerations when making investment decisions around waterway

	health, as these have the most social and tangible benefits to the community and the ecosystem. **The Phase 4 DCE explored how many waterway site improvements customers were prepared to fund**. The results showed that, on average, in addition to a 36% bill increase*: • Homeowners were willing to pay an extra $12.50 on their quarterly water bill to fund improvements to 120 waterway sites over the next 10 years (vs 40 waterway sites currently). Renters were willing to pay an additional $7.00 on their monthly rent for the same outcome. • Homeowners were willing to pay an additional $21.00 to improve all 200 sites over the next 10 years. Renters were willing to pay an additional $11.20 on their monthly rent for the same outcome. However, if the number of waterways being improved was reduced to zero, homeowners expected that their quarterly bill would reduce by $15.10. Renters expected a rent reduction of $5.70 per month under this scenario. This strong WTP for improvements in waterway health was tested further in Phase 5, through the lens of preventing pollution of waterways across four days to ensure that it wasn't overstated and ultimately, it wasn't. **The Phase 4 DCE also explored how willing customers were to pay for additional recycled water to be supplied for the irrigation of public green spaces**. The results showed that, on average, in addition to a 36% bill increase*: • Homeowners were willing to pay an extra $6.20 on their quarterly water bill to deliver an extra 2.5 billion litres worth of recycled water each year for irrigating green spaces, on top of the 4 billion currently delivered. Renters were willing to pay an additional $2.70 on their monthly rent for the same outcome. However, if the number of litres supplied was reduced to 1 billion litres, homeowners expected that their quarterly bill would reduce by $10.00. Renters expected a rent reduction of $4.00 per month under this scenario. *All WTP amounts from Phase 4 are above the 36% bill increase that Sydney Water was (at the time) forecasting it required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years.
Phase 5	**In Phase 5, the concept of preventing pollution in waterways was tested further amongst a highly informed panel of 60 customers.** Customers were informed about what Sydney Water currently does to prevent waterway pollution, particularly via management of wastewater. They were shown what could be achieved in terms of performance with a higher level of investment in preventing pollution (versus the status quo). It was also explained that, despite Sydney

Water's extensive efforts in maintaining pipes and operating treatment plants across a large network, pollution might still occur.

Sydney Water informed the panel of customers that, on average, they currently spend around $90.00 to $100.00 per quarter on their water and wastewater bills to maintain and improve wastewater and stormwater infrastructure, to prevent pollution, to improve reliability, and protect against failure.

Customers were also shown how Sydney Water could spend more money to protect and enhance the environment by improving the way it manages its wastewater and stormwater systems to prevent pollution and protect against failure. Within this context, they were asked to trade off risk against cost and performance.

The panel reached a consensus that a medium performance and medium risk scenario was preferred (80% of the panel loved, liked or could live with this scenario) **which was associated with a medium cost** (between $15.00 and $20.00 per quarter more than the $90.00 customers would already pay for current service standards).

Thinking about the actual outcomes delivered under this scenario, it would ultimately mean that:

- Sydney Water treatment plants get upgraded, with some leeway for breaches in the NSW Environmental Protection Authority's standards while the upgrade is completed. Approximately 90% of Sydney Water's wastewater treatment plants comply with key environmental standards.
- The volume of wet weather overflows is reduced compared to the status quo.
- Some overflows occur in some parts of the wastewater system during moderate to heavy rainfall.
- There are more than 300 pollution or other incidents that cause environmental harm, with one or two high impact events.
- Over 100 stormwater devices are frequently maintained, removing up to 1,500m3 of litter and debris from stormwater runoff.
- Some swim sites are not safe for swimming after periods of heavy rainfall.
- More than 85% of Beachwatch and Harbourwatch sites are rated as good or very good.
- Maintenance of Sydney Water's wastewater system means performance is more resilient after wet weather.
- There are one or two high impact environmental incidents every year.
- There is no major change in the rating of urban waterways across Greater Sydney in the short term, but some specific site may gradually recover.

Phase 6	**In Phase 6, the conversation about environmental outcomes predominantly featured as part of the discussion about Outcome Delivery Incentives (ODIs) / Customer Commitments.** The panel of 50 customers reached a consensus in favour of the concept of a River Health ODI. This, effectively, would tie a proportion of Sydney Water's revenue to how well it performs in this area (87% loved, liked or could live this ODI being applied). Throughout Phase 6, customers consistently agreed that it is important to protect river health and took an altruistic view of this potential ODI – stating that it would benefit the 'greater good'. Customers also consistently valued taking a more proactive approach to River Health, meaning they would like Sydney Water to exceed the existing legislative standard.

5.4 Other insights relating to healthy waterway and cool, green landscape outcomes.

Healthy waterways

Through the *Our Water, Our Voice* program, customers expressed a strong desire for improving the health of the region's waterways and reducing pollution from wastewater overflows. They value these improvements, not only for preserving the environment so that flora and fauna can flourish, but also for increased recreational opportunities it affords.

However, with Greater Sydney's numerous waterways, upgrading all of them comes at a significant cost. Sydney Water needed to gauge whether customers were willing to accept higher bills to fund these improvements and to determine which waterways and values to prioritise. For instance, most customers favoured focusing on highly disturbed waterways first, recognising that these can negatively impact other waterways during bad weather.

When it comes to different values (i.e., a place for nature to thrive, versus creating a natural aesthetic or a place for recreation), customers believed that creating a place for plants and animals to thrive is most important and that achieving this higher standard would naturally satisfy other values as well.

Customer preferences revealed various trade-offs and underlying values. Establishing an understanding of these trade-off windows helped to explain why decisions were not always unanimous and highlighted the diversity of Sydney Water's customer base. This nuanced approach ensured that Sydney Water balanced customer expectations with practical considerations, aiming for the best outcomes for the community and the environment.

Key trade-offs customers made when considering the health of the region's waterways included:

- **Improving versus maintaining:** Customers, who prioritised improving over maintaining were concerned that the current state is not acceptable, and the idea of the Environmental Protection Agency (EPA) standards being breached was unacceptable to these customers. Others had experienced highly degraded waterways and wanted to avoid this at all costs. Those in favour of maintaining were comfortable with the current standards. They argued that the quality of waterways isn't 'too bad' currently, they didn't use waterways regularly and felt that having to avoid swimming for a few days was not a major imposition. They also tended to have not experienced or been impacted by any major pollution events.
- **Individual experience versus the collective:** Despite customers advocating for taking a collective approach when required to make trade-offs, many prioritised their individual experience over the collective.
- **Preventing versus responding:** Most customers also valued preventing over responding. The main reason for this was that responding is typically seen as more expensive, particularly in the long run. Customers talked about it being easier and cheaper to take measures to avoid a problem, compared to having to clean it up. Others argued that where

problems occur is hard to predict, so that investing considerable funds and effort into preventing pollution may still result in polluted waterways.

Other trade-offs were also considered, however, the trade-offs described above are the most significant in relation to this priority area.

There was a belief amongst some customers that Sydney Water needed to help customers take more personal responsibility to reduce wastewater pollution. For example, customers suggested that Sydney Water continue to improve its education about not flushing wet wipes. Others noted the need to educate customers about discarding fats, oils and greases into the water system. Some customers said Sydney Water needed to increase its social media presence to communicate with younger customers.

Customers also indicated that Sydney Water could provide more information about pollution management and waterway health, assisting them to make informed decisions about performance, cost and risk. Customers queried the environment's tolerance for different types of impacts, the link between water quality and fishability, what the consequences for the environment are of different types of EPA breaches, and information on the overall health of waterways, using easy to understand indicators.

Some customers suggested that Sydney Water needs to work more closely with business to reduce pollution, and partner with other organisations, such as the EPA and Councils, to respond to environmental pollution incidents more effectively. Others would like Sydney Water to continue to invest in research to understand new, cost-effective ways of managing its pipes and treating wastewater.

Providing recycled water for cool, green landscapes

Through the *Our Water, Our Voice* program, customers expressed a desire for more recycled water to be used for irrigating public green spaces. They valued keeping these spaces greener for longer during dry periods.

Reasons for valuing this outcome include:

- **The importance of the outcome** – Customers mentioned that cool, green spaces contribute to community wellbeing / mental health, support wildlife and reduce the amount of carbon entering the atmosphere.
- **The scarcity of water** – Customers recognised that water is scarce and believe that recycling water for irrigation is a good way to preserve potable drinking water (from dams) for more essential uses.
- **Future focus** – Customers believed Sydney Water should be planning for a drought resistant future and looking to utilise rainfall independent water source where practical.
- **Long term focus and future savings** – The cost of re-establishing greenery after drought can be significant. Avoiding these costs offsets some of the cost of keeping them green.

Most customers stated they would like Sydney Water to prioritise investments in projects that maximise the positive impact for as many customers as possible. They also preferred that benefits be spread equitably across Sydney.

Investing in recycled water for cool, green spaces helps reduce the draw on Greater Sydney's potable water supply. However, customers saw additional benefits, such as having access to green public spaces for exercise and recreation. Therefore, it's crucial to ensure these green spaces are accessible to everyone.

The concept of green spaces cooling the urban environment was appreciated by customers but was not as well understood and felt like an abstract concept at first.

Customers didn't see using recycled wastewater as the only option for irrigating green spaces. Many liked the idea of stormwater harvesting and felt that not capturing it was a missed opportunity. Nevertheless, the variability in stormwater quality, the dependence on localised rainfall and the high cost of installing stormwater capture infrastructure are limitations that are not well understood by customers. Once these are explained, customers tended to be less enthusiastic about stormwater harvesting. However, they still expressed frustration about not being able to better utilise this source of water.

6 A closer look at water supply security

6.1 Water supply security

This chapter lays out how discussions around securing Greater Sydney's water supply evolved throughout the *Our Water, Our Voice* program. It shows how the journey progressed from Phase 1, where this topic was identified as customer priority, through all phases until its inclusion in the Phase 4 DCE and the investment consensus conversations in Phases 5 and 6.

Ultimately customers expressed that they were willing to pay for improved water supply security.

For example:

- In Phase 4, in addition to a 36% proposed bill increase*, homeowners were willing to pay an extra $13.00 on their quarterly water bill to lengthen the time until severe water restrictions are enforced from five and a half years (base level) to eight years. Renters were willing to pay an extra $2.80 on their monthly rent for the same outcome.
- In Phase 5, customers recommended/accepted a bill increase between $15.00-$20.00 per quarter extra over the next five years for additional investment in the security of the region's water supply. This was above the average $32.00-$53.00 increase already required to cover infrastructure investment and operating expenditure for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 5 years. It would mean current (enhanced) water conservation efforts would continue, but new water supply would be built.
- Note that the alternative to paying an additional $15.00-$20.00 per quarter for a medium to low-risk outcome, was paying $5.00-$10.00 extra per quarter for a high- risk outcome. In the high-risk outcome, the current (enhanced) water conservation efforts would continue, and no new supply would be built.

*All WTP amounts from Phase 4 are above the 36% bill increase that Sydney Water was (at the time) forecasting it required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years. Caution needs to be applied when interpreting results from Phase 5, as this was conducted qualitatively with a small panel (n=60) of highly informed customers with a much greater base of knowledge than the general public. They also received different framing around the attribute levels and more deeply considered risk factors. Phase 5 results generally align with the DCE and are not intended to be replacement values but offer another perspective around customer preferences for risk, performance and cost.

6.2 The importance of engaging with customers about water supply security

Sydney Water acknowledges that climate change, population growth, and ageing infrastructure all pose threats to water security. As the population grows and temperatures increase, Sydney Water expects the demand for water to increase over the coming decades. With a changing and more variable climate, water availability and water quality from dams is also expected to become more variable with more severe droughts and wet weather events and higher evaporation.

Customers viewed water security as a major challenge for Sydney Water to prioritise. The customer engagement consistently showed that customers valued having access to a secure water supply, saw it as essential to their everyday lives, and did not want a deterioration in standards.

Sydney Water recognises that ensuring the security of Greater Sydney's water supply is a significant and costly endeavour. As investments in water security are expected to be a large contributor to the necessary, proposed bill increases, it was important to test customers WTP for any service levels extending beyond what is essential. Improving supply security also takes time, requires extensive planning, and can have substantial short-term and long-term effects on the community and the environment.

Given the importance of this topic to customers, and the costs involved, Sydney Water wants to ensure customers have the opportunity to be involved in decisions on how to approach the challenge of enhancing water supply security. By doing so, Sydney Water seeks to align future plans for water security with the best interests of its customers.

6.3 Mapping the journey

Table 11 Mapping the engagement journey – Water Supply Security

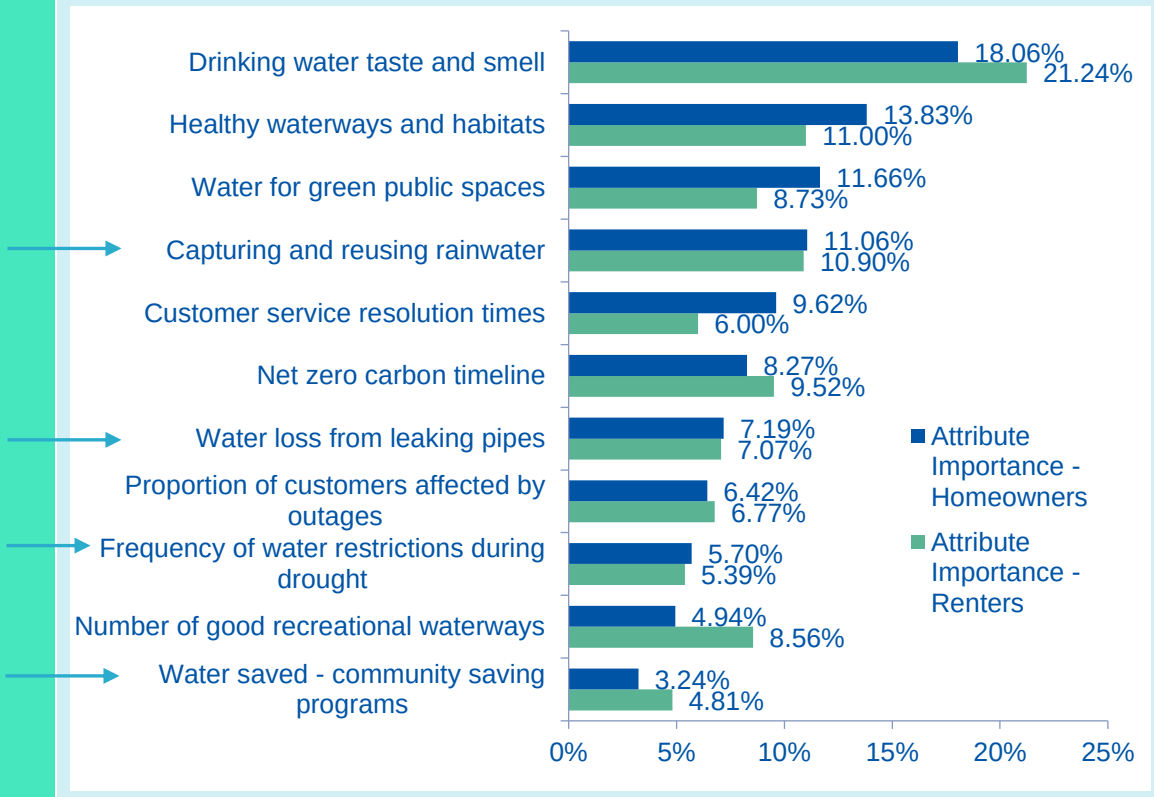
<table>
<tr><th>Phase #</th><th>Mapping the engagement journey – Water Supply Security</th></tr>
<tr><td>Phase 1</td><td>
In Phase 1, customers identified five priorities for Sydney Water relating to water supply security.

The following table and chart show the original customer priority and its relevant importance (using the attribute importance score from the Phase 1 DCE).

Table 12 Water security related priorities and their attribute importance ranking
<table>
<tr><th>Customer priority</th><th>Attribute included in Phase 1 DCE</th></tr>
<tr><td>Minimise and reduce breakages in the pipe network</td><td>Water loss from leaking pipes (7th highest attribute importance score, out of 11 attributes)</td></tr>
</table>
</td></tr>
</table>

Improve resilience to drought through increased uptake and usage of recycled water or desalination	Frequency of water restrictions during drought (9th highest attribute importance score, out of 11 attributes)
Reduce the period in which Greater Sydney experiences or requires water restrictions	Frequency of water restrictions during drought (9th highest attribute importance score, out of 11 attributes)
Increase water savings and improve community knowledge about how to save water	Water saved – community saving programs (11th highest attribute importance score, out of 11 attributes)

Figure 20 Attribute importance scores and rankings of the different attributes used in the Phase 1 DCE (ranking of attributes related to water supply security)



Base: Total sample (n=2,472)

**(Note: This did not take into account any future estimated increases as these were highly uncertain at the time).

Phase 2

In Phase 2, customers grouped the priorities from Phase 1 into outcome theme areas to guide Sydney Water in its development of potential customer outcomes. Water supply security fell under the **water security and conservation** theme area. It also featured under the **customer experience** theme area, which focused on reducing the frequency and duration of severe water restrictions.

Figure 21 Where water security and conservation outcomes sat within the four outcome theme areas

CUSTOMER EXPERIENCE	QUALITY	ENVIRONMENTAL PROTECTION	WATER SECURITY AND CONSERVATION
• Maintaining a standard of customer service that meets or exceeds your expectations. • Reducing the frequency and duration of severe water restrictions*. • Ensuring water and wastewater bills remain affordable. • Ensuring better informed customers by improving and modernising communications to assist them with managing their water use. • Minimising the impact of outages (both planned and unplanned).	• Reducing the chances of your drinking water occasionally smelling or tasting different after unplanned events (such as flooding, heatwave, fire, or high wind events). • Maintaining safe and clean drinking water.	• Ensuring waterways and water recreation areas remain clean and safe to use by reducing wastewater pollution to rivers and the ocean. • Contributing to a cooler environment and more pleasant green public spaces through the establishment / maintenance of trees and vegetation. • Reducing net carbon emissions to zero by 2050 or sooner through more energy-efficient operations and greater use of renewable energy. • Improving natural waterways and habitats so as to protect the environment.	• Increasing water savings and reducing usage through community-based water saving programs. • Reducing water loss by minimising leaks and breaks in Greater Sydney's pipe networks. • Reducing water loss to the ocean by improving stormwater management, storage, and capture. • Enhancing the water network's resilience to drought through building more water recycling and / or desalination capacity.

*Note that customers arranged the priorities under the theme headings above and placed water restrictions under customer experience, later in the program water restrictions were explored in conjunction with water supply security.

The customer priority of **reducing leaks and breaks in the network** was discussed further in Phase 2. There were some questions around what the actual outcome customers wanted was. Overall, customers did not like to see water wasted,

	particularly during drought. There was a clear emotional response to witnessing breaks in the network. Observing leaks and breaks frustrated customers who tended to experience a sense of helplessness when they observed this wastage. Seeing water running down the street could also demotivate the community in its efforts to save water and could potentially negatively impact perceptions that Sydney Water doesn't take water conservation seriously. Observing leaks and breaks also added to scepticism around whether paying higher water bills to enhance the region's water security was worth it. The reality for Sydney Water is, that because of the unpredictability of when leaks and breaks occur, the cost of maintaining enough crews to respond rapidly to all leaks, even on the worst days, is considerable. It can often be more expensive than the value of the water that is lost. It was clear, however, that this is a difficult concept for customers to understand. Even when customers are aware of this, it tended to do little to allay the frustration at seeing water wasted in this way. Overall, preventing water loss from leaking pipes is only one element of water security, however, it is a highly emotive one for customers. This was shown in Phase 2, where 67% of customers indicated that, if they reported a major leak in the street, they would expect to see it resolved within one hour (although later in the customer engagement, once the cost of achieving this standard was made available, customers often moderated their expectations).
Phase 3	In Phase 3, Sydney Water workshopped potential options for delivering customer outcomes relating to aspects of the Water Security and Conservation theme. Conversations with customers were deliberately designed to be outcome focused and they explored customer preferences around what they would get, rather than how Sydney Water would deliver it and also what it might cost to implement. Customers were provided with background information about each outcome area and were able to ask questions to increase their knowledge. One outcome that featured in the workshops was Sydney Water **working to reduce water leakage**. This followed on from Phase 2, where customers indicated that they wanted leaks responded to within one hour of notification. Upon further deliberation in Phase 3 about the cost trade-off involved in improving service levels (4% increase in bills above inflationary pressures to reduce leakage from 110ML to 100 ML per day*), customers tended to taper their expectations from Phase 2. In the end, most wanted to either maintain the current service level or see a small improvement. Reasons for this divergence from Phase 2 was the realisation that a 4% increase would only reduce leakage by 10ML/ per day. Although customers often struggled with conceptualising how much 10ML is, many didn't see value in reducing wastage below 100ML per day given how much it would cost.

	* At the time of phase 3 110 ML/d was estimated to be the point at which the cost to repair leaks starts to become more expensive than the cost of the water lost. **Improving the resilience of Greater Sydney's water supply and reducing the frequency and duration of severe water restrictions was another customer outcome area explored in Phase 3**. For this outcome, customers indicated that they would like to either maintain the current service level or to see a moderate improvement from current service levels. Only a small minority wanted to see service levels go backwards and at the same time few were prepared to experience a large increase for a large improvement. For context: • To experience no bill impact, there would need to be a decline in service levels. • Maintaining current service levels meant a 10% increase in water bills above inflationary pressures. • A moderate increase in performance meant a 20% increase above inflationary pressures. • A large increase in performance would mean a 30% increase above inflationary pressures.
Phase 4	**In Phase 4, Sydney Water explored customer investment principles for the security of Greater Sydney's Water Supply.** The aim was to understand what was important to customers when making investment decisions in this area and what principles customers would like Sydney Water to consider. When considering new water supply options, customers emphasised that investment decisions must consider environmental impact. They valued supply options that are independent of rainfall, as these are more drought proof than other options. While they recognised the cost of building new water supply infrastructure as an important consideration, they also viewed it as a secondary concern given the essential nature of the service and the need to avoid environmental harm. The Phase 4 DCE highlighted a strong WTP for investments that help secure the region's water supply. For example, on average, in addition to a 36% proposed bill increase*: • Homeowners were willing to pay an extra $13.00 on their quarterly water bill to lengthen the time until severe water restrictions are enforced from five and a half years to eight years. • Renters were willing to pay an extra $2.80 on their monthly rent for the same outcome.

	However, if the time was shortened to every four years, homeowners expected that their quarterly bill would reduce by $15.10. Renters expected a rent reduction of $6.80 per month under this scenario. *All WTP amounts from Phase 4 are above the 36% bill increase that Sydney Water was (at the time) forecasting it required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years.
Phase 5	As mentioned in the Phase 4 section above, there was a high WTP for investments that help secure the region's water supply. Sydney Water wanted to further validate this finding to ensure that customers were willing to accept an increase in their bills to pay for increased investments in the security of the region's water supply. The panel of 60 customers had an opportunity to deliberate on the pros and cons of different levels of investment. They were given extensive information about the challenges facing Greater Sydney's water supply and potential options for enhancing supply security. They were also asked to make trade-offs between risks and costs when making their final choice and evaluate this through the different trade off windows. Ultimately, this highly informed audience accepted the prospect of paying between $15.00-$20.00 more per quarter for additional investment in water supply security (including infrastructure and water conservation activities). It would mean current water conservation efforts would continue and new water supply would be built which would allow a medium-to-low risk profile to be achieved. This was above the average $32.00-$53.00 increase already required to cover infrastructure investment for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 5 years. As mentioned above, in return for the additional $15.00-$20.00 per quarter, customers would experience a low to medium risk setting, which in practice means: • Approximately five and a half years' worth of drinking water supply is available in a harsh and prolonged drought, (made possible by building new water supply); • The current gap between supply and demand is addressed through the building of new rainfall independent sources. However, this gap returns over time with population growth, meaning as the city grows in the long term, Sydney Water will need to invest, plan, and build new water supplies. • Greater Sydney spends less time in water restrictions than now. • There is a reduced risk of higher-level (or severe) water restrictions than is currently the case. • Greater Sydney has a good ability to cope with extreme weather events like heavy rainfall.

	Achieving this outcome would mean Sydney Water needs to: • Build additional water supply in the next 5 years and deliver 90 billion litres per year. • Continue to provide water conservation programs to customers and fix leaks in line with the current service levels. Customers would need to reduce their average drinking water consumption by 5% at all times (not just in drought).
Phase 6	The water supply security topic was not a major discussion point in Phase 6, as it was explored thoroughly in the previous phase. Although it did feature in discussions about Customer Commitments (outcome delivery Incentives / ODIs) linked to water leakage. This involved a panel of 50 highly informed customers reaching a consensus in favour of the concept of a water leakage Customer Commitment.

6.4 Water supply security trade-offs

Throughout the *Our Water, Our Voice* program, customers expressed a desire for action to improve the security of the region's water supply. Several key trade-off windows influenced their decision, including:

- **Sydney Water's responsibility, not the customer's (more supply versus demand management):** Underpinning this was the view that, if customers are going to pay for new water supply sources, then they do not want to have to reduce their water usage as well, "Otherwise what is the point in paying?" They felt that they should experience some benefits from paying higher bills.
- **Focus on the future, rather than the now:** Many customers felt uncomfortable with taking no action at all, particularly those with a stronger focus on the future. They appreciated and understood the risks being posed by climate change and population growth and were concerned about the potential for a rapid decline in dam levels in the future.
- **Focus on the collective, rather than the individual:** Some customers doubted the community's ability to collectively reduce water usage and felt more comfortable if Sydney Water took greater responsibility. Many acknowledged the challenges in getting customers to contribute to water savings meaningfully, reinforcing these doubts. Some argued that, if Sydney Water relies on customers reducing their usage, it should be Sydney Water's responsibility to educate the community.
- **Focus on improving, rather than maintaining:** Many customers indicated that they wanted Sydney Water to invest in new water supply options now, rather than leaving it to chance and hoping for the best if a harsh drought were to occur. Customers were also

concerned that a focus on the status quo meant Greater Sydney would eventually fall behind in supply.

- **Focus on preventing, rather than responding:** Customers believed that Sydney Water should proactively invest in new water supply options to prevent future water security issues rather than waiting for problems to arise. Customers felt, in the long run, it's more cost effective to take preventative measures than to implement solutions after issues occur.

While most customers were willing to pay more for improved water security, some were concerned about the financial impact. They prioritised avoiding bill increases, especially in the current economic climate, to alleviate cost of living pressures. Customers expected investments to be efficient and worthwhile and expected Sydney Water to be held accountable for wastage.

7 Minimum service levels, customer expectations and performance targets

7.1 A closer look at minimum service levels, customer expectations and performance targets

This chapter describes how the *Our Water, Our Voice* customer engagement program focused on minimum service levels, customer expectations and performance targets. It shows how the journey progressed from Phase 1, where this area was identified as a customer priority, through to its inclusion in the Phase 6 customer panel discussions around Customer Commitments / Outcome Delivery Incentives (ODIs).

Customers expressed a WTP at least a modest amount to see improved service levels in outages, wastewater overflows, and water pressure. Sydney Water will ultimately need to determine whether the amount customers identified is enough to cover the cost of delivering these outcomes.

Customers also expressed strong support for the concept of ODIs / Customer Commitments (which is a performance target that is over and above the minimum compliance requirement and links a proportion of Sydney Water's revenue to its performance) in the areas of River Health and Water Leakage.

*All WTP amounts from Phase 4 are above the 36% bill increase required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years.

7.2 The importance of engaging with customers about minimum service levels, customer expectations and performance targets

Sydney Water recognises that it is important to seek guidance from customers about their preferences and expectations with respect to service levels and performance objectives. Sydney Water looked to involve customers in setting service level standards and performance objectives to ensure that its performance aligns closely with customer expectations. Sydney Water aims for expenditures aimed at enhancing performance to focus on aspects of service delivery that are most important to customers. Additionally, it seeks customer input to identify areas for improvement, fostering a culture of continuous enhancement.

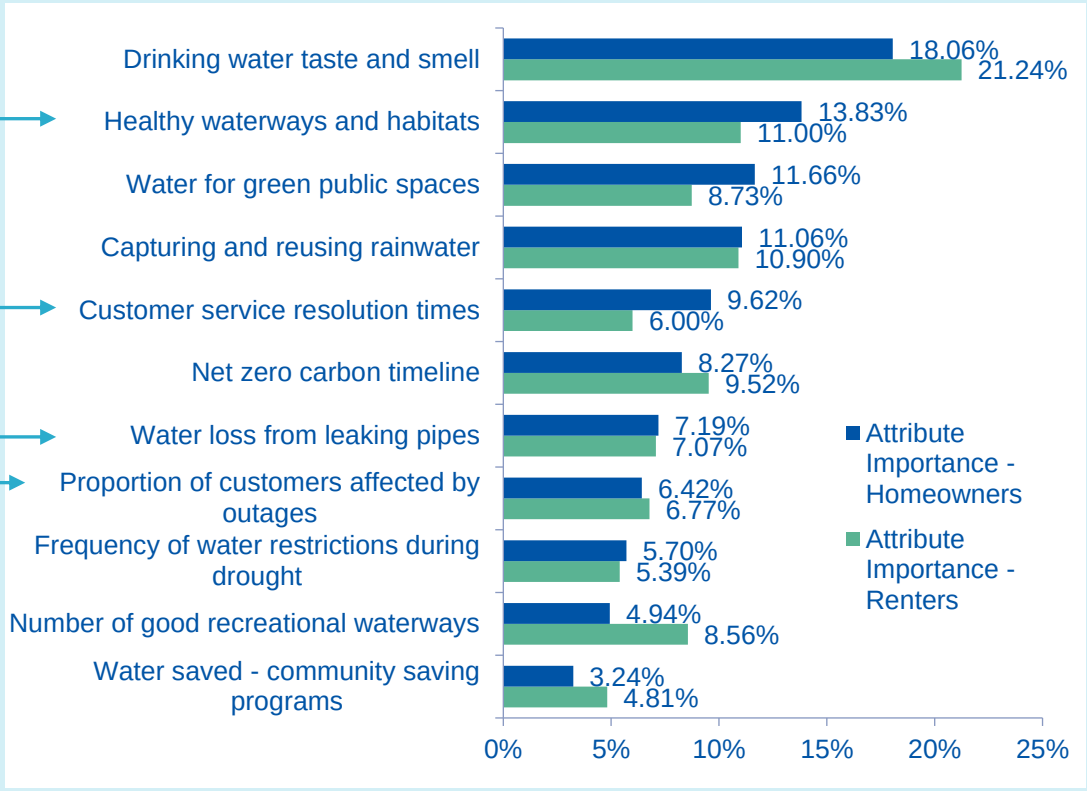
7.3 Mapping the journey

Table 13 Mapping the engagement journey – Service levels, customer expectations and performance targets

<table>
<tr><th>Phase #</th><th>Mapping the engagement journey – Minimum service levels, customer expectations and performance targets</th></tr>
<tr><td>Phase 1</td><td>
In Phase 1, customers identified the following priorities for Sydney Water relating to minimum service levels, customer expectations and performance targets. The following table and chart show the original customer priority and its relevant importance (using the attribute importance score form the Phase 1 DCE).

Table 14 Minimum service levels, customer expectations and performance targets
<table>
<tr><th>Customer Priority</th><th>Attribute included in Phase 1 DCE</th></tr>
<tr><td>Proactively modernise communications with customers (live updates about dam levels and water restrictions).</td><td>Not included – lowest ranked priority and difficult to quantify a service level in time.</td></tr>
<tr><td>Minimise the impact of outages, both planned and unplanned.</td><td>Proportion of customers affected by outages</td></tr>
<tr><td>Maintain a standard of customer service that meets or exceeds customer expectations.</td><td>Customer service resolution times</td></tr>
<tr><td>Reduce the discharge of wastewater pollution to rivers and the ocean.</td><td>1. Healthy waterways and habitats
2. Number of good recreational waterways</td></tr>
<tr><td>Minimise and reduce breakages in the pipe network.</td><td>Water loss from leaking pipes</td></tr>
</table>

Figure 22 Attribute importance scores and rankings of the different attributes used in the Phase 1 DCE (service levels, customer expectations, and performance targets)
</td></tr>
</table>



Base: Total sample (n=2,472)

*(Note: This did not take into account any future estimated increases as these were highly uncertain at the time).

Phase 2

Phase 2 included a deep dive into the topic of minimum service levels, customer expectations, and performance targets. Again, the process of designing the Phase 1 DCE helped Sydney Water to refine and streamline the wording of the priorities into outcome focused language.

The subject of service levels, customer expectations and performance targets was relevant to all four of the themes: Water Security and Conservation, Environmental Protection, Quality and Customer Experience and, therefore, featured in discussions about each theme area.

Figure 23 Where these outcomes sit under the four outcome theme areas

CUSTOMER EXPERIENCE	QUALITY	ENVIRONMENTAL PROTECTION	WATER SECURITY AND CONSERVATION
• Maintaining a standard of customer service that meets or exceeds your expectations. • Reducing the frequency and duration of severe water restrictions. • Ensuring water and wastewater bills remain affordable. • Ensuring better informed customers by improving and modernising communications to assist them with managing their water use. • Minimising the impact of outages (both planned and unplanned).	• Reducing the chances of your drinking water occasionally smelling or tasting different after unplanned events (such as flooding, heatwave, fire, or high wind events). • Maintaining safe and clean drinking water.	• Ensuring waterways and water recreation areas remain clean and safe to use by reducing wastewater pollution to rivers and the ocean. • Contributing to a cooler environment and more pleasant green public spaces through the establishment / maintenance of trees and vegetation. • Reducing net carbon emissions to zero by 2050 or sooner through more energy-efficient operations and greater use of renewable energy. • Improving natural waterways and habitats so as to protect the environment.	• Increasing water savings and reducing usage through community-based water saving programs. • Reducing water loss by minimising leaks and breaks in Greater Sydney's pipe networks. • Reducing water loss to the ocean by improving stormwater management, storage, and capture. • Enhancing the water network's resilience to drought through building more water recycling and / or desalination capacity.

Given that, in Phase 1, customers had expressed a WTP higher bills for improved service levels, it was important to further establish and validate customer expectations and preferences within the context of the existing standards.

Phase 2 took the approach of first establishing what customers thought were acceptable standards or performance benchmarks, before comparing these to existing

	standards and then engaging in a discussion around whether these met expectations and whether improvements could and should be made. Customer expectations around key service standards are presented later in this chapter.
Phase 3	**This topic area featured in Phase 3 conversations about Outcome Delivery Incentives (ODIs).** In Phase 3, customers were asked if there were any service areas where they felt it was appropriate for Sydney Water's performance to be tied to an ODI. Meaning, if Sydney Water performs above a standard in that area, it receives an incentive, whereas if it performs below that standard, it must pay a penalty. The three service areas that stood out most for customers as candidates for an ODI were: • The amount of litter and sediment captured before it reaches oceans, rivers or waterways. • The percentage of total water supplied by rainfall independent water sources. • The amount of water lost from the network due to leaks and breaks. Two of these were taken forward to Phase 6 and explored in greater depth during the River Health and Water Leakage Customer Commitments / ODI conversation.
Phase 4	**Whether or not customers were willing to pay for outcomes in key service standards was explored in the Phase 4 DCE**. For example, on average, in addition to a 36% proposed bill increase*: • Homeowners were willing to pay an additional $2.50 on their quarterly bills to see the number of properties impacted each year by an unplanned water outage (that lasts five hours or more) reduce from 200 in every 10,000 to 100 in every 10,000. Renters were willing to pay an additional $1.70 on their monthly rent for the same outcome. However, if this increased to 300 in every 10,000 properties, homeowners expected that their quarterly bill would reduce by $12.00. Renters expected a rent reduction of $4.30 per month under this scenario. • Homeowners were willing to pay an additional $9.40 on their quarterly bills to see the number of properties impacted each year by a wastewater overflow reduce from 70 in every 10,000 to 40 in every 10,000. Renters were willing to pay an additional $4.20 on their monthly rent for the same outcome. However, if this increased to 100 in every 10,000 properties, homeowners expected that their quarterly bill would reduce by $1.80. For renters there was little difference between 70 and 100 impacted properties in terms of their WTP.

	• Homeowners were willing to pay an additional $4.30 on their quarterly bills to see the number of properties impacted by low water pressure reduce from 1 in every 10,000 to 0 in every 10,000. Renters were willing to pay an additional $3.40 on their monthly rent for the same outcome. However, if this increased to 2 in every 10,000 properties, homeowners expected that their quarterly bill would reduce by $2.10. Renters expected a rent reduction of $1.60 per month under this scenario. Sydney Water has also been exploring the idea of enhancing its customer experience by replacing Great Sydney's water meters with Digital Meters. Digital Meters use new technology to automatically send daily updates of hourly meter readings to both the customer and Sydney Water. This means customers can have more detailed information about their water use, compared to traditional meters that are read once per quarter. Digital Meters can be linked to an app or website, allowing customers to see their water usage in real time and use water more efficiently, especially in times of drought. If implemented, Sydney Water would replace all traditional meters with Digital Meters by 2035. Sydney Water also wanted to explore whether customers wanted this timeline brought forward to 2030 and if they were willing to pay for this on average, in addition to a 36% proposed bill increase*: • Homeowners were not willing to pay any extra on their quarterly bills to see this timeline brought forward to 2030. Renters were only prepared to pay an additional $0.30 on their monthly rent for this outcome. Homeowners had some reservations about the rollout being rushed, while some renters who had encountered negative experiences with shared meters, identified a small degree of value in bringing the timeline forward. • In contrast, if the timeline was pushed out to 2040, homeowners would expect their quarterly bill to decrease by $4.90, while renters would expect a rent reduction of $1.70 per month. • Customers saw little value overall in bringing this forward to 2030, with some indicating that this timeline felt too rushed. *All WTP amounts from Phase 4 are above the 36% bill increase required to fund infrastructure investments for Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 10 years.
Phase 5	A key output of Phase 5, which has been touched on throughout this report, was the development of a set of guiding principles for Sydney Water to refer to when determining the most appropriate level of service to deliver. Placing a set of customer-informed considerations, or trade-off windows, at the centre of decision-making can significantly enhance the quality of the decisions by:

- Prioritising the most relevant customer priorities and service level settings by ensuring that any investment and expenditure is on things that are most important to customers.
- Building greater trust and transparency; openly incorporating customer perspectives and demonstrating a level of respect for the customer.
- Providing a clear framework to ensure decisions have a consistent alignment to customer values and expectations.
- Enhancing communication and providing a foundation for communicating decisions effectively with customers.

Developing a core set of customer-informed considerations to guide Sydney Water's decision-making around what service levels to deliver should ultimately help Sydney Water to deliver services that resonate with the community.

Understanding what the key considerations are is only the first step. There is also a need to understand the tensions between them and how customers balance these. How do customers trade off these considerations when they conflict with each other? In what situations do specific considerations take priority over others?

These trade-off windows included:

- Focusing on the now or Focusing on the future
- Maintaining or Improving
- Quality or Quantity
- Sydney Water's responsibility or the community's
- Prioritise protecting or progressing
- Taking a focussed or broad approach

More detailed information about how these trade-off windows are applied by customers and how they come into tension with each other can be found in the Phase 5 reports. As mentioned previously, through the application of these trade-off windows, customers reached a consensus on the following preferences:

- Customers accepted a medium performance / medium risk / medium cost profile for preventing pollution. This included paying an average of between $15.00 and $20.00 more per quarter on top of the $90.00 that the average customer currently pays to prevent pollution.
- Customers accepted the prospect of paying between $15.00-$20.00 more per quarter for additional investment in water supply security (including infrastructure and water conservation activities). This was above the average $32.00-$53.00 increase already required to cover infrastructure investment for

	Sydney Water to meet its legal and regulatory requirements and minimum service levels over the next 5 years. One standout customer trade-off in Phase 5, and also the entire Our Water, Our Voice program was 'Maintaining vs Improving'. When discussing this trade-off, it was clear that the vast majority of customers were not prepared to see current service levels go backwards. For most, the trade-off was only between retaining the status quo or paying extra for improvements. Very few agreed that going backwards was a legitimate or acceptable option even if it meant lower water bills. This is an important insight for Sydney Water if considering a reduction in service levels.
Phase 6	**In Phase 6, Sydney Water further explored the concept of Outcome Delivery Incentives (ODIs)** as a method for tying Sydney Water's performance to a financial incentive or penalty. These were described to customers as Customer Commitments. A panel of around 50 highly informed customers (highly informed after 8 days of customer forums) had an opportunity to deliberate at length about the pros and cons of these Customer Commitments. They had a Sydney Water's revenue to greater opportunity to ask questions and were provided with a lot more detail and context than phases 1-4. For example, they were provided with information about how Sydney Water is funded, how bills are structured, Sydney Water governance and how Sydney Water is regulated. They were also asked to consider a list of fairness principles when making their decisions. Ultimately, they reached a consensus in favour of the concept of Customer Commitments that would tie Sydney Water's performance with respect to River Health and Water Leakage to the amount of revenue it can collect from customers.

7.4 Customer expectations around key standards and performance targets

Quality communication and customer service is a priority for customers and refers to the level of responsiveness, helpfulness, and professionalism that customers can expect from Sydney Water. This includes response time, ease of communication, availability of channels, the quality of information received, and the resolution of issues. Below are insights from the Phase 2 discussion about customer expectations. Note: results and percentages in the following section are from the phase 2 validation survey where 1,521 customers responded.

Satisfaction with Sydney Water's customer service

- Less than one quarter of customers (23%) recall having to contact Sydney Water for any reason over the last five years.

- Of those that did contact Sydney Water, 64% did so by phone, 27% through an online enquiry, and 23% via email.
- Common reasons for contacting Sydney Water included: reporting a leak in the street (27%), reporting a leak on their property (19%), paying a bill (19%), updating account details (18%), and querying their bill (15%).
- Customers generally reported satisfaction with the level of service provided by Sydney Water.

Communication channel preferences

Customers expect Sydney Water to offer multiple communication channels, enabling choice based on the type of enquiry. They also want customers to be able to specify their contact preferences with Sydney Water, although WTP for this service was not quantified during Phase 2. Customers preferred to contact Sydney Water by phone, but preferred Sydney Water to contact them via email.

Qualitative research confirmed that customers prefer human interactions when dealing with Sydney Water, even in online communications. They value personalised attention, the ability to ask questions, and feel more valued and heard in these interactions. As a result, customers said they were open to interacting with Sydney Water via a live chat function but were not willing to engage with chatbots. Customers also prefer customer service staff to be located in Australia rather than being outsourced to overseas locations and workforces.

A frequently raised idea was the use of a Sydney Water App, which customers suggested could be used to report outages, pay bills, compare usage over time, and access information such as water saving tips.

Customer service response times

Customers greatly appreciated that, in urgent situations, Sydney Water can be contacted 24 hours a day, 7 days a week. Customer views on response times were based on the situation's urgency, with most customers expecting a major leak or wastewater overflow to be responded to within six hours. Many customers said they would tolerate longer response times for less urgent scenarios, such as responding to a query about a higher-than-expected bill.

Payment options for bills

The Phase 2 validation survey showed that most customers paid their bills via Direct Debit, BPay, or using their credit card online. While only 5% indicated paying their bills at the post office, and none reported using cheques, those who do prefer these methods are often less digitally literate or more vulnerable and are often older residents. Despite their minority, customers were opposed to removing these payment options. Customers expressed disapproval of recouping costs by applying additional charges for customers using these methods.

Continuity of the water supply

This refers to the expectations that customers have for the reliability of their water supply. This includes aspects such as: frequency and duration of outages, availability of accurate and timely

information about outages, and the speed and effectiveness of Sydney Water's response when restoring water services.

Planned water outages

For a planned outage, customers expect prior notification via SMS. People aged 70+ years were less likely to want to receive an SMS (55% compared with 69% of those under 70). First Nations customers suggested planned outage notices be put in local shops as community members interacted there and would help older community members who may rely on word of mouth.

The amount of notification required varied considerably; most customers need to know between one and four weeks in advance, with a reminder a couple of days prior to the outage. Currently customers get notified 2-days prior to a planned outage.

Unplanned water outages

Customers generally accept that unplanned outages will occur, with some customers saying 5-10% of properties experiencing an unplanned outage each year is acceptable. Tolerance was reduced when properties repeatedly experience unplanned outages due to a recurring issue.

The Phase 2 validation survey shows that 90% of customers want to be notified when there is an unplanned outage and expect to be told as soon as possible that Sydney Water is aware of the issue and is working on it; as well as be provided an estimated time that water will be restored.

Water Pressure

Only a small number of customers we spoke with had experienced water pressure issues and so most customers felt unable to suggest standards for these incidents. When presented with Sydney Water's current water pressure standards, many customers said these standards exceeded their expectations. It is likely this reflects their lack of knowledge and experience with water pressure issues, rather than a high tolerance for them.

Most customers said they would trust the experts to make a judgement call on what is fair and reasonable for a water pressure standard for Sydney Water to strive for.

Wastewater Overflows

Only a small number of customers had experienced wastewater overflows in Greater Sydney. Customers expressed negative views about wastewater overflows due to community impacts such as personal inconvenience, environmental damage, unpleasant odour, and public health risks.

Customers felt it was important for Sydney Water to minimise the severity and frequency of wastewater overflows as much as possible. Both the qualitative research and the validation survey, conducted in Phase 2, revealed that customers considered recurring issues unacceptable, implying that Sydney Water may not have effectively resolved these problems initially.

Despite recognising that indoor overflows are much worse for the customer, most customers did not expect that different standards should be set for indoor overflows vs outdoor overflows.

When asked to give an opinion on what they feel is reasonable, most customers agreed that no one should have to experience more than one overflow per year, and there is no tolerance for multiple overflows linked to the same issue or fault.

Customer principles around ODIs / Customer Commitments

ODIs (also known as Customer Commitments) were a key topic of conversation around service levels and performance raised in Phase 6. Customers highlighted a number of principles that Sydney Water should consider if looking to introduce these in the future.

Table 15. Reactions to the concept of Customer Commitments (ODIs)

Reactions to the concept of Customer Commitments (ODIs)	
Water Leakage reduction and River Health	Customers welcomed the idea of Sydney Water making commitments in areas of performance that are important to them. Leakage reduction and river health were deemed appropriate areas for Customer Commitments, as they are significant to customers' interests and concerns and align with customer priorities for water management and environmental stewardship.
Concerns about length of performance window	Many customers expressed concern that a five-year performance window was too long. This concern was heightened by the current cost of living crisis, with customers fearing that this might lead to additional requests for increased fees or charges from Sydney Water.
Specific commitments vs concept	Support for the concept of customer-led performance targets was slightly lower than support for the specific commitments themselves. This suggests that, while customers saw value in the specific commitments, they had reservations about the design and concept of a customer-led performance target system. The perceived benefits of achieving specific improvements outweighed these concerns for many customers.
Investment of rewards	Customers had clear opinions on where any "reward" for over-performance should be invested. The prevailing sentiment was that the most appropriate use of financial rewards would be further investment into the specific performance area. For example, if Sydney Water exceeded its targets for leakage reduction, customers believed the reward should be

	reinvested into improving water infrastructure or conservation efforts.
Re-investing the reward vs paying a dividend?	Some customers suggested that any reward for over-performance should be passed on to Sydney Water employees to commend them for their efforts, although not all customers agreed with this. In any case, customers felt strongly that the reward should not go to the NSW Government but should remain within Sydney Water and be used to further improve performance.
Transparency in reward reinvestment	Regardless of where the reward was distributed, customers emphasised the importance of transparency. They expect clear communication on how and where the reward is reinvested. This transparency is crucial to avoid the perception of the reward simply "lining the coffers" and to ensure that customers can see the tangible benefits of improved performance in their water services.

8 Bill affordability

8.1 Looking more closely at bill affordability, including customer WTP for outcomes amongst rising costs

This chapter lays out the *Our Water, Our Voice* customer engagement journey, focusing on bill affordability including discussions around how willing customers are to pay for outcomes in the context of a rising cost environment. Discussions about this topic originated in Phase 1, where bill affordability was identified as a customer priority. The conversation progressed through each phase, until featuring heavily in the Phase 4 DCE and the Phase 5 and 6 customer panel discussions. Essentially, this topic underpinned the entire customer engagement and was a fundamental factor throughout.

For many customers, an increase to water bills feels inevitable and unavoidable. Customers have recently experienced above average inflationary pressures in many areas of their lives, from power bills to the cost of food, to interest rates, to the cost of housing. This is commonly characterised in the media as an affordability crisis, which was mentioned frequently by customers throughout the program. Many customers acknowledged that clean drinking water, despite its immense value, is currently relatively inexpensive. However, many view clean drinking water as a fundamental human right essential for life, and while they appreciate its value, they believe it should remain as affordable as possible. Despite this macro-environment, customers remain open-minded about increased expenditure and bills linked to improved outcomes.

A key development relating to affordability that came to light midway through the program was the magnitude of the bill increases required for Sydney Water to uphold its legal, regulatory requirements and minimum service levels over the next 10 years. Estimates during Phase 4 projected these increases to be approximately 36% potentially escalating the average quarterly bill from $280.00 to $380.00 over this period.

Ultimately, despite these increases, on average, customers expressed in the Phase 4 DCE a WTP higher bills in return for improved outcomes across a range of attributes. This was true even considering the need to raise bills substantially over the next 10 years for Sydney Water to fund infrastructure investments to meet legal and regulatory requirements, as well as minimum service levels for both new and existing customers.

8.2 The importance of bill affordability and customer WTP for outcomes amongst rising costs

Throughout the *Our Water, Our Voice* program, it was important to engage customers on bill affordability and determine their support for various outcomes, especially given the context of the rising cost environment. Sydney Water recognised that it was impossible for customers to make

decisions in their best interests without Sydney Water being fully transparent around the cost impacts of any action or initiative. Being open and transparent about cost and including this in the conversation throughout the customer engagement, ensures Sydney Water's regulatory submissions and pricing proposals strike a healthy balance between the need to deliver world class water services and the financial realities of Sydney Water's diverse customer base.

Customers were actively involved in setting priorities for Sydney Water and expressed their views on the acceptable amount for Sydney Water to invest in these areas. Customers shared their WTP for specific service outcomes in Phase 4, and guided Sydney Water on how to prioritise investments to achieve an optimal balance of risk, performance and cost (in Phase 5).

Finally, how bills are structured and how Sydney Water raises revenue influences bill affordability. Customers guided Sydney Water on the best approaches to structuring bills that most closely aligned with their needs and preferences.

8.3 Mapping the journey

Table 16. Mapping the engagement journey – Bill affordability

Phase #	Mapping the engagement journey – Bill affordability
Phase 1	Throughout the engagement program, bill affordability remained a top priority. **In Phase 1, the MaxDiff survey revealed that customers ranked 'keeping water and wastewater bills affordable' as the second most important priority for Sydney Water**, surpassed only by the necessity of maintaining clean and safe drinking water – a non-negotiable priority for Sydney Water. As the customer engagement program progressed, the importance of keeping bills affordable grew, reflecting customers' increasing sensitivity to the rising cost-of-living pressures. Factors such as rising interest rates and above-average inflation rates greatly influenced this trend. Customers considered cost trade-offs when determining their top priorities. The Phase 1 DCE facilitated this by estimating customer preferences for varying 'service packages' with different costs attached for outcomes in each priority area. These findings were instrumental in helping Sydney Water understand what mattered most to customers and guided the focus of customer engagement activities in subsequent phases.
Phase 2	Ensuring that water and wastewater bills remain affordable was a key outcome within the **Customer Experience** theme area. However, the importance of affordability permeated the entire customer engagement process and was relevant across all

outcome areas. Improvements in any outcome area inevitably have an impact on bills, and in many cases the status-quo led to increased costs.

Figure 24 Affordability and customer WTP is relevant to all four outcome theme areas

CUSTOMER EXPERIENCE	QUALITY	ENVIRONMENTAL PROTECTION	WATER SECURITY AND CONSERVATION
• Maintaining a standard of customer service that meets or exceeds your expectations. • Reducing the frequency and duration of severe water restrictions. • Ensuring water and wastewater bills remain affordable. • Ensuring better informed customers by improving and modernising communications to assist them with managing their water use. • Minimising the impact of outages (both planned and unplanned).	• Reducing the chances of your drinking water occasionally smelling or tasting different after unplanned events (such as flooding, heatwave, fire, or high wind events). • Maintaining safe and clean drinking water.	• Ensuring waterways and water recreation areas remain clean and safe to use by reducing wastewater pollution to rivers and the ocean. • Contributing to a cooler environment and more pleasant green public spaces through the establishment / maintenance of trees and vegetation. • Reducing net carbon emissions to zero by 2050 or sooner through more energy-efficient operations and greater use of renewable energy. • Improving natural waterways and habitats so as to protect the environment.	• Increasing water savings and reducing usage through community-based water saving programs. • Reducing water loss by minimising leaks and breaks in Greater Sydney's pipe networks. • Reducing water loss to the ocean by improving stormwater management, storage, and capture. • Enhancing the water network's resilience to drought through building more water recycling and / or desalination capacity.

Another important aspect of bill affordability is how Sydney Water supports customers who are least able to afford payments. **The issue was prominently discussed**

	during Phase 2, where Sydney Water's current assistance and support programs for financially vulnerable customers were a key topic of conversation. Customers generally felt that Sydney Water should maximise its efforts to support those who can least afford to pay. While many customers were impressed at the support and assistance available, they were previously unaware of these options. Many emphasised that a critical element of supporting financially vulnerable customers was ensuring they are aware of available programs and that information is easily accessible.
Phase 3	**In Phase 3 Sydney Water explored a range of outcome areas and provided customers with options regarding potential service levels that could be delivered. Each option included a cost to ensure customers considered the trade-offs when deciding their preferred service level*.** It was also important to mention that the costs associated with the different options were projected to exceed inflationary cost pressures over the next 10 years. Another aspect of affordability is the structure of bills. This concept was explored in Phase 3, where current and alternative tariff structures were examined, both during and outside of drought conditions. Various pricing structures were discussed, with some current and alternative options workshopped with customers. A key outcome of the discussion around bill and price structures was the development of a set of principles for Sydney Water to consider when structuring customer water and wastewater bills. These principles were refined further in Phases 4, 5, and 6 and typically centred around fairness, simplicity and predictability. *Customers assessed each option in Phase 3 on its own rather than in in conjunction with other service offerings so the combined results suggest a greater support for bill increases than what might actually exist.
Phase 4	**In Phase 4, the prospect of Sydney Water needing to significantly raise bills was discussed in greater detail than in previous phases of the program*.** Sydney Water explained to customers that the increase was necessary to fund critical infrastructure investments required to meet legal and regulatory requirements as well as minimum service levels over the next decade. The discussion also included the need to cover unavoidable cost escalation, due to inflation and higher interest rates, which affect the costs of debt and the weighted average cost of capital. This information was provided upfront so that customers could consider it when expressing their preferences for investments in customer outcomes, especially those that are most costly to deliver. The projected bill increase was a key component of the Phase 4 DCE design. Sydney Water was transparent about the impact of investing in specific customer outcomes on bills, presenting this bill impact as additional to the previously mentioned 36% bill

	increase. Customers were also informed about what outcome levels the 36% bill increase would cover (e.g., the base case attribute levels in the DCE). This approach ensured that the Phase 4 DCE results more accurately reflect reality. More detailed information about the Phase 4 DCE can be found later in this chapter. *The magnitude of the need for possible bill increases was not well understood earlier in the program hence why it was unable to be prosecuted in great depth during the earlier phases.
Phase 5	In Phase 5, a panel of 60 highly informed customers evaluated their preferred combination of risk, performance and cost for Sydney Water as an organisation given the prospect of needing to increase bills significantly over the next 5 years. Overall, customers indicated a preference for a medium cost, medium performance, and low risk profile. This demonstrated that customers recognise the essential nature of the services Sydney Water provides and, on average, prioritised a low-risk service over a low-cost service. Regarding specific outcomes such as preventing pollution and improving the security of the region's water supply, the panel supported an investment plan that included an increase of $15.00-$20.00 more per quarter for water supply security (and a low to medium risk profile) and $15.00-$20.00 more per quarter for preventing pollution (and a medium level of performance) totalling a $30.00-$40.00 for each outcome (above the amount they would need to pay to achieve a low level of performance in both outcomes).
Phase 6	In Phase 6, tariffs, Customer Commitments (ODIs), and pricing mechanisms were explored. These considerations had implications for affordability, affecting customers' ability to budget and plan effectively. The panel of 50 highly informed customers were asked about the fairness of different bill structures and pricing mechanisms and their preferences for different options. Overall customers: • Preferred a revenue cap over a Price Cap. • Preferred a flat pricing structure over a tiered pricing structure. • Were comfortable with implementing both a river health and water leakage Customer Commitment (ODI).

8.4 Affordability, the Phase 4 DCE and customer WTP for outcomes

While affordability was a key focus for Sydney Water throughout the *Our Water, Our Voice* program, the Phase 4 DCE was the mechanism in which customer WTP was consolidated and tested with a large audience. The attributes and levels used in the Phase 4 DCE were derived through an iterative methodological process that drew insights from all preceding phases of the

research. The project team used these insights to design between three and four realistic levels for each attribute to include in the model design. The final attributes used were:

1. Cost increase (water and wastewater bills).
2. Time without severe water restrictions.
3. Number of urban waterways improved.
4. Amount of recycled water provided for green spaces.
5. Target date to achieve Net Zero carbon emissions.
6. Time to replace water meters with Digital Meters.
7. Chance of an unplanned interruption to your water service for five hours or greater.
8. Chance of a wastewater (sewage) overflow.
9. Chance of low pressure.

Descriptions for each of the final attributes used in the Phase 4 DCE, together with the range of levels tested and the current levels for each attribute (as advised by Sydney Water), are summarised in the table below. This information was provided to survey participants prior to asking them to consider alternatives in the choice experiment.

Table 17 DCE attributes and levels

DCE Attributes	Description	Levels for inclusion in the Phase 4 DCE (Base case in bold)
Time without severe water restrictions	The length of time Sydney Water will be able to provide water to Greater Sydney residents based on available water supply in a severe drought until severe restrictions (approximately 100 litres per person per day) are enforced. The last two droughts have shown that our water services are highly vulnerable to a lack of rainfall. We don't know how intense the next drought will be or how long it will last. In the last drought (2018-2020), we were in water restrictions for nearly two years, compared to over six years in the case of the Millennium Drought (2001-2009). If our water supply reaches critical levels in a severe drought, we would need to restrict the amount of water people use. Severe restrictions represent water consumption of around 100 litres per person per day and would be more severe than Greater Sydney has ever experienced in previous droughts. Sydney Water can extend the time available now by building more supplies, like desalination plants and purified recycled water plants, that don't rely on rainwater.	4 years **5.5 years** 8 years
Number of urban waterways improved	The proportion of identified urban waterway sites that will be improved. Urban waterways provide habitats for plants and animals and places for nature to flourish. Waterways can support recreation like swimming, boating and diving, and they can	0% identified waterways are improved (0 out of 200) **20% of identified waterways are**

DCE Attributes	Description	Levels for inclusion in the Phase 4 DCE (Base case in bold)
	provide places for people to see and enjoy nature and the outside environment. The health condition of waterways can affect their ability to support nature, recreation, and enjoyment. Across Greater Sydney, Sydney Water has identified 200 waterway sites which could be improved through investment to reduce litter and pollution from wastewater, to improve water quality, improve riverbanks and plant life, and make waterways look more natural and accessible.	**improved (40 out of 200)** 60% of identified waterways are improved (120 out of 200) 100% of identified waterways are improved (200 out of 200)
Amount of recycled water provided for green spaces	The amount of recycled water used to water new and existing public green spaces, helping to create cool, green spaces during drought. Public green spaces are things like public parks, gardens, and reserves. Recycled water is created by treating and piping wastewater and stormwater. Sydney Water currently provides one billion litres of recycled water each year for irrigating about 200 hectares of green spaces (equivalent to 270 football fields).	1 billion litres of recycled water to support 200 hectares of open space (equivalent to 270 football fields) **4 billion litres of recycled water to support 800 hectares of open space (equivalent to 1,070 football fields)** 6.5 billion litres of recycled water supplied to support 1,300 hectares of open space (equivalent to 1,730 football fields)
Target date to achieve Net Zero carbon emissions	How soon Sydney Water will achieve Net Zero carbon emissions, through more energy-efficient operations, greater creation and use of renewable energy and carbon offsetting projects (i.e., new forests). In 2021-22 Sydney Water emitted a total of 363,300 tonnes of carbon emissions. This is equivalent to the emissions produced by 220,000 petrol cars each year.	**Net Zero by 2050** **(equivalent to taking 80,000 petrol cars of the road each year)** Net Zero by 2040 (equivalent to taking 130,000 petrol cars off the road each year) Net Zero by 2030 (equivalent to taking 220,000 petrol cars off the road each year)

DCE Attributes	Description	Levels for inclusion in the Phase 4 DCE (Base case in bold)
Time to replace water meters with Digital Meters	How long it takes for customers' water meters to be replaced with Digital Meters. Digital Meters use new technology to automatically send hourly meter readings to both you and Sydney Water, so you can have more detailed information about your water use compared to traditional meters that are read once per quarter. Digital meters can be linked to an app or website, allowing customers to see their water usage in real time and use water more efficiently, especially in times of drought.	Meters are replaced with digital Meters by 2040 **Meters are replaced with Digital Meters by 2035** Meters are replaced with Digital Meters by 2030
Chance of an unplanned interruption to your water service for five hours or greater	Chance of experiencing an unplanned interruption to your water service each year. When leaks or breaks occur on Sydney Water's water network, sometimes the water needs to be shut off to repair the pipe. This can mean that customers, who are connected to the pipe, lose their water service for five hours or more until the repair is complete and the water is turned back on. When this occurs and customers have less than 48 hours' notice, it's called an unplanned interruption. Each time a customer experiences an unplanned interruption to their water supply that lasts for five hours or more, they receive a rebate of $40 off their water bill. If a customer experiences three or more unplanned interruptions that last for more than one hour in one 12-month period, they receive an additional full refund of their water service charge.	300 in 10,000 properties (3%) **200 in 10,000 properties** **(2%)** 100 in 10,000 properties (1%)
Chance of a wastewater (sewage) overflow	Chance of experiencing a wastewater (sewage) overflow on your property in dry weather each year. In dry weather, customers can experience an overflow of wastewater onto their property (either inside the house or in the garden) due to a blockage in Sydney Water's wastewater pipes. Blockages are caused by tree roots entering wastewater pipes or build-up of oil or grease, or other objects such as wet wipes, inside the pipes. Sydney Water reduces the chance of this happening by inspecting wastewater pipes and clearing blockages. Customers who experience a wastewater overflow in dry weather receive rebates on their bills ($75 for first two overflow events in a year). In addition, if a customer experiences three or more overflows in a year, they are refunded their entire wastewater service charge.	100 in 10,000 properties (1%) **70 in 10,000 properties (0.7%)** 40 in 10,000 properties (0.4%)
Chance of low water pressure	Chance of experiencing low water pressure on your property each year.	2 in 10,000 properties (0.02%)

DCE Attributes	Description	Levels for inclusion in the Phase 4 DCE (Base case in bold)
	Water pressure in the system can fall when many people are using water at the same time, or when a pipe breaks. In areas with lower pressure, this may result in a slow flow of water from your taps. You may notice that: • it takes a few minutes to fill a bucket • there is only a trickle of water from second-floor taps/showers • you are unable to use water in more than one place in the home (e.g., not being able to shower while using the washing machine). Currently there are a small number of properties (a maximum of 200) in some areas of Greater Sydney that regularly experience low water pressure. When development occurs in existing urban areas, more customers connect to the existing water network, which can result in more customers regularly experiencing low water pressure. Customers who experience low water pressure receive a rebate of $40 on their bills for up to one event per quarter (a maximum of $160 a year).	**1 in 10,000 properties (0.01%)** 0 in 10,000 properties (0%)
Cost increase	Water Bill Payers: The amount, on average, that your quarterly water bill will increase by, compared to your current water bill. Rent Payers: The amount, on average, that your monthly rent will increase by, compared to your current rent, to cover changes to your water service. Costs include charges for water and wastewater supply, and service charges. Remember that the cost increase will be applied gradually over the next 10 years.	Owners: +21%; +29%; **+36%;** +43%; +50%; +57% Renters: +$20.00; +$27.50; **+$35.00;** + $42.50; +$50.00; +$57.50

Example choice set from the Phase 4 DCE

Figure 25. An example of one choice set from the discrete choice experiment (DCE):

Your most recent water bill was $ 200 for the quarter (every 3 months).

Scenario 1 of 7: Please review the following options and choose the water service investment option you would prefer.

When answering the question, please keep in mind your income and the savings you have available after living expenses and paying all your bills. If you think that you cannot afford either of the hypothetical options on screen, please select the 'Current Investment Plan' option.

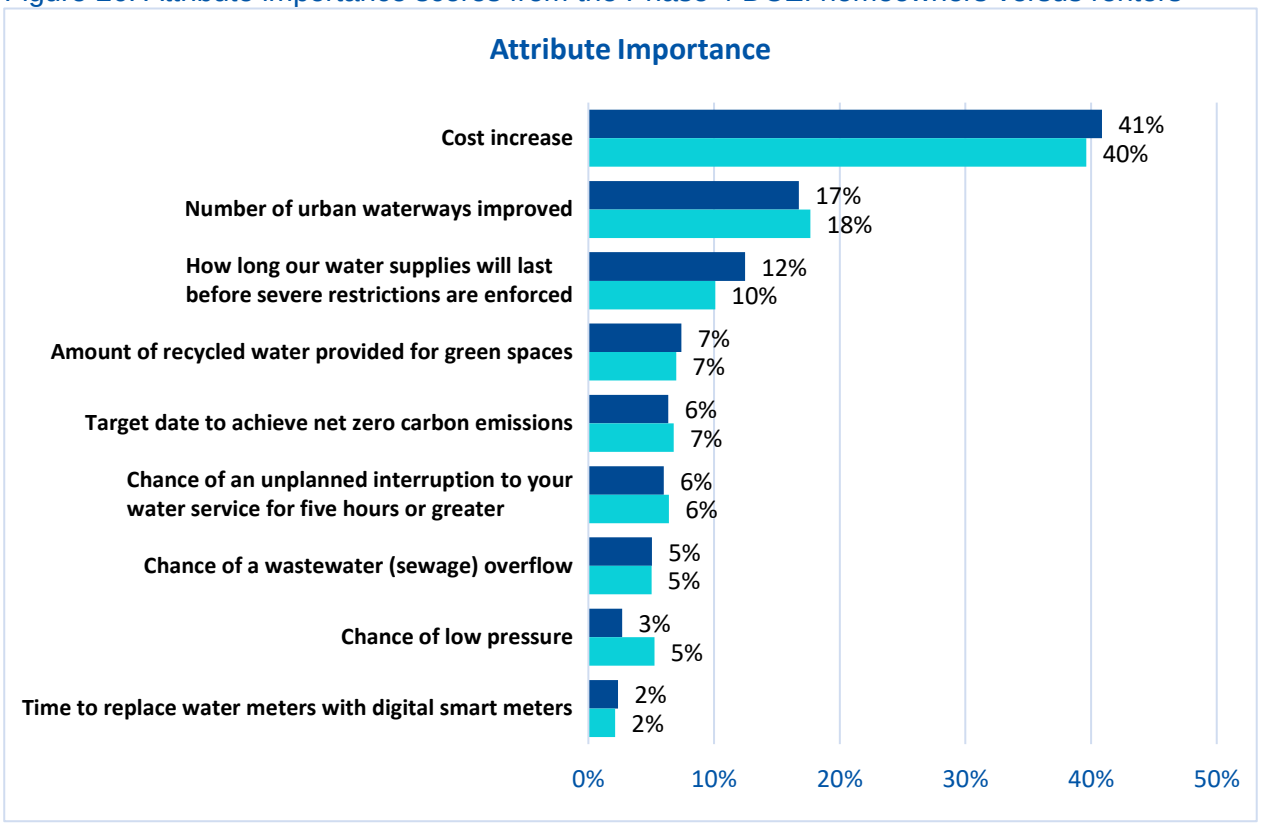
Attribute	Investment Option A	Investment Option B	Current Investment Plan
Time without severe water restrictions	4 years	4 years	5.5 years
Number of urban waterways improved	100% improved (200 out of 200)	60% improved (120 out of 200)	20% improved (40 out of 200)
Amount of recycled water provided for green spaces	4b 4 billion litres of recycled water to support 800 hectares (equivalent to 1,000 football fields)	1b 1 billion litres of recycled water to support 200 hectares (equivalent to 270 football fields)	4b 4 billion litres of recycled water to support 800 hectares (equivalent to 1,000 football fields)
Target date to achieve net zero carbon emissions	2030 net zero by 2030 (equivalent to taking 220,000 petrol cars off the road each year)	2040 net zero by 2040 (equivalent to taking 130,000 petrol cars off the road each year)	2050 net zero by 2050 (equivalent to taking 80,000 petrol cars off the road each year)
Time to replace water meters with digital smart meters	2030 Digital smart meters by 2030	2030 Digital smart meters by 2030	2035 Digital smart meters by 2035
Chance of an unplanned interruption to your water service for five hours or greater	2% 200 in 10,000 properties	2% 200 in 10,000 properties	2% 200 in 10,000 properties
Chance of a wastewater (sewage) overflow	0.7% 70 in 10,000 properties	0.4% 40 in 10,000 properties	0.7% 70 in 10,000 properties
Chance of low water pressure	0.01% 1 in 10,000 properties	0.01% 1 in 10,000 properties	0.01% 1 in 10,000 properties
Increase to quarterly water bill	⬆ $114.0	⬆ $100.0	⬆ $72.0
I would choose...	○	○	○

Attribute importance: Homeowners and Renters

Across all the attributes in the Phase 4 DCE, 'cost increase' was the most important attribute by a considerable distance, reaffirming the overall importance of affordability. This was followed by the 'number of urban waterways improved', the 'length of time until severe restrictions are enforced', and 'the amount of recycled water provided for green spaces'. This, again, highlighted the importance customers place on these three outcomes, which was apparent throughout *Our Water, Our Voice*.

The three least influential attributes in driving customer utility amongst both homeowners and renters were: the time to replace water meters with Digital Smart Meters, the chance of low water pressure, and the chance of wastewater overflows.

Figure 26. Attribute importance scores from the Phase 4 DCE: homeowners versus renters



Base: Total sample (n=4,003) **Dark blue represents homeowners; light blue represents renters.**

Table 18. A summary of WTP across all attributes from the Phase 4 DCE

			Time without severe water restrictions			
			4 years (Lower)	5.5 years (Current)	8 years (Higher)	
WTP (in addition to 36% bill increase over next 10 years)	Home owners (n=2,884)	Quarterly water bill	-$15.10	$0.00	$13.00	
	Renters (n=1,119)	Monthly rent	-$6.80	$0.00	$2.80	
			Number of urban waterways improved			
			0 out of 200 (Lower)	40 out of 200 (Current)	120 out of 200 (Higher)	200 out of 200 (Higher again)
WTP (in addition to 36% bill increase over next 10 years)	Home owners (n=2,884)	Quarterly water bill	-$15.10	$0.00	$12.50	$21.00
	Renters (n=1,119)	Monthly rent	-$5.70	$0.00	-$7.00	$11.20
			Amount of recycled water provided for green spaces			
			1 billion litres (Lower)	4 billion litres (Current)	6.5 billion litres (Higher)	
WTP (in addition to 36% bill increase over next 10 years)	Home owners (n=2,884)	Quarterly water bill	-$10.00	$0.00	$6.20	
	Renters (n=1,119)	Monthly rent	-$4.00	$0.00	$2.70	
			Target date to achieve net zero carbon emissions			
			2050 (Current)	2040 (Higher)	2030 (Higher again)	
WTP (in addition to 36% bill increase over next 10 years)	Home owners (n=2,884)	Quarterly water bill	$0.00	$2.80	$9.50	
	Renters (n=1,119)	Monthly rent	$0.00	$3.50	$6.50	
			Time to replace water meters with digital smart meters			
			2040 (Lower)	2035 (Current)	2030 (Higher)	
WTP (in addition to 36% bill increase over next 10 years)	Home owners (n=2,884)	Quarterly water bill	-$4.90	$0.00	-$0.10	
	Renters (n=1,119)	Monthly rent	-$1.70	$0.00	$0.30	
			Chance of an unplanned interruption to your water service for five hours or greater			
			300 in 10,000 properties (Lower)	200 in 10,000 properties (Current)	100 in 10,000 properties (Higher)	
WTP (in addition to 36% bill increase over next 10 years)	Home owners (n=2,884)	Quarterly water bill	-$12.00	$0.00	$2.50	
	Renters (n=1,119)	Monthly rent	-$4.30	$0.00	$1.70	
			Chance of a wastewater (sewage) overflow			
			100 in 10,000 properties (Lower)	70 in 10,000 properties (Current)	40 in 10,000 properties (Higher)	
WTP (in addition to 36% bill increase over next 10 years)	Home owners (n=2,884)	Quarterly water bill	-$1.80	$0.00	$9.40	
	Renters (n=1,119)	Monthly rent	$0.30	$0.00	$4.20	
			Chance of low pressure			
			2 in 10,000 properties (Lower)	1 in 10,000 properties (Current)	0 in 10,000 properties (Higher)	
WTP (in addition to 36% bill increase over next 10 years)	Home owners (n=2,884)	Quarterly water bill	-$2.10	$0.00	$4.30	
	Renters (n=1,119)	Monthly rent	-$1.60	$0.00	$4.30	

9 Tariffs and how bills are structured.

9.1 A closer look at tariffs and how bills are structured

This chapter focuses on how the discussion about tariffs and bill structures evolved during the *Our Water, Our Voice* program. Initially, it was evident that tariff and bill structures are not typically a top priority for customers, as the bill amounts are generally perceived as fair, and the bill structure (beyond fixed and usage charges) are largely unknown.

Tariffs and bill structures are often complex topics that the average customer finds challenging to grasp. Many customers hesitate to advocate for changes in these areas due to their perceived lack of expertise. Instead, they prefer to defer decisions to “the experts”, trusting Sydney Water’s recommendations as long as fairness principles are upheld.

Despite this, given the prospect of rising bills over the coming years, Sydney Water wanted to ensure that customers were involved in these decisions, which meant educating them to a level where they were comfortable with guiding Sydney Water in how the structure of tariffs and bills should look.

In Phase 3, the topic of tariffs and bill structures was introduced to customers for the first time. It became evident that, due to the complexity of the topic, customers needed more time to grasp it fully. Without this understanding, it was uncertain whether their recommendations to Sydney Water truly aligned with their best interests. As a result, the topic was included in the Phase 6 customer panel discussions, where significant effort was made to educate customers thoroughly. This ensured they had a clear understanding and could guide Sydney Water from an informed standpoint.

Ultimately, customers expressed a preference for:

- **Flat pricing structure** (users pay the same rate per kilolitre regardless of how much they use plus a fixed charge) over a **tiered pricing structure** (The more customers use, the higher the cost per kilolitre (multiple tiers) plus a fixed charge).
- **A revenue cap** (The revenue Sydney Water can collect is fixed) model over a **pricing cap** (where the prices Sydney Water can charge for services is fixed).

Flat Pricing structure: Users pay the same rate per

9.2 The importance of bill affordability and customer WTP for outcomes amongst rising costs

How bills are structured and how Sydney Water generates revenue are crucial aspects of affordability. While customers typically do not deeply contemplate these matters, it was important to engage with them to understand their considerations around potential approaches. It is important that any form of price control supports the long-term interests of customers. Allowing customers to influence Sydney Water's decisions in this area is essential to ensuring that the chosen mechanisms align with this objective.

It is also worth noting that changing the bill structure shifts the cost of delivering Sydney Water's services across the community. While tariffs do not change the overall size of the pie (i.e. total revenue), it changes who pays a higher proportion. Engaging with the community on how bill structures are set, ensures Sydney Water collects its revenue allowance in a way that reflects the expectations of its communities and the fairness principles of its customers, rather than its regulators or shareholders.

9.3 Mapping the journey

Table 19. Mapping the engagement journey – Tariffs and how bills are structured.

Phase #	Mapping the customer engagement journey – Tariffs and how bills are structured
Phase 1	In Phase 1, customers included bill affordability as the second most important priority for Sydney Water (topped only by the need to maintain safe and clean drinking water). How bills are structured is invariably linked to bill affordability, particularly the affordability of bills during drought, when drought pricing structures have the potential to influence affordability for customers.
Phase 2	The topic of tariffs and how bills are structured was not part of the discussions in Phase 2. However, customer service level preferences which were discussed in Phase 2 are **linked to affordability, which is a component of the Customer experience outcome theme area.**

Phase 3	**How Sydney Water structures its water bills and collects revenue was a topic for discussion in Phase 3.** Throughout these discussions, customers were focused on ensuring Sydney Water deliver predictable, stable, and fair bills, while also respecting that people should pay for what they use. Most customers preferred: • Single block tariffs over inclining block tariffs. • Water conservation pricing to drought uplift pricing. • Revenue caps over price caps. • Smoothed funding over staged funding. These preferences were ascertained from a large sample with good representation across the Greater Sydney area. One challenge, with maximising representation, is it reduces the time to consider deeply the benefits and drawbacks of each option. In addition to this, there were mixed results across some of the options, where results from the quantitative research did not align with the qualitative research. There were also concerns raised about the degree of customer understanding given the complexity of the topics. A second round of customer engagement on these topics was organised for Phase 6, where a panel of 50 customers spent four days unpacking these options and considering each, before reaching a consensus on their preferred choice. Finally, in Phase 3, several decision principles driving customer choices around these topics were identified that were refined further in Phase 6. These included the need for simple, stable, predictable, equitable, and fair bills that are effective at achieving their purpose and do not erode affordability. It was also identified that
Phase 4	The topic of tariffs and how bills are structured was not part of the discussions in Phase 4.
Phase 5	The topic of tariffs and how bills are structured was not part of the discussions in Phase 5.
Phase 6	This topic was the core focus of Phase 6. A panel of n=50 customers (the same customers as in Phase 5) explored several tariff structure options, weighing up the pros and cons over a multi-day customer engagement. These customers were provided with a considerable amount of background information about the different options. They were given the opportunity to ask questions, hear different points of view from a diverse group of customers, and apply a range of fairness principles (Fairness Windows) when making their recommendations. Finally, they sought to reach a consensus about their preferred choice.

Overall customers were more comfortable with a:

- Flat pricing structure over a tiered pricing structure.
- Revenue cap vs a price cap.

A key output from Phase 6 was the development of a set of fairness principles (referred to as Fairness Windows). These principles help explain customer preferences that can guide Sydney Water when making decisions areas around tariffs and bill structures. They are particularly useful for understanding underlying reasons behind the heterogeneity and variance in customer preferences. These Fairness Windows included:

- **User pays:** Customers should pay what it costs regardless of their circumstances.
- **Affordability:** Prices should be affordable for everyone.
- **Cost reflectivity:** Prices should only reflect the cost of service.
- **Service guarantee:** Customers should be compensated if Sydney Water doesn't deliver the service.
- **Simplicity:** The way in which customers are charged should be clear.
- **Control:** Customers should be able to influence how much they have to pay.
- **Predictability / stability:** The level of variability in customer bills.
- **Conserving public resources:** Water is precious and should be conserved.

9.4 The value of the Fairness Windows

The Fairness Windows, introduced in Phase 6, are an important output of this customer engagement program. The Fairness Windows assist Sydney Water to understand how and why its customer base differs and why customers believe a certain decision or tariff setting is in their best interest. There are a number of these windows, and all must be considered by Sydney Water for it to make a reliable judgement call on what is best for its customers.

Another important point these windows highlight is that achieving a 100% consensus on any topic or decision is close to impossible. The customer base is heterogeneous, no two customers are the same and what is completely fair to one customer is completely unfair to another. Rather than targeting a complete consensus, a better approach is to establish a clear threshold of acceptability and then aim to maximise customer acceptance. Having a well-defined set of customer fairness principles helps to ensure that the potential ideas that Sydney Water explores with customers start

off as close to the mark of acceptability as possible. As such, the task of obtaining a consensus is more likely to involve refinements rather than overhauling an idea.

Fairness principles

These were designed in a workshop with Sydney Water, Verian, and the CCRG before being validated with customers during the panel sessions and refined further using their feedback. Below we explain these concepts in more detail and how they impact decisions around pricing structures.

User pays

Customers believed firmly in the concept and principle of 'user pays'. They believed the usage price should be the same for everyone, and that everyone pays their bill based on their usage within the last quarter.

This was felt to strike a good balance between fairness and motivating people to adopt water saving behaviours, as bills increase or decrease based on water use.

Importantly, in the context of 'user pays', any discussion about increasing the unit price beyond a water consumption threshold was widely rejected, even in the context of vulnerable customers, customers experiencing financial difficulty, pensioners and customers living with disability. Customers believed that the Government should provide support for these groups, and that any rebates for these groups should not be worn by other customers.

Affordability

Affordability was an important consideration for customers, noting that water is an essential service and should, therefore, be affordable for all.

While there was widespread agreement that the current pricing approach is fair, there was some openness to a tiered approach to pricing (acknowledging this directly contradicts their preference for a single price per unit of water discussed under 'user pays').

The key difference is that this tiered approach was considered more acceptable if it was means-tested, with a view that those who can afford it, should pay more for water, with many accepting that the current price per unit of water is quite affordable.

Cost reflectivity

The concept of cost reflectivity is about costs only reflecting the cost of service. For example, the cost of transporting water to households varies, by nature of the network size and infrastructure placement, some households are more expensive to transport water to than others.

While customers held firm in their views that people should not pay more to subsidise other customers' water use, there was a similarly strong view that people shouldn't be penalised because of where they live geographically – with a sentiment of: "I didn't get to decide where the infrastructure was."

What separates these views is the element of control. If a customer cannot control it (e.g., network), they don't want to accept paying more for it. Customers believed the costs of the network should be shared equally across the customer base.

Conserving public resources

While customers agreed that people should be encouraged to use less water, no one should be restricted from using the water that they want to use (outside of water restrictions), provided they are willing to pay for it. There was a much stronger preference for community education around water conservation and incentives for lower water users, as opposed to punishments or penalties for higher water users.

Many agreed the current pricing structure does provide some discouragement of higher water use (through usage price). However, 'user pays' often trumped this and, if customers are willing to pay, they should be able to choose how they use it and how much water they use.

Service Guarantee

Customers felt very strongly that they should be compensated for breaches in service guarantees.

While there was an appreciation that things can go wrong, what was most critical to the service guarantee window was transparency. Many felt that current service level guarantees are somewhat 'hidden' – perceived as either difficult to measure, lacking in community awareness, creating confusion around whether they are applied automatically, or if a customer needs to initiate this. Customers felt the onus was on them to claim these rebates, rather than trusting Sydney Water to proactively apply them. Trust and transparency are key considerations around this.

Predictability / Stability

Predictability and stability of bills are important to customers. Given the current cost of living pressures, the ability to budget for, and predict bills is crucial.

Despite this, customers were willing to trade-off bill stability and predictability in the following situations:

- If there is a way to manage and monitor usage (to provide some indication of likely bill amount);
- For low water users who feel like they have control and, therefore, pay less (again provided they can monitor use).

Control

Customers expressed a strong desire to better understand their water usage and have more control over it. They seek tools to monitor usage and receive alerts to manage their use effectively.

The current billing approach may not support enhanced control over the ratio of fixed to usage components of the bill. Customers understood and accepted the reason for wastewater charges being fixed. They were however, unhappy that a large proportion of the fixed component of the bill is attributed to wastewater, which customers have less control over, compared to water consumption. This sentiment was linked to a lack of control rather than support for variable wastewater pricing.

Customers felt that even if they go to great lengths to save water, it won't have much of an impact on their bills, because the fixed component makes up a large proportion of the bill.

Simplicity

Simplicity of billing is important to customers and current bills are generally perceived as being easy to comprehend. Although most admitted to not even looking at their bills, those who do can understand the bill to the extent that they need to.

When it comes to simplicity, beyond understanding the bill amount, customers looked for their usage comparisons. Customers were particularly keen to understand how their usage compares to similar sized households, and whether they are doing a ‘good job’ of saving water. Despite not looking too closely, customers trust the information provided in bills.

10 A spotlight on diverse audiences

Why it is important to include diverse audiences.

Sydney Water's commitment to inclusivity in its customer engagement program extends beyond traditional demographics. This commitment is shown by the inclusion of stakeholders like developers, value makers, and government bodies, SMEs, Service Critical High and Medium Business customers; alongside culturally diverse groups. Some of these diverse groups include, First Nations customers, and those living with disabilities. These customers came from right across the Greater Sydney region, helping Sydney Water to foster a holistic understanding of its entire customer base. This inclusivity ensures that decisions are guided by the needs of all customers.

A standout feature of the customer engagement program overall, is that customers' preferences, perceptions, values, attitudes, and expectations differ greatly from person to person for a wide range of reasons. It was also clear that explaining these differences along demographic lines greatly oversimplifies why differences between customers exist. While there was some evidence of differences by demographic, this was only one aspect explaining this variation.

The following chapter highlights some of the points of difference or areas of uniqueness that exist within the diverse audiences that were routinely engaged throughout the program. The intention of these summaries is to provide additional insight into the views of these customers. However, please avoid making sweeping generalisations based on these findings.

In most cases, these diverse audiences have additional needs or priorities for Sydney Water that are unique to them which were not mentioned by the general population. Where relevant these additional priorities have been included.

First Nations Customers

First Nations customers were engaged throughout the program. It was clear from the start that water is regarded, as not only being an important resource, but one which is essential to life. The cultural significance of water and waterways to First Nations customers was of particular importance. These customers could see strong benefits from investing to improve waterways, particularly in more urban areas. There were, however, some concerns about the long-term viability of ensuring waterways were cleaned and cared for. Their support for any investment in such initiatives tended to be contingent on ongoing maintenance being assured.

They would also prefer that any new healthy and natural waterway initiatives consider the local First Nations communities. They hoped that these initiatives would have linkages to First Nations history and make use of First Nations principles when planting and restoring waterways. Most were also supportive of investing in bringing forward Net Zero to 2030 and providing extra recycled water to irrigate public green spaces.

With regard to affordability, the overwhelming majority expressed concern about bill increases due to existing high levels of pressure on household incomes and general cost of living increases. Similar to the general population, there was an understanding of the need for repairs and asset upgrades, though this did not always mitigate the strong feelings of concern about cost implications and budgetary stress.

For some First Nations customers, the cost impacts described throughout the customer engagement were considered severe, as some already rely on support in the form of electricity vouchers and are worried about these cost impacts extending to water. Financial support and subsidies from government were repeatedly raised as potential solutions to bill shock, given the challenging financial times.

There was a notable level of surprise and some anger about the extent to which cost increases are being used to fund the growth of Greater Sydney, even amongst those who were generally more understanding of the need for a price increase. They had assumed that repairs, and maintenance of existing supply would have been a greater priority than funding the growth of the region. These customers questioned why existing customers were expected to subsidise the services of new customers. There was genuine concern about whether this was equitable given current financial pressures.

Some were aware that assistance is offered for financial hardship, though there was surprise to learn about the protection afforded to clients experiencing domestic violence, as this was both new to them and considered very important. Again, First Nations customers would appreciate more information and communication about the support available to those struggling to pay their bills.

Priorities for Sydney Water that were unique to First Nations customers included:

- Having pricing that fairly considers family size and the additional costs of having a larger family or a multi-generational household.
- Faster and more personal customer service systems, including shopfront outlets and non-screen or non-call centre methods.
- Showing renters the same level of respect as homeowners, when delivering services.
- Demonstrating cultural integrity and respect, including First Nations land-use approaches, and understanding local group priorities.

Culturally and Linguistically Diverse audiences

Looking at affordability, like all other residential, the prospect of water bills needing to increase was not a surprise to Culturally and Linguistically Diverse (CALD) customers, although the size of the increase above inflation received a negative reaction. There was also a desire for full transparency about why bills are increasing and what the revenue is being spent on. Generally speaking, Arabic, Cantonese, and Greek customers expressed a higher degree of price sensitivity during these conversations.

Many CALD customers were unhappy that a large proportion of bill increases would be used to support growth of Greater Sydney. They often argued that water bills should not be used to fund growth and that the Government should use taxes to fund it. Some also argued that it should be the responsibility of people moving into those areas to pay for the infrastructure.

When looking at potential outcomes, there was often (although not always) a low willingness to see large increases in bills for outcomes that were perceived to deliver small improvements. In these cases, many CALD customers were satisfied with the status quo, which was perceived as adequate. This was particularly true for outcomes such as healthy waterways and cool green spaces. Most, however, were supportive of bringing forward the target for Net Zero carbon emissions to 2030.

CALD customers questioned whether it is Sydney Water's responsibility to deliver healthy waterways. There were questions around the role of local councils and / or the Government in managing major infrastructure investment and how taxpayer funds may contribute to these types of investments. There was also some scepticism from customers in the Mandarin and Vietnamese-speaking groups as to whether the additional money collected from customers would be honestly and effectively used to contribute to the outcomes discussed.

Priorities for Sydney Water that were unique to CALD customers included:

- Reassuring people in-language that they can drink the tap water and provide multi-lingual promotional material with water bills (Cantonese speaking customers).
- Continue providing opportunities for the community to contribute to decision-making through community consultation (Arabic speaking customers).

Small to Medium Enterprises (SMEs)

When discussing affordability with SMEs, they expressed similar sentiment to the general population. These customers felt resigned to a bill increase and were not surprised to hear they were being proposed. They understood the reasons for needing to increase bills and were somewhat more accepting of this than the general population. They mentioned that, given current cost-of-living pressures across the economy, it makes sense for costs related to Sydney Water to increase as well.

Nevertheless, a common concern was how and whether they would be able to pass these rising costs on to customers. Many SMEs have pre-existing contracts with their customers that span several years, meaning that the amount customers pay is already set. Businesses can't rewrite existing contracts to reflect the new costs of the bill increase, so they would have to wear these increases, which would further add to budgetary pressures.

Some wanted more transparency regarding how funding from bill increases would be distributed. They would like to understand how it is split across outcomes and, in particular, what Sydney Water is paying for and what businesses and developers are paying for. Some believed that growth should be paid for by developers and the Government, while acknowledging that some or all of these costs should also be paid for in taxes. Like the general population, there was a general

belief, amongst SMEs, that growth should be paid for by new customers, rather than existing customers.

With regard to financial hardship, SME customers wonder if Sydney Water can offer better financial hardship assistance to businesses. For example, there is no government assistance for non-industrial businesses to offset the costs of water treatment plants or recycled water, raising the question as to whether Sydney Water can assist businesses with the use of recycled water.

As with other customer groups, many SMEs believed that customers shouldn't have to pay extra to deliver outcomes such as healthy waterways or cool green spaces and thought this should be the role of local councils. The sentiment around outcomes like this was often not influenced by the customers status as a manager or operator of a small business, and instead it reflected their personal preferences. For example, some SME customers felt they still wanted to contribute towards improving the health of waterways and were willing to fund some improvements in service levels and others were willing to pay a lot more to see substantial improvements.

Priorities for Sydney Water that were unique to SMEs included:

- Providing business-specific initiatives to nurture a water scarcity mindset among businesses.
- Providing Digital Meters and other technology, to help businesses monitor their usage, and to provide reassurance, even for those who are unable to change their usage due to its criticality to their business.

Value Makers (A business or person that interacts with Sydney Water to help other customers get a job done)

When talking about affordability, Value Makers were not surprised by the prospect of water bill increases. Discussion focused on how bill increases would be allocated towards the growth of Greater Sydney, with the primary sentiment being that this is more than it should be and that developers should pay for it, not customers. Some Value Makers believe that the cost of any new infrastructure should be borne by those who live there, and not all customers.

For Value Makers, maintenance and renewal of existing infrastructure was a major concern that should be elevated as a priority. They discussed the challenge of maintaining existing pipe networks and felt Sydney Water has a large task ahead of it, if it is going to keep the city in its current state, let alone support the growth of the city. Ultimately, they felt a greater proportion of funding should be allocated towards renewing assets and supporting the current network. Ultimately, with regard to bill impact, they felt that more should be done to educate the community on "how to use water better", thereby lessening all water bills.

Value Makers were generally supportive of an increased investment to promote and facilitate outcomes, such as reducing carbon emissions, more healthy waterways, and increased recycled water for cool, green spaces across Greater Sydney. Similar to the general population, they believed that some of these outcomes were partly the responsibility of local councils to fund.

Priorities for Sydney Water that were unique to Value Makers:

- Value Makers want Sydney Water to plan for the provision of a range of alternate water sources, particularly for non-potable uses, due to a changing climate and future water shortages.
- Value Makers stressed the criticality of community education on how to conserve water and take on a water scarcity mindset.
- Increase network maintenance as a result of ageing infrastructure and a growing population. Value Makers, specifically plumbers, have seen the number of leaks and breaks increasing, along with frequent complications around backflows in customer properties.
- Value Makers, specifically those in construction, engineering, and plumbing, expressed frustration with Sydney Water's database and maps of the underground network. They reported that the actual underground network frequently contradicts Sydney Water's written plans, resulting in many examples of network damage. They also suggested Sydney Water should use new technology, or other innovative methods, to carry out a survey of all assets, enabling accurate information to be provided to key stakeholders.
- Value Makers want Sydney Water to reduce inaccuracies in billing information to minimise billing issues. Property managers are regularly impacted by meter number issues and incorrect data, leading to tenants being charged incorrectly or for other tenants' usage.
- Value Makers want Sydney Water to improve the timeliness of responses to queries: They described unacceptable turnaround times of up to three weeks for simple enquiries.

Service Critical High and Service Critical Medium businesses (businesses where Sydney Water's services play a critical part in their ability to operate).

Service Critical High and Service Critical Medium businesses were engaged throughout Phases 1-4 of the *Our Water, Our Voice* program. With regard to the customer service relationship, these stakeholders highlighted the importance of staff continuity and wanted Sydney Water to make this a priority. Staff turnover within Sydney Water was a source of frustration particularly when there is a loss of experienced consultants. They had also observed increased outsourcing and raised concerns about inadequate resourcing and slow response times. These businesses suggested that Sydney Water needs to adopt a much stronger customer focus, be more proactive and responsive to client issues and opportunities, and be better at following through, taking ownership of issues (rather than outsourcing), and minimising the need for customers to "chase" Sydney Water. There was a belief that Sydney Water needs to become more agile and responsive to build confidence among these businesses.

Reducing carbon emissions using innovative methods was an important priority for these Businesses, who are themselves working towards reducing their own carbon emissions. They felt it critical that Sydney Water does the same. They agreed that achieving net zero carbon emissions should happen as soon as possible, provided it remains commercially viable. These businesses

saw a myriad of opportunities for Sydney Water, as a government organisation, to trial more innovative methods to work towards net zero emissions and to lead by example in this space.

With regards to affordability, these stakeholders felt resigned to a bill increase and were not surprised that this was being proposed. They understood the reasons for the bill increase and were more accepting of it than the general population. Given the current economic environment and rising supply chain costs, they agreed that it made sense for costs related to Sydney Water to be increasing as well, and that this would need to be passed on to customers. Like SMEs, many of these businesses have their own customers with pre-agreed contracts spanning several years into the future. These businesses would be unable to rewrite or adjust existing contracts to reflect the new costs of the bill increase and would instead have to bear these increased costs.

How bill increases would be spent was an important area of interest for service critical high businesses, with some expecting increased transparency from Sydney Water around how the increased revenue would be spent. More specifically, they wanted to know what Sydney Water is paying for and what developers pay for when it comes to the growth of the region. They believed that growth should be paid for by developers and government, with some of these costs be paid for via tax.

Another priority for service critical high businesses was Sydney Water offering better financial hardship assistance to businesses that need it. For example, there is no government assistance for non-industrial businesses to offset the costs of water treatment plants or recycled water. They wanted to know whether Sydney Water can assist businesses to make greater use of recycled water.

Customers living with a disability.

Throughout the customer engagement program, reactions from customers living with a disability were largely aligned with the general population, particularly around the different outcomes Sydney Water might deliver. Overall, a customer's status as a person living with a disability seemed to have limited influence on their views about water-related outcomes and priorities. One key difference is that they may need to use more water to support their disability and felt they needed special exemptions or concessions as a result of this. While forms of concession are currently available to these customers, awareness is often limited, and they indicated that more communication would help.

Affordability was one area that impacted these customers more than the general population. In relation to affordability, they often mentioned that it is important for the public to be educated on how to use less water in order to decrease the cost of their bill. There was some discussion around whether individuals can, in fact, reduce their water bills by reducing their usage. These concerns were primarily held by those living in rented units, where the water bill is pooled and doesn't reflect individual use.

These customers also had additional concerns about the overall affordability of their water bill and this often related to the fact customers living with a disability typically have tighter personal budgets or less discretionary income. Some suggested that the option to pay a fixed amount every month was desirable as a way to help manage their finances.

Customers living with a disability didn't specify any unique priorities outside of the 15 identified by the general population.

Financially vulnerable customers

Financially vulnerable customers were included and well represented throughout all Phases of the *Our Water, Our Voice* program. Financially vulnerable customers were included in these sessions with the general population, and feedback during the forums and panels revealed that their priorities aligned closely with the general population.

Furthermore, analysis of the Phase 1 MaxDiff results showed that the most important priorities of financially vulnerable customers aligned very closely to the priorities of the general population with no significant differences. For example:

- 44% of financially vulnerable customers had 'Maintaining safe and clean drinking water' as their top priority, compared to 46% of those who are not experiencing financial hardship.
- 14% of financially vulnerable customers had 'Ensuring water and wastewater (sewage) bills remain affordable through careful cost management, guarding against future price spikes as their second most important priority. This compares to 13% of those who are not experiencing financial hardship.
- 14% of financially vulnerable customers had 'keeping waterways and water recreation areas clean and safe to use by reducing wastewater (sewage) pollution' as their third most important priority. This compares to 11% of those who are not experiencing financial hardship.

This pattern tended to repeat itself throughout the *Our Water, Our Voice* program with only minor differences observed across the quantitative research conducted as part of the program.

The greatest difference noted was a higher underlying cost sensitivity. This meant that financially vulnerable customers were less likely than those not experiencing financial vulnerability, to select some of the higher bill impact options presented to them throughout the customer forums, workshops, panels and DCE surveys. However, many financially vulnerable customers still felt that some of the more expensive options were worth paying for, provided that they had the capacity to do so.

Another recurring theme noted throughout Our Water, Our Voice was a sense of altruism where customers who were not experiencing financial hardship made choices in the best interests of customers who were. For example, while some customers might have preferred to see the highest level of investment, expenditure (and higher bill increases), they were also prepared to accept lower service levels, recognising that not all customers would be able to afford the more expensive options.

A key priority of financially vulnerable customers was to improve communications, and awareness of the support options that are available to customers if they experience financial hardship. They were generally satisfied, if not impressed by the options currently available, but were also surprised that they existed and wished that this was more common knowledge.

Local and State Government stakeholders

Council and government stakeholders were in the unique position of responding as individuals, as well as on behalf of their constituents. In this regard, when talking about bill affordability, many felt they could personally manage a bill increase, but some were concerned about its effect on the constituents they represent.

These stakeholders often had more technical knowledge about water and wastewater than the average residential customer. Their roles often directly dealt with wastewater overflows and bursting pipes and, as a result, there was more acceptance that additional investment and a bill increase was likely required to deliver needed improvements. All agreed that Sydney Water must be transparent about the details of any bill increase to ensure that its customers have a clear understanding of why it is needed.

Similar to the responses from residential customers and other sub-groups, questions were raised about customer bills being used to fund the growth of Greater Sydney. Commonly asked questions included:

- Why aren't developers shouldering more of this burden?
- Why is Western Sydney wearing this cost?
- Why should existing communities pay for this and not new ones?

Location mattered to government stakeholders and many responses were based on what was happening or what is relevant to their local area. As a result, there were many comments and concerns raised regarding wastewater overflows, drainage, and network repairs, water quality improvement, ongoing leaks, and concrete channels. Again, these tended to relate to specific areas and circumstances, rather than all of Greater Sydney.

They hoped that Sydney Water would alert council and government stakeholders ahead of delivering any notice about bill increases, so they can prepare their response to align with it. Council and government stakeholders anticipate that they will have to field calls from their constituents about any bill increase and ask that Sydney Water make it clear that concerns be directed to Sydney Water and not council and government.

Many stakeholders feel that Sydney Water does not make best use of its relationships with governments when delivering outcomes. These stakeholders would like to work more closely with Sydney Water and provide advice on projects, investments, and communication strategies. They would also like more opportunity to collaborate given they have a good amount of local knowledge and expertise that Sydney Water may not have.

Additional priorities that were unique to Local and State Government stakeholders:

- Encourage the uptake of recycled water. These stakeholders highlighted that because potable water is cheap, selling recycled water is more challenging, as customers expect the price of water to be low. Stakeholders suggested Sydney Water encourage community use of recycled water by promoting benefits of using recycled water over potable water beyond just price (where appropriate).

- Deal with increasing business costs: Local and State Government representatives identified that the cost to do business (cost of labour and materials in particular) is increasing due to recent global events. They anticipated this will impact Sydney Water, placing additional pressure on the cost of capital and operating costs.

Major Developers

Major developers held different priorities for Sydney Water compared to the general population. They were also less concerned about affordability and more concerned about the efficiency of Sydney Water in delivering outcomes, adhering to timelines, and providing the certainty to allow them to make investment decisions, without worrying about whether projects will be held up by the need to provide water and wastewater services. Major developers view Sydney Water's role as critical to their ability to deliver housing developments to cater for Greater Sydney's population, particularly in greenfield areas (previously undeveloped areas).

Major developers were highly supportive of enhanced outcomes in areas including healthy waterways, secure water supply, reducing carbon emissions, and providing recycled water for cool, green landscapes. They recognised the cultural importance of waterways and green spaces and having access to safe drinking water and agreed that focusing on this would bring benefits to all customers across the region. Despite this support, they were sceptical about Sydney Water's ability to achieve outcomes in the timeframes discussed. This scepticism was linked to frustrations and personal experiences with delays in Sydney Water connecting services to greenfield developments and promised timelines not being met.

Developers also expressed concern about the expanding Greater Sydney population and whether enough was being done to support this. They had significant concerns about the true cost of replacing the ageing infrastructure and felt this was being underestimated in Sydney Water's current plans and projections.

Additional priorities that were unique to major developers included:

- **Improve the way estimations for housing demand are made**: They felt the current model is not working. Major developers believe Sydney Water needs to look beyond a five-year time horizon towards the next 10 or 20 years and be planning now for the investment required to provide services to these future communities. Major developers want Sydney Water to be more involved and collaborative in the early stages of development planning, beyond simply looking at infrastructure delivery and connections to the network. They felt it was critical that Sydney Water's infrastructure delivery aligns with the demands of industry, and does not, in any way, inhibit development, which they felt was currently happening.
- Linked to the point above, **major developers want Sydney Water to become more agile and flexible in the way it makes decisions**. They perceived Sydney Water's decision-making as very slow, inefficient and bureaucratic, leading to delays they had to deal with
- themselves. There was also a view that the IPART regulatory process should also be more flexible. Specifically, they reported that Sydney Water starts the IPART process 24 months

before receiving the funds, which limits its ability to respond to new developments in an agile and flexible way.

- Major developers believe that Sydney Water is significantly under-resourced in terms of delivering services to new developments. **They expect Sydney Water to rethink its resourcing model and find efficient ways of working to speed up delivery of major works.** They see a lack of resources at Sydney Water as a key factor causing significant delays in setting up new infrastructure for developments. They felt Sydney Water should be exploring ways to create an increased resource base to expedite delivery, such as using the private sector.
- Major developers expressed great frustration with the speed of communications from Sydney Water. **They expect Sydney Water to communicate in a timely and more collaborative manner than the current standard.** They also expressed a strong desire for Sydney Water to improve the timeliness of its responses and approvals. They pointed to the Department of Climate Change, Energy, the Environment and Water as an example of improved efficiency achieved through the use of concierge services and regular meetings to address their concerns. It was suggested that Sydney Water consider a similar approach.

11 Glossary

The following table provides a reference point for acronyms used throughout this report.

Table 20. Glossary

Acronym	Descriptor
CALD	Culturally and Linguistically Diverse.
First Nations	First Nations refers to people of Australia who associate as being a person of Aboriginal and/or Torres Strait Islander origin and/or descent.
Greater Sydney	Greater Sydney (including the Blue Mountains and Illawarra).
IPART	Independent Pricing and Regulatory Tribunal.
Residential customer	General member of the public that includes both homeowners and renters.
Triangles	The framework used to ensure that customers considered three core elements (cost, performance, risk) when making recommendations or deciding on their preferences as part of consensus reaching exercises.
Windows	A set of customer-informed considerations or trade-off windows at the centre of decision making.
Highly informed customers	Panel members in Phase 5 and 6 became highly informed during the sessions through the materials and education provided. They were not highly informed experts prior to the panels.
Value Makers	A business or person that interacts with Sydney Water to help other customers get a job done
SMEs	Small to Medium sized Enterprises
Service Critical High Business customers	Any business where the use of water or wastewater is highly critical part of their ability to operate.
Service Critical Medium Business customers	Any business where the use of water or wastewater is a critical part of their ability to operate but less so than the businesses above.
Major Developers	Any large business who develops land that will require Sydney Water services.