1 Engaging with our customers and community

Technical Paper 1

- Our engagement strategy –'always on' – is an integral part of our everyday business activities and each customer interaction.
- We capture feedback about customer experiences by surveys after key contact points: the contact centre, customer centres, outages and developer applications. We gather these results by email, phone and mystery shopper surveys. We use this feedback to improve our services and business practices.
- We have completed detailed customer segmentation profiles, giving us insights into customer demographics across the Lower Hunter. More of our customers live in separate detached houses than the state and Australian average and we have fewer affluent individuals and families, and more 'middle Australians'.
- We use a range of channels to engage with our customers, enabling us to reach a variety of people. We have introduced social media, Your Voice, stakeholder forums and deliberative forums as new engagement channels in the last few years.
- Customer, community and stakeholder perception surveys indicate we provide good value for money.
- We conducted specific engagement work to help shape our price submission: a willingness-to-pay survey on the funding of 'liveability' projects, household and business surveys on price structures, a residential customer services survey, a tanker services survey and a developer services survey.

Contents

1. Customer and community engagement

1.1 Engaging with our community

Developing a strong understanding of what our customers want

'always on' engagement underpins our customer and community interactions and activities

Our 2017+3 Strategy highlights the challenges and opportunities Hunter Water faces, from increasing population, changing customer and community expectations, climate change and technological disruption.

Our 'always on' approach enables us to improve and adapt to meet these challenges.

This approach allows us to incorporate community values through greater collaboration and targeted involvement in decision-making. Our customer and community engagement aims to:

- Listen to our customers to understand and appreciate their values, preferences and priorities
- Provide genuine opportunities for customer participation in our decision-making processes
- Enable the community to understand our challenges and how decisions are made
- Build strong and trusted relationships and partnerships with our key stakeholders, and
- Create community advocates to change water-use behaviour – for example, the Love Water campaign.

Our customers, consumers, community and other stakeholders

We acknowledge that not all our customers and community are the same. Our customers include the owners of properties connected to our water and wastewater networks, and those customers who are in parts of area of operation where we have stormwater responsibilities. Our consumers are people and businesses that use our products and services, including tenants (who may receive bills from us indirectly, via their landlord).

Our community consists of people and businesses that are engaged in, invested in, contribute to or are impacted by the decisions we make. Our community resides in or visits the Lower Hunter region and benefit from the services we provide.

Our other stakeholders are those we partner and develop relationships with to provide drinking water, wastewater and recycled water services.

How we engage with our customers and community

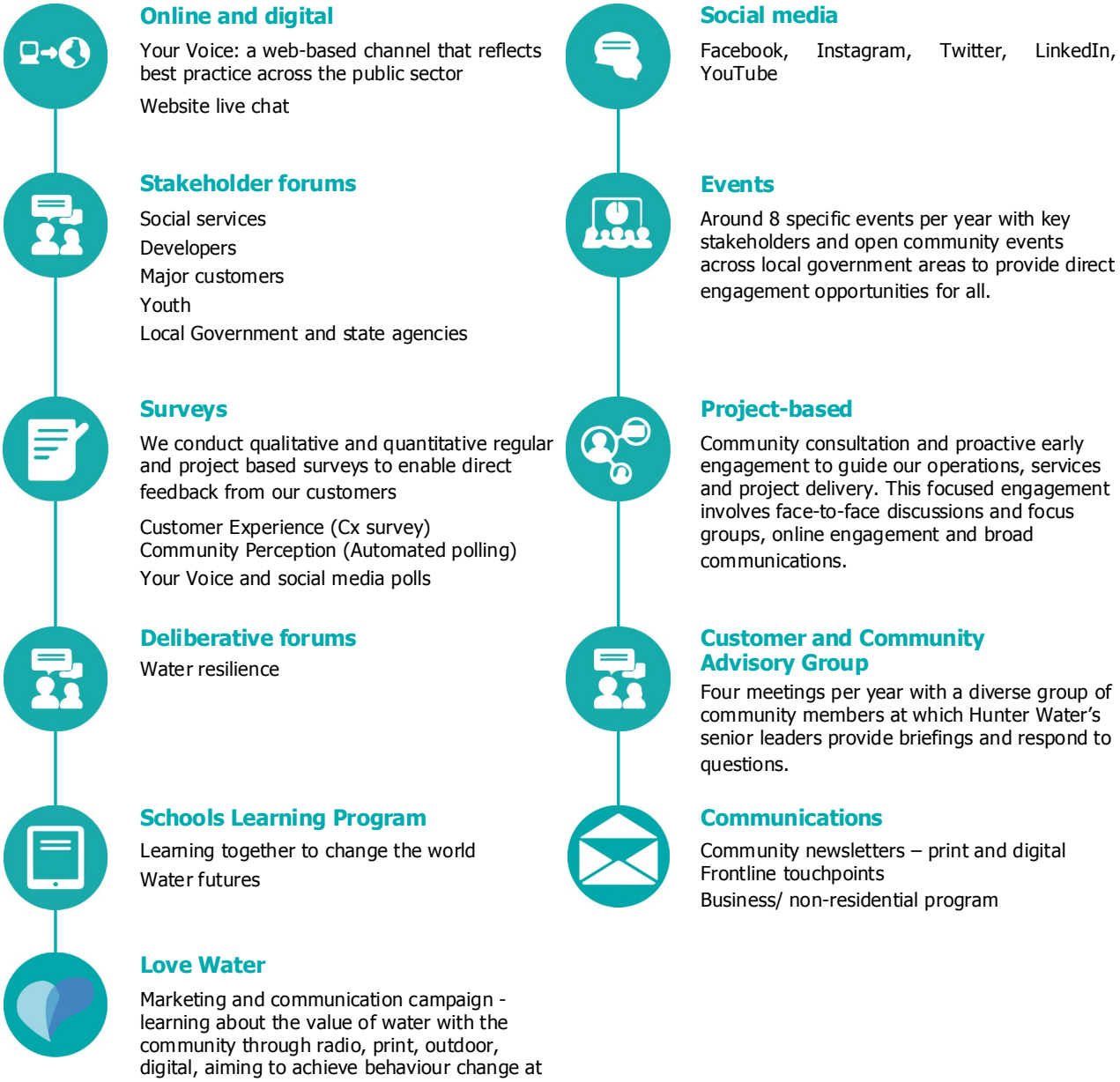
Our 'always on' approach ensures there are ongoing opportunities for meaningful engagement with our diverse community.

We do this by engaging with our customers and community via the following channels:

- Our engagement forums are representative groups that we continue to grow and evolve to remain meaningful and productive for our customers, community and other stakeholders.
- We engage on project communications to ensure our local communities are aware of works in their area and have an opportunity to provide input in the early planning stages of a project. We seek direct feedback, validation and input through activations at a diverse range of community events across the Lower Hunter.
- We can interact with our younger generations and our future customers through our extensive learning programs with all levels of the education system in the Lower Hunter.
- Our face-to-face interactions and two way online platforms provide direct and immediate feedback.
- We survey our customers about their interactions with us, seeking input on our service levels and operational improvements. All of these engagement activities form part of our decision-making framework, and help to guide our day to day operations and investments.

Our integrated approach enables us to reach a wide range of community and stakeholder groups (physical, social, cultural and demographic) and ensure there are meaningful opportunities for a variety of people to participate. We use many different engagement channels (see Figure 1.1).

Figure 1.1 Hunter Water's engagement channels



2. A profile of our customers and community

Our customer base is large and diverse in its needs and expectations of us, and will continue to change and grow as the region develops. We need to understand our current customers and those who will be our customers in the future.

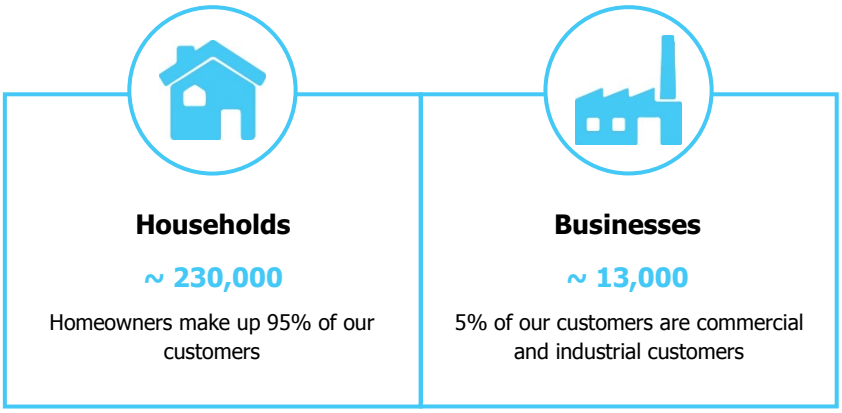
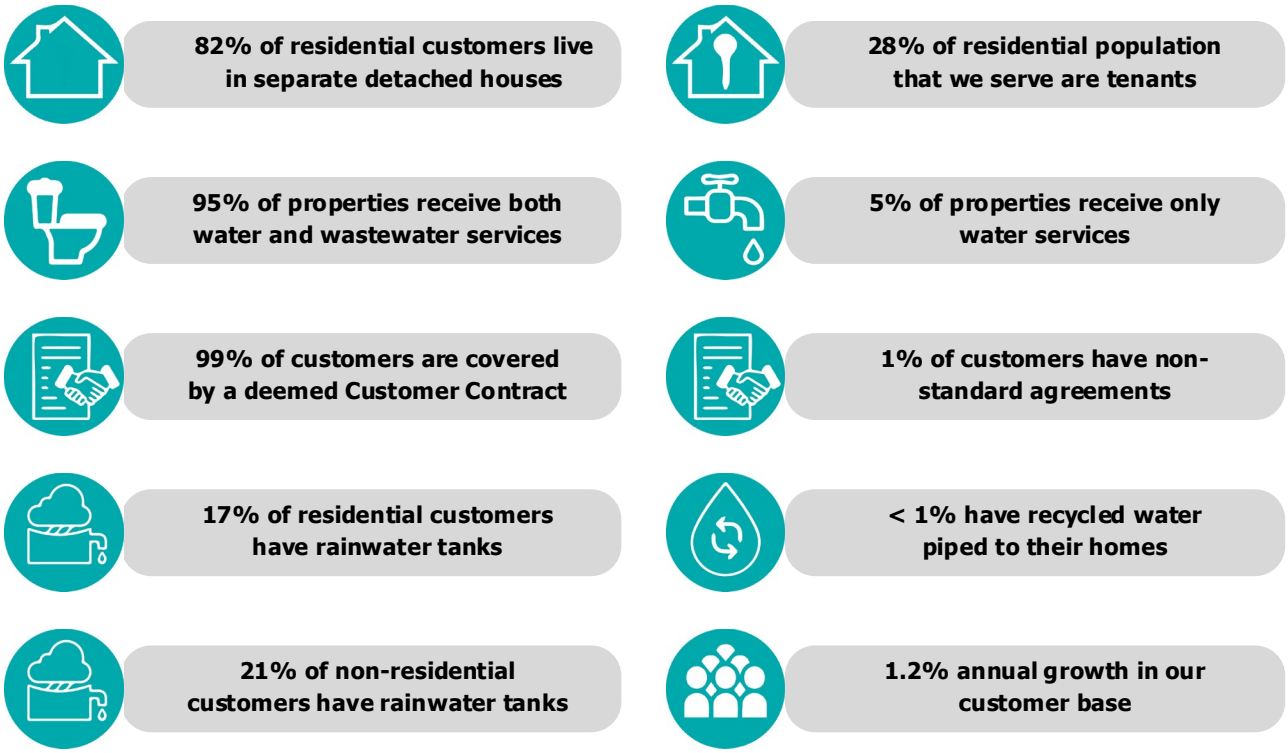


Figure 2.1 The diverse population we serve – at a glance



2.1 Customer segmentation

We have embarked on an ambitious journey to evolve our service offerings. This journey has been motivated by a corporate vision encouraging a deeper understanding of our customers and more active engagement with the wider community. One of the fundamental initiatives for this journey was building an understanding of all our customer segments through data analysis and research. This research has been carried out for both residential and non-residential customers.

This analysis has improved our understanding of our customer base and customer demographics. This supports our work on driving behaviour change at scale (particularly in relation to water resilience initiatives), implementation of digital and self-service options to reflect the changing preferences of customers, increased provision of information to customers, improving 'tone' of communications, and a proactive approach to building trust in the interests of achieving better customer outcomes. Initiatives using the segmentation include:

- Customer strategy – segmentation recognises customer differences enabling messages and media use to be targeted appropriately to customers and the delivery of service options that fulfil customer needs and requirements.
- Water resilience – there is a high correlation between customer segments and water usage. Segmentation is used to construct and target messaging to specific customers, using appropriate communication channels, to improve community education and motivate customers to be more efficient users of water.
- Regulatory policy – segmentation is a means of demonstrating equitable customer involvement in decision-making regarding investment decisions and pricing.
- Digital customer engagement – segmentation and benchmarking support implementation of programs, such as electronic billing, online services and customer self-service, which drive improved customer experience and optimise the cost to serve.

We have developed seven segments based on clustering residential households with similar demographic characteristics. The segments help us to understand our customer base, improve our services and engage and communicate with our customers in a better targeted way.

2.1.1 Relatively high proportion of customers that may need payment assistance

We understand that finding the money to pay bills can be difficult at times:

- Over half of our customers have average or below average household incomes relative to the rest of Australia and New South Wales
- Hunter Water has fewer affluent individuals and families compared to the NSW and Australian averages, and
- The proportion of young families establishing new homes is much higher than the NSW average.

We offer a range of assistance to help manage bill payment for our customers, and for tenants who pay for water usage. Our payment assistance programs are described in our Pricing Proposal. Details are also available at hunterwater.com.au/assistance.

Figure 2.2 Hunter Water's customer and consumer segments

Middle Australia

- Millennial and older families with children, including single parents, from outer-suburban areas with low to average incomes.
- Reside in detached homes with 3+ bedrooms
- More likely to face financial hardship

Ageing Gracefully

- Older, retired couples, sometimes with adult children or carers.
- Long term residents in outer-suburban areas.
- Reside in smaller properties, typically 1 or 2 bedrooms.
- Below average incomes.
- More likely to be low to average water consumers.
- More likely to have paid over the counter.
- More likely to face financial hardship

Supported Suburbans

- Blue-collar families, often single parents, with low income and dependent children.
- Reside in low value homes, typically 1 or 2 bedrooms.
- More likely to be living in a rental property or social housing.
- Most likely to be low consumers of water
- More likely to face financial hardship

Secure Tranquillity

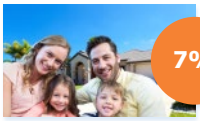
- Older couples in retirement or semi-retirement, living in suburban areas with average to high incomes.
- Established couples, with the most common age being 55-64
- Reside in larger homes – some with swimming pools
- More likely to be average to above average consumers of water
- Some are indiscriminate water users.

Affluent Families

- Wealthiest families, married couples often with older children, owning very expensive properties in exclusive inner-urban areas.
- Reside in larger detached homes, typically 4 bedrooms
- Above average incomes
- More likely to be high to very high consumers of water
- Confident internet users, and functional users of smart devices

Millennial Workers

- Millennial singles and couples and blue collar families.
- Average to low income.
- Trades and blue-collar roles.
- Some multi-cultural diversity.
- Living in outer suburban areas.
- Usually have financial stability, however potential to require account assistance.



Brand New Lifers

- Young first-home-owner families with very young children, recently moved into new housing estates, with above average income.
- Reside in mid value homes, typically 3 bedrooms
- More likely to be average consumers of water
- Heavy internet users, and active users of smart devices
- High demand for information and services that help to manage household finances.

Case study 1 – Love Water

Love Water is our water conservation campaign that allows us to seek deeper engagement with our community about the value and scarcity of water and drive community behaviour change at scale.

Love Water connects with community members on an emotional level and repositions water conservation –working with them to encourage water savings and stewardship, not telling people what they must do.

It allows community members to play an active role as participants in our decision-making.

Case study 2 – Developer forum 2019

Over 100 industry professionals and partners joined Hunter Water at the 2019 Developer Forum.

It was great to get together to highlight progress on how we are making Hunter Water easier to do business with, our significant service improvements like halving development assessment processing times, share ideas, network and learn from each other.

Participants expressed their willingness to be part of our water future via the interactive audience poll. Many are interested in more online services and self-assessment tools. Hunter Water's willingness to collaborate and do our part in realising the aspirations of the region was resoundingly supported.

Feedback from developers will help shape how Hunter Water engages with the development community, what communications channels to use and what service development priorities to focus on.

Investing in such communication with the development sector not only helps us improve our services, but also provides an opportunity to encourage the development of more sustainable, water-efficient homes.

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Case study 3 – Water sensitive region interagency working group

The interagency working group brings together local councils and state government organisations involved in water management and infrastructure planning, with the goal of maintaining and improving the way that water supports liveability (or quality of life) across the Hunter. The objectives of the working group are to:

- Improve understanding of integrated water management principles
- Exploit opportunities to collaborate on water related projects and programs, to maximise benefits for our community, and
- Apply learning power principles through sharing of information and experiences. Their Charter now includes a specific reference to the ability of Hunter Water to use this forum as a way of capturing cross-agency feedback.

Members meet on a quarterly basis and are working towards producing an Opportunities Register and Regional Integrated Water Management Strategy.

Case study 4 – Customer and community advisory group

The CCAG provides an additional channel for advice and feedback between Hunter Water and local councils, customer representatives, environmental groups and community organisations. Four meetings are held per year at which Hunter Water's senior leaders provide briefings and respond to questions. The group has provided advice and feedback on topics including:

- Hunter Water's strategic direction
- Contamination at RAAF Base Williamtown and the water reticulation project
- Water resilience program and the Lower Hunter Water Plan, and
- Payment assistance and working with the social services sector

To assist the CCAG in developing its role as an advisory group, we undertook a strategic review in February 2018 via an extraordinary session facilitated by the Institute for Sustainable Futures from the University of Technology Sydney. The session collaboratively explored the future strategic direction of Hunter Water. As outcomes of the session, a range of improvements have been agreed with the CCAG, including the appointment of an independent Chairperson (Cr Paul Le Mottee), the expansion of membership categories and implementation of regular membership renewal, increasing meeting frequency, increasing the use of digital platforms, and providing the opportunity for direct interaction between Hunter Water's Board of Directors and the CCAG members.

Case study 5 – Deliberative forums

Deliberative forums facilitate genuine interactions with our community, providing reasonable and fair opportunities to participate in decision-making and provide clarity on how their views will be used.

Deliberative forums were held in Maitland and Newcastle during October 2018, engaging 138 members of our community.

The areas for engagement included:

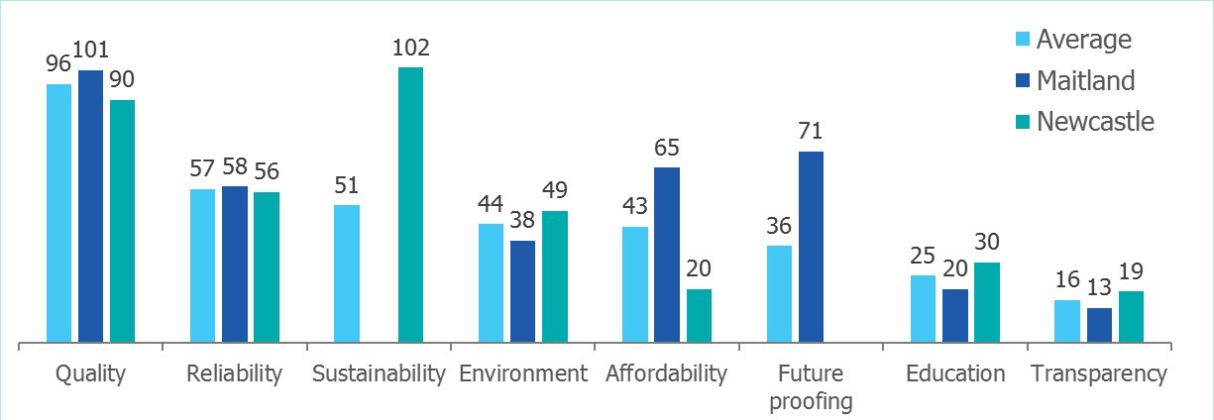
- Water literacy in the community
- Community values and aspirations, to inform goals and objectives of the Water Resilience Program and future trade-offs that may be required, and
- Attitudes on levels of service including the frequency, duration and severity of restrictions.

The majority of participants were randomly selected, recruited through stratified sampling across forum locations with quotas set on age and gender. Seven interest-based stakeholders were also recruited through Hunter Water's Customer and Community Advisory Group.

The forums consisted of table discussions between participants, presentations/speakers from the front, a 'pub quiz', individual keypad voting and a feedback session from each table. Discussions were led by the community participants, without any insight into the work already undertaken for the Water Resilience Program, ensuring independency and integrity of the process. Table discussions and activities were facilitated to understand community values in relation to long term water planning.

Broad themes from these discussions were collated and participants requested to rate each of the themed areas, in order of importance, on individual keypads. The most important value scored 3, second - 2 and third – 1 point. The results are presented below.

- **Quality** referred to the quality of water supplied by Hunter Water and was the most important value overall. Ensuring water was safe and free from contaminants was frequently mentioned.
- **Sustainability** and **environment** were closely linked themes. Customers wanted reassurance that natural resources would be used sustainably and judiciously, and environmental impacts will be considered.
- **Reliability** and **future proofing** referred to ensuring there was sufficient water for the community now and in the future, particularly in light of population growth and climate change. Ensuring we did not run out of water during drought was considered important.



Source: Woolcott Research and Engagement, 2018.

Case study 6 – Major customer water conservation

The major customer water conservation program is focused on improving the customer experience with our largest consumers whilst achieving water conservation outcomes. Given the diversity of these customers, an individual approach is taken by Hunter Water when assisting major customers to use water more efficiently. The program involves installing data loggers on all major customers' billable meters and undertaking detailed Water Efficiency Management Plans (WEMPs) for their operations.

Installation of data loggers provides a benefit to both Hunter Water and the customer in gaining a better understanding of water demand patterns including peak demand, base flow, leakage, irregular usage and average usage for large water using infrastructure (such as cooling towers or irrigation). Real-time monitoring is critical in assisting major customers reduce water consumption and assists Hunter Water's network management, peak demand and demand forecasting.

WEMPs provide an important insight into historical consumption and a basic understanding of water usage in operational activities, particularly looking at irregularities, including spikes in consumption. This review can then lead to more detailed investigations highlighting water efficiency and alternative water supply opportunities.

This work has resulted in a better customer experience and greater visibility of consumption patterns. It has helped generate meaningful conversations on water conservation and real opportunities for our customers to be more efficient in how they use water. Hunter Water has helped businesses realise over 250 ML per year in water savings through identifying and fixing leaks.

The investment in working with our major customers is making a direct impact on our ability to improve water resilience without investing too much or too soon in new infrastructure.

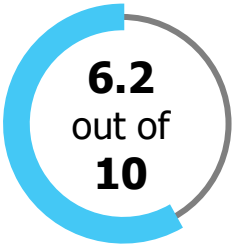
2.2 Perceptions of our overall performance

Research, findings, insights and direct feedback allows us to make continuous improvements.

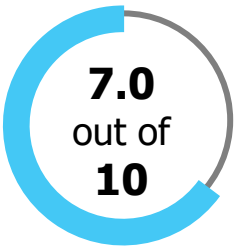
2.2.1 Residential customer satisfaction

We make automated survey calls to 600 customers per month in order to gauge community perceptions of Hunter Water and track changes over time. We ask eight questions that provide an indication of customer and consumer satisfaction in each survey. Some questions are on rotation so that they are only asked once every second month. We find this approach balances the value of the feedback we receive with the need to maintain customer goodwill in taking the time to complete the survey.

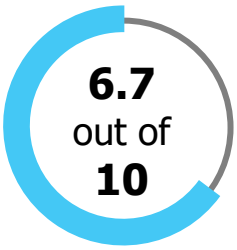
In our automated survey customers rate us …



for delivering value for money



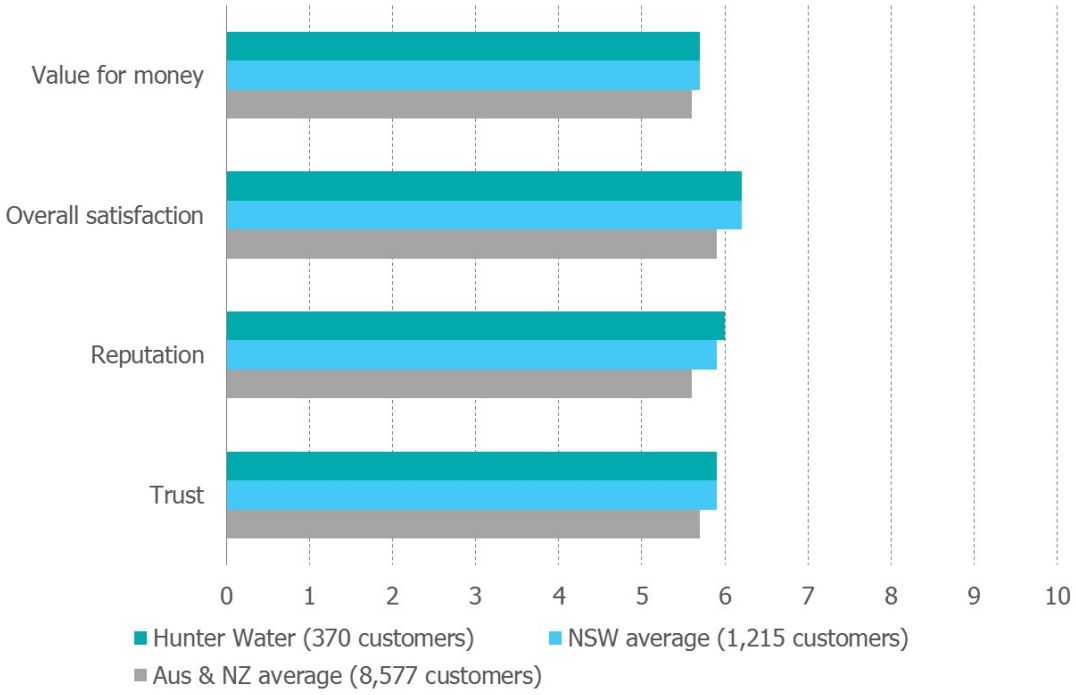
for ease of doing business



for overall reputation in the community

A national study found that our customers rate the same or better than other water utilities customers, including in value for money

Figure 2.3 National customer perceptions survey – Hunter Water's relative performance



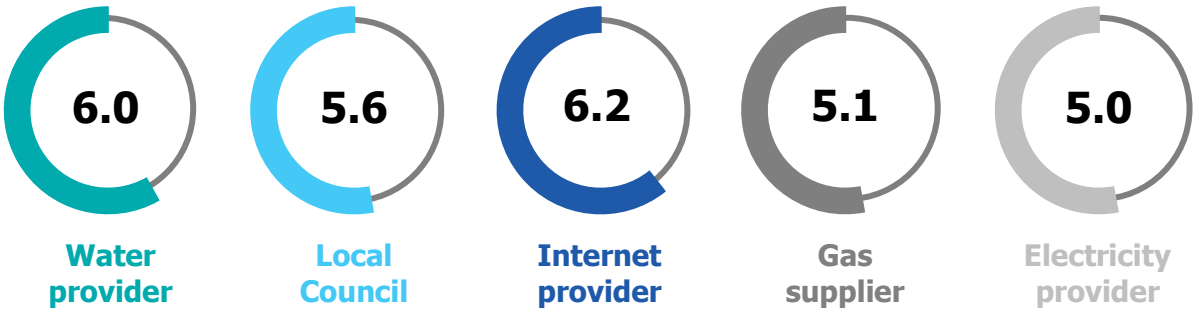
Source: WSAA, 2017.

We took part in a national customer perceptions survey, run by the Water Services Association of Australia in 2017 on behalf of 34 Australian and New Zealand water utilities and involving over 8,000 customers. This benchmarking has helped us to determine the drivers of value and satisfaction for residential customers. It has also helped us identify aspects of our services where customers think we are doing well and areas where we can improve.

Key findings from this study include:

- 'Satisfaction' and 'value for money' were rated more highly by Hunter Water customers than the average for all water authorities.
- Most respondents indicated that Hunter Water was efficient and well managed, and seen as planning for the future and investing adequately in maintenance.
- People indicated we care about our customers and we work in partnership with the community.
- The majority of participants (65%) indicated that Hunter Water was environmentally responsible, which is better than the average for similar sized water utilities.

Customers in NSW rate water utilities as providing value for money when compared with other types of services...

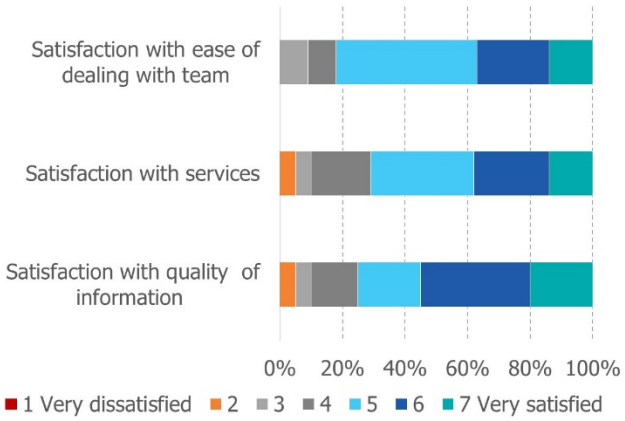


Source: WSAA, 2017.

2.2.2 Developer satisfaction

We engaged research company Insync to conduct qualitative phone interviews with 22 professional land developers, small developers, accredited design consultants and hydraulic design consultants to gather feedback about their customer experience with our land development application process and identify their priorities for improvement.

Figure 2.4 Developer satisfaction ratings



Source: Insync Surveys, 2017. Hunter Water analysis.

Overall, most respondents expressed moderate satisfaction with our service, quality of information, and the ease of doing business. This told us that there were opportunities to improve.

Respondents noted that the best providers tended to include the following aspects of service:

- Prompt and responsive customer service
- Easier application process, and
- Correct responses the first time.

We have taken these observations on board and we are working to improve our services in these areas.

2.3 Using every interaction with customers as a learning opportunity

2.3.1 Customer experience monitoring

Customer experience monitoring involves seeking feedback from 200 customers per month on our performance and the service experience across touch points such as our contact centre, customer centres, developer services and field services.

The customer experience scores show how customers rate our performance against a number of measures on a scale of zero to ten.

Customer experience monitoring shows that we are currently:

- Providing customers with a high-level of satisfaction
- Easy to do business with, and
- Completing planned and unplanned work to a high quality and communicating effectively with customers.

We use the insights we gain from our customers to make improvements to address the most frequently raised issues.

*Category only applies to planned and unplanned interruptions

Source: Customer Service Benchmarking Australia, 2019.

2.3.2 Website live chat functionality

In order to improve the way we communicate and track customer online interactions, we launched a Live Chat functionality on our website in March 2018. In the first month, 60 customers engaged in live chats at an average of 15 chats per week. In 12 months, this has grown to 300 customers and 70 chats per week.

On average, customers that engage with us through this channel rate Hunter Water 4.85 out of 5.

2.3.3 Mystery shopper program

In early 2019, we implemented a mystery shopper program for the call centre to more effectively measure and track call quality. Mystery shopping provides a means of monitoring call-taker performance over time in order to manage and improve service delivery. It is also an important element in a program of activities that involves listening and responding to the voice of our customers.

Mystery shopping is a well-established method of measuring, comparing and reporting results to guide and track the impact of changes and achieve consistent performance for our most important customer contact channel - the call centre.

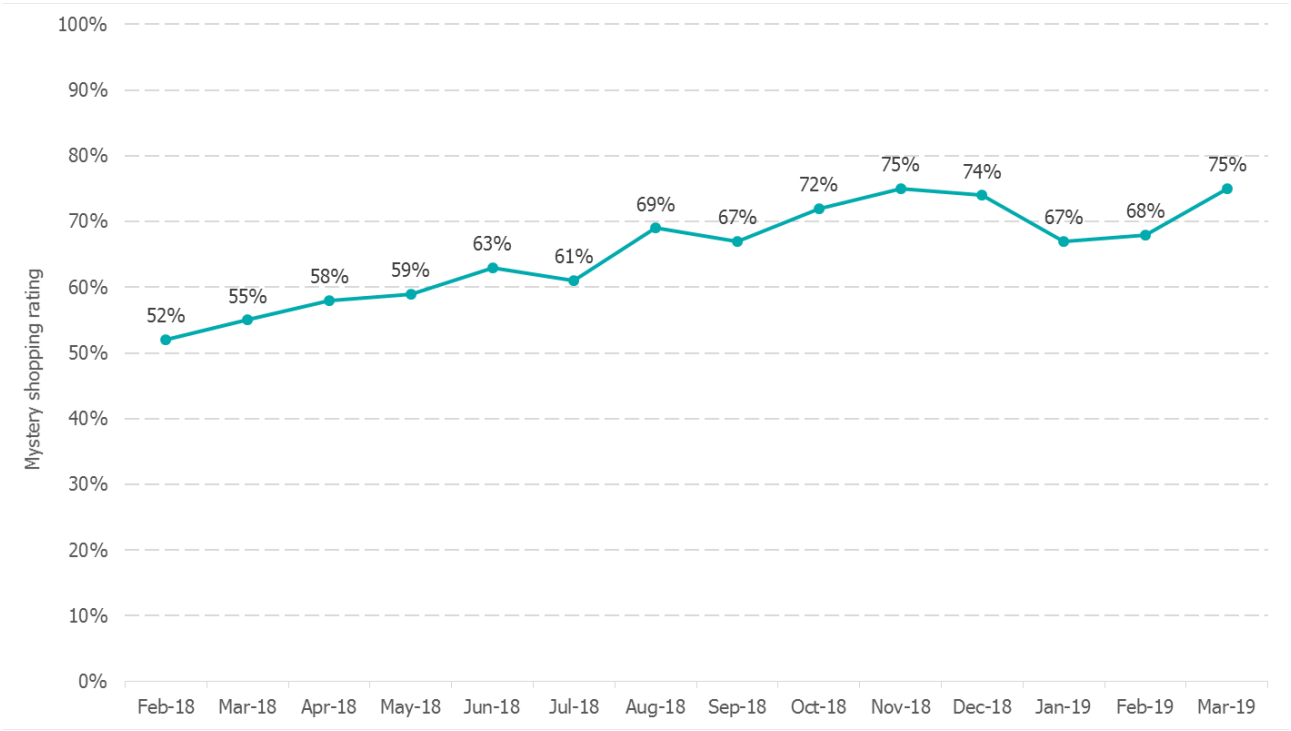
The mystery shopping initiative looks at three factors:

- Success: information was successfully provided or our customer's problem was solved.
- Ease: it was easy for our customer to interact with Hunter Water.
- Sentiment: the interaction made our customer feel good.

Our focus on providing great services and experiences to our customers using ease, sentiment and success as key customer experience measures has resulted in Hunter water ranking 3 out of 24 water utilities and 10 out of 150 organisations from a range of industry sectors in the 12-month rolling average result for our mystery shopping program.

Our mystery shopper score at the end of March was 75 per cent, a significant change from 52 per cent when we began the program in 2018 (see Figure 2.5). The improvement in score over the last year shows that we are improving. We have been constructively using the feedback on our performance to make it easier for customers to do business with us.

Figure 2.5 Mystery shopping rating (per cent)



Source: Hunter Water.

2.4 Targeted engagement to inform our activities and prices

We have undertaken specific engagement activities to form a direct input into the services we provide, activities that we perform and prices we propose across the next price path. We describe three main activities:[1]

1. How we seek to understand customer, community and stakeholders' perceptions of our overall performance (i.e. are we meeting expectations?).
2. How we use everyday interactions as opportunities to improve so that we provide great customer services every time.
3. Specific engagement activities that have formed a direct input into the services we provide, activities that we perform and prices we propose our customers pay in 2020-25.

2.4.1 Liveability and environmental services

What we asked

We asked our customers to give us a clearer idea of the investment choices that they think we should make, knowing that these investments would increase our costs and customer bills starting from 2020. Our survey focused on investments that we think our customers may like us to make to help maintain and improve the liveability of our region.

[1] Full reports on our approach and the findings are available to IPART and its consultants on request.

Who we spoke to

We sent online invitations to a sample of randomly-selected who had provided us with an email address and told us we could use it to help plan our services and activities.

We also invited respondents living in our area via a reputable online survey panel.

680 residential customers

helped us understand the services they want us to provide in the future

Why the findings are robust

The way we designed and conducted the surveys was consistent with IPART's principles for customer engagement. The full survey report is available at Attachment A.

A Representative

- A split sample design used as a convergent validity test – to see if there were material differences between the two samples after controlling for socioeconomic and other household characteristics.
- The results were re-weighted to reflect the population mix of age, gender, dwelling type, income, language spoken at home (English or other), and local government area.

B Proportionate

- The survey was developed through an iterative process involving our employees, two customer focus groups, and survey testing and refinement
- Around 3,000 customers were invited to participate.
- The questions related to discretionary services in the millions of dollars.

C Objective

- The invitation to participate in the survey was information neutral to limit response bias risk.
- Each discretionary service was presented through a combination of text and images
- The potential benefits of investing in each service was described, taking care to avoid normative statements.
- A status quo level was offered as well as three different increased levels for most services.
- Respondents were encouraged to consider their responses in the context of other budget pressures.
- The survey results were independently analysed.

D Clearly communicated

- Customers were told the conditions under which the services would be provided and that Hunter Water would deliver the services.
- The bill impacts were based on the actual estimates of project costs .
- The survey explicitly recognised that there was some uncertainty around how much of each service would be provided and the cost of providing the service.
- Trade-offs between service levels provided and changes in future water bills were clear. The impacts (including cumulative impacts on services and/or bills) of the options were clear. Survey respondents could amend their bills based on their service level choices.
- Realism and consequentiality of the survey were high.

What we heard from our customers and how we intend to respond

Customers said...	A snapshot of what we'll do
Stormwater amenity 74% of respondents were willing to pay more for investment in bank work and landscaping of open stormwater channels. People's preferences for the length of the channel that we improve was evenly split across all options provided in the survey.	• This submission includes $12 million we propose to spend on delivering at least one kilometre of stormwater amenity works to our open channel. • Works may involve a combination of: • Planting around the stormwater open channel to screen it from view • Removing existing concrete walls and replacing them in the same location with more natural material or stepped walls (or lay back the banks) with plantings to tie in with adjacent public open space
Carbon footprint Providing water and wastewater services requires large amounts of energy. Around 75% of respondents were willing to pay $1 or more per year towards reducing our carbon emissions. Around half said they were willing to pay an extra $6 on Hunter Water bills each year.	• We think there are opportunities for us to reduce our carbon footprint in ways that do not increase our costs. We are planning to implement these opportunities first, then look at options that may be more expensive. Our submission includes proposed investments to deliver a 20% reduction in our carbon footprint over the next price period through onsite renewable energy generation and renewable energy from biosolids.
Stormwater harvesting Around 80% of respondents were willing to pay $2 or more per year towards increasing stormwater harvesting. Currently, there are only a few small stormwater harvesting schemes in the Hunter. Stormwater harvesting for irrigation of parks and sporting grounds can help save drinking water.	• There are currently no opportunities for Hunter Water to take a lead role. We are continuing to work with local councils to assist them with assessing opportunities. For example, in 2018 we worked with Lake Macquarie Council to develop a Stormwater Harvesting Decision Support Tool, as well as a site identification tool for stormwater harvesting sites. • Stormwater harvesting will be considered as part of the next Lower Hunter Water Plan.
Recycled water for public open space 77% of respondents were willing to pay more ($1.00 to $2.50 per year) for Hunter Water to increase the amount of wastewater turned into recycled water for irrigation of parks and sporting grounds. This would save drinking water supplies while reducing the amount of treated wastewater discharged to waterways.	• This submission includes around $11 million that we propose to spend on recycled water for irrigation of public open space. We expect this would enable us to increase recycling by at least 150–200 ML pa over the five year price period, which is equivalent to about 60 Olympic sized swimming pools. • If projects cost more than this amount, the balance would be funded by direct recycled water users.

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Stormwater harvesting Around 80% of respondents were willing to pay $2 or more per year towards increasing stormwater harvesting. Currently, there are only a few small stormwater harvesting schemes in the Hunter. Stormwater harvesting for irrigation of parks and sporting grounds can help save drinking water.	• There are currently no opportunities for Hunter Water to take a lead role. We are continuing to work with local councils to assist them with assessing opportunities. For example, in 2018 we worked with Lake Macquarie Council to develop a Stormwater Harvesting Decision Support Tool, as well as a site identification tool for stormwater harvesting sites. • Stormwater harvesting will be considered as part of the next Lower Hunter Water Plan.
Recycled water for public open space 77% of respondents were willing to pay more ($1.00 to $2.50 per year) for Hunter Water to increase the amount of wastewater turned into recycled water for irrigation of parks and sporting grounds. This would save drinking water supplies while reducing the amount of treated wastewater discharged to waterways.	• This submission includes around $11 million that we propose to spend on recycled water for irrigation of public open space. We expect this would enable us to increase recycling by at least 150–200 ML pa over the five year price period, which is equivalent to about 60 Olympic sized swimming pools. • If projects cost more than this amount, the balance would be funded by direct recycled water users.
Recycled water for business Respondents had mixed views about Hunter Water investing in increasing wastewater recycling to business and industry during 2020-25 if it costs more than providing them with drinking water or is not the best way to meet environmental standards. About half of our customers support investing and half do not.	• We are not planning any new recycled water schemes for business customers. If opportunities arise in the next 5 years we anticipate these would be fully funded in accordance with IPART's guidelines.
Water efficiency Customers support investing in water conservation programs targeted at households having difficulty paying their water bills and those with high water use. Around 70% said they were willing to pay at least $1 per year to increase the number of households assisted.	• This submission includes operating expenditure for rainwater tank appraisals to improve water capture from existing tanks, programs to encourage consumers to save water, and pilot programs to assist with apartment fixtures and appliances.

2.4.2 Price structures

What we asked

We ran two online surveys about water and wastewater price structures – one for households and one for businesses. The survey asked about:

Fixed & Variable Water Charges

Household Sewer Charge

Sewer Usage Charges

Respondents were provided with background information on the balance between water usage and fixed charges and then asked to indicate their preferred usage charge on an interactive 'slider'. The corresponding fixed charge and bill were shown on the same page and changed in real time as respondents moved the price charge slider. The bill estimate was based on a usage level, which could be changed with another slider.

Who we spoke to

We used a reputable online survey panel and received 458 responses from local people.

We also advertised the survey so that anyone in our area could have their say. This provided a further 88 responses.

We emailed over 4,000 business in our area and received 49 responses. A further two businesses responded to advertisements.

549 residential customers &

51 business customers

indicated their preferences for fixed and variable charges for water and wastewater services

Why the findings are robust

The way we designed and conducted the surveys was consistent with IPART's principles for customer engagement. The full survey report is available at Attachment B.

A Representative

- The panel sample was large, and independently recruited. Results were reweighted to reflect the mix of gender and income in the population.
- Results from advertised survey links were analysed separately due to self-selection bias.

B Proportionate

- Genuine efforts were taken to engage with both residential and non-residential customers, although the response from businesses was low.
- Advertising survey links gave everyone affected a chance to have their say.

C Objective

- Each topic included a description of the current arrangement, and information respondents may like to consider e.g. cost of service provision, impacts on own bill and impact on others bills.
- The survey results were independently analysed.

D Clearly communicated

- Respondents were told the survey results would be used for this price review (along with other considerations).
- Respondents were told that we would receive the same revenue under all scenarios.

What we heard from our customers and how we intend to respond

Customers said...	A snapshot of what we'll do
Variable and fixed water prices A majority of residential customers in our survey preferred a water usage charge at, or above, the current charge ($2.39/kL in 2019-20). There was a wide range of views on the preferred transition period for any change in the water pricing structure. Around half of the respondents preferred a period of two years or less.	We are proposing to increase the water usage charge in line with the overall increase in the water revenue requirement (0.9% per annum). That is, increasing to $2.50/kL in 2024-25 ($2019-20). This provides more control over bills (maintains the current mix of variable and fixed charges (80:20), rewards water conservation and is consistent with the long term cost of providing services (see Technical Paper 8 for more detail).
Variable water prices for the biggest users We have provided a location-based discount to large customers in areas close to water treatment facilities and trunk infrastructure since 2001. The location-based price applies to consumption above 50,000 kL per annum in seven zones. These large users pay the standard (tier 1) price for water usage below the threshold. The location-based charge applies to about 10% of all billable water usage: 5,848 megalitres out of a total supply of 53,082 megalitres. Customer preferences for keeping or ending the discount were mixed. The option of ending the discount had the highest response, but only marginally.	We are proposing to phase-out the discount across the next price period. The ending of the discount sends a stronger conservation signal to large water users as Hunter Water's water supply-demand balance tightens. A transitional period will moderate the immediate bill impact for affected customers and allow time for us to implement water conservation measures with these large users. This could include potential commercial and industrial recycled water schemes, water audits and implementing water efficiency measures.
Variable and fixed wastewater prices The owners of apartments currently pay a lower total wastewater charge than the owners of freestanding houses and there is no explicit wastewater usage charge for residential customers. Customers living in houses preferred a common charge and customers living in apartments preferred a separate, lower charge. The highest overall response favoured one fixed charge for all dwelling types and no explicit usage charge for households.	We are proposing to continue to move towards a common fixed charge for all households, with the transition continuing at the current rate (whereby the wastewater charge for apartments increased by an additional 2.5% each year). We are not proposing to introduce an explicit wastewater usage charge for households. More details are provided in Technical Paper 8.

2.4.3 Customer service and experience

Customer services survey

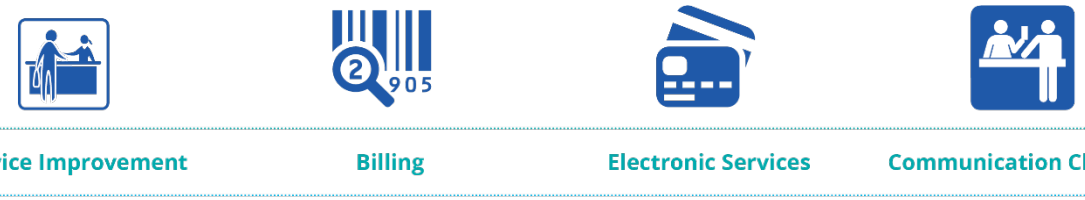
What we asked

In October 2018 a survey was undertaken to inform Hunter Water's Customer Service Strategy through to 2025 by obtaining a deeper understanding of customer attitudes and preferences. The customer survey supports the development of our customer strategy providing context, customer insights and understanding.

This survey was organised into three sections:

1. Understanding customer households
2. Customer awareness of Hunter Water and its services, and
3. Customer attitudes toward water conservation.

The survey investigated specific items related to customer views on water and its' use, current customer experience, preferred billing and payment experiences, and preferred customer service and information channels. This provided insights into what our conservation activities are and where conversation investment should be made to yield the greatest behaviour at scale. The level of awareness of our services was also investigated and preferences for billing frequency, bill delivery channels and payments options were also identified. Customer channel preferences when it comes to customer services and communications were also investigated.



Who we spoke

Invitations to complete the online survey were sent to a randomly-selected sample of customers that have provided us with an email address.

We used our customer segmentation to confirm the sample was representative.

645 residential customers

helped inform our customer service strategy

Why the findings are robust

The way we designed and conducted the surveys was consistent with IPART's principles for customer engagement.

A Representative

- Email invitations sent to 9,159 Hunter Water customers
- 645 completed responses received
- In aggregate, the survey achieved a confidence level of 98% (margin of error 5%) for observations across the entire Hunter Water customer base.

B Proportionate

- Customers were selected to receive an invitation to participate in the survey in the same proportion as our residential customer segments.
- Customers with an email address available in the Customer Information System (CIS) were randomly selected until each segment had reached its distribution requirement.

C Objective

- The purpose of the customer strategy survey was to develop a deeper understanding of customer views.
- An experienced external consulting firm was engaged to develop and conduct the survey and analyse the results and provide recommendations for service improvements.

D Clearly communicated

- The design of the survey was simple and straight forward to be easily understood by our customers that participated.

What we heard from our customers and how we intend to respond

Customers said…	A snapshot of what we'll do
Up to 70% of customers would prefer to receive their bills by email and receive it more frequently than three times per year. Bills are currently only available via print mail.	• Customers will be able to opt-in to electronic billing from 2019, with self-service capability via login from 2020. This submission includes operating expenditure to increase billing frequency to four times per year.
Customers want to be notified proactively about their water usage and about service outages, preferably via phone/SMS or email. Currently, customers can only find out about their water usage with their 4-monthly water bill. Planned service outages are notified via a letterbox drop. Unplanned service outages and updates on their resolution are listed on our website.	• A new corporate website, new self-service capability and improved customer data management will enable proactive notification of service faults and self-service access to water usage information. This submission includes operating and capital expenditure for improving service and experience.
Significant interest in understanding how water consumption and bill size compares to peers.	• Enhanced water usage calculator that provides tips on how to save water on a new corporate website. Apps for smart devices. • Bill layout will be redesigned to be more transparent with our charges and provide customers with information to make decisions on how much water they use.
Over 70% of land development stakeholders are in favour of us providing more online services, particularly for routine transactions. Slightly more than half of the survey respondents think that online services should be our highest priority improvement. Stakeholders saw the main advantages of online services being faster turnaround time, application tracking, and self-assessment for simple applications.	• Online processing of developer applications. • Website enhancements and apps for smart devices. • Self service capabilities to be introduced. This submission includes operating and capital expenditure for improving service and experience.

Tanker customer survey

What we asked

We surveyed the small portion of our non-residential customers for whom we receive and treat liquid trade waste, which is delivered to our wastewater treatment facilities through tankers. The survey and interviews asked about tankering practices in the field and preferences for future services.

Who we spoke to

We invited all 30 tanker customers to complete the survey and achieved a 78% response rate. We supplemented the survey results with interviews with four customers.

23 tanker trade waste customers

helped inform our customer service strategy

What we heard from our customers and how we intend to respond

Customers said...	A snapshot of what we'll do
The top three matters raised by our tankered liquid trade waste customers were: • Requests for extended access hours for discharging at the receiving treatment plants, • Greater certainty on which wastewater treatment plants are available for discharge, and • Providing invoices to our customers in a timely manner.	• We are proposing to introduce after-hours access on a pay-for-service basis. • This submission includes $5.7 million we propose to invest in modified tanker waste disposal facilities at five wastewater treatment plants. In the interim, we are implementing an online docket processing system. • We propose to continue to offer tanker waste disposal services at locations identified as most suitable from a customer and service provision perspective – wastewater treatment plants at Burwood Beach, Dora Creek, Kurri Kurri, Morpeth, Raymond Terrace and Farley (once upgraded). • Details are provided in Technical Paper 9.

Developer survey

What we asked

We conducted research into our land development application process and asked developers about their customer experience and identify opportunities for improvement. We were particularly interested in their attitudes to online services and our timeliness.

Who we spoke to

The respondents comprised a range of land developers, spanning 'mum and dad' developers up to professional developers and their consultants. We contacted individuals who had recently had contact with us about development outlining the purpose of the survey. Telephone interviews were then conducted with as many of these customers as possible.

22 land development customers

helped inform our customer service strategy

Why the findings are robust

The 2017 survey results were further supported by a live poll conducted at the 2019 Developer Forum.

A Representative

- A cross section of key stakeholder groups were engaged in the survey, including accredited design consultants used by developers in the land development process.
- The same stakeholder groups participated in the 2019 Development Forum.

B Proportionate

- Customers were selected to receive an invitation to participate in the survey proportionate with the utilisation of our services.
- A random selection of 'mum and dad' developers were used in the survey, noting their relative infrequent utilisation of our services.

C Objective

- The purpose of the survey was to develop an understanding of the development community's views.
- An experienced external consulting firm was engaged to design and conduct the survey , analyse the results and provide a summary of the key findings.

D Clearly communicated

- The design of the survey was simple and straight forward to be easily understood by our customers that participated.

What we heard from our customers and how we intend to respond

Customers said...	A snapshot of what we'll do
Over 70% of land development stakeholders are in favour of us providing more online services, particularly for routine transactions. Slightly more than half of the survey respondents think that online services should be our highest priority improvement. Stakeholders saw the main advantages of online services being faster turnaround time, application tracking, and self-assessment for simple applications.	• Online processing of developer applications. • Website enhancements and apps for smart devices. • This submission includes capital and operating expenditure to improve service and experience.

3. Abbreviations

Acronym	Term
CCAG	Customer and Community Advisory Group
IPART	Independent Pricing and Regulatory Tribunal (NSW)
kL	Kilolitre (i.e. 1,000 litres)
ML	Megalitre (i.e. 1,000,000 litres)
WEMP	Water efficiency management plan

4. References

Customer Service Benchmarking Australia, **Customer experience monitoring for Hunter Water.**

Insync Surveys, 2017, **Hunter Water Corporation Developer Services Customer Interviews Report**, February.

Water Services Association of Australia (WSAA), 2017, **National customer perceptions survey 2017**.

Woolcott Research and Engagement, 2018, **Water Resilience Program Community Deliberative Forum Report**, Prepared for Hunter Water, November.

Attachment A – Willingness to pay survey report

MARSDEN JACOB ASSOCIATES

economics
public policy
markets
strategy

Hunter Water customer willingness to pay survey

A Marsden Jacob Report

I

Prepared for Hunter Water

October 2018

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Established in 1996, Marsden Jacob Associates has grown to be Australia's leading dedicated natural resource economics, policy and strategy advisory. We employ talented economists and policy advisors who specialise in solving practical and real world problems relating to water, energy, environment, natural resources, agriculture, earth resources, public policy and transport. We work with a wide range of cross-disciplinary partner firms to deliver best project outcomes for our clients.

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Summary

The evidence in this report demonstrates that Hunter Water customers are willing to pay for Hunter Water to deliver higher liveability and environmental service standards over the next price period. Results indicate most Hunter Water customers want some discretionary liveability and environmental services to become core business for Hunter Water.

Hunter Water Corporation (Hunter Water) is preparing it next price submission to IPART. As part of developing its price submission, Hunter Water is considering discretionary investments in liveability and environmental services that will achieve standards higher than those mandated by Parliament and/or government. To allow Hunter Water to make these discretionary expenditures, IPART will require clear evidence that Hunter Water customers are willing to pay for these discretionary expenditures.

This report presents the results of a Hunter Water residential customer willingness to pay assessment of proposed discretionary liveability and environment expenditures. The evidence of willingness to pay presented in this report is based on Hunter Water's largest ever residential customer consultation with a representative, randomly selected customer sample - a survey of almost 700 Hunter Water residential customers completed in the first half of 2018.

The results presented in this Marsden Jacob report advance clear evidence around how much current Hunter Water residential customers are willing to pay for environmental and amenity services over the next pricing period (2020-25). The evidence base also gives clear evidence on where Hunter Water customers want the investments to occur, and the types of investments that achieve standards higher than those mandated by Parliament and/or government prioritised.

IPART has provided guidance on the areas it will look at when evaluating evidence of customer willingness and capacity to pay. We discuss this guidance in this report.

Our survey and the results in this report allow Hunter Water to clearly demonstrate how we have met or exceeded IPARTs evidence requirements guidance. In this report we show (1) the robustness of the engagement method used (2) the methodology used for the survey (3) which customers have the capacity and willingness to pay, and how we allowed customers to adjust their willingness to pay based on a full understanding of the impacts of their decisions on future water bills (4) that customers are only willing to pay if Hunter Water delivers the services (5) how potential sources of survey response bias were identified and addressed through the survey and data analyses.

Headline results from the Hunter Water customer survey are that:

- **Most Hunter Water residential customers are willing to pay extra in Hunter Water bills commencing 2020** in return for (1) higher service levels for bankwork and landscaping of Hunter Water's open stormwater drains, (2) reducing Hunter Water's carbon footprint, (3) increasing stormwater harvesting, and (4) running targeted water conservation programs. Most Hunter

Water customers are not willing to pay for (5) flooding investments at Wallsend, and around half are (6) not willing to pay for additional wastewater recycling for business and industry by 2025.

- **The willingness to pay is predicated on delivering a specific quantity of the service within a specific timeframe (by 2025).**
- **Most households prefer for Hunter Water to determine where the additional investments** funded by the extra payment should occur.
- **There is a clear role for water literacy awareness campaigns for Hunter Water customers**, so that households are aware of the benefits that this investment generates for residents of the Lower Hunter region.
- **There are clear basis for differences in willingness to pay and water literacy on some** measures across Hunter Water's residential customer base.

Table 1 shows average willingness to pay for increasing service levels for environmental and liveability services delivered by Hunter Water delivered during 2020-25. These average willingness to pay results are willingness to pay per Hunter Water residential customer, each year during 2020-25. The per residential customer averages in Table 1 are grossed up assuming 220,000 Hunter Water customers to provide an order of magnitude estimate of aggregate annual willingness to pay across the current Hunter Water customer base. The level of services that need to be delivered sometime during 2020-25 to justify these payments is shown in the right hand column of Table 1.

Table 1: Customer willingness to pay (WTP) for increasing service levels for environmental and liveability services delivered by Hunter Water during 2020-25

Investment	Maximum payment amounts per year				Average WTP	Annual revenue based on HWC water/waste water customer base	Average of increase in service
Bankwork and landscaping of Hunter Water's open stormwater drains	**$0.00**	**$25.00**	**$50.00**	**$75.00**			
Respondents' highest willingness to pay amount	26%	33%	21%	20%	$33.87	$7,500,000	3-6 kms additional bank work and landscaping of HWC open stormwater drains by 2025
Carbon reduction	**$0.00**	**$1.00**	**$3.00**	**$6.00**			
Respondents' highest willingness to pay amount	22%	12%	17%	49%	$3.57	$800,000	Equivalent to reducing emissions by 4,600-9,200 metric tonnes per year by 2025
Increasing Hunter Water's stormwater harvesting	**$0.00**	**$2.00**	**$4.00**	**$8.00**			
Respondents' highest willingness to pay amount	19%	22%	19%	40%	$4.40	$1,000,000	250-375 ML additional stormwater harvested by 2025
Increasing Hunter Water's wastewater recycling for business and industry	**$0.00**	**$15.00**	**$30.00**				
Respondents' highest willingness to pay amount	46%	32%	22%		$11.32	$2,500,000	No extra by 2025
Increasing Hunter Water's wastewater recycling for irrigation	**$0.00**	**$1.00**	**$3.00**	**$5.00**			
Respondents' highest willingness to pay amount	23%	20%	18%	39%	$2.68	$600,000	150-200 ML additional wastewater recycling for irrigation by 2025
Increasing Hunter Water's water conservation programs	**$0.00**	**$1.00**	**$1.50**	**$2.50**			
Respondents' highest willingness to pay amount	29%	23%	12%	35%	$1.30	$300,000	25-30,000 additional water conservation programs delivered by 2025
Wallsend	**$0.00**	**$15.00**					
Respondents' highest willingness to pay amount	56%	44%			$6.67	$1,500,000	No extra by 2025
Total					**$63.81**	**$14,200,000**	

Note: If funded by ~65,000 stormwater customers , then the annual revenue would be in the order of $1,500,000.

Contents

1. Introduction

Hunter Water wanted to demonstrate whether its residential customers have the capacity and willingness to pay more in return for Hunter Water delivering higher liveability and environmental service standards in its area of operations over the next price period (2020-25).

This report delivers this assessment and is based on Hunter Water's largest ever residential customer consultation - a survey of almost 700 Hunter Water residential customers.

The evidence base in this report can be used to help Hunter Water plan its future activities and services. It can also be used to support Hunter Water's price submission, which may include expenditure proposals to achieve standards higher than those mandated by Parliament and/or government. To allow these expenditure proposals IPART requires clear evidence that it would be prudent and efficient for customers to pay to exceed the mandated standards. The survey results set out in this report provides this clear evidence.

1.1 Objectives

The objectives of the Hunter Water customer survey were to understand and demonstrate Hunter Water customers' capacity and willingness to pay for (capital and operating) expenditure in seven areas where service delivery and service standards are not mandated by Parliament and / or government. These were:

- **Carbon neutrality:** Hunter Water's 2016-17 annual report recognised the need to build a more sustainable and resilient water and wastewater system which has the ability to adapt to change and move towards carbon neutrality. Hunter Water wanted to assess customers' ability and willingness to pay to move towards carbon neutrality by 2030.
- **Water recycling and stormwater harvesting:** IPART has stated [1] that recycled water supply and stormwater harvesting are not benefits or ends in themselves. Rather, they are means of achieving a range of objectives, which are largely related to environmental protection and enhanced liveability. IPART's view is that these environmental protection and liveability objectives should be achieved using the least cost (or most efficient) means.

  IPART does not pre-emptively favour specific servicing solutions or means of achieving regulatory (water supply and wastewater management) objectives. This means, if recycled water or stormwater harvesting is supplied and it is not the most cost-effective solution for customers, then Hunter Water will need to demonstrate that customers are willing to, and have the capacity to, pay for this additional expenditure for recycled water supply. Importantly, recent evidence from Sydney [2] suggests that households are willing to pay a premium for recycled water supply for non-potable use when compared to conventional potable supply when it has the same end use and same service levels. The study also shows that households are willing to pay extra for

additional recycled water supply for commercial and industrial uses, public space irrigation, and to other households, even when the household making the additional payment would not use the recycled water themselves.

This recent empirical evidence shows that contrary to IPARTs stated understanding, customers do value different types of water differently, even when it has the same end use – i.e. recycled water supply and stormwater harvesting are valid benefits and ends in themselves beyond the direct use benefits.

Hunter Water wanted to understand residential customers' willingness to pay for additional water recycling and stormwater harvesting when this expenditure is discretionary.

- **Water conservation**: As part of its 2017-22 Operating Licence[1], Hunter Water must ensure that the 5-year rolling average for annual residential water consumption, calculated for each financial year is equal to or less than 215 kilolitres for each property used for residential purposes. This is connected to the Water Supply System (Water Conservation Target), until Hunter Water has obtained IPART's approval for the Economic Level of Water Conservation Methodology.

  By 1 November 2018, or by a later date as approved by IPART, Hunter Water must submit to IPART for approval, the proposed methodology for determining its economic level of water conservation in accordance with the approach and principles approved by IPART (Economic Level of Water Conservation Methodology). As part of this methodology, Hunter Water expects that for any water conservation expenditure proposed that delivers standards higher than those mandated or are not least cost, Hunter Water will need to demonstrate customer willingness and ability to pay.

- **Improved amenity of stormwater assets:** Hunter Water's stormwater functions primarily relate to stormwater conveyance for runoff management. Properties located in the catchments of Hunter Water's stormwater drains pay drainage charges based on property type for this service[2]. IPART's current position on stormwater charges is that they should be based on an 'impactor pays' approach. They have previously rejected proposals by Sydney Water that stormwater service charges should be spread across its entire customer base [3].

  We note however that IPART has also stated that cost-sharing for legacy issues may be spread across a broader customer base, and that impactor pays may not be appropriate in this case [4]. Hunter Water was interested in understanding residential customers' preferences to extend these stormwater services to improve the amenity of its stormwater drainage infrastructure, including channel naturalisation.

- **Flood mitigation:** Hunter Water owns and maintains a concrete lined part of the Ironbark Creek waterway, and is responsible for maintaining the current capacity of the channel (Hunter Water Act 1991 (NSW) Clause 62). Ironbark Creek is a flooding risk and there are calls for Hunter Water to invest to reduce this risk for smaller, more frequent flood events. Hunter Water is not required to do anything to reduce flooding, and therefore any expenditure to reduce flooding in Ironbark Creek constitutes discretionary expenditure. Hunter Water wanted to understand whether customers are willing to pay for the discretionary expenditure Hunter Water would incur to reduce nuisance flooding risks at Ironbark Creek.

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[1] https://www.hunterwater.com.au/Resources/Documents/.../Operating-Licence-Jul17.pdf
[2] https://www.hunterwater.com.au/Your-Account/Managing-Your-Account/Non-residential-Pricing--Charges/Stormwater-Drainage-Charges.aspx

For these areas, Hunter Water sought to answer two key questions with their customer survey results:

- **Are customers willing to pay more in return for standards higher than those mandated by Parliament and/or government?** In short, this question demonstrates whether customers have the ability and willingness to pay. Hunter Water also wanted to understand how ability and willingness to pay changes across socioeconomic, demographic, property location and other household characteristics of the Hunter Water customer base.
- **Where should these investments occur if Hunter Water customers are willing to pay for them?** Hunter Water wanted to know if customers prefer where and how these services are delivered over the next price period.

1.2 Context

Liveability and environmental services are viewed as discretionary expenditure by IPART, and IPARTs position on customer engagement and discretionary expenditure liveability and environmental service standards is well articulated, including in recent price reviews for public water utilities [1, 3]. The Hunter Water residential customer willingness to pay survey was developed to directly address IPART's price review process and expectations around customer engagement, particularly with respect to demonstrating customer support for discretionary liveability and environmental services. Key points of context are briefly outlined below.

Customer engagement

IPART considers that involving customers in price review processes results in better regulatory outcomes [3]. IPART advised topics on which (Hunter Water) should engage with customers includes:

- **tariff structures:** new charges or large increases in existing charges
- **large discretionary expenditures**: when agencies invest in projects that provide services or achieve outcomes that are not mandated or go beyond service standards stipulated in regulation and licences. IPART noted Hunter Water has previously consulted on asset aesthetics (graffiti management) and odour control as potentially 'discretionary'.

IPART encouraged Hunter Water to have flexibility to engage with customers, and to engage in a manner that is proportionate to (1) the size of the business and the materiality of the customer impacts (2) the type and number of the customers affected (3) the relevance of the issues to the business.

Allowing discretionary liveability and environmental expenditure

With respect to environmental and liveability services, IPART has said it would consider, and could allow, expenditure proposals to achieve standards higher than those mandated by Parliament and/or government. As part of this demonstration IPART would consider:

- **whether the proposal would fit best** with (the water utility's) responsibilities or whether it would fit best with another party or parties' responsibilities, such as another arm of government or local government.
- **whether the issue has been considered by government** and/or Parliament when setting the existing standard or regulatory requirements and whether the facts around the issue have changed since that time.

- **whether the water utility's customers have** the capacity and willingness to pay more to realise the higher standard.

To support their submissions IPART has stated proponents will need to provide clear evidence for IPART to consider in forming a judgement on whether customers have the capacity and willingness to pay the higher prices required to meet the higher standard. IPART has said it will scrutinise the robustness of the engagement method, wherever willingness to pay studies, customer surveys, or other forms of customer consultation are undertaken, and that the water agency should outline the methodology used for these studies or surveys, or how the customer consultation was undertaken [1, 4, 5].

2. Hunter Water customer survey approach

The customer survey was designed to meet best-practice requirements and recommendations of IPART and the NSW Government, including around customer consultation. Key elements of the Hunter Water customer survey approach are summarised below. The detailed methodology for the Hunter Water residential customer survey is set out in Appendix 1.

IPART guidelines for water agency price submissions [6] says that customer consultation should be:

- **Relevant:** the utility targets its engagement at the issues it is seeking input on and makes the engagement relevant to the circumstances of the utility and its customers.
- **Representative:** the utility gives a representative sample of customers potentially affected by the proposal meaningful opportunity to participate and sufficient time to provide their views.
- **Proportionate:** the utility should conduct engagement that is proportionate to the potential impact on service and/or price and does not place an undue burden on participants.
- **Objective:** the utility's engagement should not be biased towards a particular outcome.
- **Clearly communicated and accurate:** the utility provides clear and accurate information to customers during the engagement process. The utility presents information in a form that makes clear: what the purpose of the engagement is; how the utility will use the results; any potential trade-offs between service and price; and the impacts (including cumulative impacts on services and/or bills) of the options being considered.

Our survey was developed based on this guidance:

- The **Hunter Water customer survey was developed through an iterative process** involving Hunter Water staff, four customer focus groups, and survey testing and refinement. Key steps in the process are set out in Appendix A1.1. The structure of the final survey is shown in Appendix A1.2. The survey was targeted, and made the engagement relevant to the circumstances of the utility and its customers. We discuss this further below.
- The **survey was based on a large** sample of 680 Hunter Water residential customers. In 2017-18 Hunter Water had 236,000 residential properties connected to water supply and 227,000 connected to wastewater. A sample population of 680 completed surveys achieves a better than +/-5 percent margin of error at a 95 percent confidence level. This is generally considered as an acceptable level of survey accuracy and a sufficiently large population size to make conclusions about Hunter Water customers' preferences from.
- **The survey sample was representative of the Hunter Water customer base.** The survey sample population results were re-weighted to be representative of the Hunter Water customer base based on: age of respondents, gender, household dwelling type, income, ownership, language spoken at home (English or other), and local government area. This is discussed further in Chapter

4. Survey responses reflected the Hunter Water customer base in terms of connections to sewer and water, whether respondents lived in a stormwater drainage area, and whether survey respondents were on payment plans, received account assistance or pensioner rebates. This means the results presented in this report are a good reflection of the Hunter Water customer population, where they live, and the Hunter Water services they benefit from using.

- **The survey used a split sample design.** Around 530 of the survey respondents were respondents randomly selected from the Hunter Water customer database and invited to complete the survey. The remaining 150 survey respondents were drawn from an online survey panel and invited to complete the survey. The split sample approach was used to test if there were material differences in customer preferences and willingness to pay between the two samples after controlling for socioeconomic and other household characteristics. This is a type of convergent validity test, and a type of test that NSW Treasury recommends in assessing the validity of stated preference surveys [7].
- **The invitation to participate in the survey was information neutral to limit response bias risk and obtain objective responses.** The invitation to the survey (Appendix 2) did not specifically state that the survey was about environmental and liveability outcomes. The invitation informed people that Hunter Water was currently deciding what investments in water, wastewater, stormwater, liveability and other services Hunter Water would make between 2020 and 2025, and that Hunter Water was seeking customer input around what discretionary investments Hunter Water should make between 2020 and 2025.
- **The survey was about discretionary services and expenditure that Hunter Water could supply in the next price period.** Hunter Water customers completing the survey were told that Hunter Water could provide these services, but was not required to. Hunter Water customers were also told that these discretionary expenditures would increase costs, and that Hunter Water would need to increase household water bills starting in 2020 if services were implemented.
- **The survey was about ranges of services that Hunter Water could start supplying at some time in the next price period, and ranges of cost.** That is, the survey explicitly recognised that there was some uncertainty around how much of each service would be provided and the cost of providing the service. This provides Hunter Water with a greater flexibility in its costing and delivery of future services, and also allows Hunter Water customers surveyed to form their willingness to pay accounting for this uncertainty. It made trade-offs between service and price clear.
- **Customers were told that the discretionary services would only be provided by Hunter Water customers demonstrated they were willing to pay for the higher service levels**. This provision rule made it clear to survey respondents that provision of the services was contingent on the Hunter Water customer base being willing and able to pay for the services to be provided.
- **The survey was clear that Hunter Water would be the deliverer of the service.** This means customer willingness to pay is contingent on Hunter Water delivering the service, not another provider.
- **Service levels and costs are based on Hunter Water forward look** estimates of what services and levels of service can be delivered during 2020-25, and estimated costs of delivering these services. This means customers saw their future bill presented in real terms and based on what they will be paying for regulated water and wastewater services between 2020-25. Customers then based their choices about willingness to pay for Hunter Water to provide discretionary environmental and liveability service levels on this price and bill information.

- **The bill presentation format allowed respondents to understand the full budgetary implications of their choices on their future Hunter Water bills** that would be incurred during 2020-25 if Hunter Water proceeded with their preferred investments. It did this by showing customers what their bill for water, wastewater and stormwater would be, based on current usage and IPART determined prices from 2019-20 converted to current dollar terms, plus how much customers said they were willing to pay for additional environmental and amenity services provided by Hunter Water. Simply stated, customers got to see their full water bill, not just the discretionary part of it. This helps customers to understand the impact of future bills on their cost of living. Using this full bill information, customers could page back through the survey to change their choices to lower or increase their total future bill payable to Hunter Water.
- **Survey design was best-practice, objective, clearly communicated and accurate.** The survey design was set up using best-practice guidelines for willingness to pay surveys. We discuss these best-practices in Appendix 1. The survey is included at Appendix 4. The survey design aimed to ensure (1) that the engagement was not biased towards a particular outcome. It presented information in a form that was clear. The purpose of the engagement and how the information would be used by Hunter Water was made clear in the survey. Trade-offs between service levels provided and changes in future water bills were clear. The impacts (including cumulative impacts on services and/or bills) of the options being considered were clear, and survey respondents could amend the services provided to change their bills based on the choices made.
- **Realism and consequentiality of the survey of the survey was high.** Realism and consequentiality in willingness to pay surveys simply mean that people completing the survey believe (1) that the services being proposed will actually be delivered if there is enough support and (2) that they will have to ultimately pay for the services delivered. Appendix 1 sets out approaches that were used to make sure the survey was consequential and incentive compatible. As discussed later in this report, there is clear evidence in the survey results that makes us very confident that the vast majority of survey respondents (1) understood the information provided (2) viewed the survey questions as being real, (3) that services would be delivered by Hunter Water if there was sufficient community support and willingness to pay, (4) that what customers said in the survey mattered, and (5) that customers would have to pay more in Hunter Water bills if one or more of the investments proceed.

3. Results

Key results from the 680 Hunter Water respondents who completed the survey are summarised in this Chapter. As noted in section 1.2, all summary findings reported in this Chapter are weighted to be reresentative of the Hunter Water customer base, based on age, gender, household income, household type (house, townhouse, apartment, other) and whether English is spoken at home as the first language.

Headline results are that:

- **Most Hunter Water residential customers are willing to pay extra in Hunter Water bills commencing 2020** in return for (1) higher service levels for bankwork and landscaping of Hunter Water's open stormwater drains, (2) reducing Hunter Water's carbon footprint, (3) increasing stormwater harvesting, and (4) running targeted water conservation programs.. Most Hunter Water customers are (5) not willing to pay for flooding investments at Wallsend, and (6) around half are not willing to pay for additional wastewater recycling for business and industry by 2025.
- **Most households prefer for Hunter Water to determine where the additional investments** funded by the extra payment should occur, and
- **There is a clear role for water literacy awareness campaigns for Hunter Water customers**, so that households are aware of the benefits that this investment generates for residents of the Lower Hunter region.

We unpack these headline findings below. We start by providing headline summary results for household willingness to pay for the seven environmental and liveability services and levels. Following from this we look at how Hunter Water residential customers said they wanted investments allocated. We then briefly profile respondents' awareness and use of waterway and stormwater issues in the Lower Hunter region. Results highlight the interconnectedness between stormwater and waterway literacy (awareness of issues), use and household location. Key measures testing the survey's consequentiality and incentive compatibility are also presented.

Detailed summaries of willingness to pay are included in Appendix 2, along with data tables supporting the figures and graphs in the main body of this report.

3.1 Willingness to pay for environment and liveability services between 2020-25

The Hunter Water community survey results provide clear evidence that most Hunter Water customers are currently willing to pay higher water bills during 2020-25 for Hunter Water to deliver higher levels of some amenity and environmental services.

Table 2 summarises the willingness to pay results for the seven investments evaluated in the survey. Table

3 shows willingness to pay for the 125 survey respondents who were receiving pensioner rebates. Table 4 shows willingness to pay for the 164 survey respondents in households with income lower than $52,000 a year.

Figure 2 to Figure 8 show the results in Table 2 graphically. All results presented in Table 2 to Table 4 exclude responses from respondents who were determined to be protest votes, or who did not believe the survey was consequential. We discuss these technical issues in Appendix 1 and in section 5 of this report. Here, it is sufficient to note that there were very low rates of protest votes and high rates of consequentiality observed in the survey sample. Removing protestors and respondents who did not see the survey as consequential reduces response bias risk in the results.

Figure 1 shows an example of the willingness to pay questions that Hunter Water residential customers answered to derive the willingness to pay estimates shown in Table 2. In each question Hunter Water customers saw (1) background information on the investment being proposed. For some investments, respondents could click on hyperlinks to obtain more background information if they wished (2) how much of the service would be provided and the outcomes under a 'business as usual' approach. In all cases the business as usual approach stated that Hunter Water would make any investments where these investments were cost-effective and could lower water bills for customers (3) additional investment scenarios showing different service levels that Hunter Water could provide during 2020-25, and the annual cost to the customer of providing each service level by 2025. For each increase in service level, the amount paid increased roughly linearly in line with the charge, as shown in Figure 1.

The willingness to pay questions for each service were consistent with the presentation format shown in Figure 1. As discussed in section 2, at the end of the willingness to pay questions survey respondents were shown a detailed estimate of the impact of their choices on their future water bill and the levels of service that would be provided during 2020-25. We show an example of this estimate in Figure 2. Customers could choose to have their costs presented as a 'representative' household water bill, or they could have their historical water usage information piped in to the survey and reflected in volumetric charges. The fixed (service) charges for wastewater also reflected the customer's premise type (e.g. house or flat/unit). Where applicable, customers also saw pensioner rebates that applied to their bill.

The willingness to pay results shown in Table 2 and Figure 2 to Figure 8 show the maximum willingness to pay of all Hunter Water survey respondents. Table 3 and Table 4 show results for pensioners and households with incomes less than $65,000. Survey respondents could choose multiple options in each scenario if they preferred (see Figure 1). Analysis of results and debriefing questions showed that (1) evaluating data based on multiple responses and maximum willingness to pay did not change overall results materially (2) some respondents only chose their most preferred option rather than all options they were willing to pay. To simplify presentation of results we have opted to present the maximum willingness to pay results only. Appendix 2 includes the maximum and all option willingness to pay results.

Table 2 to Table 4 show 'On average' willingness to pay for increasing service levels for environmental and liveability services delivered by Hunter Water delivered during 2020-25. The average willingness to pay is the weighted average willingness to pay of respondents, weighted by the proportion of respondents in each willingness to pay category. These average willingness to pay results are willingness to pay per Hunter Water household customer, each year during 2020-25. Per household average have been grossed up assuming 220,000 Hunter Water customers to provide an order of magnitude estimate of aggregate annual willingness to pay across the current Hunter Water customer base. The level of services that need to be delivered sometime during 2020-25 to justify these payments is shown in the right hand column of Table 2 to Table 4.

Table 2: Customer willingness to pay (WTP) for increasing service levels for environmental and liveability services delivered by Hunter Water during 2020-25

Investment	Maximum payment amounts per year				Average WTP	Annual revenue based on HWC water/waste water customer base	Average of increase in service
Bank work and landscaping of Hunter Water's open stormwater drains	**$0.00**	**$20.00**	**$50.00**	**$75.00**			
Respondents' highest willingness to pay amount	26%	33%	21%	20%	$33.87	$7,500,000	3-6 kms additional bank work and landscaping of HWC open stormwater drains by 2025
Carbon reduction	**$0.00**	**$1.00**	**$3.00**	**$6.00**			
Respondents' highest willingness to pay amount	22%	12%	17%	49%	$3.57	$800,000	Equivalent to reducing emissions by 4,600-9,200 metric tonnes per year by 2025
Increasing Hunter Water's stormwater harvesting	**$0.00**	**$2.00**	**$4.00**	**$8.00**			
Respondents' highest willingness to pay amount	19%	22%	19%	40%	$4.40	$1,000,000	250-375 ML additional stormwater harvested by 2025
Increasing Hunter Water's wastewater recycling for business and industry	**$0.00**	**$15.00**	**$30.00**				
Respondents' highest willingness to pay amount	46%	32%	22%		$11.32	$2,500,000	No extra by 2025
Increasing Hunter Water's wastewater recycling for irrigation	**$0.00**	**$1.00**	**$3.00**	**$5.00**			
Respondents' highest willingness to pay amount	23%	20%	18%	39%	$2.68	$600,000	150-200 ML additional wastewater recycling for irrigation by 2025
Increasing Hunter Water's water conservation programs	**$0.00**	**$1.00**	**$1.50**	**$2.50**			
Respondents' highest willingness to pay amount	29%	23%	12%	35%	$1.30	$300,000	25-30,000 additional water conservation programs delivered by 2025
Wallsend	**$0.00**	**$15.00**					
Respondents' highest willingness to pay amount	56%	44%			$6.67	$1,500,000	No extra by 2025
Total					**$63.81**	**$14,200,000**	

Table 3: Pensioner rebate customer willingness to pay (WTP) for increasing service levels for environmental and liveability services delivered by Hunter Water during 2020-25

Investment	Maximum payment amounts per year				Average WTP	Annual revenue based on HWC water/waste water customer base	Average of increase in service
Bank work and landscaping of Hunter Water's open stormwater drains	**$0.00**	**$20.00**	**$50.00**	**$75.00**			
Respondents' highest willingness to pay amount	32%	21%	30%	17%	$33.10	$7,300,000	3-6 kms additional bank work and landscaping of HWC open stormwater drains by 2025
Carbon reduction	**$0.00**	**$1.00**	**$3.00**	**$6.00**			
Respondents' highest willingness to pay amount	19%	9%	19%	52%	$3.81	$800,000	Equivalent to reducing emissions by 4,600-9,200 metric tonnes per year by 2025
Increasing Hunter Water's stormwater harvesting	**$0.00**	**$2.00**	**$4.00**	**$8.00**			
Respondents' highest willingness to pay amount	17%	14%	23%	46%	$4.87	$1,100,000	250-375 ML additional stormwater harvested by 2025
Increasing Hunter Water's wastewater recycling for business and industry	**$0.00**	**$15.00**	**$30.00**				
Respondents' highest willingness to pay amount	41%	39%	20%		$11.80	$2,600,000	No extra by 2025
Increasing Hunter Water's wastewater recycling for irrigation	**$0.00**	**$1.00**	**$3.00**	**$5.00**			
Respondents' highest willingness to pay amount	22%	13%	23%	41%	$2.89	$600,000	150-200 ML additional wastewater recycling for irrigation by 2025
Increasing Hunter Water's water conservation programs	**$0.00**	**$1.00**	**$1.50**	**$2.50**			
Respondents' highest willingness to pay amount	24%	28%	17%	31%	$1.31	$300,000	25-30,000 additional water conservation programs delivered by 2025
Wallsend	**$0.00**	**$15.00**					
Respondents' highest willingness to pay amount	55%	45%			$6.78	$1,500,000	No extra by 2025
Total					**$64.57**	**$14,200,000**	

Table 4: <$52,000 per annum household income customer willingness to pay (WTP) for increasing service levels for environmental and liveability services delivered by Hunter Water during 2020-25

Investment	Maximum payment amounts per year				Average WTP	Annual revenue based on HWC water/waste water customer base	Average of increase in service
Bank work and landscaping of Hunter Water's open stormwater drains	**$0.00**	**$25.00**	**$50.00**	**$75.00**			
Respondents' highest willingness to pay amount	28%	36%	24%	12%	$29.57	$6,500,000	3-6 kms additional bank work and landscaping of HWC open stormwater drains by 2025
Carbon reduction	**$0.00**	**$1.00**	**$3.00**	**$6.00**			
Respondents' highest willingness to pay amount	29%	11%	16%	45%	$3.26	$700,000	Equivalent to reducing emissions by 4,600-9,200 metric tonnes per year by 2025
Increasing Hunter Water's stormwater harvesting	**$0.00**	**$2.00**	**$4.00**	**$8.00**			
Respondents' highest willingness to pay amount	23%	21%	18%	39%	$4.23	$900,000	250-375 ML additional stormwater harvested by 2025
Increasing Hunter Water's wastewater recycling for business and industry	**$0.00**	**$15.00**	**$30.00**				
Respondents' highest willingness to pay amount	49%	32%	18%		$10.38	$2,300,000	No extra by 2025
Increasing Hunter Water's wastewater recycling for irrigation	**$0.00**	**$1.00**	**$3.00**	**$5.00**			
Respondents' highest willingness to pay amount	31%	16%	21%	32%	$2.39	$500,000	150-200 ML additional wastewater recycling for irrigation by 2025
Increasing Hunter Water's water conservation programs	**$0.00**	**$1.00**	**$1.50**	**$2.50**			
Respondents' highest willingness to pay amount	34%	20%	10%	36%	$1.24	$300,000	25-30,000 additional water conservation programs delivered by 2025
Wallsend	**$0.00**	**$15.00**					
Respondents' highest willingness to pay amount	48%	52%			$7.83	$1,700,000	No extra by 2025
Total					**$58.92**	**$12,900,000**	

Key points about the willingness to pay results are:

- **there is very clear support and evidence of willingness to pay for Hunter Water to increase service levels during 2020-25 for many of the services customers were asked about.** More than 70% of survey respondents said they were willing to pay for Hunter Water to increase service levels for bankwork and landscaping on Hunter Water open drains (74%), carbon reduction (78%), stormwater harvesting (81%), wastewater recycling for irrigation (77%), and targeted water conservation programs (71%).
- **Hunter Water customers are less willing to pay for some proposed services during 2020-25.** Most customers are not willing to pay for investments to reduce nuisance flooding at Wallsend (56% are not willing to pay anything) and around half are not willing to pay for additional wastewater recycling for business and industry (46% are not willing to pay anything).
- **Hunter Water customers are willing to pay for Hunter Water to invest in bankwork and landscaping of open stormwater drains during 2020-25.** Willingness to pay is on average $33.87 a year, however the distribution of willingness to pay is fairly evenly spread across service levels, with most respondents willing to pay up to $25 or more for 3 kilometres or more of channel rehabilitation
- **Hunter Water customers are willing to pay more for Hunter Water to invest in reducing its carbon footprint during 2020-25.** Around half of Hunter Water customers said they were willing to pay for the maximum carbon reduction option at $6 additional charge on Hunter Water bills each year. Around 75% were willing to pay $1 or more towards carbon reduction, with an average willingness to pay of $3.57 per household each year during 2020-25.
- **Hunter Water customers are willing to pay more for Hunter Water to invest in increasing stormwater harvesting during 2020-25 even when this is not the most cost-effective supply.** Around 40% of Hunter Water customers said they were willing to pay for the maximum stormwater harvesting option at $6 additional charge on Hunter Water bills each year for up to 700 ML of stormwater harvesting by 2025. Around 80% were willing to pay $2 or more towards stormwater harvesting, with an average willingness to pay of $4.40 per household each year during 2020-25.
- **Hunter Water customers have split views about Hunter Water investing in increasing wastewater recycling to industry during 2020-25 even when this is not the most cost-effective supply .** Almost half (46%) of Hunter Water customers said they were not willing to pay for additional wastewater recycling to industry when it was not the most cost-effective supply solution. Around 32% of respondents were willing to pay up to $15 each year for up to 1.5GL additional annual recycled water supply to industry by 2025, and 22% were willing to pay up to $30 each year for up to 2.5 GL of additional annual recycled water supply.
- **Hunter Water customers are willing to pay more for Hunter Water investing in increasing wastewater recycling to public irrigation during 2020-25 even when this is not the most cost-effective supply.** Around 40% of Hunter Water customers said they were willing to pay for the maximum wastewater recycling option at $5 additional charge on Hunter Water bills each year for up to 400 ML of annual recycled water supply by 2025. Around 77% were willing to pay $1 or more towards recycling for public irrigation, with an average willingness to pay of $2.68 per household each year during 2020-25.

- **Most Hunter Water customers support Hunter Water investing in water conservation programs targeted at households with high water use and those having difficulty paying their water bills.** Around 35% of Hunter Water customers said they were willing to pay for the maximum water conservation program service level (water conservations run with up to 60,000 Hunter Water customers by 2025), and 70% said they were willing to pay at least $1 to increase the number of water conservation programs run (up to 30,000 households engaged with by 2025).
- **Statistical analysis of the willingness to pay estimates shows that some types of households are willing to purchase higher levels of service than others for some environmental and liveability services.** These statistical analyses are discussed in Appendix 2 and summarised in Table 5. In general, Hunter Water customers who are willing to pay for higher levels of discretionary environmental and amenity services are often (1) older (2) more likely to be female (3) have higher household incomes (4) speak English at home and (5) live closer to waterways in the Hunter Water customer servicing region. These results are consistent with findings from other Australian willingness to pay studies for environmental and amenity goods [2, 8, 9]. Pensioner customers' willingness to pay is not significantly different from other households after controlling for other factors (Table 3). The impact of income on lower income households' income is seen in Table 4. Blanks fields in Table 5 indicate there were no clear drivers of differences in willingness to pay for these (stormwater drain and Wallsend) services.
- **The additional cost of environmental and amenity services that customers are willing to pay for typically adds less than 6.5% to their total forecast 2019-20 water bill**. Figure 9 shows this graphically for the 453 Hunter Water customers who opted to have their water bill information piped in to the survey when seeing the total water bill impact of their environmental and liveability service level choices

Table 5: Hunter Water customer drivers of willingness to pay[3]

Hunter Water investment	More likely to have zero WTP	More likely to have higher WTP
Carbon reduction	Lower household income* Not working in environmental / conservation management* Not living within 500 metres of waterway*	Older respondents* Higher household income*
Increasing Hunter Water's stormwater harvesting	Male survey respondents** Lower household income** Not living within 500 metres of waterway*	Female respondents** Older respondents*** Higher household income*** English at home**
Increasing Hunter Water's wastewater recycling for business and industry	Younger survey respondents* Smaller households* Lower household income* Language other than English at home*	Older respondents** Higher household income*** English at home**
Increasing Hunter Water's wastewater recycling for irrigation	Language other than English at home* Not living within 500 metres of waterway*	Female respondents*** Older respondents*** Higher household income*** English at home**
Increasing Hunter Water's water conservation programs	Language other than English at home* Not living within 500 metres of waterway*	Living within 500 metres of waterway**
Wallsend	Smaller households*	-

[3] ***, **, * indicates statistical significance at the 1%, 5%, and 10% levels respectively.

Figure 1: Example willingness to pay question for reducing Hunter Water's carbon footprint.

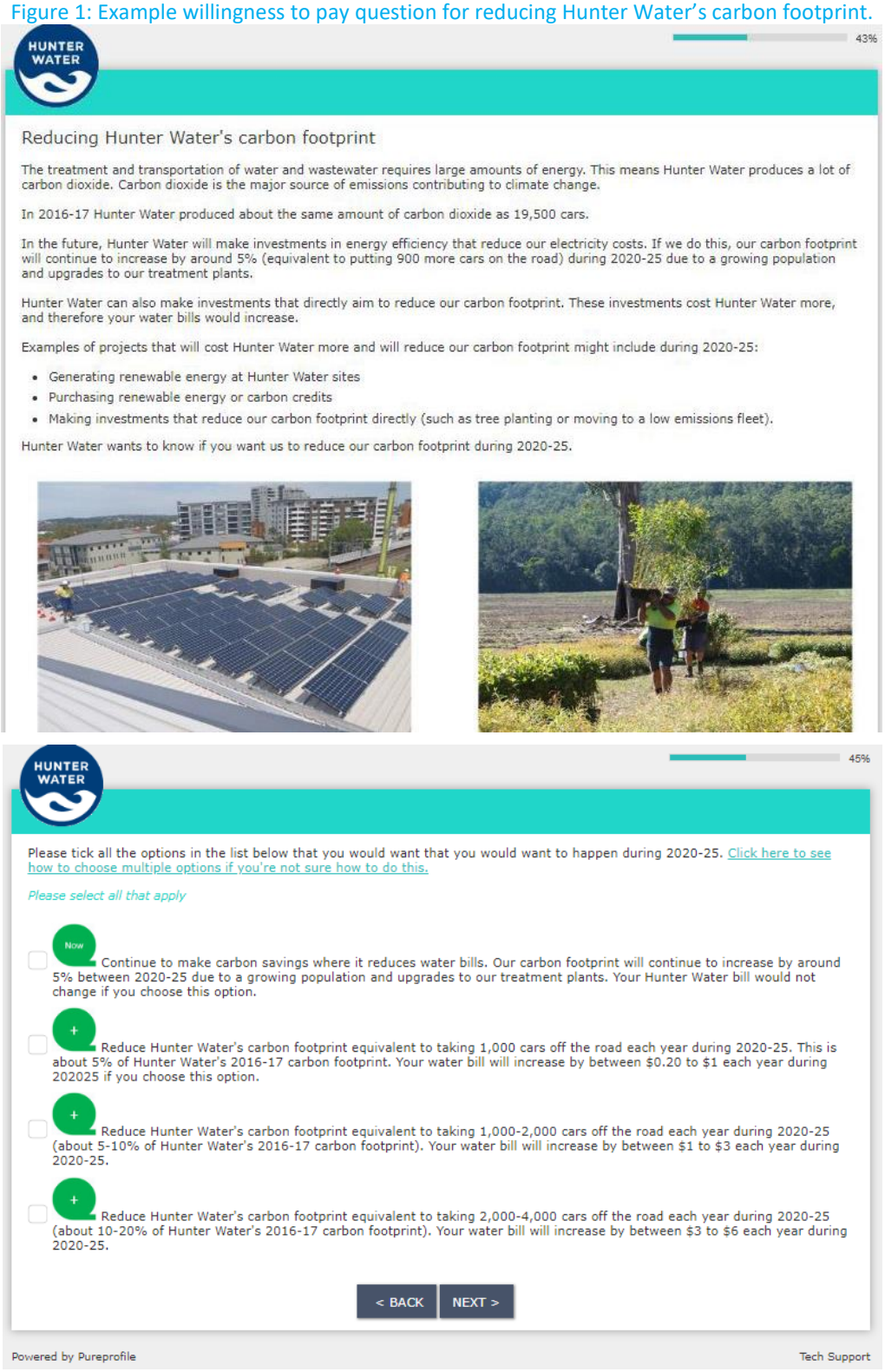


Figure 2: Example of bill impact including estimates of 2020-25 water and sewerage charges.

Summary of your choices

Based on the options you have chosen, an estimate of your annual water bill for 2020-25 is shown below. Your annual water bill estimate is based on your most recent year of water use, so it's our best estimate of what your bill will look like in the future.

Your water and sewer service charge, Environmental Improvement Charge, stormwater drainage charge and water usage charge are shown so you can see what your bill might look like in the future. You cannot change these charges in this survey.

Hunter Water customers pay 3 water bills each year. To show you what a water bill will look like we show you an average bill. We also show you how much you might pay a year in total from 2020 to 2025.

If you want to change any of your options for how much stormwater, carbon, wastewater recycling, and water conservation Hunter Water provides during 2020-25, you can go back to the question and change your answers. Click here to see how you can go back and change your answer.

If you are willing to pay the amounts shown as "Total payable by you" in the bill estimate below please click NEXT to finish off the survey.

Residential water charges	How much you will pay each year	Additional service that Hunter Water will provide during 2020-25	Your estimated Maximum annual bill 2020-25	Your estimated trimester bill 2020-25
Water service charge	$95.0		$95.0	$31.67
Sewer service charge	$620.0		$620.0	$206.67
Environmental Improvement Charge	$39.0		$39.0	$13.0
Stormwater drainage charge	$0.0		$0.0	$0.0
Water usage charge	$976.0	kL consumed by household	$976.0	$325.33
Subtotal before additional charges	**$1730.0**		**$1730.0**	**$576.67**
Bankwork and landscaping of Hunter Water's open stormwater drains	$0.0-50.0 per year for 2020-25	0.0-6.0 kilometers naturalised	$50.0	$16.67
Increasing Hunter Water's carbon footprint	$0.2-3.0 per year for 2020-25	0.0-2000.0 cars off roads	$3.0	$1.0
Increasing Hunter Water's stormwater harvesting	$1.0-4.0 per year for 2020-25	40.0-150.0 ML harvested	$4.0	$1.33
Increasing Hunter Water's wastewater reclycling for business and industry	$0.0-30.0 per year for 2020-25	1000.0-1800.0 ML recycled	$30.0	$10.0
Increasing Hunter Water's wastewater reclycling for irrigation	$0.5-5.0 per year for 2020-25	248.0-400.0 ML recycled	$5.0	$1.67
Increasing Hunter Water's water conservation programs	$1.0-1.5 per year for 2020-25	30000.0-50000.0 household supported	$1.5	$0.5
Wallsend Flood Levy	$10.0-15.0 per year for 2020-25		$15.0	$5.0
Subtotal after additional charges			**$1838.5**	**$612.83**
Pensioner rebate - water			$0.0	$0.0
Pensioner rebate - wastewater			$0.0	$0.0
Total payable by you			**$1838.5**	**$612.83**

Figure 3: In the next questions we would like you to give us at Hunter Water a clearer idea of the investments that you would like us to make between 2020 and 2025: bankwork and landscaping of Hunter Water's open stormwater drains.

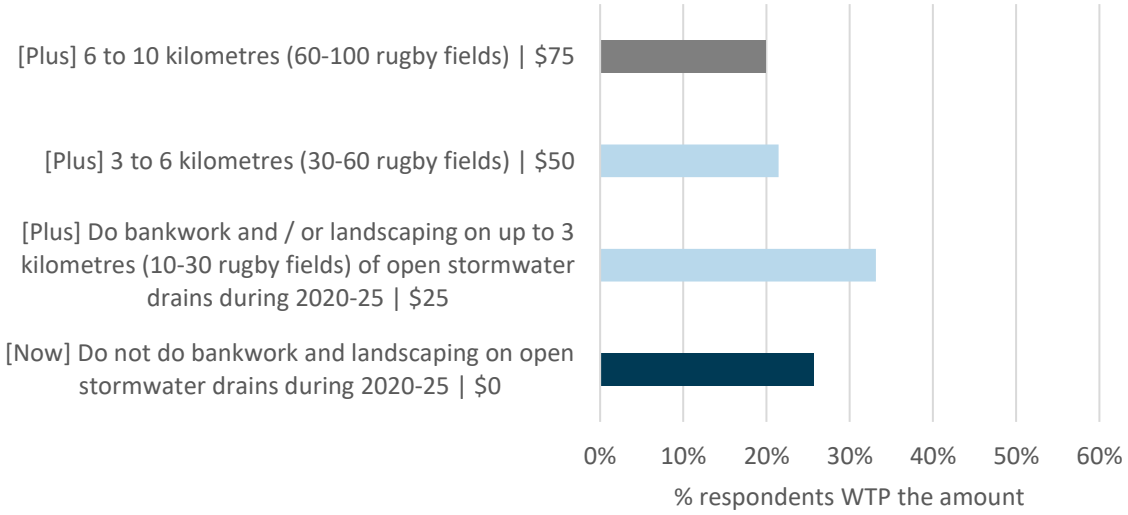


Figure 4: In the next questions we would like you to give us at Hunter Water a clearer idea of the investments that you would like us to make between 2020 and 2025: reducing Hunter Water's carbon footprint.

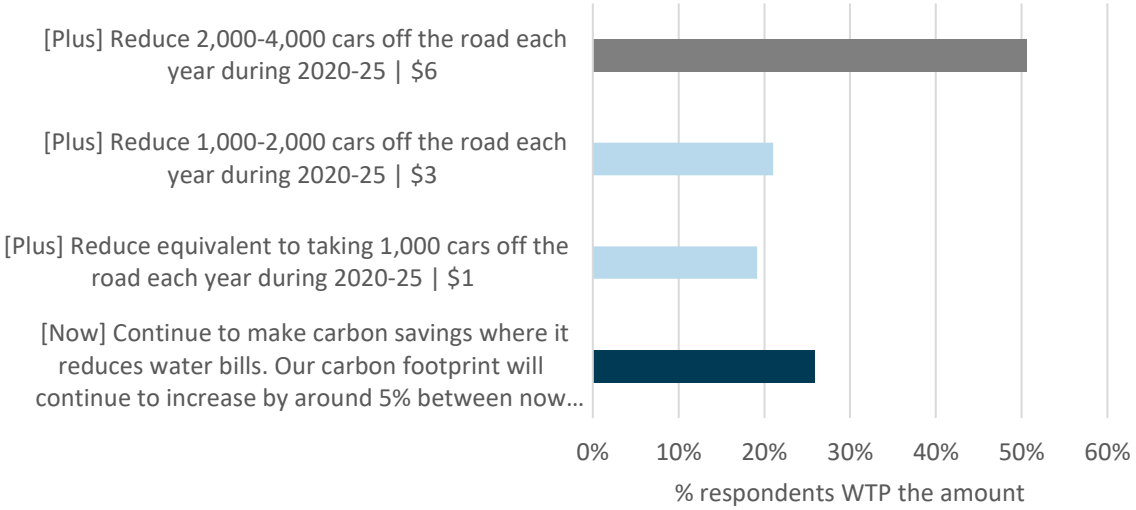


Figure 5: In the next questions we would like you to give us at Hunter Water a clearer idea of the investments that you would like us to make between 2020 and 2025: increasing Hunter Water's stormwater harvesting

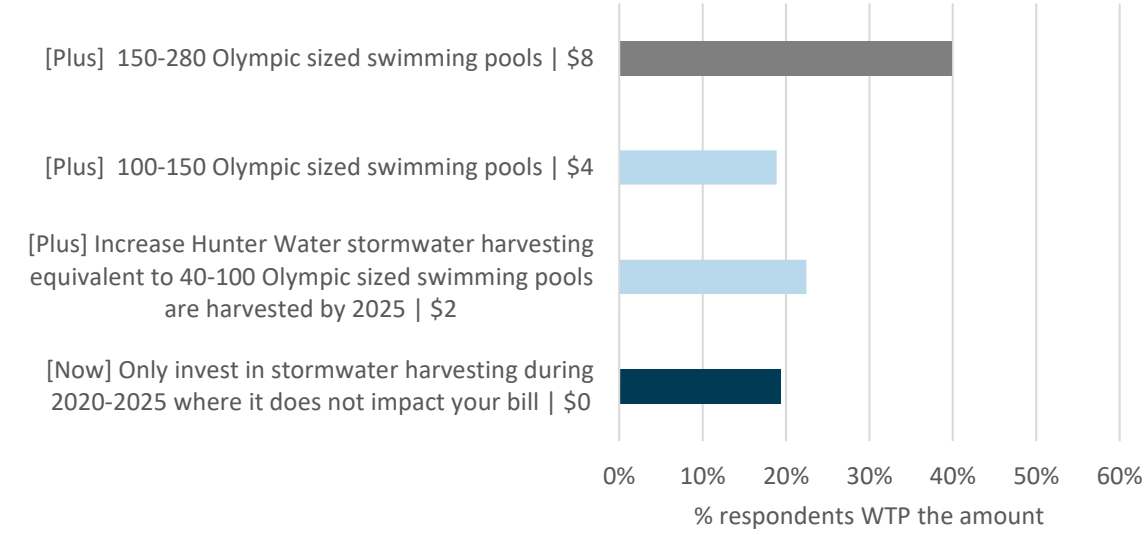


Figure 6: In the next questions we would like you to give us at Hunter Water a clearer idea of the investments that you would like us to make between 2020 and 2025: increasing Hunter Water's wastewater recycling for business and industry

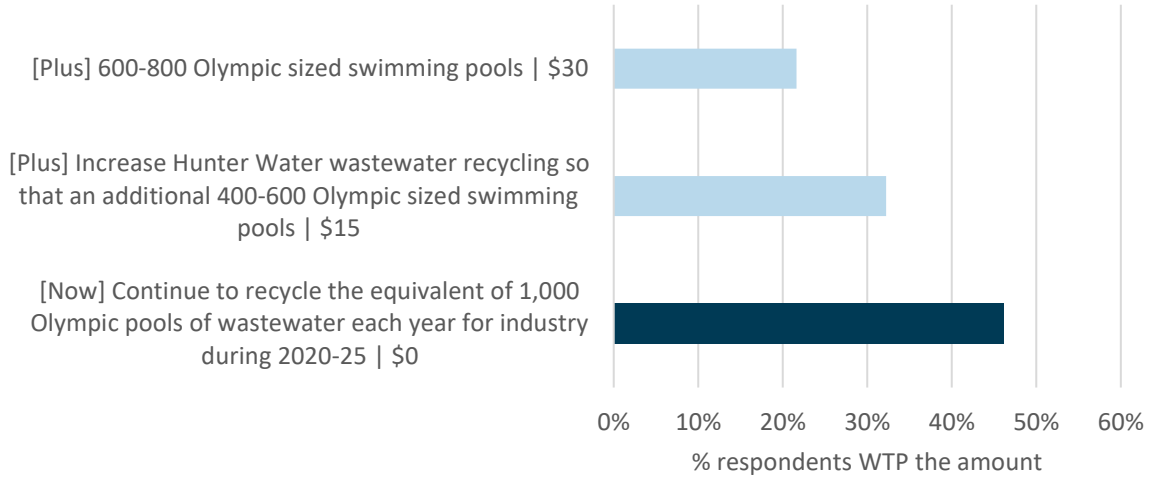


Figure 7: In the next questions we would like you to give us at Hunter Water a clearer idea of the investments that you would like us to make between 2020 and 2025: increasing Hunter Water's wastewater recycling for irrigation

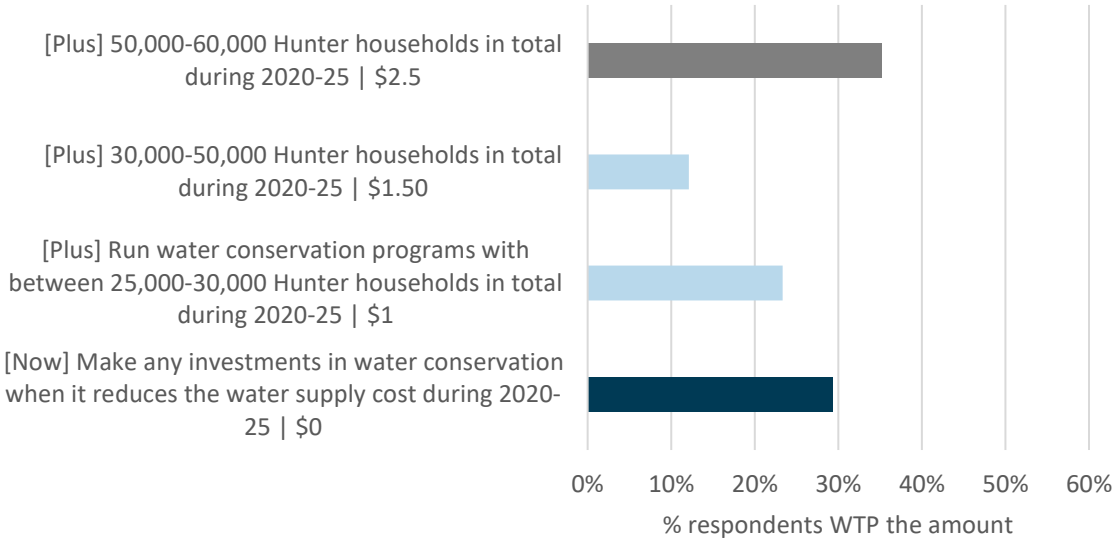


Figure 8: In the next questions we would like you to give us at Hunter Water a clearer idea of the investments that you would like us to make between 2020 and 2025: increasing Hunter Water's wastewater recycling for irrigation

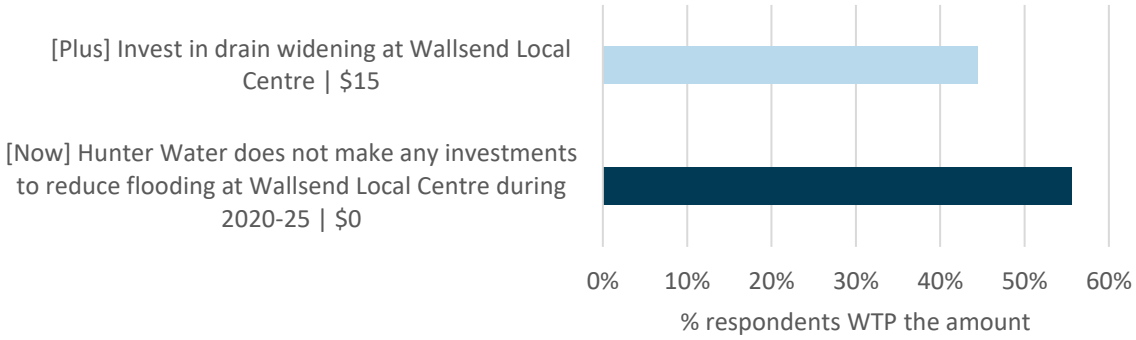
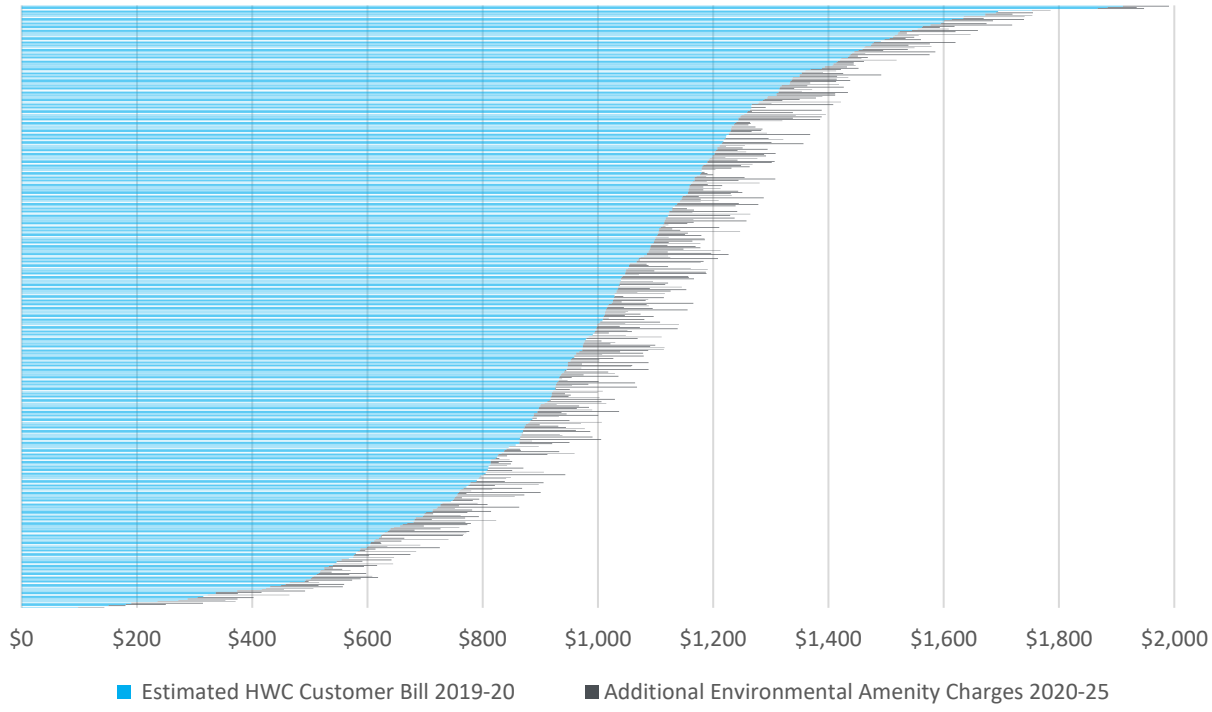


Figure 9: Estimated Hunter Water customer bills and additional environmental and amenity charges



3.2 Most Hunter Water customers prefer for investments to occur where Hunter Water thinks the investments are best made to achieve prudent and efficient outcomes

Survey respondents were asked where they would like the discretionary amenity and environmental investments funded with the additional charges to be delivered in Hunter Water's area of operations. Location options included (1) wherever Hunter Water Corporation thinks the investments are most

needed (2) near where the respondent lived (3) near community towns and centres and (4) other.

Table 6 shows that most Hunter Water residential customers surveyed support Hunter Water investing wherever Hunter Water thinks the investments are most needed during 2020-25. More than 70 percent of households support Hunter Water prioritising investments for stormwater harvesting, wastewater recycling and water conservation programs where they think they are most needed, and more than 60% support Hunter Water prioritising stormwater naturalisation where Hunter Water thinks it is most needed.

Combining preferences for investing where Hunter Water thinks it is most needed and in community town centres shows there is 80%+ support for these investments near community areas and town centres across all discretionary investment categories.

Table 6: Where should the investments happen?

	Wherever Hunter Water thinks it is most needed	Near where I live	Near community areas and town centres
Bankwork and landscaping of Hunter Water's open stormwater drains	62%	17%	21%
Increasing Hunter Water's stormwater harvesting	74%	15%	11%
Increasing Hunter Water's wastewater recycling for business and industry	76%	10%	14%
Increasing Hunter Water's wastewater recycling for irrigation	77%	11%	12%
Increasing Hunter Water's water conservation programs	73%	13%	14%

3.3 Many Hunter Water customers have low water literacy

Water literacy is knowledge about water sources, water related issues and water management [10]. Survey results demonstrate that many Hunter Water customers have low levels of self-assessed water literacy on some water literacy measures. Key findings include:

- **Around 35% of households believe or are not sure if wastewater** is treated before entering Hunter waterways.
- **Around 50% of Hunter Water customers believe or are not sure if stormwater** is treated before entering waterways
- **Around 30% of Hunter Water customers believe or are not sure if recycled water** and potable water are delivered through the same pipes
- **Around 30% of Hunter Water customers believe or are not sure if recycled water** is used for drinking water supply.
- **Around 80% of Hunter Water customers did not know that Hunter Water's water, wastewater and stormwater prices are regulated** by IPART (Figure 10).
- **Around 45% of Hunter Water customers did not know that Hunter Water shares responsibility for stormwater** management with Councils (Figure 10).

- **Statistical analysis of water literacy responses shows that some types of households are more water literate on some literacy measures than others.** These statistical analyses are discussed in Appendix 2 and summarised in Table 8. In general, Hunter Water customers with greater literacy are often more likely to be (1) male (2) higher income households (4) work in conservation / environmental fields and / or (5) live closer to Hunter waterways. Blanks fields in Table 7 indicate there were no clear drivers of differences water literacy on these measures.
- **Hunter Water customers' water literacy is similar to** average literacy in NSW and Australia [10].

Table 7: Hunter Water customer water literacy

	Strongly disagree	Disagree	Agree	Strongly agree	Not sure
Wastewater from domestic bathrooms and laundries receives little or no treatment before entering waterways in the Hunter	20%	47%	20%	3%	10%
Stormwater from roofs and roads is treated to remove pollutants before entering the waterways	12%	37%	28%	4%	18%
Domestic wastewater and stormwater are carried through the same pipes	24%	40%	18%	5%	14%
Waterways can be damaged by stormwater flows	2%	2%	62%	30%	4%
Recycled water is sometimes used for irrigating public open spaces like playing fields	0%	2%	63%	26%	8%
Recycled water and drinking water are carried through the same pipes	26%	46%	10%	3%	16%
Waterways can cope easily with large amounts of sediment (i.e., eroded soil suspended in the water)	23%	53%	12%	2%	10%
Recycled water is used for drinking supply	24%	47%	13%	4%	12%
Recycled water provided by Hunter Water includes harvested stormwater and wastewater	2%	10%	57%	9%	21%

Figure 10: Before this survey did you know?

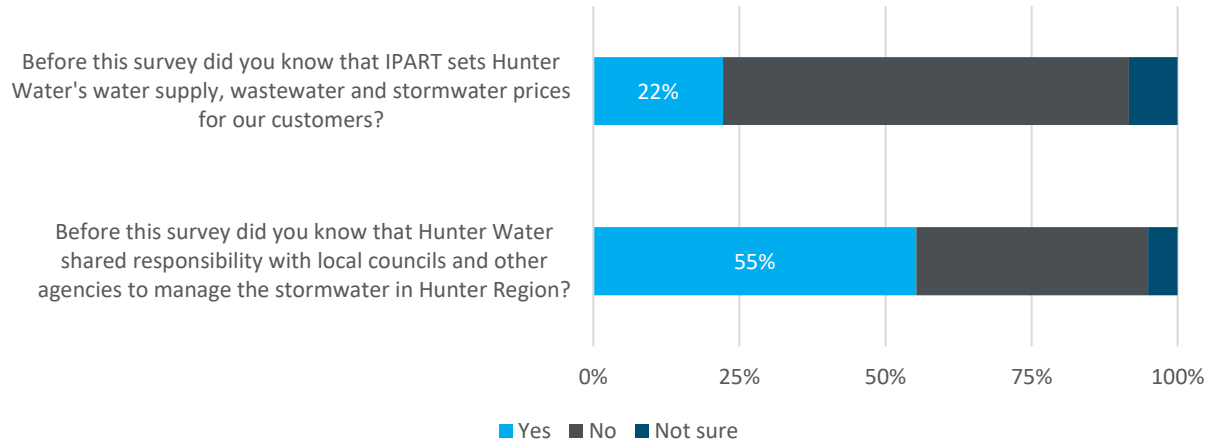


Table 8: Hunter Water customer water literacy[4]

Hunter Water investment	Higher water literacy
Wastewater from domestic bathrooms and laundries receives little or no treatment before entering waterways in the Hunter	More likely to be male***
Stormwater from roofs and roads is treated to remove pollutants before entering the waterways	Higher household income** Living within 500 metres of waterway*
Domestic wastewater and stormwater are carried through the same pipes	More likely to be male***
Waterways can be damaged by stormwater flows	Younger survey respondents** Living within 500 metres of waterway*
Recycled water is sometimes used for irrigating public open spaces like playing fields	Working in conservation / environment*** Living within 500 metres of waterway**
Recycled water and drinking water are carried through the same pipes	Working in conservation / environment*** Living within 500 metres of waterway**
Waterways can cope easily with large amounts of sediment (i.e., eroded soil suspended in the water)	
Recycled water is used for drinking supply	More likely to be male*** Higher household income** Working in conservation / environment*** Living within 500 metres of waterway**
Recycled water provided by Hunter Water includes harvested stormwater and wastewater	More likely to be male*** Higher household income**

[4] ***, **, * indicates statistical significance at the 1%, 5%, and 10% levels respectively.

4. About the survey respondents

Summary details about the 680 Hunter Water residential customers who completed the waterway survey are summarised in this section. Respondents came from a wide range of backgrounds and experiences with Hunter Water. Survey respondents fed back that they appreciated being consulted about discretionary environmental and amenity services proposed by the Hunter Water using surveys, and they encouraged Hunter Water to engage with them in the future on similar issues.

We focussed on surveying households in this survey because it is easier to recruit respondents who are responsible for paying water bills. As stated earlier in this report, survey responses were re-weighted using rim weighting based on gender, income, age, household type (house, townhouse, apartment), and whether English or another language was spoken at home.[5] The re-weighting was done on factors that are known to impact on willingness to pay, based on previous studies. This re-weighting makes the survey responses and willingness to pay results from the survey more representative of Hunter Water's customer base.

Table 9 compares survey respondent demographics with the Hunter Water household population, and also show the re-weighted survey population that was used for evaluating household willingness to pay, preferred investment locations, and waterway literacy. For the purposes of this survey we have used Hunter Water postcode information to derive population characteristics.

Hunter Water customers reported using a range of water conservation measures in their households (Table 10). In some cases respondents may not have known if they had water saving devices such as showerheads in their home.

Survey feedback (Appendix 4) shows that survey respondents were engaged in the task, and that they appreciated being consulted about discretionary expenditure by Hunter Water using survey methods.

[5] A description of the process is provided at: https://rmsresults.com/2014/06/24/what-is-rim-weighting/

Table 9: Survey respondent demographics and reweights

	Population	Survey sample	Re-weighted survey sample
Gender			
Male	49.13%	48.53%	49.20%
Female	50.87%	51.33%	50.80%
Other	0.00%	0.15%	0.00%
Age			
Between 18 and 24 years	11.41%	1.03%	11.43%
Between 25 and 34 years	15.90%	11.36%	15.79%
Between 35 and 44 years	15.91%	13.13%	15.93%
Between 45 and 54 years	16.84%	14.90%	16.87%
Between 55 and 64 years	16.22%	25.22%	16.25%
Between 65 and 74 years	13.30%	25.37%	13.32%
75 years and over	10.41%	7.23%	10.43%
Household structure			
Separate house	81.02%	87.76%	81.00%
Semi-detached, row or terrace house, townhouse, etc.	11.43%	6.93%	11.44%
Flat, unit or apartment	7.55%	4.28%	7.56%
Other	0.00%	1.03%	0.00%
Ownership			
Owned outright		47.94%	33.32%
Owned with a mortgage		43.36%	50.98%
Renting		7.08%	15.13%
Other		1.62%	0.57%
Number of people in household			
1		11.03%	9.78%
2		46.80%	38.60%
3		17.14%	20.37%
4		14.90%	18.03%
5		6.11%	7.07%
6		2.53%	3.11%
7		1.49%	3.06%
Total household income last year (total income before tax and any deductions from all wages and salaries, pensions, allowances, and investment)			
Less than $20,800	3.21%	5.66%	3.21%
Between $20,800 and $33,800	7.12%	8.79%	7.13%
Between $33,800 and $41,600	10.03%	6.11%	10.05%
Between $41,600 and $52,000	7.43%	7.75%	7.31%
Between $52,000 and $65,000	9.46%	6.86%	9.47%
Between $65,000 and $78,000	9.03%	5.81%	9.04%
Between $78,000 and $91,000	7.07%	5.96%	7.08%
Between $91,000 and $104,000	7.04%	5.22%	7.05%

	Population	Survey sample	Re-weighted survey sample
Between $104,000 and $130,000	13.37%	9.09%	13.38%
Between $130,000 and $156,000	9.25%	5.96%	9.27%
Between $156,000 and $182,000	5.58%	2.98%	5.59%
Between $182,000 and $208,000	3.41%	3.13%	3.42%
Between $208,000 and $234,000	2.06%	1.04%	2.06%
Between $234,000 and $260,000	1.85%	1.04%	1.85%
Between $260,000 and $312,000	1.54%	0.75%	1.55%
$312,000 or more	2.54%	0.75%	2.55%
Rather not say	0.00%	23.10%	0.00%
Language spoken at home			
English	89.06%	72.88%	89.04%
Language other than English	10.94%	27.12%	10.96%
Local Government Area (based on HWC customer database) (n=531, HWC customer database only)			
Cessnock	7.90%	4.47%	5.84%
Dungog	0.94%	1.49%	1.13%
Lake Macquarie	35.88%	31.99%	34.65%
Maitland	13.21%	11.14%	12.62%
Newcastle	27.48%	39.68%	32.58%
Port Stephens	14.43%	10.90%	12.99%
Singleton	0.15%	0.33%	0.19%
HWC Customer Segment (based on HWC customer database) (n=531, HWC customer database only)			
1 Affluent Families	10.09%	13.80%	14.69%
2 Affluent Retirees	11.87%	14.56%	15.44%
3 Suburban Workers	22.15%	16.19%	16.38%
4 Resilient Battlers	33.70%	16.18%	16.01%
5 Brand New Lifers	11.16%	12.53%	13.75%
6 Future Focus	3.70%	10.97%	8.66%
7 Multicultural Infusion	1.64%	7.60%	5.84%
8 Connected Provincials	5.69%	8.17%	9.23%
Connected to sewer	95.7%	95.5%	96.4%
Connected to water	100.0%	100.0%	100.0%
In a stormwater drainage area	23.9%	30.7%	26.6%
PAY_PLANS	8.3%	21.1%	12.8%
ACCOUNT_ASSIST	0.6%	0.4%	0.3%
Receives pensioner rebate	20.8%	27.1%	21.5%
Water Usage kL FY2016-17	196.8	178.3	184.8
Water Usage kL FY2015-16	186.2	180.2	180.8

Table 10: Water conservation devices used by Hunter Water customers

Q20 - Do you use any of the following water saving devices in your home? - Water efficient showerheads	No	Yes
Water efficient showerheads	26%	74%
Dual flush toilet	14%	86%
Water-efficient washing machine	52%	48%
Water-efficient dishwasher	80%	21%
Tap timers for outdoor taps	29%	71%
Outdoor hoses with trigger nozzles	97%	3%
Pool cover	65%	35%
Rainwater tank	85%	15%
Drip irrigation for garden	97%	3%
None of the above	96%	4%

5. Survey comprehension

Demonstrating survey comprehension is an important step in validating the results of any customer survey. Survey respondents who understand the survey questions, and who believe what they say in a survey is consequential and will have real consequences for what they pay in Hunter Water rates in the future will be more likely to state their real willingness to pay for discretionary liveability and environment investments delivered by Hunter Water.

Stated preference surveys like the Hunter Water customer survey asks people to make what are sometimes complex trade-offs. In the Hunter Water customer survey households were asked to make trade-offs between higher Hunter Water bills, in return for increased service levels for environmental and liveability services provided by Hunter Water. Households completed this task drawing on information they were given in the survey in addition to what they already knew about carbon neutrality and climate change, waterways and stormwater drains in the Hunter Water region, and water recycling, and the services already provided to their household by Hunter Water.

The survey results on waterway literacy showed that many Hunter Water customers have quite low water literacy on some key measures. Given these pre-conditions, understanding whether respondents completing the Hunter Water customer survey understood the information presented, believed the survey was consequential and hence incentive compatible is an important precursor to having confidence in the willingness to pay estimates in this report.

The survey design Appendix in this report, discusses the importance of consequential and incentive compatible stated preference survey design, and that values obtained from respondents who believe that their survey answers are at least 'weakly' consequential and incentive compatible closely approximate real behaviour in real markets.

Table 11 shows that most respondents reported that they understood the information provided to them in the questionnaire, had enough information to make an informed decision, and said they could make the trade-offs required in the willingness to pay tasks.

Table 11 also shows that almost 90% percent of respondents were consequential for the question 'I think my choices will impact on whether the investments Hunter Water asked me about in this survey will happen' and almost 100% percent of households were consequential for the question 'I think Hunter Water customers' water bills will increase if Hunter Water makes some or all of the investments'. These self-response outcomes indicate that the (significant) majority of Hunter Water respondents believed the survey was at least weakly consequential, which is sufficient to indicate they will provide truthful answers to the survey questions [11-15].

Statistical evaluation of the survey responses that tested for understanding and hypothetical bias shows

that comprehension, consequentiality and incentive compatibility self-reporting scores are the same across respondent groups by age, education, Hunter Water customer type, household income and whether respondents had environmental training. This result shows that there are no systematic differences in levels of understanding or hypothetical bias between these groupings.

Table 11: Self-reported assessments of understanding and consequentiality

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
I understood all of the information provided	25%	63%	10%	0%	2%
I was given enough information to decide	22%	72%	5%	0%	2%
I understood the outcomes described	25%	71%	2%	0%	2%
I understood the idea of making choices between different outcomes	23%	73%	3%	0%	1%
I clicked on at least one of the hyperlinks to get more information about what was being described to me	10%	48%	32%	8%	1%
I think my choices will impact on whether the investments Hunter Water asked me about in this survey will happen	19%	59%	9%	3%	11%
I think Hunter Water customers' water bills will increase if Hunter Water makes some or all of the investments	39%	59%	1%	0%	1%

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Appendix 1 Survey design issues

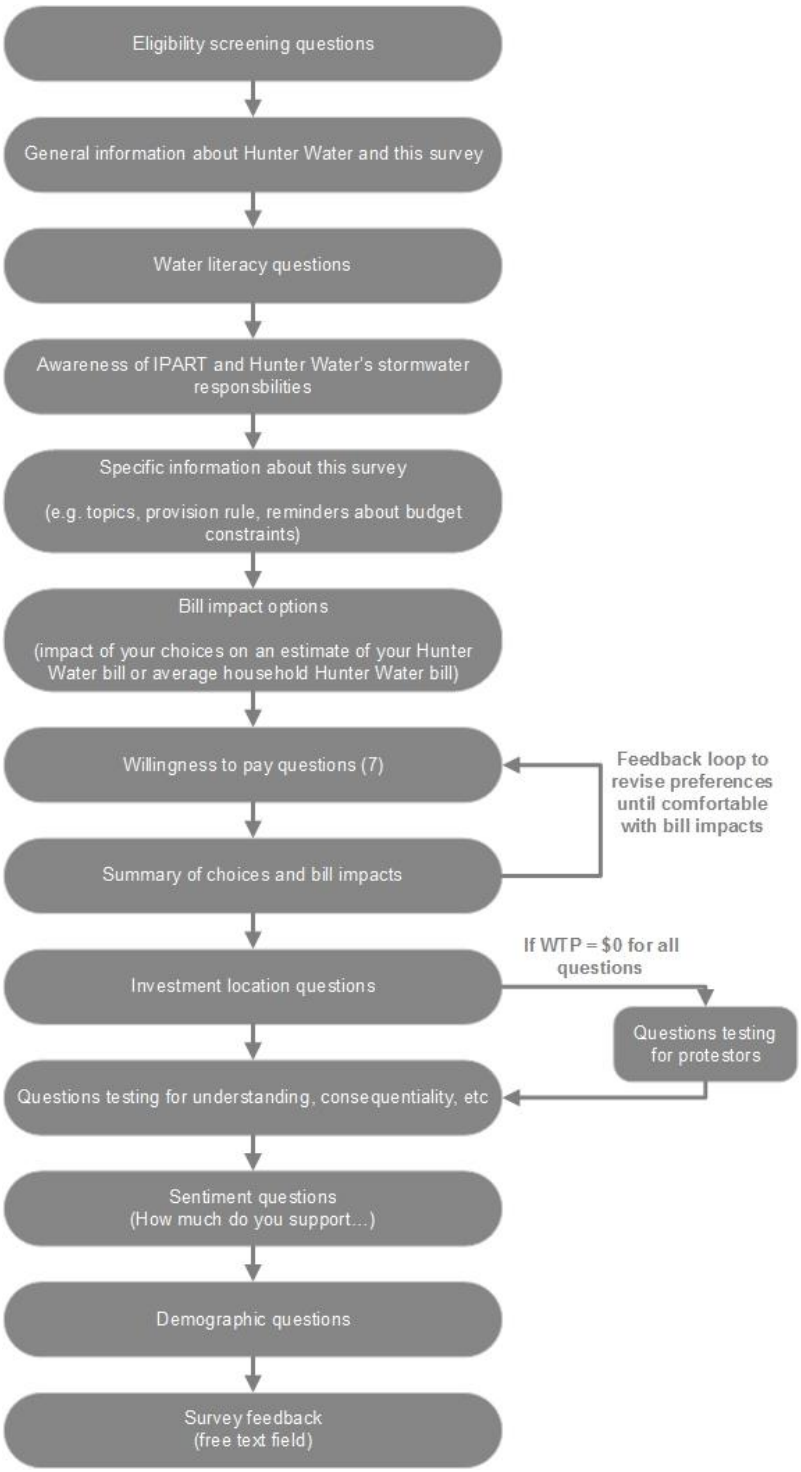
A1.1 Survey design process

Table 12: Process for designing the willingness to pay survey

Step	Activities
Review of background information and other analysis	• We reviewed relevant background documentation • We worked with Hunter Water staff to identify key discretionary investments that could be made in the next price period (four or five years from 2020), for which Hunter Water wanted to understand the choices its customers wanted it to make.
Draft survey instrument	• Based on the previous stage we drafted an initial survey instrument on SurveyMonkey. • The survey questionnaire aimed for high content validity, meaning the survey descriptions and questions are clear, reasonable and unbiased such that respondents are put in a frame of mind that motivates them to answer seriously, thoughtfully, and truthfully. • We refined and agreed the draft survey with Hunter Water staff.
Trial and refine the survey instrument	• The questionnaire was tested through focus groups to ensure that the survey was working, and that any other final problems with the survey could be rectified. • Participants were recruited for two focus groups by Jetty Research, based on a target of 10 people per group and achieving a good mix of ages and genders. Focus group participants were required to be a customer of Hunter Water and at least partially response for paying the water bill. • Of the 22 recruited participants, 17 attended the focus group sessions. There were 10 females and 7 males. 7 were aged 18-39; 4 were aged 40-59 and 6 were 60+.
Run the survey	• We ran the customer survey using an online platform. • Households were eligible to participate in the survey if they were Hunter Water customers, (partly) responsible for paying Hunter Water bills, and over the age of 18
Evaluate results	• During this stage we evaluated the results of the survey, and presented and discussed the preliminary results of the survey with the Hunter Water project team. • Our approach to analysing the data involved undertaking initial data exploration and screening, and estimating preferences and willingness to pay. • Survey results were re-weighted so that the community preferences and willingness to pay estimates were representative of residents of postcodes within Hunter Water's area of operations.
Reporting and finalisation	• We presented findings at a preliminary result working group session. We discussed key findings and messages for final reporting • We drafted the final report for review by the Hunter Water project team. • We finalised the report incorporating feedback from Hunter Water.

A1.2 Survey structure

Figure 11: Survey structure



A1.3 How the Hunter Water community survey minimises hypothetical and other forms of response bias

Stated preference surveys of public goods (such as environmental improvement) run a greater risk that respondents will give answers that do not reflect their real preferences than stated preference surveys of private goods [11, 15]. One reason that respondents may not give their real preferences is when they believe that they will not actually have to pay for the policy to be implemented that will secure the public good. This is called hypothetical bias. Stated preference surveys are also at risk of other forms of strategic response bias.

The Hunter Water residential customer survey addressed the risk of hypothetical and other forms of response bias by using proven approaches for reducing hypothetical bias. These approaches are summarised below.

Satisfying good design conditions to reduce hypothetical bias risk

These are ([16]: pp104) (a) ensuring that subjects are familiar with the commodity being valued (b) ensuring that subjects have had prior choice experience with the good (c) minimising uncertainty in the survey's scenario, outcomes, and provision rules (d) and eliciting willingness to pay not willingness to accept preferences.

Using procedures that emphasised the consequentiality and incentive compatibility of the survey

Providing incentives for respondents to reveal their true preferences in stated preference questions is an important aspect of questionnaire design. Carson and Groves [11] have demonstrated that to achieve this 'incentive compatibility' in stated preference questions requires that respondents consider their answers to be 'consequential': i.e. respondents believe that the context of the survey is realistic to the point where they think that their answers will have consequences for the amount they will have to pay in the future.

We emphasised consequentiality in this survey by (1) stating that the survey was being run by Hunter Water, and that the context was to understand whether residential households would be willing to pay more in rates to achieve greater levels environmental and amenity services (2) that Hunter Water is considering discretionary expenditure as part of its next price submission to IPART (3) that Hunter Water would make investments if there was sufficient evidence of customer willingness to pay during 2020-25 and (4) that any price increase would reflect Hunter Water residential customers' willingness to pay for the additional services, based on the survey results.

One method sometimes used in stated preference questionnaires to encourage response accuracy is the 'cheap talk' method. This involves respondents being told about the hypothetical nature of the questioning and a request that they answer accurately because of the importance of the issue at hand. Cheap talk and other similar approaches to reduce hypothetical bias was not used in the Hunter Water survey primarily because it has the potential to reduce the consequentiality of responses through the acknowledgement of the hypothetical context being used. Furthermore, tests of the method's success in field applications are mixed with a number of studies comparing results with and without cheap talk scripts showing no significant differences in value estimates.

Using an incentive compatible payment vehicle that gives a precise understanding of how Hunter Water residential customers would pay for the discretionary services

Some stated preference studies (for example [17]) have used levies paid through increased taxes and higher prices for consumables (food) as the payment vehicle.

Evidence shows that changes to income-based taxes (and food prices) are generally not incentive compatible payment vehicles in stated preference surveys [18]. Changes to income-based taxes are not incentive compatible because people pay different tax rates. For example, if the survey respondent is a university student with no income and who pays no income tax, they may think they will not have to pay for the environmental improvement that is going to be paid for by increased taxes, and will therefore potentially overstate their willingness to pay for it.

It is generally recommended that the payment vehicle in stated preference surveys is some type of fee or charge that can be directly charged to individuals or households by the proponent. This was the approach used in the Hunter Water residential customer survey, where we stated charges would be passed through as additional charges on the Hunter Water bill, commencing 2020.

Allowing survey respondents to change their willingness to pay once they understood the full budget implication of their choices

Once the Hunter Water survey respondents had finished their discretionary expenditure questions they were presented with a summary table of their choices and the amount in total that their choices would cost as an addition to their future water bill.

We did this by showing customers what their bill for water, wastewater and stormwater would be, based on current usage and future prices, plus how much customers said they were willing to pay for additional environmental and amenity services provided by Hunter Water. An example of the bill presentation is shown in Figure 2 in this report.

Using this approach means that Hunter Water customers got to see their full Hunter Water bill, not just the discretionary part of it. This approach allowed respondents to assess thoroughly the trade-offs involved in their overall willingness to pay – respondents could have come to a position where their future water bill was less than they expected or more. The ability to revise choices to change the water bill allowed the trade-offs involved in their prioritisation of spending across the activities to be subjected to reassessment.

Importantly, the revision process also allowed for a reinforcement of the consequentiality of the answers given. Respondents were informed that the revision process was important because the Hunter Water was intending to use the results in formulating their future investment priorities and in setting prices.

The bid revision design feature also helps to reduce the risk of part-whole bias. This form of bias in stated preference responses exists when the sum of the valuations placed on the parts of a commodity or service exceed that for the whole [19]. By allowing respondents to see the impact on their whole future water bill resulting from their bids for each part (activity) and allowing them to revise the part bids up or down, the process provides an internal check for respondents so they can avoid overstating the values of the parts.

Using de-briefing questions and ex post approaches to identify respondents with response bias.

The survey included debriefing questions that asked respondents if they responded truthfully, whether they understood and believed the scenarios, and whether they thought they would have to pay for the environmental improvements if the policy is implemented. These debriefing questions were used to identify and remove respondents whose debriefing responses indicate that they do not believe the scenario being described, or believe they will not have to pay for the environmental improvement described in the survey. This is a recommended best-practice procedure for stated preference surveys [15].

We excluded respondents who (strongly) disagreed with one or more of the incentive compatibility questions:

- 'I think my choices will impact on whether the investments Hunter Water asked me about in this survey will happen'
- 'I think Hunter Water customers' water bills will increase if Hunter Water makes some or all of the investments'.

Evidence from the recent literature on consequentiality in stated preference surveys shows clearly that all data arising from respondents who believe the survey is *at least weakly consequential* can be assumed to provide truthful answers to stated preference survey questions [13-15].

Other approaches

In addition to the ex-ante and ex post approaches described above, we used other approaches identified by Carson and Groves [12] to ensure the survey is incentive compatible and to reduce the risk of response bias. These other conditions were built into the questionnaire design and included:

- establishing the context of the choice so that the choice questions are set in a 'frame' that is appropriate to the policy decision making. Value estimates are dependent in part on context. Framing is thus important. This is relative to the scale of the changes involved and the relevant array of substitute actions and complementary options.
- reminding respondent that their ability to pay for the discretionary expenditure benefits is limited by budget constraints
- reminding respondents of the availability of substitute sites and products
- reminding respondents that spending money on discretionary expenditure by Hunter Water will mean that less money is available for other natural resource management programs that could be implemented by Hunter Water
- highlighting at several points in the survey the importance of the study and its further use by the Hunter Water investment decision making and water bill fees and charges.
- establishing the credibility of the organisation conducting the study, which was Hunter Water
- clearly describing the process by which the study's results are to be used in the development of policy so that it can be shown that respondent's preferences 'count' and the policy context is real.

Appendix 2 Data tables

Table 13: Survey sample completion rates

Opened survey	884
Screened out (ineligible to complete)	151
Eligible sample (starting 6.1, the first water literacy question)	733
Dropped out by 9.1 (first WTP question)	-
Sample starting WTP questions	**733**
Completing WTP questions	**680**
Completion ratio	94%
Average completion time (seconds)	1,353
Average completion time (excluding 4,000 seconds plus respondents)	1,144
Speeders removed (completing in less than 5 minutes)	1
Completing WTP questions, non-speeders	**679**
Hunter Water customer database	532
Pureprofile customer database (online survey panel)	147

Table 14 shows multiple response and maximum response WTP. Survey respondents could choose multiple options in each scenario if they preferred (see Figure 1). Table 14, analysis of results and debriefing questions showed that (1) evaluating data based on multiple responses and maximum willingness to pay did not change overall results materially (2) some respondents only chose their most preferred option rather than all options they were willing to pay.

Table 14: Comparison of multiple response WTP and maximum WTP responses

	Multiple responses allowed		Maximum WTP amount	
	Not Selected	Selected	Not Selected	Selected
[Now] Do not do bankwork and landscaping on open stormwater drains during 2020-25 | $0	72%	28%	74%	26%
[Plus] Do bankwork and / or landscaping on up to 3 kilometres (10-30 rugby fields) of open stormwater drains during 2020-25 | $25	61%	39%	63%	37%
[Plus] 3 to 6 kilometres (30-60 rugby fields) | $50	75%	25%	77%	23%
[Plus] 6 to 10 kilometres (60-100 rugby fields) | $75	79%	21%	80%	20%
[Now] Continue to make carbon savings where it reduces water bills. Our carbon footprint will continue to increase by around 5% between now and 2025 | $0	74%	26%	78%	22%

	Multiple responses allowed		Maximum WTP amount	
	Not Selected	Selected	Not Selected	Selected
[Plus] Reduce equivalent to taking 1,000 cars off the road each year during 2020-25 | $1	81%	19%	83%	17%
[Plus] Reduce 1,000-2,000 cars off the road each year during 2020-25 | $3	79%	21%	83%	17%
[Plus] Reduce 2,000-4,000 cars off the road each year during 2020-25 | $6	49%	51%	51%	49%
[Now] Only invest in stormwater harvesting during 2020-2025 where it does not impact your bill | $0	77%	23%	81%	19%
[Plus] Increase Hunter Water stormwater harvesting equivalent to 40-100 Olympic sized swimming pools are harvested by 2025 | $2	71%	29%	72%	28%
[Plus] 100-150 Olympic sized swimming pools | $4	76%	24%	81%	19%
[Plus] 150-280 Olympic sized swimming pools | $8	59%	41%	60%	40%
[Now] Continue to recycle the equivalent of 1,000 Olympic pools of wastewater each year for industry during 2020-25 | $0	52%	48%	54%	46%
[Plus] Increase Hunter Water wastewater recycling so that an additional 400-600 Olympic sized swimming pools | $15	64%	36%	68%	32%
[Plus] 600-800 Olympic sized swimming pools | $30	78%	22%	78%	22%
[Now] Continue to recycle equivalent to 240 Olympic pools of wastewater each year for irrigation during 2020-25 | $0	73%	27%	77%	23%
[Plus] Increase Hunter Water wastewater recycling so that between 8-20 Olympic sized swimming pools | $1	73%	27%	74`%	26%
[Plus] 60-80 Olympic sized swimming pools | $3	77%	23%	79%	21%
[Plus] 120-160 Olympic sized swimming pools | $6	60%	40%	61%	39%
[Now] Make any investments in water conservation when it reduces the water supply cost during 2020-25 | $0	66%	34%	71%	29%
[Plus] Run water conservation programs with between 25,000-30,000 Hunter households in total during 2020-25 | $1	71%	29%	77%	23%
[Plus] 30,000-50,000 Hunter households in total during 2020-25 | $1.50	83%	17%	88%	12%
[Plus] 50,000-60,000 Hunter households in total during 2020-25 | $2.5	64%	36%	65%	35%
[Now] Hunter Water does not make any investments to reduce flooding at Wallsend Local Centre during 2020-25 | $0	45%	55%	44%	56%
[Plus] Invest in drain widening at Wallsend Local Centre | $15	54%	46%	56%	44%

Appendix 3 Survey invitation

Hunter Water is running an important survey about the services we will provide to your household in the future. We would like you to take part in this survey. The survey will take about 20 minutes to complete.

To say thanks for completing our survey, once you finish the survey you will automatically go into the draw to win a $100 credit on your Hunter Water account. We have 50 of these prizes to give away. To see more details on the chance to win please click here.

Start the survey
To start the survey please click here

What's the survey about?
Hunter Water is currently deciding what investments in water, wastewater, stormwater, liveability and other services we will make between 2020 and 2025.

Between 2020 and 2025 we will be required to make some investments that increase costs to comply with regulations and standards set by government. There are other investments where we have a choice about if we make them or not – these are discretionary investments.

Hunter Water is running this survey because we want to know from you what discretionary investments you would like us to make between 2020 and 2025.

What you tell us in the survey will be used to help plan Hunter Water's future activities and services, and to help set water prices for Hunter Water customers from 2020 for the next 5 years.

Who should complete the survey, and why we're asking your household to complete it
We need the survey to be completed by someone in your household who is responsible for paying Hunter Water bills.

By getting enough responses from households like yours we'll have a good understanding of the services you want us to provide in the future. If we don't get your feedback, then we must make decisions that will impact the services we provide and your future Hunter Water bills without your input. We don't want to do this. That's why your input is so important to us.

How do I complete the survey?
You can complete the survey on a computer, laptop, tablet or your smartphone. Any information you

give us in the survey will be combined with other responses for statistical purposes. Results will not be reported at an individual or household level.

Thanks for your input, it's valuable to Hunter Water, and it will help us to provide the services you want.

What if I have questions?
If you have any questions about this research, please contact Hunter water on 1300 657 657 or email enquiries@hunterwater.com.au.

Thank you,

Jim Bentley
Hunter Water Managing Director

Appendix 4 Survey feedback

Survey feedback was provided by almost 190 respondents from 680. Survey feedback is provided in the order it was received, and has not been edited for spelling or other grammatical issues. Feedback that said “no” “nothing further” “n/a” etcetera has been removed from the table.

Table 15: Hunter Water residential customer survey feedback

#	Feedback
1	Interesting and thought provoking survey
2	With electricity prices, council rates and water increasing I can not afford anymore increases. This is worrying for me and my future living in this region. Happy to support environmental changes but not at a cost.
3	It was an interesting thought provoking survey with some very good ideas for conserving water and the environment.
4	You should know, and let people know, all new shower heads are water savers. Found that out when I went somewhere to replace the one I have. Not necessary.
5	plenty of erosion behind my back fence as properties on 34 bayview street Warners Bay, have been developed and soil has washed down the hill forcing the creek to come closer to properties in bucklee crescent
6	I have no complaints with Hunter water the main thing I need is clean drinking water at a reasonable cost.
7	This was great, good on hunter water for actively seeking out the communities input
8	all good
9	Well explained - most informative
10	This was a very interesting survey. Although it was a survey requiring answers, it made me think about the bigger picture, im very interested in seeing how these ideas are implemented in the future. We see so much water wasted i think its great that thought has been put into harvesting
11	Water is very precious, any way to protect it is necessary
12	Very well presented and provided a lot of new information for me it was very helpful
13	Easy to use survey. Would have liked another option for the question re increasing waste water usage in industry - Hunter Water increase investment but funded by industrial users not households.
14	I like a lot of your proposed works not sure if I could afford to support them which shows in some of my negative answers.
15	I think putting more drainways In will help stop the flash flooding
16	Good lick on Hunter Water Projects
17	I think that the survey has provided a transparent opportunity to be actively engaged in the decision making process regarding the allocation of spending and services over the next ten years.
18	Do what ever you like but DO NOT increase costs..Cost of living pressures are the biggest Govt issue in NSW.
19	Less money spent on surveys and more efficient works by HWC.
20	These projects should be funded by state government and by hunter water's large revenue streams, not by customers footing the bill for things Hunter Water should have started doing years ago

#	Feedback
21	these seem like all very positive changes and i'm happy to see the initiative to look at implementing these improvements
22	Improve the current situation with the necessary economic upgrades without asking customers to pay for it. Do not increase our water bills!
23	as an investment property owner, i really appreciate the initiative taken by Hunter Water to make the area more sustainable.
24	Great Survey
25	all good
26	Well done Hunter Water
27	While I live in 2335 I have 2 properties in 2320 which are occupied by family
28	Need to address unfiltered stormwater flowing directly onto beaches, in particular onto the Cowrie Hole Beach adjacent to Newcastle Baths .
29	On invoices in future make sure that extra amounts for special outcomes and projects are clearly listed, itemised and money value are stated. A comprehensive breakup should be on the invoice. Full disclosure should be available on demand of all Hunter Water financial Statements and cash flows and fund applications related to specific allocated outcomes should be disclosed. All proposed budgets should also be disclosed. There should be no reason for any applicant to be denied any information as long as the r
30	water tanks and solar panels should be compulsory when building new homes
31	too many questions which result in less surveys being completed I would imagine but I was happy to help.
32	What about storm water collection basins, who is responsible for keeping them clean and free from weeds?
33	I appreciate the fact that Hunter Water is taking responsibility for our environment and feel that any amount within reason is worth paying to support you looking after our world and water. Thank you.
34	Pensioner, need too save as much $$$ as I can
35	ALL NEW HOUSES NEED BUILT IN WATER STORAGE I am happy with hunter water
36	Reconfigure the table showing outcomes from the investment selections section - the current table arrangement makes it difficult to determine the net impact on water bills from the selections made.
37	Did not fully understand a lot of the technical stuff but tried my best to answer responsibly
38	There should be a relaxation of Hunter Water rules on household Water Tank capacity. Normal rain in this region fills tanks of your regulation size to over flowing in 1 hour!!
39	Your online survey was easy to understand and I did not have any problems doing it.
40	Stop large amounts to government use the funds for improvement
41	Very good survey
42	Electronically delivered water rates ! For all the obvious reasons.
43	You need to have bigger prizes they are stingy
44	I would like investigation, of the storm water drain widened in the New Lambton area, and further up stream, from Styx Creek as far up Ker- rai Creek, as possible. Because of the increased run off from the surrounding buildings.
45	I think that more organizations should ask these type of questions because a lot of good ideas have a real dollar value and we can price ourselves out of living or ever from retiring which is relevant to my circumstance. Thank you.

#	Feedback
46	Bring back the bill reading by the owner. We used to get a number we could send a photo of our meter and our water bill would be spot on. Now we get an 'average' account. Why is this?? Very poor customer service.
47	I believe there is a need to consider the work you are looking at
48	Very informative survey which asks the right questions.
49	Some of these costs should be borne through lower annual dividends to State Government
50	The use of recycled water for industry etc should only see the rates of the users of the recycled water charged not the total customer base. There should have been a government requirement to retain all the land purchased for Tillegra Dam as in the future a dam storage will be needed as the cost of treating wastewater and stormwater and then reticulating the recycled water to households will be prohibitive. HWC has had recycled water pipes in the ground at Thornton North and Gillieston Heights residential
51	Too much information for reading on a computer. Some of the questions could have been written in a shorter format.
52	We need to move towards to climate change urgently and HWC could lead the way in this region as no one else is
53	Rainwater & sunlight is free - households should be encouraged to be self-reliant and not use the public system at all - off grid is the best way really so that big brother doesn't get any bigger. Using utilities are creating adverse costs for those with little money and are cash poor. Rates, electricity bills are becoming unattainable to pay. Don't even use sewerage as drinking water and only fix what is broken. Money does not need to be spend on pretty things up. Fixing flood prone areas or getting peop
54	Good
55	It was easy and written well.
56	Good suevey
57	As already stated all the investments will be used not in my area but I will be paying for it on my bill. I'm not that happy paying hard earned money for the improvement of other areas that don't affect me.
58	More community education starting with primary school aged children is vital, especially about clearing gutters & stormwater grates regularly & washing cars on grass etc.
59	By sending bills by email Hunter Water could save substantially on postage and the labour/stationery involved. As well there would be less trees cut down to make paper.
60	We live in Port Stephens. That area wasn't mentioned in the survey. We use ground water for irrigation when possible so as not to waste valuable drinking water and appreciate your efforts in providing us with safe drinking water. As pensioners we are very keen to keep our bills at a manageable level but understand the massive cost of providing that water .
61	Water pressure appears to have decreased over the years - why is this ?
62	When are we getting sewer in mulbring
63	Currently there is an information deficiency in the council mapping of the storm water pipes in the suburb of lakeside at Raymond Terrace and in particular my residence.
64	FIX THE LOW WATER PRESURE ON HUE HUE RD WYEE.
65	All good
66	all good
67	Please be more realistic about the time stated to complete your surveys. I know it's hard to get people to complete surveys but I often find that the time mentioned to complete a survey is underestimated - as with this one. I thought

#	Feedback
	a statement could have been included about where the results of the survey would be made available to the public (or respondents).
68	Why so much charge for sewage in our bill
69	I think you are doing a great job! You are also very helpful and supportive when financial times are difficult. Thank you :)
70	We have low water pressure and Hunter Water acknowledge it but do nothing to improve it
71	A good survey
72	Why do you need to know people's income? It's personal.
73	Very interesting and informative
74	None of the answers provided for any cost savings that would result in a cost reduction on water bills!
75	you didn't ask about biking. you could save a lot of koney by emailing out acvouhts
76	Send Rate notifications electronically like all other utilities. What you save on postage alone could go toward helping with some of these plans.
77	Thanks for asking
78	No- this was easy to understand
79	I liked the amount of background information provided. This will ensure that people undertaking the survey have some knowledge of the issues they are being asked to comment on.
80	There are few certain commitments to outcomes; too many 'may reduce.....' The price increase is certain, the physical result uncertain. Difficult to make choices with such vague information.
81	very user-friendly
82	The survey was good and easy to understand..
83	Teach people more about water, it's one of the important things in life!
84	Know that the big populated areas need help but if we keep the country town supplied and green then this helps all
85	Interesting seems very relevant
86	I found the survey relatively easy to go through. The subject matter is complex and requires careful thought - I thought it was well presented and communicated.
87	Truthfully I cannot see how the Fitzroy Gardens scheme could be economically viable when construction, energy and other continually occurring expense is taken into account. Coming from a rural background it is impossible to store in underground tanks sufficient volume of water to irrigate any substantial amount of land. These are feel good schemes only. I feel that the overall object is to deny the average person the right to maintain a garden/lawn and lower our standard of living. Why do all so called g
88	You are asking people to make decisions based on forecasts & estimates of costs, which are often likely to be wrong or perhaps even misleading. More specific surveys should be done in future once more accurate costings can be determined.
89	Very professional and clearly laid out. Can't envisage any way of improving the survey.
90	Expenditure in our council area occurs mostly at Warners Bay and Speers Point. Spread your investment about!
91	You asked a question concerning climate change . There is no climate change ONLY too many people on earth and until that is addressed nothing will happen and matters will only get worse.
92	What an impressive and thorough survey!

#	Feedback
93	no mention of investment in pipe repair/maintenance
94	I think Hunter Water should give a discount for customers with a low income health care card. Power suppliers do and it all helps as our water rates are one of our expensive utilities.
95	Water supply should not have to return a dividend to the government. All money from water supply should be returned to the system and to the area where it is charged. Hunter water has been stripped by the Sydney government for far too long.
96	What relevance does my income have?
97	Good idea to seek public views.
98	Build Tillegra the most cost effective water supply for years to come. Kevin Young backed it and he secured water for the lower hunter well, so if Kevin Young backed Tillegra, you can be assured it is a brilliant project. I note there is no mention of costs associated with planned desalination plant. Not a good look for a water cost survey.
99	i'm very skeptical about these surveys. Hunter Water will do this survey and claim they have consulted the community then do what ever they or the government want to do.
100	Easy to complete.
101	The construction of this survey was very well done.
102	Instead of asking customers to pay more on a bill that is already high, so hunter water can fix issues. Why don't you re lay / insert all of your old cast iron mains? The amount of broken mains you have during winter and the loss of water is unbelievable.
103	Survey was too long. Hard to do on iphone as automatically scrolled to the end, so had to scroll up each time
104	Happy to participate and provide my opinions
105	Be careful of using confusing characters, eg < > on either side of a question, seemed to indicate there was more to be found if clicked, I had to try it to confirm.
106	Very good and understandable.
107	Good survey. Lots of information. I liked that it showed me an estimate of how any changes would impact me.
108	Important to recycle and plan better for future and climate change also important to keep costs as low as possible. Need to get smarter.
109	Grahamstown dam picnic area (Finnan Park) is great but would benefit from irrigation. It always looks dry and brown in the summer months. Thanks.
110	We don't use HW for sewerage and have a biocycle. I think everyone should have the freedom to have a biocycle if they have the evaporation space. I don't think collection of wastewater so important now they have improved the systems so you don't need to add chlorine. This would be better all round. HW could then focus more on clean water delivery and not need to expand clearing for ugly pipelines as cities grow.
111	I disagree with household rainwater tanks as the pumps required are not compatible with trigger hoses an water efficient washing machines. These cause too many pump starts in a short time and continually burn out the start capacitors.
112	I support water conservation , however I find it really frustrating that we have weak water pressure in Valentine. I have been in the shower and the water stops altogether! This is happening less frequently now but pressure to clean windows on 2nd floor is just not there.
113	Having the images really helps with making a clear decision
114	I would like money spent on building a new dam, like we paid for many years ago and received a miniscule refund when it was cancelled. Regards

#	Feedback
115	pleased to be asked to participate
116	I definitely would prefer to receive my bills by email. Look at the saving on postage for a start. Hunter water is the only provider that still mails out their accounts.
117	I am very supportive of water saving initiatives. A shame though that these new, valuable initiatives need to be all funded by residents. Think that Hunter Water, local and state governments should be absorbing many of these costs rather than residents. Think that the amount of high rise development in Newcastle also needs to be restricted to lessen the large negative impact on existing sewers and waterways
118	need to address new sub division so farms in maitland area don't flood as much
119	I appreciated being asked my opinion as a user of Hunter Water services and I found the survey very informative.
120	Please make repairing any network damage a priority There is little point in investing in topics raised in survey, if wastage is occurring & not being fixed quickly.
121	I would like to see more maintenance on the storm water drains that run down our street. When it rains heavy (which it hasn't done for some time) people seem to think the drains are for dropping rubbish in (prams, bikes etc.) and that block the drains. Cheers
122	A LOT OF READING BUT I DID MANAGE TO CONCENTRATE ENOUGH TO COMPREHEND IT.
123	Finish repairs to my driveway and front lawn damaged by new water main pipe installation.
124	Need to conserve or improve the environment in ways that do Not increase water bills by tapping on natural resources instead of man-made resources (which most probably will incur more cost).
125	Yes, showing the bill with the selected options - should have an option to adjust / do you still select those options.
126	This is a somewhat long and complex survey. It would have cost the H.W. A lot more to have surveys done in person but better results may result
127	Has HW come to any agreement with JPG over the Watagan Park development?
128	easy to follow and participate. informative
129	Not all the responses provided were relevant to the question being asked.
130	I'm not sure relying on the have you understood the questions yes/no will enable sustainable conclusions to be inferred. Many people will not admit to to not understanding the question, despite not having done so. Also, a better definition of pollutants is required.
131	Thanks for the opportunity to contribute.
132	There was a lot of reading material.
133	all good thanks
134	I hope most people will pay for our natural environment improvements provided they see efficient/steady improvements being made!
135	Build more dams!
136	Very Informative and thorough
137	I would like to see more work done on ensuring street gutters and storm water systems workin efficiently. With any amount of rain, Hamilton/Ham East/Ham Sth is inundated with water that doesnt seem to have anywhere to go - the storm water system is inadequate
138	Information is so important to understanding any changes especially if it means we are spending more of our own money. In an era of Royal Commissions TRUST in institutions is low, so transparency is vital to understanding management practices and how rates are being spent.

#	Feedback
139	Effluent enters the ocean between Redhead and Blackmiths. It leaves disgusting sludge on Redhead Beach in Southerly winds on frequent occasions. I once sent a sample to you for testing and it was admitted to me it was raw sewage and probably from a ship . That response was incorrect. You can see trails of it on the surface from Redhead bluff under the right conditions. No, it doesn't always occur after heavy rainfall. I was told to call EPA if I saw it again. I did so and EPA never responded. It's a dis
140	1. I did not like that stormwater bankwork was only for rugby fields. Why is the priority there as many other sports are played. 2. I support the recycling of wastewater by industry but what percentage does industry pay for their problem? Why do all customers have to pay for this? Constantly comparing to Olympic pool sizes tells me nothing. We needed to know what percentage of wastewater this reduces industry levels to. Will this problem be totally solved or only 20% solved?
141	I found the pictures and explanatory comments very helpful
142	The proposed infrastructure investment being proposed HAS to be done at some point in the future. The investment proposals means EVERYONE has to pay - as it should be. Water is a finite resource, and we need to value it. Well done Hunter Water!!!
143	In my opinion, the water bill is expensive already. I am reluctant to see more rise in the bill despite the good cause.
144	I think the sewer fixed charge is not a fair way of charging . It was a better way to charge user pay and percentage of water usage If you didn't use much water your sewer charge was less The new way is not fair
145	You just want to find out whether people agree to have their bills increased. What does the average person know about waterways? What a useless survey!!!
146	All good
147	i just think that recycling is the way to go
148	Very well presented. Clear easy to use. The conservation issues you are examining are vital.
149	I think that it is a good idea having a survey as long as you take notice of what the people are trying to tell you.
150	Good questions!
151	Power & water are both expensive utilities, i would prefer a modest increase in water to get job done, on the other hand I would not support any increase in power costs
152	Options do not include increasing maintenance of existing assets
153	It is far too long and feels like it is set to be used in future as proof that we agreed for you to increase our water bill. Some questions grammatically confusing.
154	I like the survey idea, hop it is used in decision making
155	Good survey
156	I would be interested to know the level of participation Hunter Water receives to completion of the survey.
157	I enjoyed completing this survey, it gave me an appreciation for all the work that Hunter Water does.
158	The revenue passed by Hunter Water to the NSW Government should be reduced significantly to fund a lot of the proposed works to reduce the household costs. Industry costs for recycled water storage and use should be born by industry. Our income is not increasing whereas living costs are.
159	Found survey informative and easy to complete.
160	I suggest, in these days of major hacking into conveyancing in Victoria, electoral rolls in Tasmania, financial institutions and government departments, your invitation to participate in a survey should contain no links, but invite us to go to the website on our last Hunter Water bill, where the link to the survey would be located I came very close to not participating, and only did so after contacting HW Enquiries

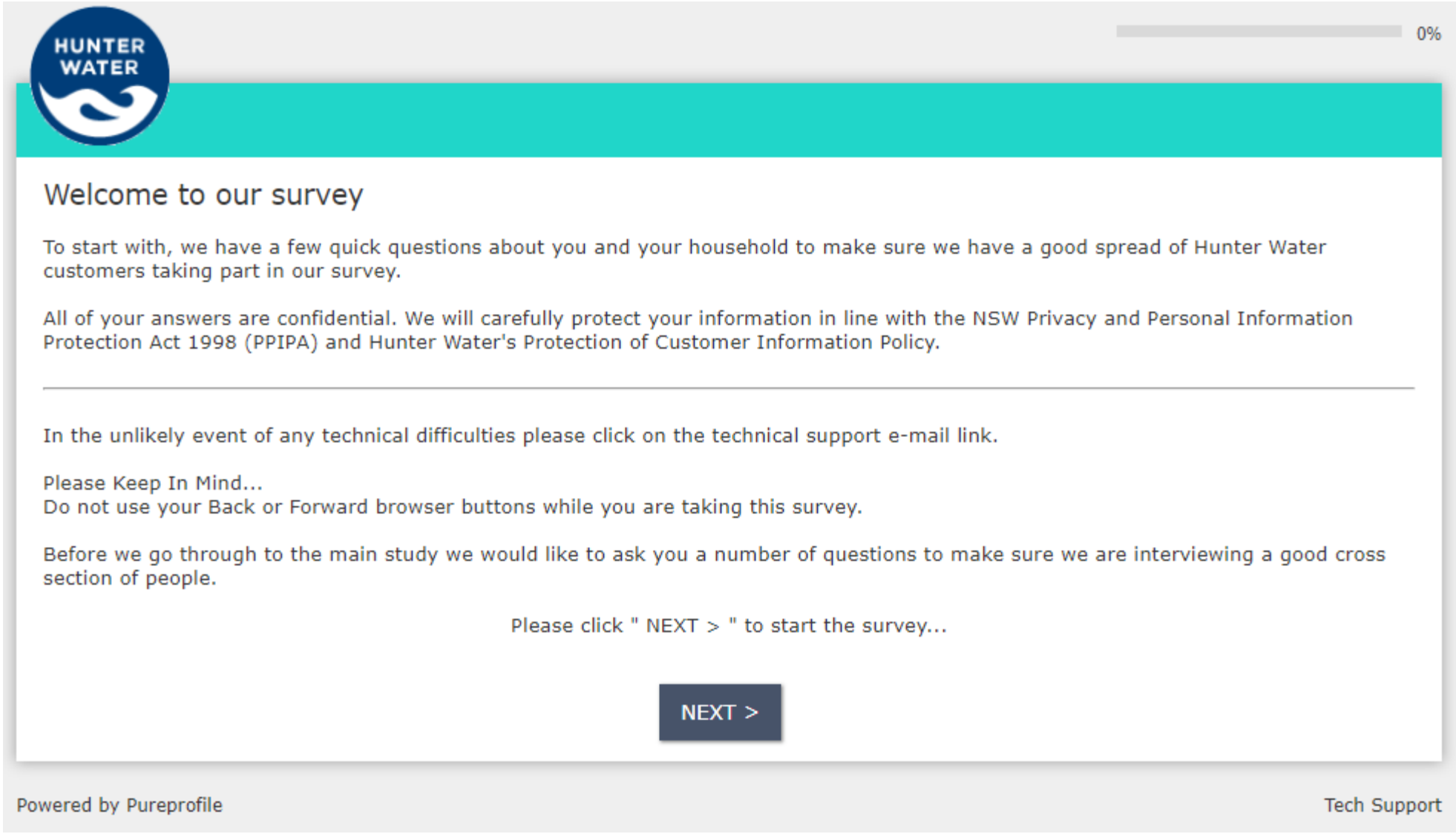
#	Feedback
161	Good questions and information provided
162	Good information provided
163	interesting and worthwhile survey
164	Anything that helps the environment is always beneficial
165	It kept saying 'all done/finished' or something similar when the survey wasn't actually over.
166	Would like to see all the improvements mentioned done over time - even if it extends the present timeframe you propose. Also hoping there are other options for the Wallsend flooding problem. Rather naive thought probably, but instead of wider - could the present stormwater channels be dug deeper ? Particularly near the centre of the drain itself with a mesh / similar covering, to protect public & animals?
167	Get an online portal to send bills so it's doesn't continue to only come by post or email them to save paper and then going missing and to allow access to previous bills and details etc. Allow direct debit from credit cards with no fee
168	make survey shorter
169	water cost is too high and the sewage charge is a penalty as it does not take into account any grey water use
170	Doing them more regularly to get people talking & making them More aware of the environment
171	Some people will think it is to much reading
172	Male Female OTHER This is ludicrous. Gender specific out of control madness. Why not add a colour to the equation 'cause I'm Blood RED mad. Peace.
173	all good
174	I have never understood why we don't harvest more stormwater, this desert country needs to. I am very happy to think that this might increase.
175	Survey was interesting.
176	Design an App for iPhone for customers
177	keep up the good work .
178	your questions are pointed without an option for concerns we may have. In an older area I will have all the extra costs with no benefit from any work done. Your work should be financed through increased population and inflationary increases
179	I would like to see the option of having Water Rates emailed rather than mailed
180	An interesting survey.
181	The information was excellent and being consulted and learning about local water issues is very much appreciated.
182	Let us have a vote on CEO and executive salaries; stop fleecing customers to make a profit.
183	Good online survey. One of the better ones I have seen in a while.
184	The questions for a number of items did not take into account requirement for new developments, particularly related to business operations. While these are believed to be covered by current planning controls, the extent and intent of retrospectively introducing some measures should not be a burden on residential users. We live in Murrays beach where a great deal of effort has been put into stormwater management and residential stormwater tanks. In buying into this area we paid a premium for this, so increa
185	Good survey, very informative.

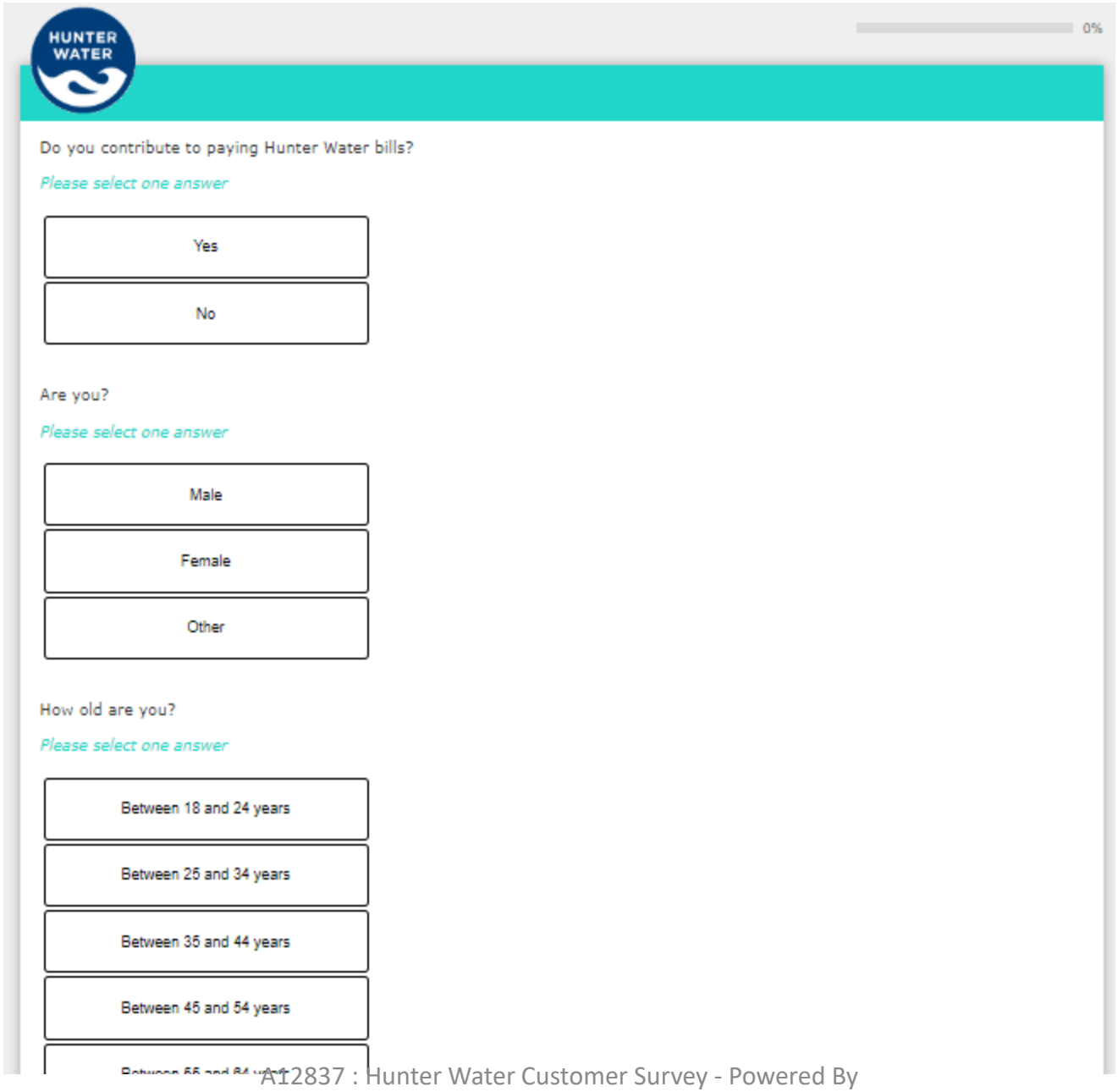
#	Feedback
186	Hunter water should manage the communities money more efficiently. just like every other government department, the waste is unbelievable and the solution is to put everything up. Look at the mess and waste of millions of dollars with Tillegra, buying properties and then selling them again for nothing.
187	Naturally, water is a precious commodity and I would like to see in my lifetime, more dams erected so this important nature's gift could be utilised more efficiently. I cannot comprehend why Governments avoid the building of dams, especially in flood times when volumes of water is wasted as it flows to the sea. How convenient would this wastage be in drought times?
188	Interesting and thought provoking survey

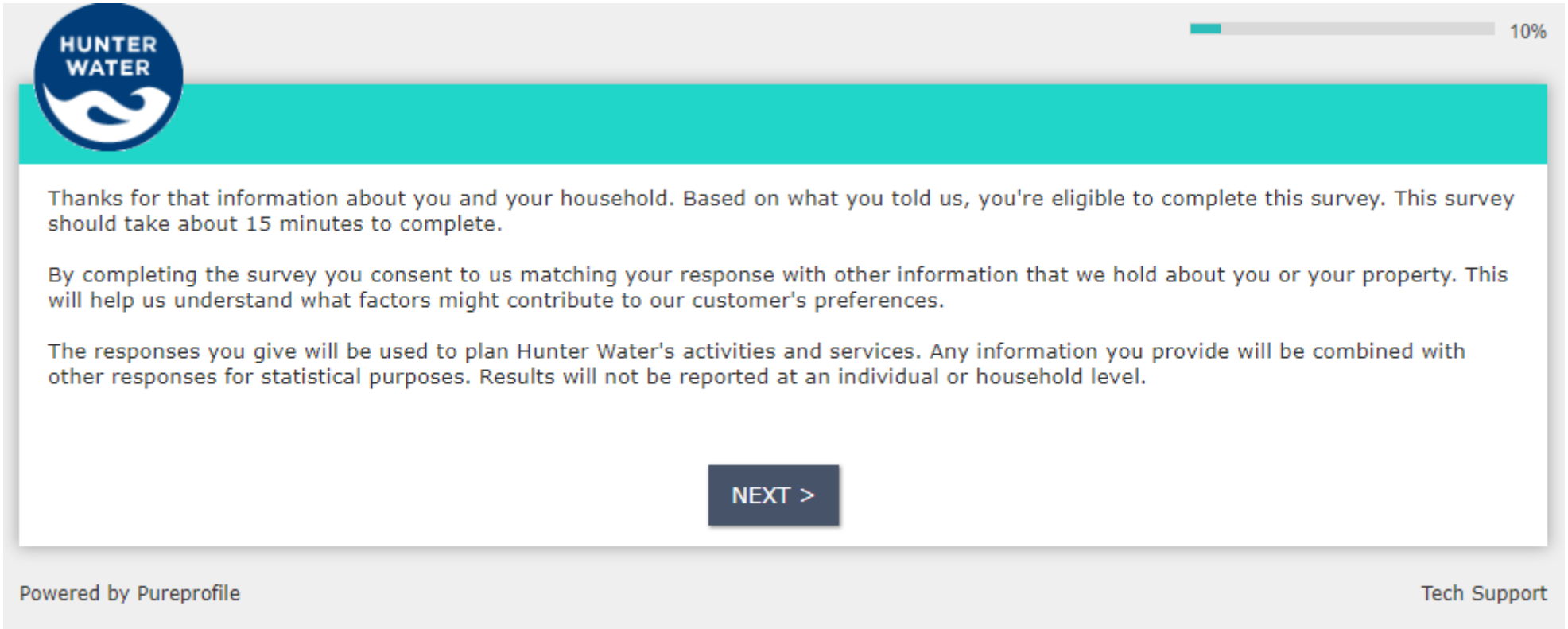
Appendix 5 Survey instrument

[provided separately]

Survey Screenshot


HUNTER WATER
0%
Welcome to our survey
To start with, we have a few quick questions about you and your household to make sure we have a good spread of Hunter Water customers taking part in our survey.
All of your answers are confidential. We will carefully protect your information in line with the NSW Privacy and Personal Information Protection Act 1998 (PPIPA) and Hunter Water's Protection of Customer Information Policy.
In the unlikely event of any technical difficulties please click on the technical support e-mail link.
Please Keep In Mind...
Do not use your Back or Forward browser buttons while you are taking this survey.
Before we go through to the main study we would like to ask you a number of questions to make sure we are interviewing a good cross section of people.
Please click " NEXT > " to start the survey...
NEXT >
Powered by Pureprofile
Tech Support


HUNTER WATER
0%
Do you contribute to paying Hunter Water bills?
Please select one answer
Yes
No
Are you?
Please select one answer
Male
Female
Other
How old are you?
Please select one answer
Between 18 and 24 years
Between 25 and 34 years
Between 35 and 44 years
Between 45 and 54 years


HUNTER WATER
10%
Thanks for that information about you and your household. Based on what you told us, you're eligible to complete this survey. This survey should take about 15 minutes to complete.
By completing the survey you consent to us matching your response with other information that we hold about you or your property. This will help us understand what factors might contribute to our customer's preferences.
The responses you give will be used to plan Hunter Water's activities and services. Any information you provide will be combined with other responses for statistical purposes. Results will not be reported at an individual or household level.
NEXT >
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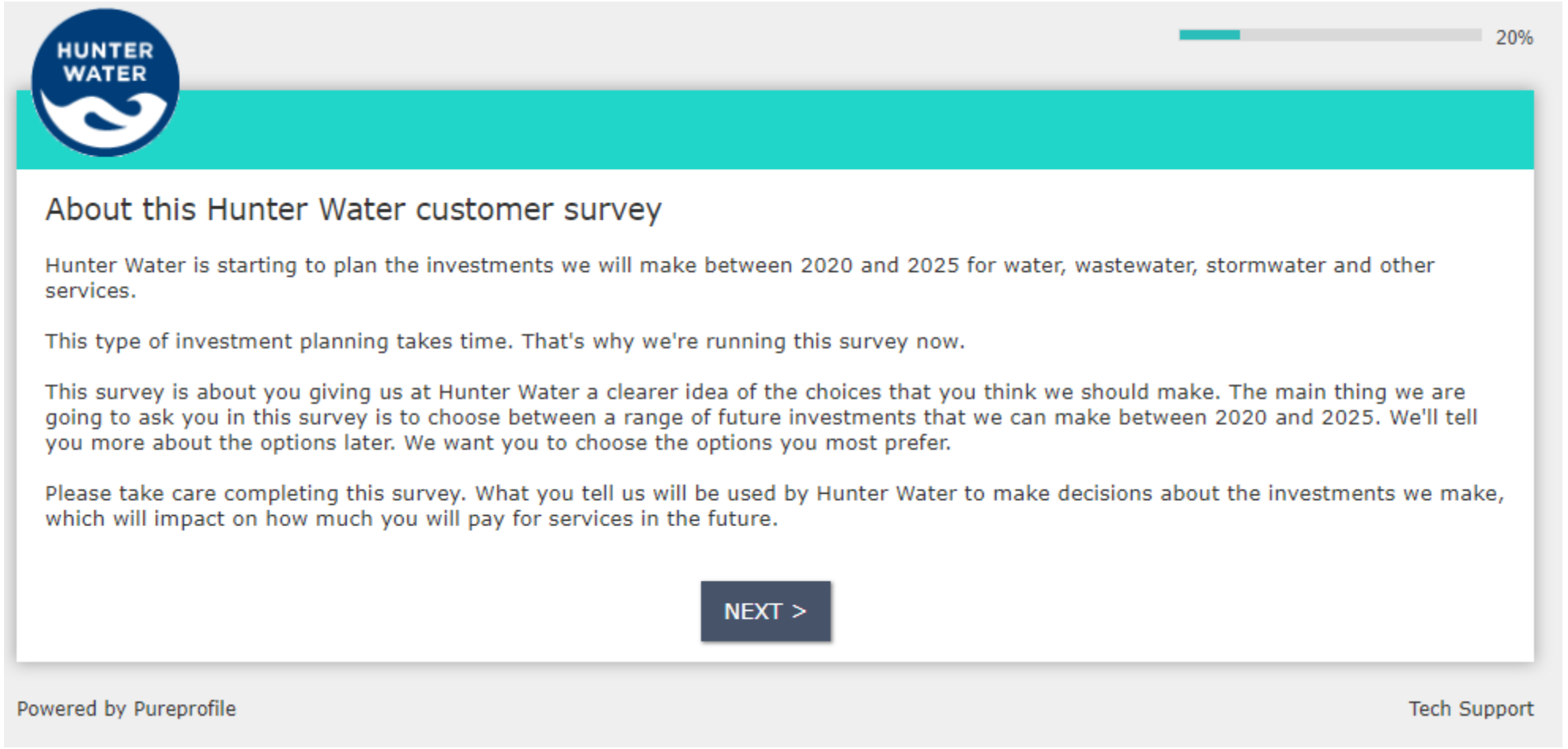
HUNTER WATER
20%
About this Hunter Water customer survey
Hunter Water is starting to plan the investments we will make between 2020 and 2025 for water, wastewater, stormwater and other services.
This type of investment planning takes time. That's why we're running this survey now.
This survey is about you giving us at Hunter Water a clearer idea of the choices that you think we should make. The main thing we are going to ask you in this survey is to choose between a range of future investments that we can make between 2020 and 2025. We'll tell you more about the options later. We want you to choose the options you most prefer.
Please take care completing this survey. What you tell us will be used by Hunter Water to make decisions about the investments we make, which will impact on how much you will pay for services in the future.
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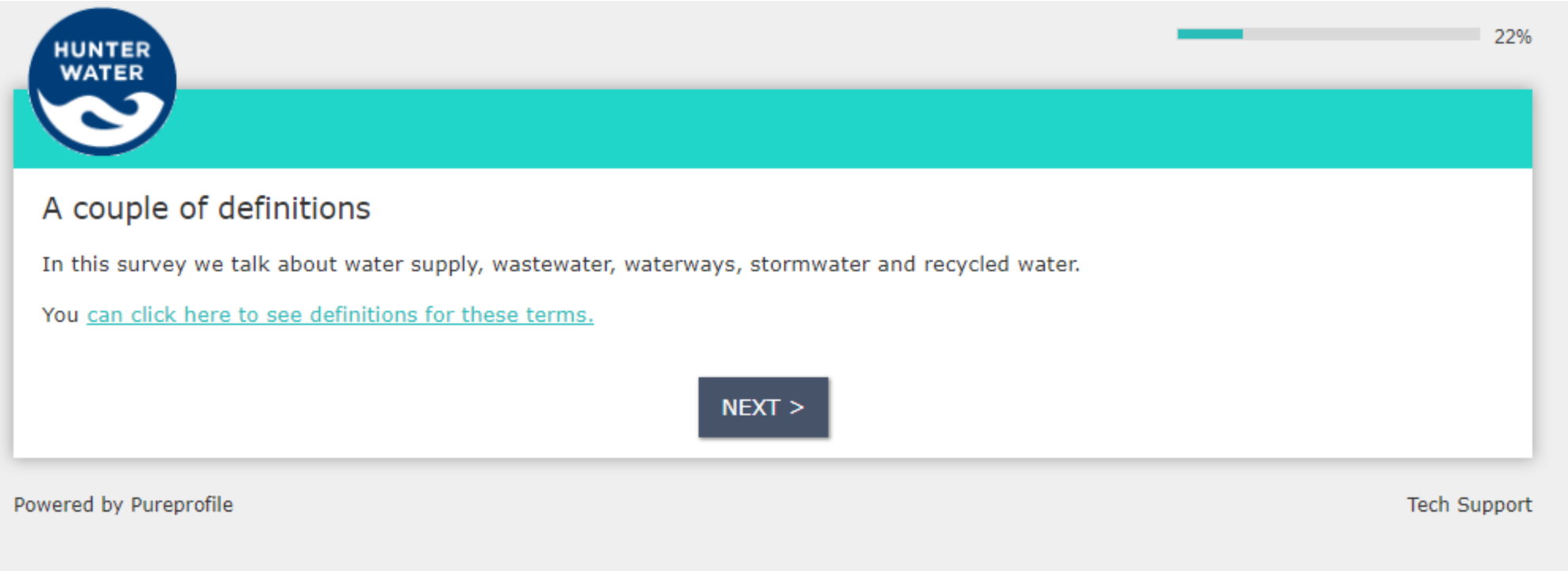
HUNTER WATER
22%
A couple of definitions
In this survey we talk about water supply, wastewater, waterways, stormwater and recycled water.
You can click here to see definitions for these terms.
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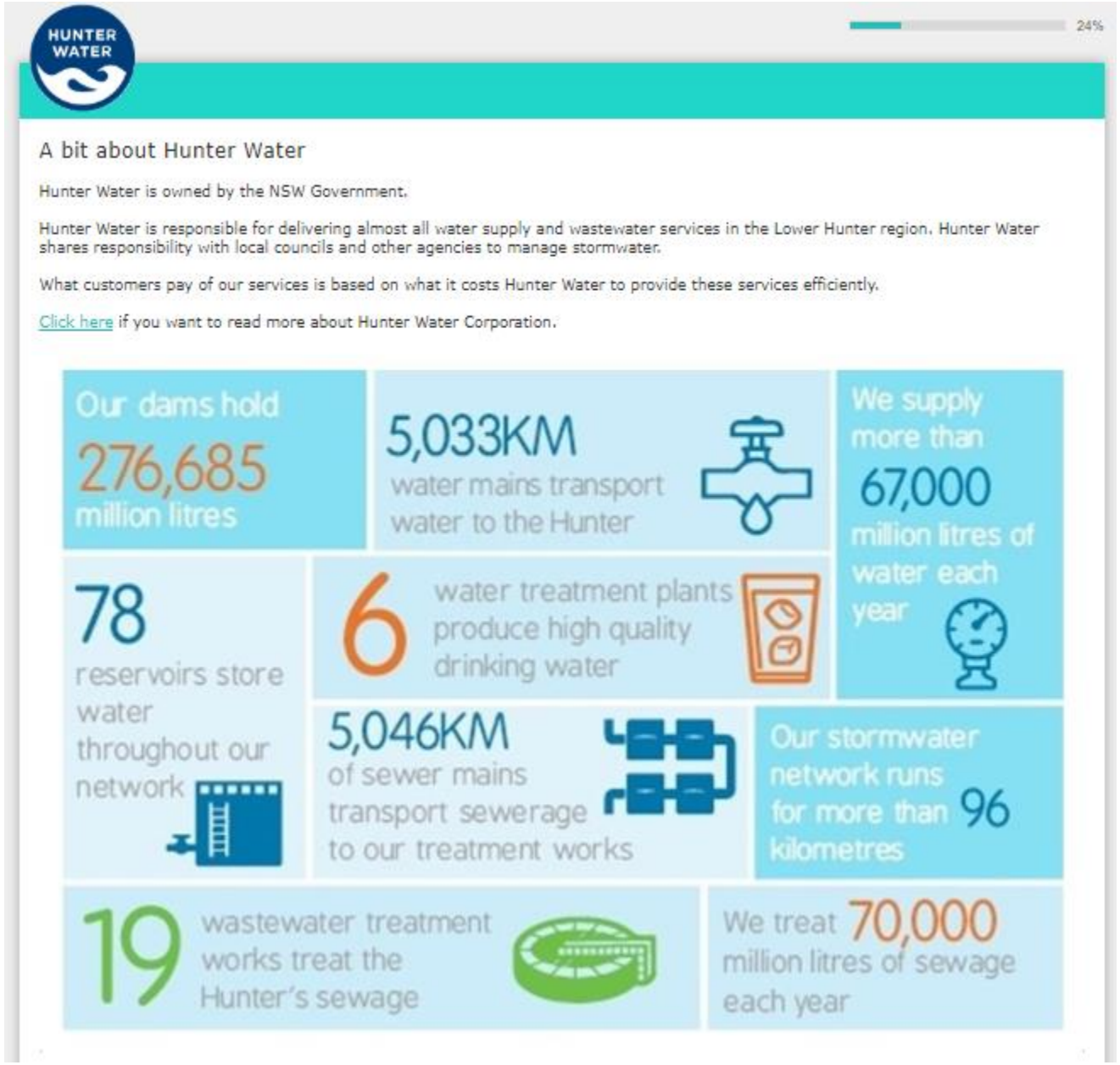
- **Water supply** means treated water supplied by Hunter Water to our customers. It can include water supplied from dams and recycled water.
- **Wastewater** comes from households, commercial premises, schools, hospitals and industry in the Hunter region.
- A **waterway** is a passage for water or a body of water, including all types of permanent and short term streams, rivers, wetlands and bays. This includes all estuaries, foreshores, bays, coastal and marine waters in the Hunter region.
- **Stormwater** is a sudden excessive run-off of water following moderate to heavy rainfall. This runoff is directed to the stormwater system, which is made up of pits, pipes, open channels, detention ponds. In the Hunter region, local councils owns the pit and smaller pipes and are responsible for stormwater in these systems. In some areas, Hunter Water owns the larger pipes and open channels.
- **Recycled water** is wastewater that has been treated such that it is suitable for specific agricultural, industrial or residential applications.


HUNTER WATER
24%
A bit about Hunter Water
Hunter Water is owned by the NSW Government.
Hunter Water is responsible for delivering almost all water supply and wastewater services in the Lower Hunter region. Hunter Water shares responsibility with local councils and other agencies to manage stormwater.
What customers pay of our services is based on what it costs Hunter Water to provide these services efficiently.
Click here if you want to read more about Hunter Water Corporation.
Our dams hold 276,685 million litres
5,033KM water mains transport water to the Hunter
We supply more than 67,000 million litres of water each year
78 reservoirs store water throughout our network
6 water treatment plants produce high quality drinking water
5,046KM of sewer mains transport sewerage to our treatment works
Our stormwater network runs for more than 96 kilometres
19 wastewater treatment works treat the Hunter's sewage
We treat 70,000 million litres of sewage each year

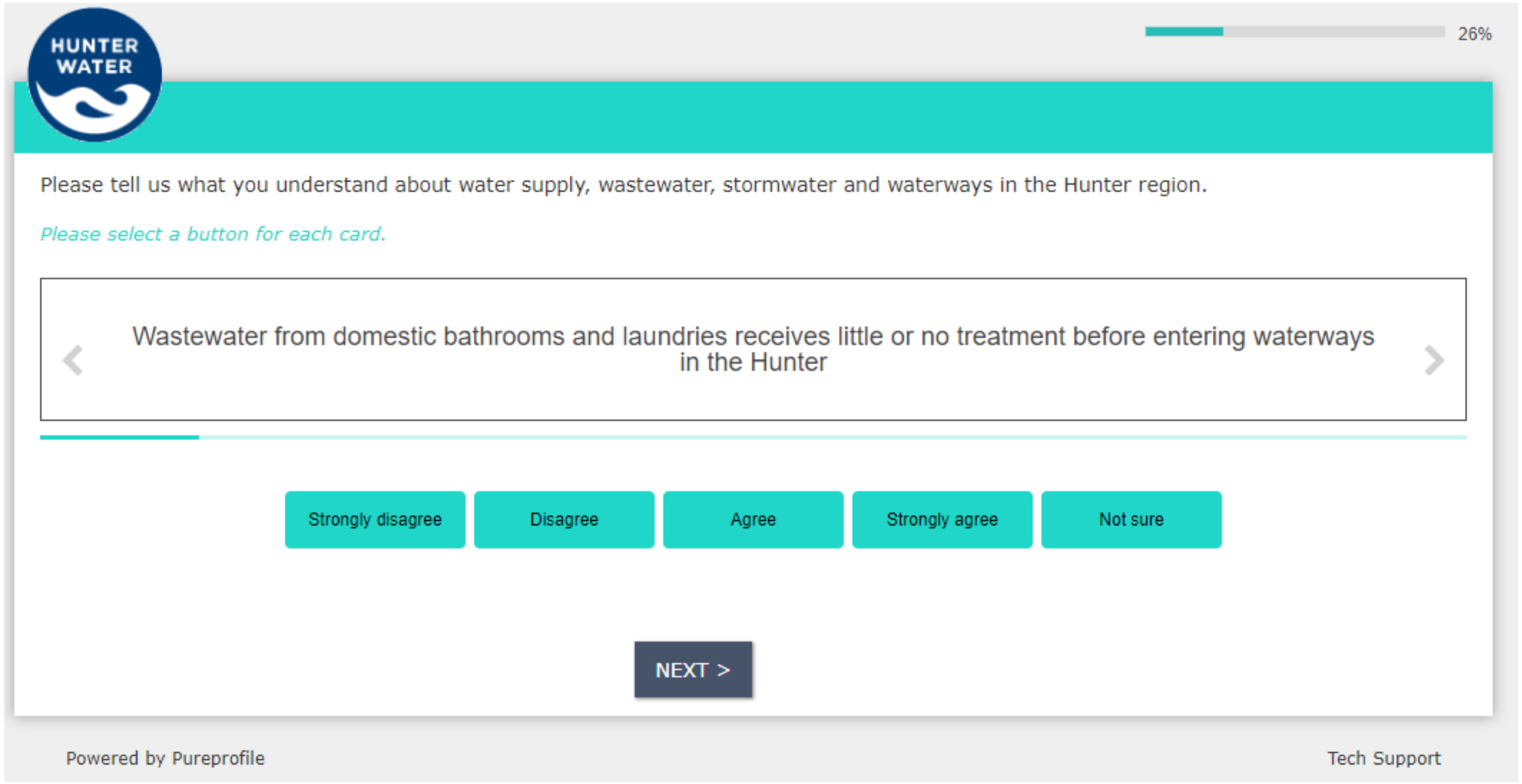
Hunter Water is owned by the NSW Government.

Hunter Water customers pay for the water supply, wastewater and stormwater drainage infrastructure and services that we provide. What customers pay is based on what it costs Hunter Water to provide these services efficiently.

Hunter Water is responsible for delivering almost all water supply and wastewater services in the Lower Hunter region.

The Independent Pricing and Regulatory Tribunal (IPART) sets and regularly reviews our prices. IPART provides independent regulatory decisions and advice to protect the ongoing interests of the consumers, taxpayers and citizens of NSW. Prices will next be reset on 1 July 2020.

As a Hunter Water customer, you receive three bills each year, each one covering a period of four months.


HUNTER WATER
26%
Please tell us what you understand about water supply, wastewater, stormwater and waterways in the Hunter region.
Please select a button for each card.
Wastewater from domestic bathrooms and laundries receives little or no treatment before entering waterways in the Hunter
Strongly disagree
Disagree
Agree
Strongly agree
Not sure
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Flash cards display in the centre for each statement below.

Stormwater from roofs and roads is treated to remove pollutants before entering the waterways

Domestic wastewater and stormwater are carried through the same pipes

Waterways can be damaged by stormwater flows

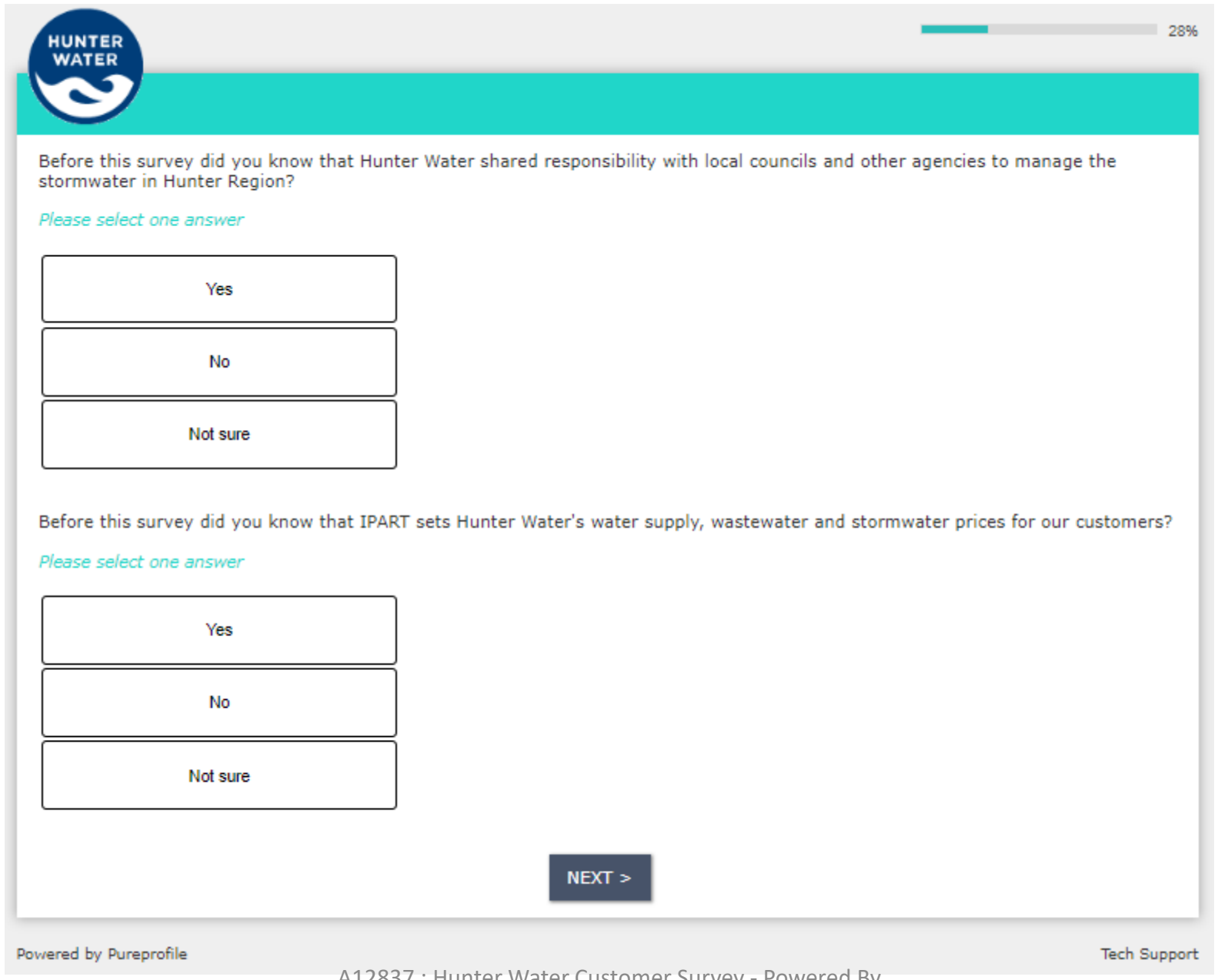
Recycled water is sometimes used for irrigating public open spaces like playing fields

Recycled water and drinking water are carried through the same pipes

Waterways can cope easily with large amounts of sediment (i.e., eroded soil suspended in the water)

Recycled water is used for drinking supply

Recycled water provided by Hunter Water includes harvested stormwater and wastewater


HUNTER WATER
28%
Before this survey did you know that Hunter Water shared responsibility with local councils and other agencies to manage the stormwater in Hunter Region?
Please select one answer
Yes
No
Not sure
Before this survey did you know that IPART sets Hunter Water's water supply, wastewater and stormwater prices for our customers?
Please select one answer
Yes
No
Not sure
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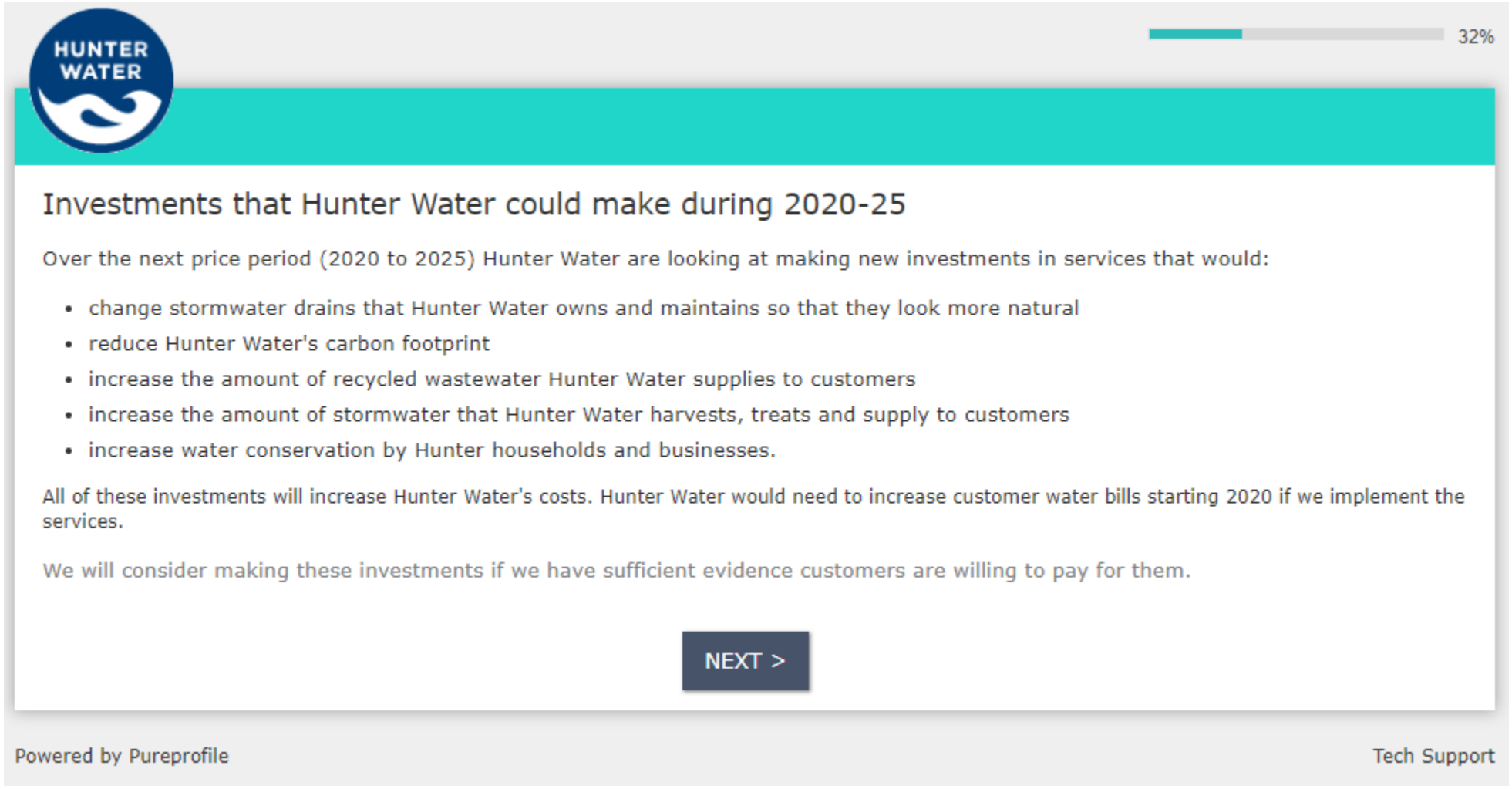
HUNTER WATER
32%
Investments that Hunter Water could make during 2020-25
Over the next price period (2020 to 2025) Hunter Water are looking at making new investments in services that would:
• change stormwater drains that Hunter Water owns and maintains so that they look more natural
• reduce Hunter Water's carbon footprint
• increase the amount of recycled wastewater Hunter Water supplies to customers
• increase the amount of stormwater that Hunter Water harvests, treats and supply to customers
• increase water conservation by Hunter households and businesses.
All of these investments will increase Hunter Water's costs. Hunter Water would need to increase customer water bills starting 2020 if we implement the services.
We will consider making these investments if we have sufficient evidence customers are willing to pay for them.
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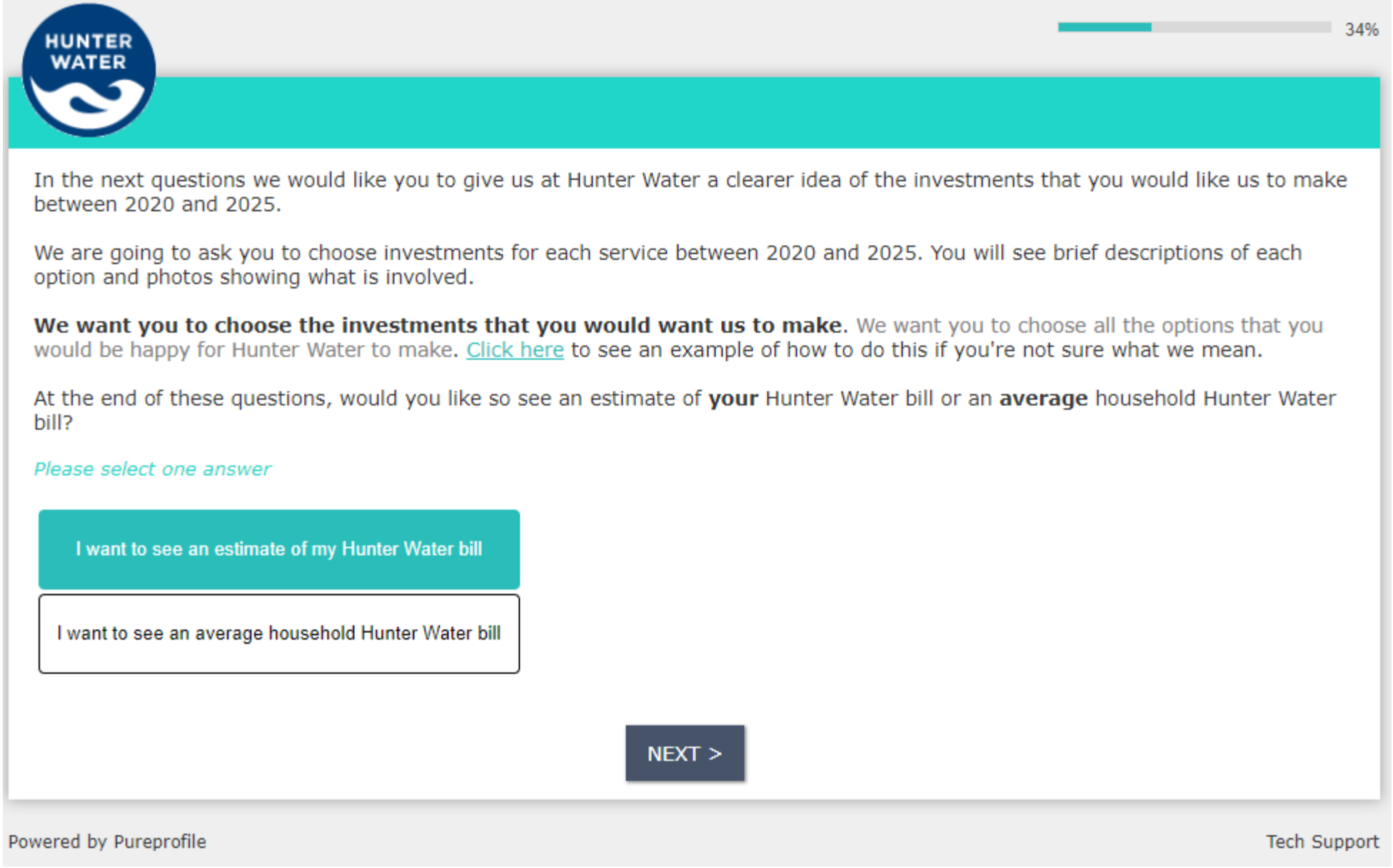
HUNTER WATER
34%
In the next questions we would like you to give us at Hunter Water a clearer idea of the investments that you would like us to make between 2020 and 2025.
We are going to ask you to choose investments for each service between 2020 and 2025. You will see brief descriptions of each option and photos showing what is involved.
We want you to choose the investments that you would want us to make. We want you to choose all the options that you would be happy for Hunter Water to make. Click here to see an example of how to do this if you're not sure what we mean.
At the end of these questions, would you like so see an estimate of your Hunter Water bill or an average household Hunter Water bill?
Please select one answer
I want to see an estimate of my Hunter Water bill
I want to see an average household Hunter Water bill
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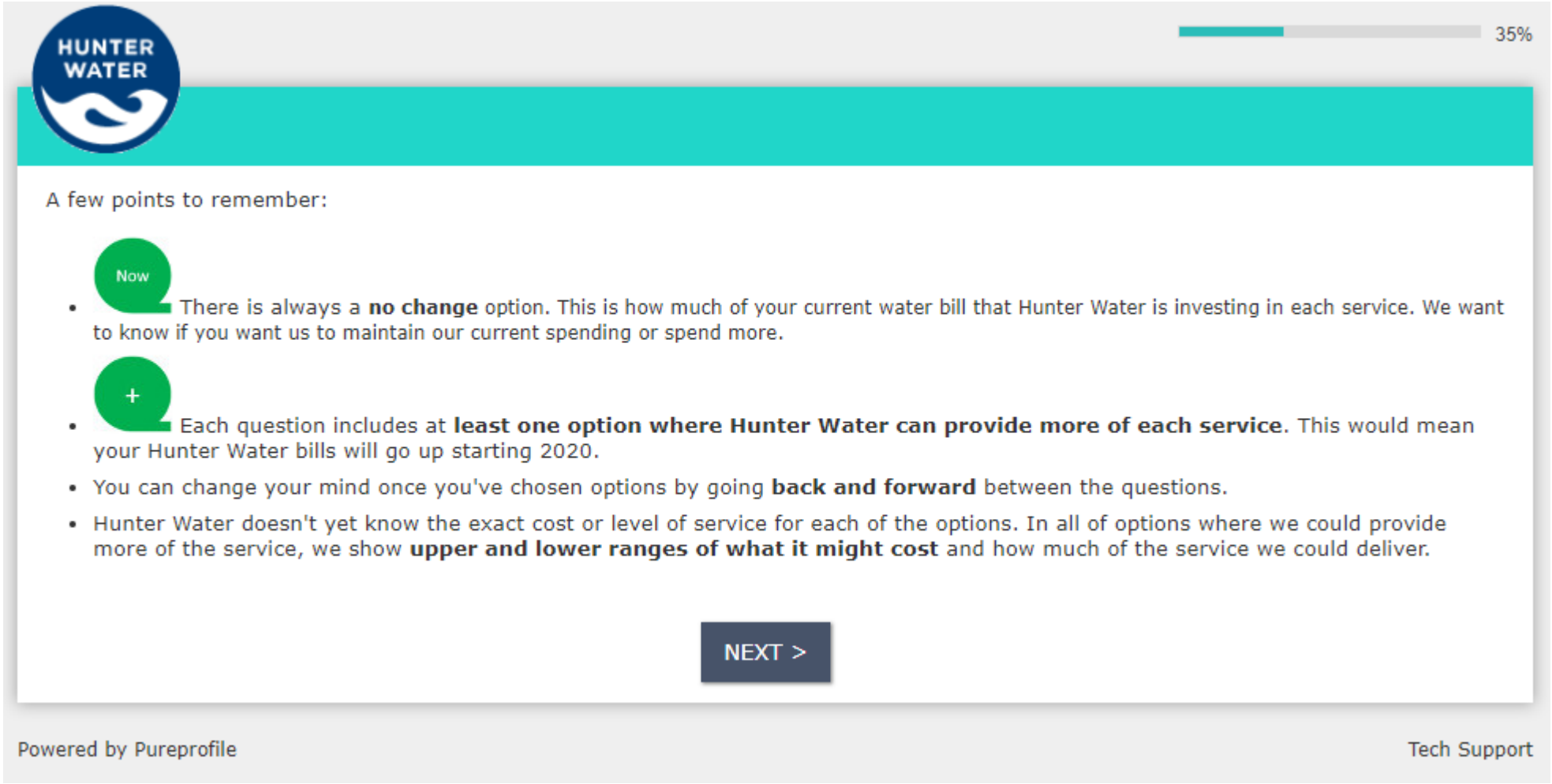
HUNTER WATER
35%
A few points to remember:
Now
There is always a **no change** option. This is how much of your current water bill that Hunter Water is investing in each service. We want to know if you want us to maintain our current spending or spend more.
+
Each question includes at **least one option where Hunter Water can provide more of each service**. This would mean your Hunter Water bills will go up starting 2020.
You can change your mind once you've chosen options by going **back and forward** between the questions.
Hunter Water doesn't yet know the exact cost or level of service for each of the options. In all of options where we could provide more of the service, we show **upper and lower ranges of what it might cost** and how much of the service we could deliver.
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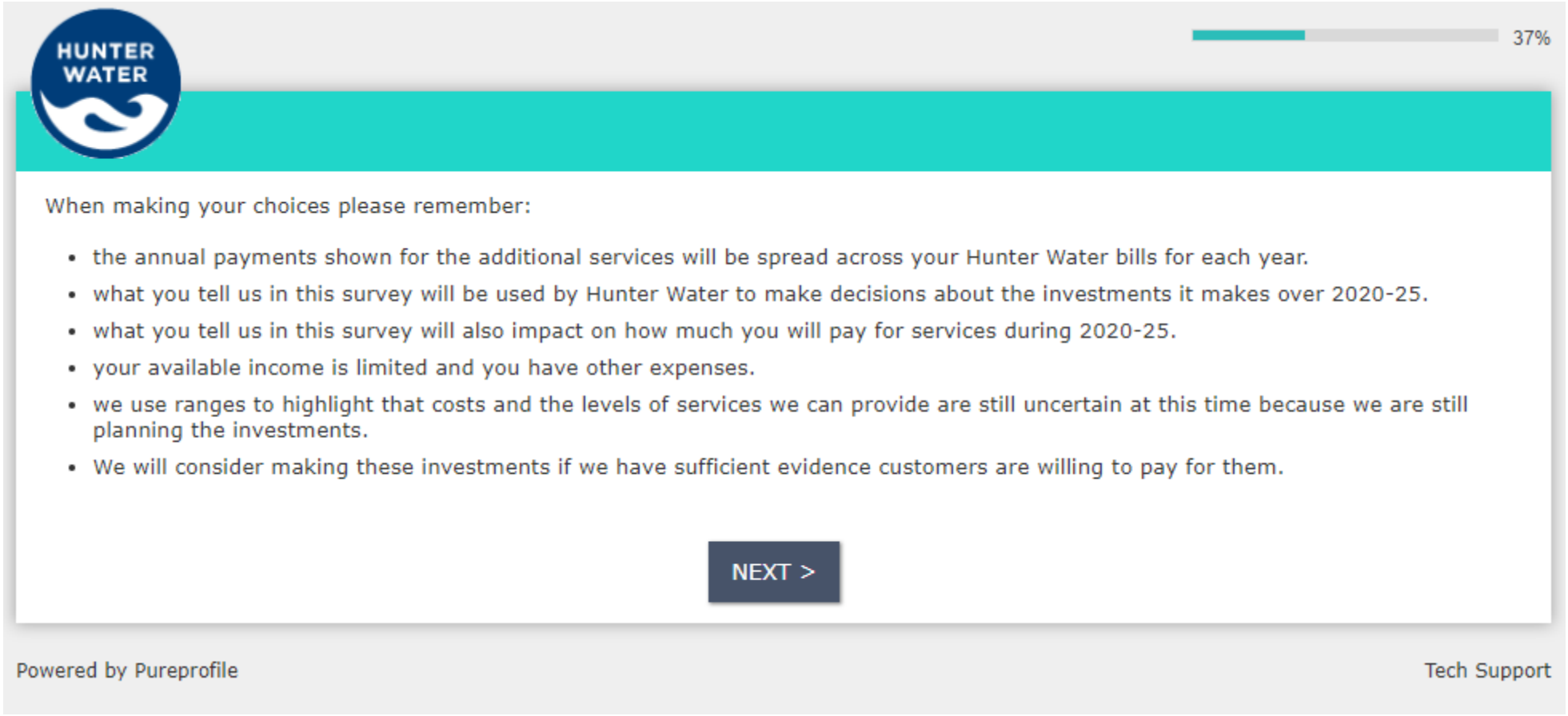
HUNTER WATER
37%
When making your choices please remember:
• the annual payments shown for the additional services will be spread across your Hunter Water bills for each year.
• what you tell us in this survey will be used by Hunter Water to make decisions about the investments it makes over 2020-25.
• what you tell us in this survey will also impact on how much you will pay for services during 2020-25.
• your available income is limited and you have other expenses.
• we use ranges to highlight that costs and the levels of services we can provide are still uncertain at this time because we are still planning the investments.
• We will consider making these investments if we have sufficient evidence customers are willing to pay for them.
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Bankwork and landscaping of Hunter Water's open stormwater drains

Hunter Water owns and maintains 50 kilometres of open stormwater drains. We also manage stormwater in cooperation with Newcastle, Lake Macquarie and Cessnock Councils.

Our stormwater system directs rainwater and surface run-off to creeks, rivers, lakes and the ocean.

At the moment, about 90% (45 kilometers) of Hunter Water's open stormwater drains are concrete lined. Y ou can see where Hunter Water's stormwater drains are located on a map by clicking here for Newcastle, here for Cessnock, and here for Lake Macquarie.

Hunter Water can change the way stormwater drains look in Newcastle, Cessnock and Lake Macquarie by doing things like:

- adding plants on banks at the sides of drains
- removing and replacing concrete walls with natural materials and plants.

The pictures below show what this can look like before and after.

Hunter Water thinks bankwork and landscaping around stormwater channels can improve amenity, increase property values near the channel, and create a connection with the waterway that can improve liveability.

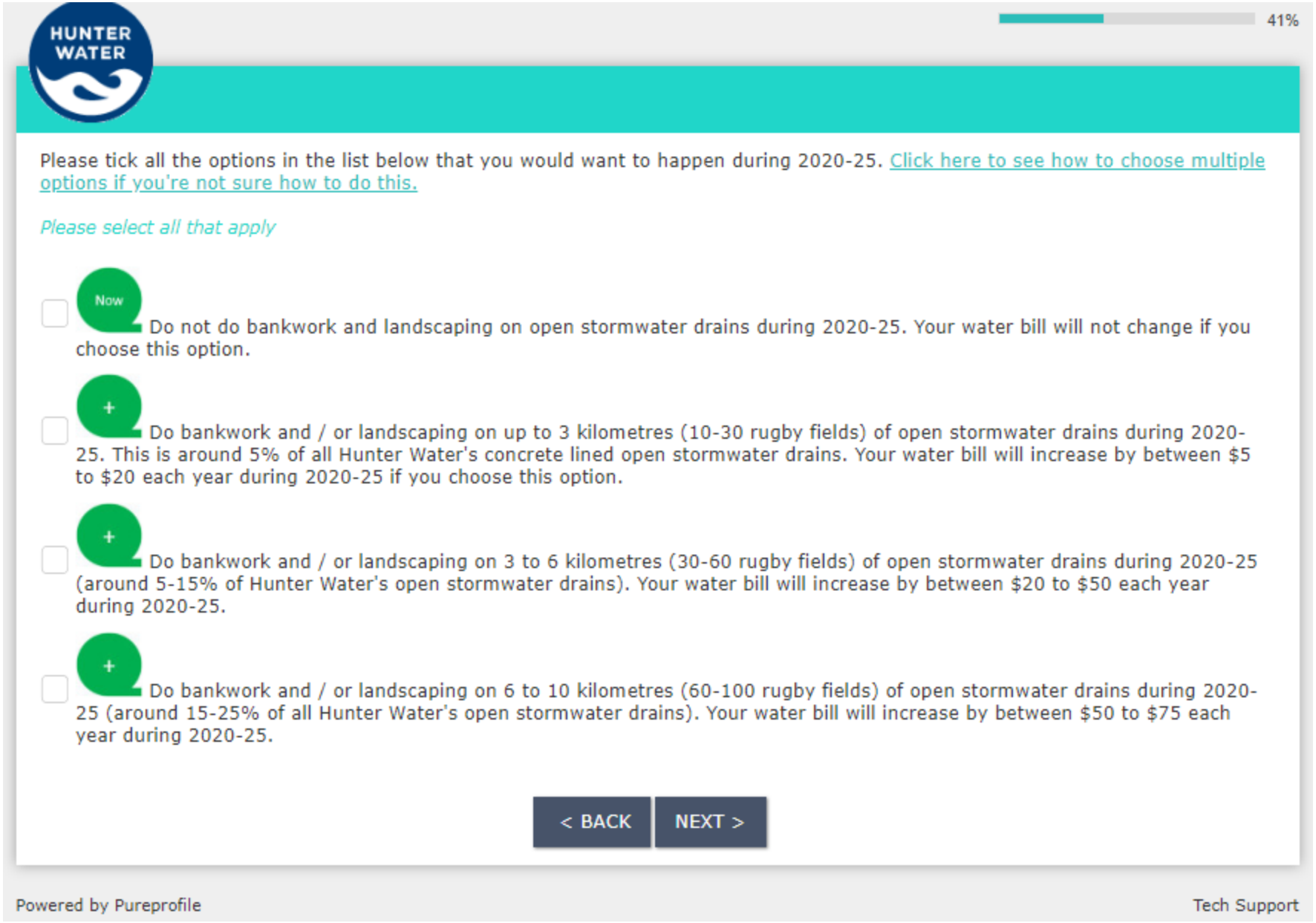
Hunter Water wants to know if you want us to make these types of changes to some of our open stormwater drains during 2020-25.

Before – steep concrete banks

Immediately after -less steep sandstone lined banks with new seedlings

A few years after - plants along bank have grown

The above three images are courtesy of Sydney Water.


HUNTER WATER
41%
Please tick all the options in the list below that you would want to happen during 2020-25. Click here to see how to choose multiple options if you're not sure how to do this.
Please select all that apply
Now
Do not do bankwork and landscaping on open stormwater drains during 2020-25. Your water bill will not change if you choose this option.
+
Do bankwork and / or landscaping on up to 3 kilometres (10-30 rugby fields) of open stormwater drains during 2020-25. This is around 5% of all Hunter Water's concrete lined open stormwater drains. Your water bill will increase by between $5 to $20 each year during 2020-25 if you choose this option.
+
Do bankwork and / or landscaping on 3 to 6 kilometres (30-60 rugby fields) of open stormwater drains during 2020-25 (around 5-15% of Hunter Water's open stormwater drains). Your water bill will increase by between $20 to $50 each year during 2020-25.
+
Do bankwork and / or landscaping on 6 to 10 kilometres (60-100 rugby fields) of open stormwater drains during 2020-25 (around 15-25% of all Hunter Water's open stormwater drains). Your water bill will increase by between $50 to $75 each year during 2020-25.
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Reducing Hunter Water's carbon footprint

The treatment and transportation of water and wastewater requires large amounts of energy. This means Hunter Water produces a lot of carbon dioxide. Carbon dioxide is the major source of emissions contributing to climate change.

In 2016-17 Hunter Water produced about the same amount of carbon dioxide as 19,500 cars.

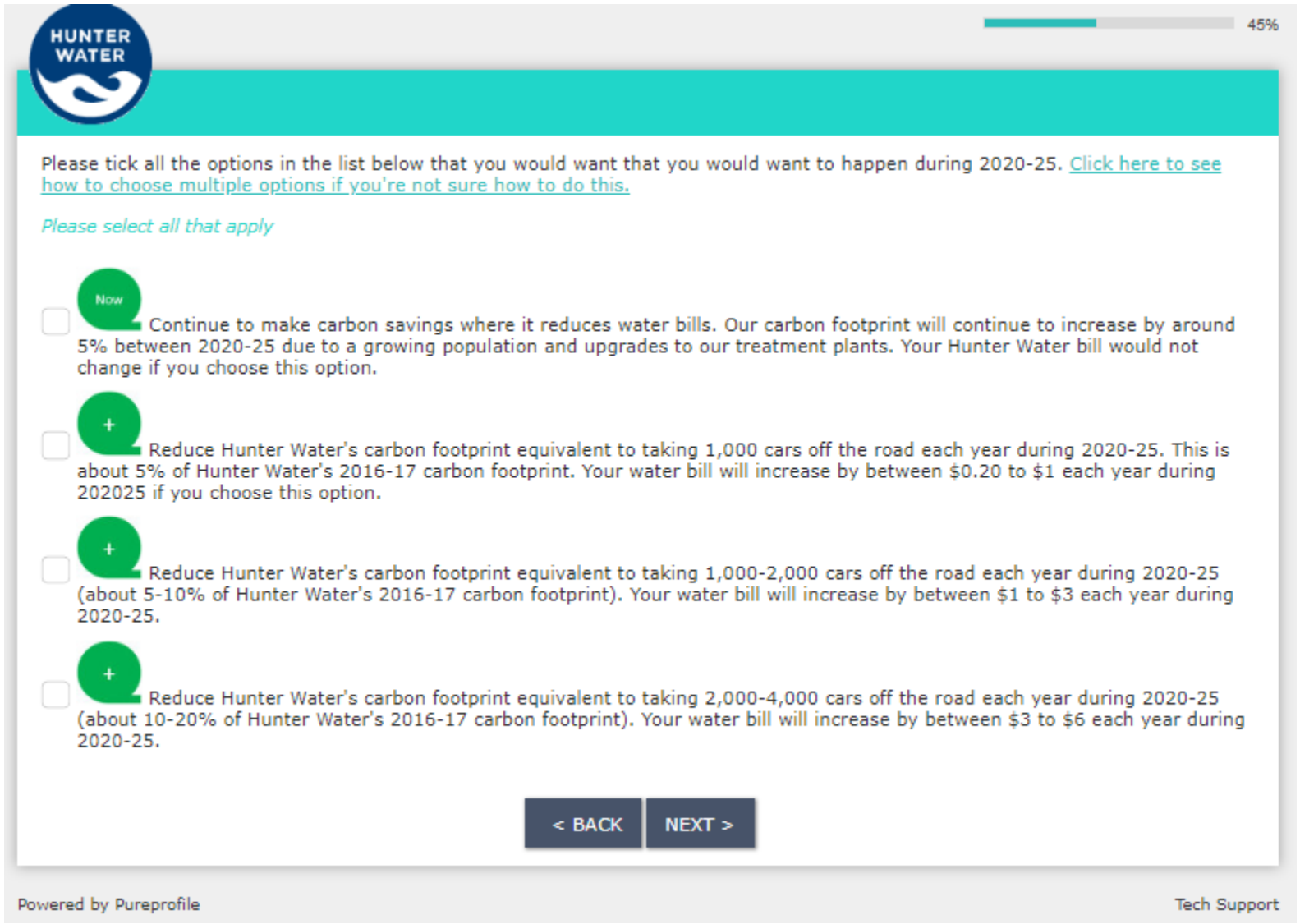
In the future, Hunter Water will make investments in energy efficiency that reduce our electricity costs. If we do this, our carbon footprint will continue to increase by around 5% (equivalent to putting 900 more cars on the road) during 2020-25 due to a growing population and upgrades to our treatment plants.

Hunter Water can also make investments that directly aim to reduce our carbon footprint. These investments cost Hunter Water more, and therefore your water bills would increase.

Examples of projects that will cost Hunter Water more and will reduce our carbon footprint might include during 2020-25:

- Generating renewable energy at Hunter Water sites
- Purchasing renewable energy or carbon credits
- Making investments that reduce our carbon footprint directly (such as tree planting or moving to a low emissions fleet).

Hunter Water wants to know if you want us to reduce our carbon footprint during 2020-25.


HUNTER WATER
45%
Please tick all the options in the list below that you would want that you would want to happen during 2020-25. Click here to see how to choose multiple options if you're not sure how to do this.
Please select all that apply
Now
Continue to make carbon savings where it reduces water bills. Our carbon footprint will continue to increase by around 5% between 2020-25 due to a growing population and upgrades to our treatment plants. Your Hunter Water bill would not change if you choose this option.
+
Reduce Hunter Water's carbon footprint equivalent to taking 1,000 cars off the road each year during 2020-25. This is about 5% of Hunter Water's 2016-17 carbon footprint. Your water bill will increase by between $0.20 to $1 each year during 202025 if you choose this option.
+
Reduce Hunter Water's carbon footprint equivalent to taking 1,000-2,000 cars off the road each year during 2020-25 (about 5-10% of Hunter Water's 2016-17 carbon footprint). Your water bill will increase by between $1 to $3 each year during 2020-25.
+
Reduce Hunter Water's carbon footprint equivalent to taking 2,000-4,000 cars off the road each year during 2020-25 (about 10-20% of Hunter Water's 2016-17 carbon footprint). Your water bill will increase by between $3 to $6 each year during 2020-25.
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47%

Increasing Hunter Water's stormwater harvesting

Stormwater harvesting involves collecting and cleaning stormwater, and then using this water for watering parks and sports grounds to keep them green. Stormwater harvesting can conserve drinking water and reduces how much stormwater enters our waterways.

To learn more about stormwater harvesting systems work, you can watch the short video below about the Fitzroy Gardens Stormwater Harvesting System in Melbourne.

Hunter Water thinks stormwater harvesting can lead to more green spaces, better playing surfaces and better water security during drought periods.

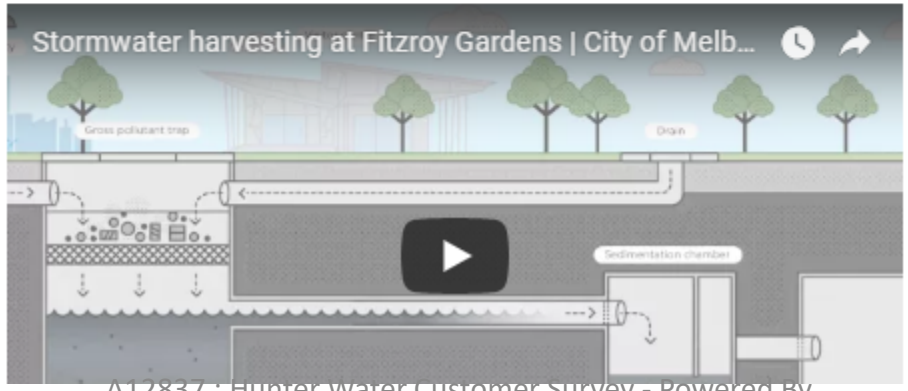
Currently there are a few very small stormwater harvesting schemes in the Hunter. Hunter Water have identified where stormwater could be harvested and then used by Councils for irrigation. Stormwater harvesting could start at these sites during 2020-25.

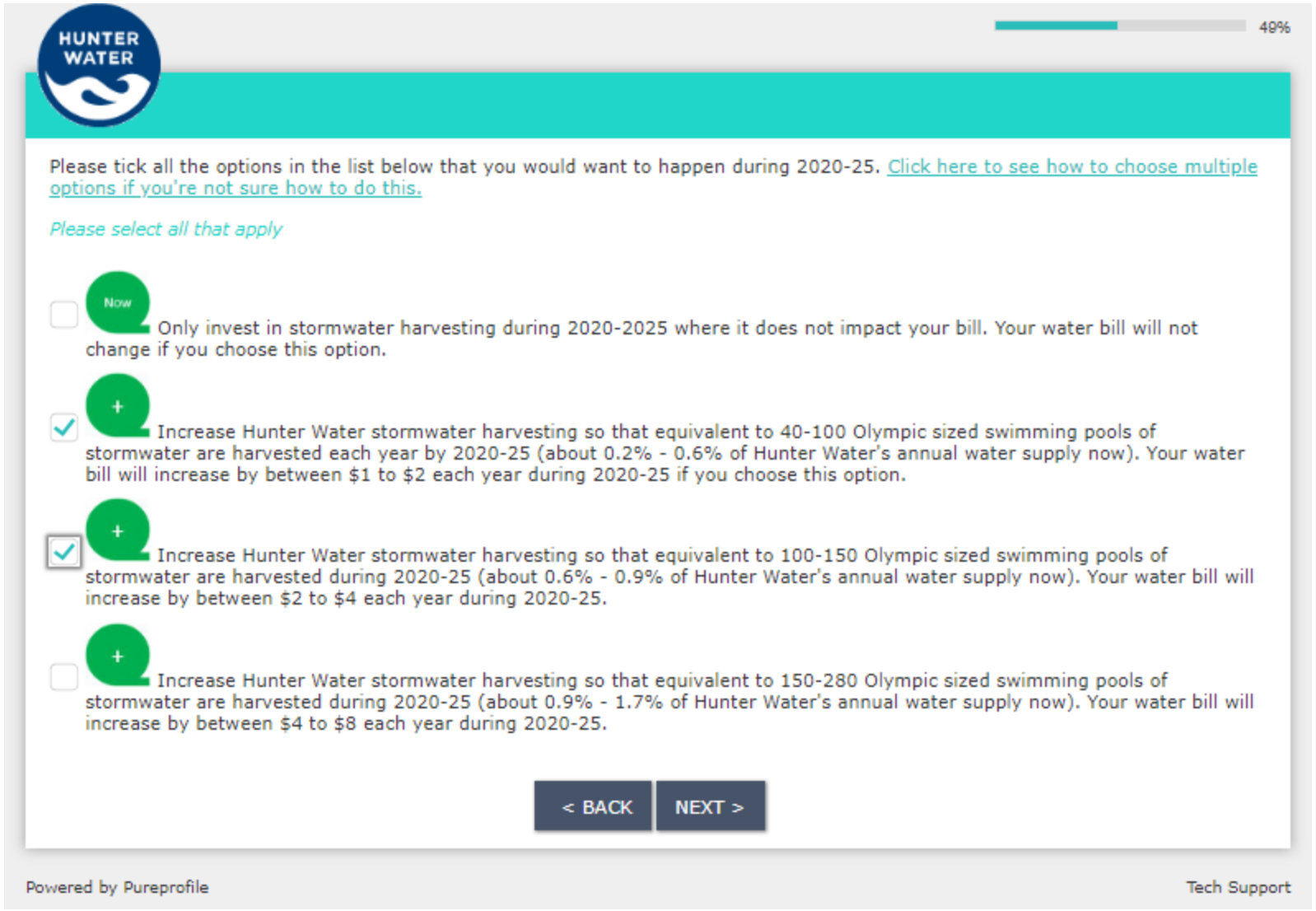
In the future, Hunter Water will make investments in stormwater harvesting when it is cheaper to supply harvested stormwater than drinking water from our dams.

For most stormwater harvesting projects, it will cost Hunter Water more than the cost of supplying drinking water to make these investments. However, the additional cost of stormwater harvesting gives a benefit because stormwater harvesting can save drinking water and can help keep Hunter waterways healthy.

Hunter Water wants to know if you want us to increase our stormwater harvesting during 2020-25, if it costs more than drinking water.

Click the "play" button to start the video.




HUNTER WATER
49%
Please tick all the options in the list below that you would want to happen during 2020-25. Click here to see how to choose multiple options if you're not sure how to do this.
Please select all that apply
Now
Only invest in stormwater harvesting during 2020-2025 where it does not impact your bill. Your water bill will not change if you choose this option.
+
Increase Hunter Water stormwater harvesting so that equivalent to 40-100 Olympic sized swimming pools of stormwater are harvested each year by 2020-25 (about 0.2% - 0.6% of Hunter Water's annual water supply now). Your water bill will increase by between $1 to $2 each year during 2020-25 if you choose this option.
+
Increase Hunter Water stormwater harvesting so that equivalent to 100-150 Olympic sized swimming pools of stormwater are harvested during 2020-25 (about 0.6% - 0.9% of Hunter Water's annual water supply now). Your water bill will increase by between $2 to $4 each year during 2020-25.
+
Increase Hunter Water stormwater harvesting so that equivalent to 150-280 Olympic sized swimming pools of stormwater are harvested during 2020-25 (about 0.9% - 1.7% of Hunter Water's annual water supply now). Your water bill will increase by between $4 to $8 each year during 2020-25.
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Increasing Hunter Water's wastewater recycling for business and industry

Hunter Water operates wastewater treatment works (WWTWs). These WWTWs treat the equivalent of around 26,000 Olympic pools of wastewater each year. Following treatment, water is discharged from these treatment plants to waterways, Hunter estuary and the ocean in accordance with Environment Protection Authority (EPA) licenses. Wastewater released into Hunter waterways is safe for human contact.

Hunter Water turns about 1,000 Olympic pools worth of wastewater into recycled water each year and supplies it to businesses and industry in the Hunter. That's about 4% of our total water supply. All Hunter Water recycled water is treated so that it is safe for human contact.

Used as intended, recycled water:

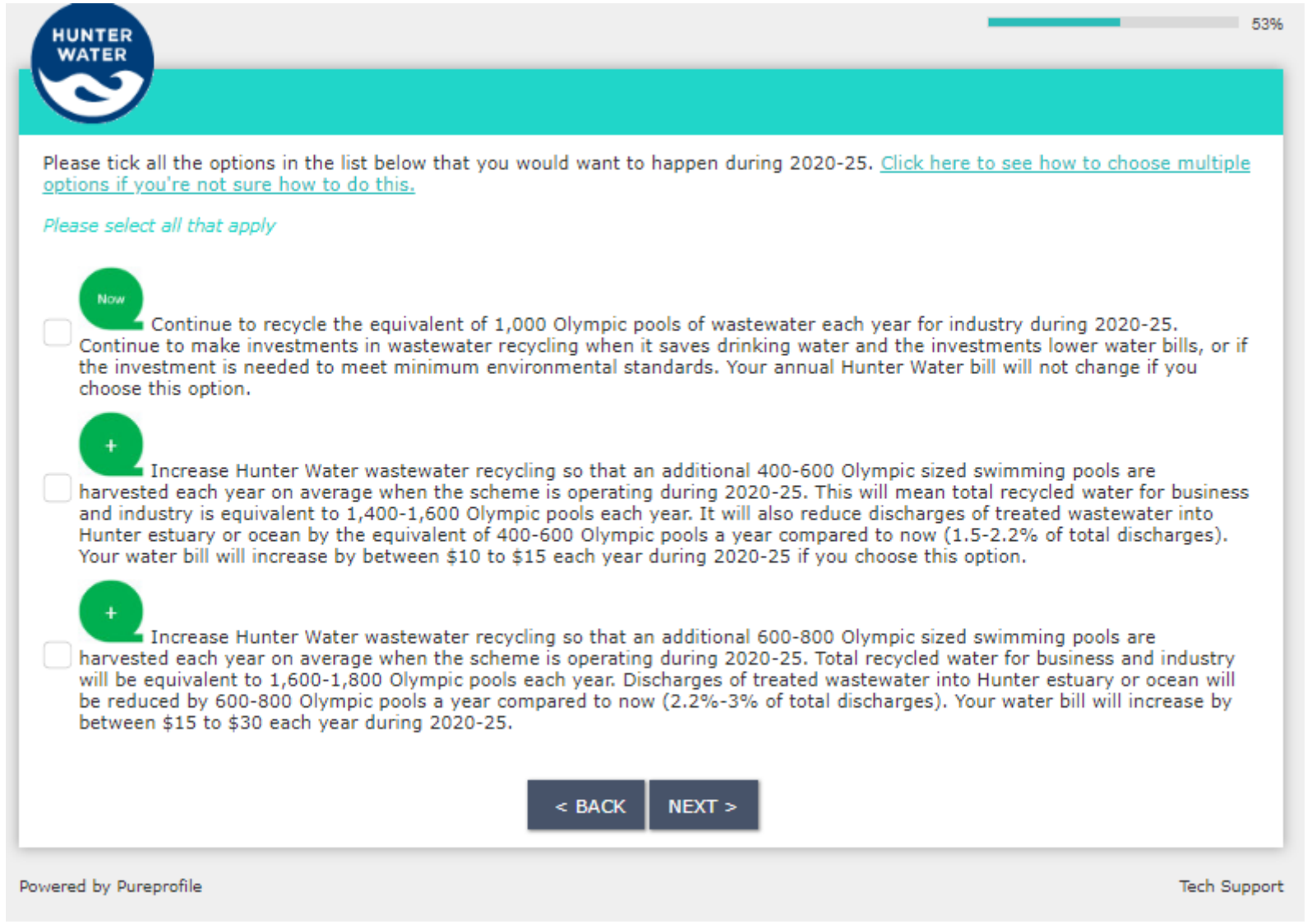
- reduces the amount of water we use from our dams
- provides a secure water source even in drought conditions because it is not reliant on rainfall
- reduces the amount of treated discharge from wastewater treatment works into Hunter estuary and the ocean.

Hunter Water will continue to invest in wastewater recycling schemes when they cost less than drinking water, or when it is the best way to meet environmental standards for treated discharges from wastewater treatment works.

Hunter Water has identified several businesses that could use recycled water, which would save drinking water supplies while reducing the amount of effluent discharged to local waterways. We can start providing recycled water at these sites during 2020-25.

These recycling schemes will cost more to operate than water provided from dams. This means to implement these schemes we would have to increase water bills.

Hunter Water wants to know if you want us to make these additional investments to increase our wastewater recycling during 2020-25.


HUNTER WATER
53%
Please tick all the options in the list below that you would want to happen during 2020-25. Click here to see how to choose multiple options if you're not sure how to do this.
Please select all that apply
Now
Continue to recycle the equivalent of 1,000 Olympic pools of wastewater each year for industry during 2020-25. Continue to make investments in wastewater recycling when it saves drinking water and the investments lower water bills, or if the investment is needed to meet minimum environmental standards. Your annual Hunter Water bill will not change if you choose this option.
+
Increase Hunter Water wastewater recycling so that an additional 400-600 Olympic sized swimming pools are harvested each year on average when the scheme is operating during 2020-25. This will mean total recycled water for business and industry is equivalent to 1,400-1,600 Olympic pools each year. It will also reduce discharges of treated wastewater into Hunter estuary or ocean by the equivalent of 400-600 Olympic pools a year compared to now (1.5-2.2% of total discharges). Your water bill will increase by between $10 to $15 each year during 2020-25 if you choose this option.
+
Increase Hunter Water wastewater recycling so that an additional 600-800 Olympic sized swimming pools are harvested each year on average when the scheme is operating during 2020-25. Total recycled water for business and industry will be equivalent to 1,600-1,800 Olympic pools each year. Discharges of treated wastewater into Hunter estuary or ocean will be reduced by 600-800 Olympic pools a year compared to now (2.2%-3% of total discharges). Your water bill will increase by between $15 to $30 each year during 2020-25.
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55%

Increasing Hunter Water's wastewater recycling for irrigation

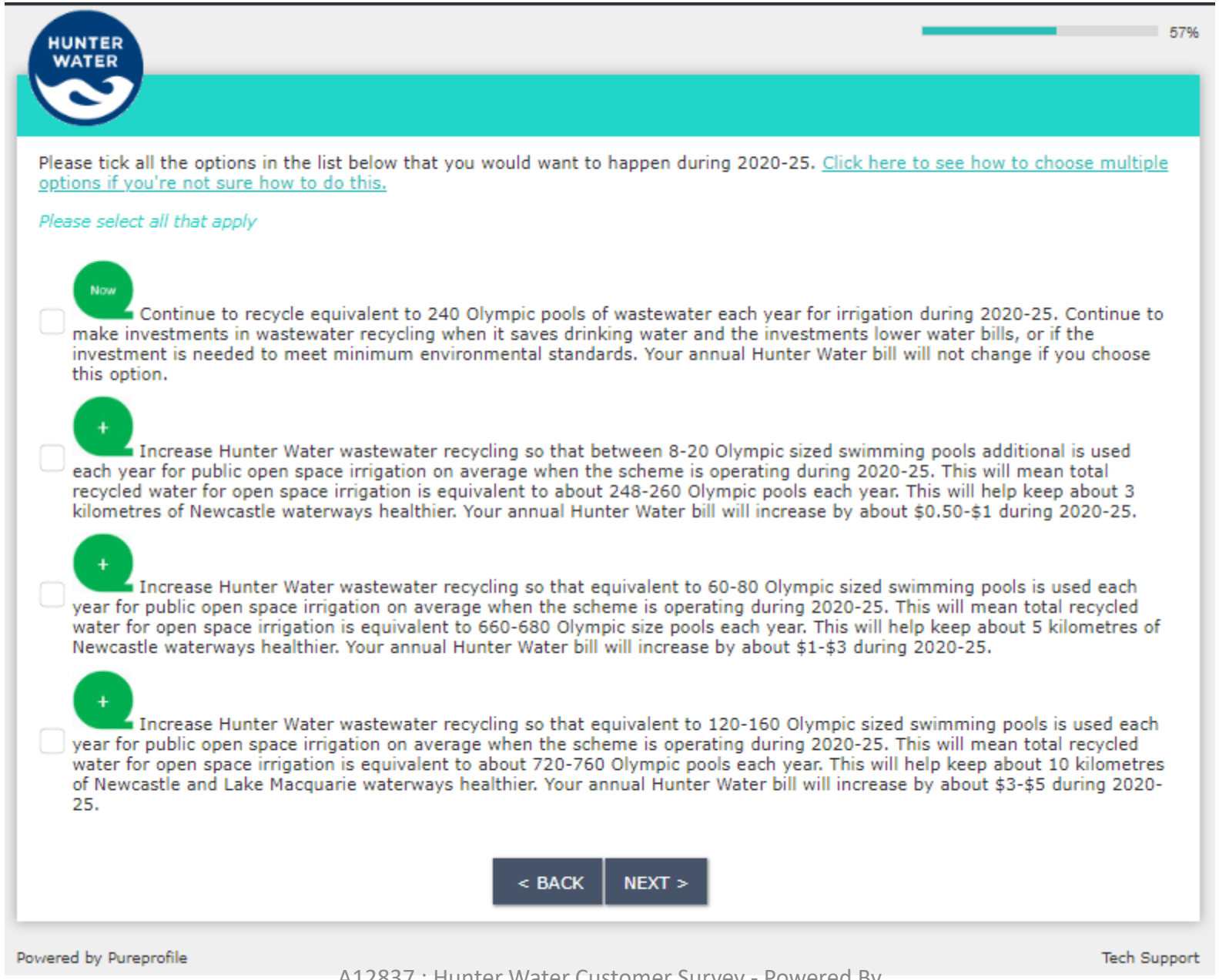
Hunter Water turns about 240 Olympic pools of wastewater into recycled water each year and supplies it to Council for irrigation of parks, sporting grounds and gardens in the Hunter region. That's about 1% of our total water supply. All Hunter Water recycled water is treated so that it is safe for human contact.

Hunter Water will continue to invest in wastewater recycling schemes for irrigation when they cost less than drinking water, or when it is the best way to meet environmental standards for treated discharges from wastewater treatment works.

Hunter Water has identified several parks and sporting fields that could use recycled water, which would save drinking water supplies while reducing the amount of effluent discharged to local waterways. These parks and sporting fields are in Newcastle and Lake Macquarie. We can start providing recycled water at these sites during 2020-25.

These recycling schemes will cost more to operate than water provided from dams. This means to implement these schemes we would have to increase water bills.

Hunter Water wants to know if you want us to make these additional investments to increase our wastewater recycling during 2020-25.


HUNTER WATER
57%
Please tick all the options in the list below that you would want to happen during 2020-25. Click here to see how to choose multiple options if you're not sure how to do this.
Please select all that apply
Now
Continue to recycle equivalent to 240 Olympic pools of wastewater each year for irrigation during 2020-25. Continue to make investments in wastewater recycling when it saves drinking water and the investments lower water bills, or if the investment is needed to meet minimum environmental standards. Your annual Hunter Water bill will not change if you choose this option.
+
Increase Hunter Water wastewater recycling so that between 8-20 Olympic sized swimming pools additional is used each year for public open space irrigation on average when the scheme is operating during 2020-25. This will mean total recycled water for open space irrigation is equivalent to about 248-260 Olympic pools each year. This will help keep about 3 kilometres of Newcastle waterways healthier. Your annual Hunter Water bill will increase by about $0.50-$1 during 2020-25.
+
Increase Hunter Water wastewater recycling so that equivalent to 60-80 Olympic sized swimming pools is used each year for public open space irrigation on average when the scheme is operating during 2020-25. This will mean total recycled water for open space irrigation is equivalent to 660-680 Olympic size pools each year. This will help keep about 5 kilometres of Newcastle waterways healthier. Your annual Hunter Water bill will increase by about $1-$3 during 2020-25.
+
Increase Hunter Water wastewater recycling so that equivalent to 120-160 Olympic sized swimming pools is used each year for public open space irrigation on average when the scheme is operating during 2020-25. This will mean total recycled water for open space irrigation is equivalent to about 720-760 Olympic pools each year. This will help keep about 10 kilometres of Newcastle and Lake Macquarie waterways healthier. Your annual Hunter Water bill will increase by about $3-$5 during 2020-25.
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59%

Increasing water conservation in the Hunter

As the Hunter population grows so does demand on our drinking was sources.

Hunter Water currently invests in programs that encourage households to conserve water. We do this because if households use less water then we could delay the need for investments in new water sources.

Between 2020-25 Hunter Water could invest in additional water conservation programs. These programs cost money to run. This means that all customer water bills would increase if we run these programs.

The programs would not be available everyone in the Hunter, only households with very high water use and those having difficulty with paying their water bills. Some examples of programs we could run during 2020-25 are:

- household water audits and advice on where water savings can be made
- financial help to pay for more efficient fittings and appliances and to repair any leaks found
- checking rainwater tanks to make sure they are working properly.

Hunter Water wants to know if you want us to make these types of water conservation investments during 2020-25.

61%

Please tick all the options in the list below that you would want to happen during 2020-25. Click here to see how to choose multiple options if you're not sure how to do this.

Please select all that apply

- [ ] Now Make any investments in water conservation when it reduces the water supply cost during 2020-25. Your water bill will not change if you choose this option.
- [ ] + Run water conservation programs with between 25,000-30,000 Hunter households in total during 2020-25. This may reduce water consumption by equivalent to 400-480 Olympic pools a year (about 1.5%-2% of Hunter Water's current annual water supply). Your annual Hunter Water bill will increase by between $0.50-$1 during 2020-25.
- [ ] + Run water conservation programs with between 30,000-50,000 Hunter households in total during 2020-25. This may reduce water consumption by equivalent to 480-800 Olympic size pools a year (about 3-4% of Hunter Water's current annual water supply). Your annual Hunter Water bill will increase by between $1-$1.50 during 2020-25.
- [ ] + Run water conservation programs with between 50,000-60,000 Hunter households in total during 2020-25. This may reduce water consumption by equivalent to 800-1,000 Olympic size pools a year (about 3-4% of Hunter Water's current annual water supply). Your annual Hunter Water bill will increase by between $1.50-$2.50 during 2020-25.

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Reducing flooding in Wallsend

Wallsend Local Centre lies within a significant floodplain. It is bisected by Iron Bark Creek confined within a concrete channel typically 10-15 metres wide. You can see a map of where Ironbark Creek and Wallsend Local Centre are located here.

In large flood events, the Wallsend Local Centre is prone to flash flooding. Significant flood events have occurred in 1988, 1990 and 2007. Smaller floods frequently occur, causing safety risks and nuisance. You can see maps of property impacted by flooding in Wallsend here.

Several flood studies have been undertaken. These studies say the flash flooding nature of the catchment makes it difficult to effectively manage flood risk for people and property in Wallsend Local Centre.

Newcastle City Council's role is to manage flood risk in Wallsend Local Centre through land use planning, development control and flood mitigation works. Council currently has a local early warning system in place, which encourages evacuation in extreme events.

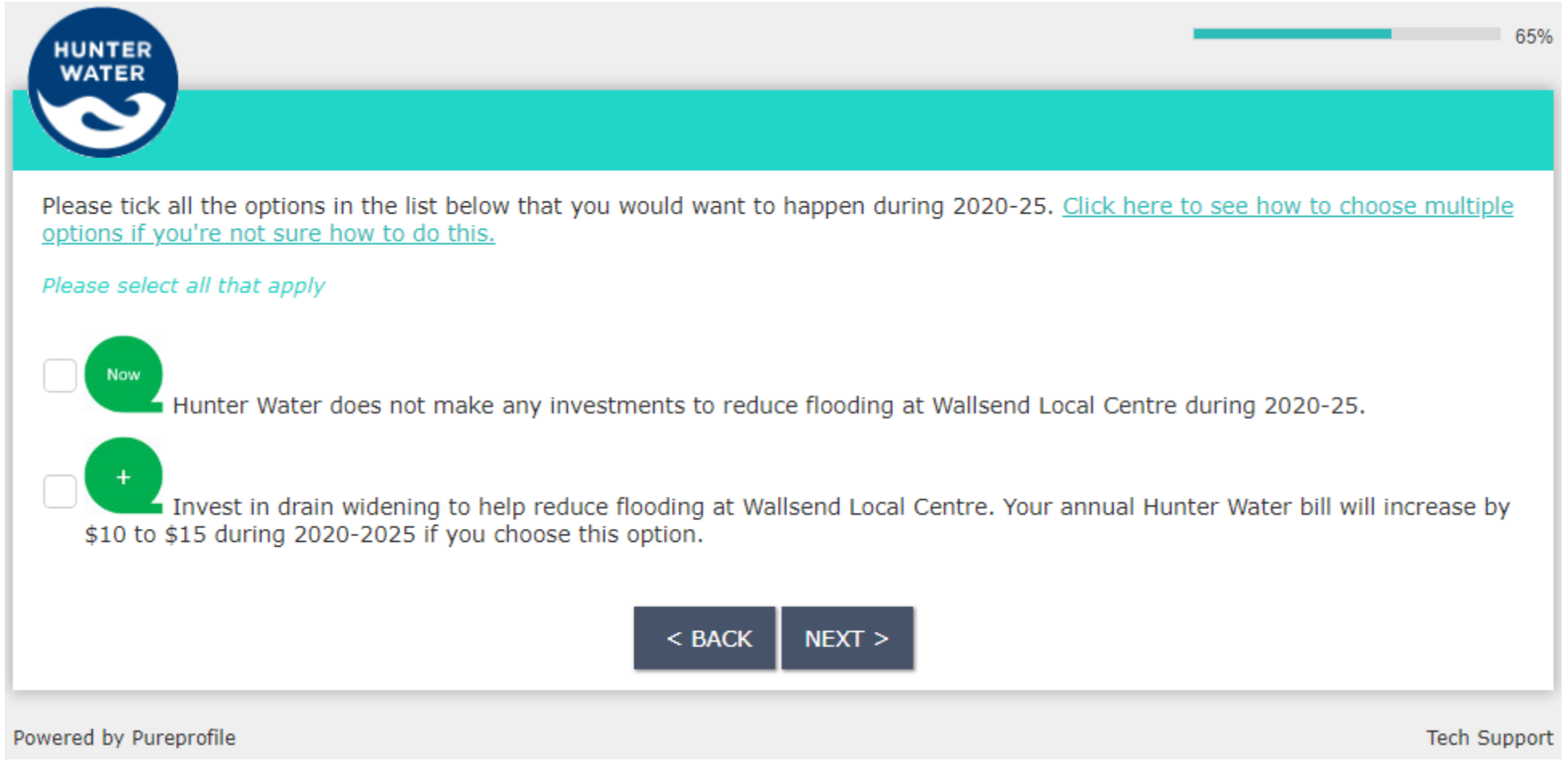
Hunter Water owns and maintains a concrete lined part of the Ironbark Creek waterway. You can see a picture of the part we own and maintain below.

Hunter Water is only responsible for maintaining the current capacity of our stormwater channels. This means we are not required to do anything to reduce flooding in Ironbark Creek. What you pay in your current Hunter Water bill does not include any investment to improve flooding.

However, Hunter Water could help reduce flooding in Ironbark Creek by widening part of our stormwater drain. This would take up more land. The investment would reduce the extent of flooding and the safety hazard due to flooding for smaller, frequent flood events. The works would not prevent flooding from occurring and would not have a significant effect on the extent of flooding in large, infrequent flood events.

To raise the money to widen the stormwater drain Hunter Water would need to introduce a Wallsend Local Flooding special charge on customers' bills.

Hunter Water wants to know if you want us to introduce this special charge during 2020-25.


HUNTER WATER
65%
Please tick all the options in the list below that you would want to happen during 2020-25. Click here to see how to choose multiple options if you're not sure how to do this.
Please select all that apply
Now
Hunter Water does not make any investments to reduce flooding at Wallsend Local Centre during 2020-25.
+
Invest in drain widening to help reduce flooding at Wallsend Local Centre. Your annual Hunter Water bill will increase by $10 to $15 during 2020-2025 if you choose this option.
< BACK
NEXT >
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Summary of your choices

Based on the options you have chosen, an estimate of your annual water bill for 2020-25 is shown below. Your annual water bill estimate is based on your most recent year of water use, so it's our best estimate of what your bill will look like in the future.

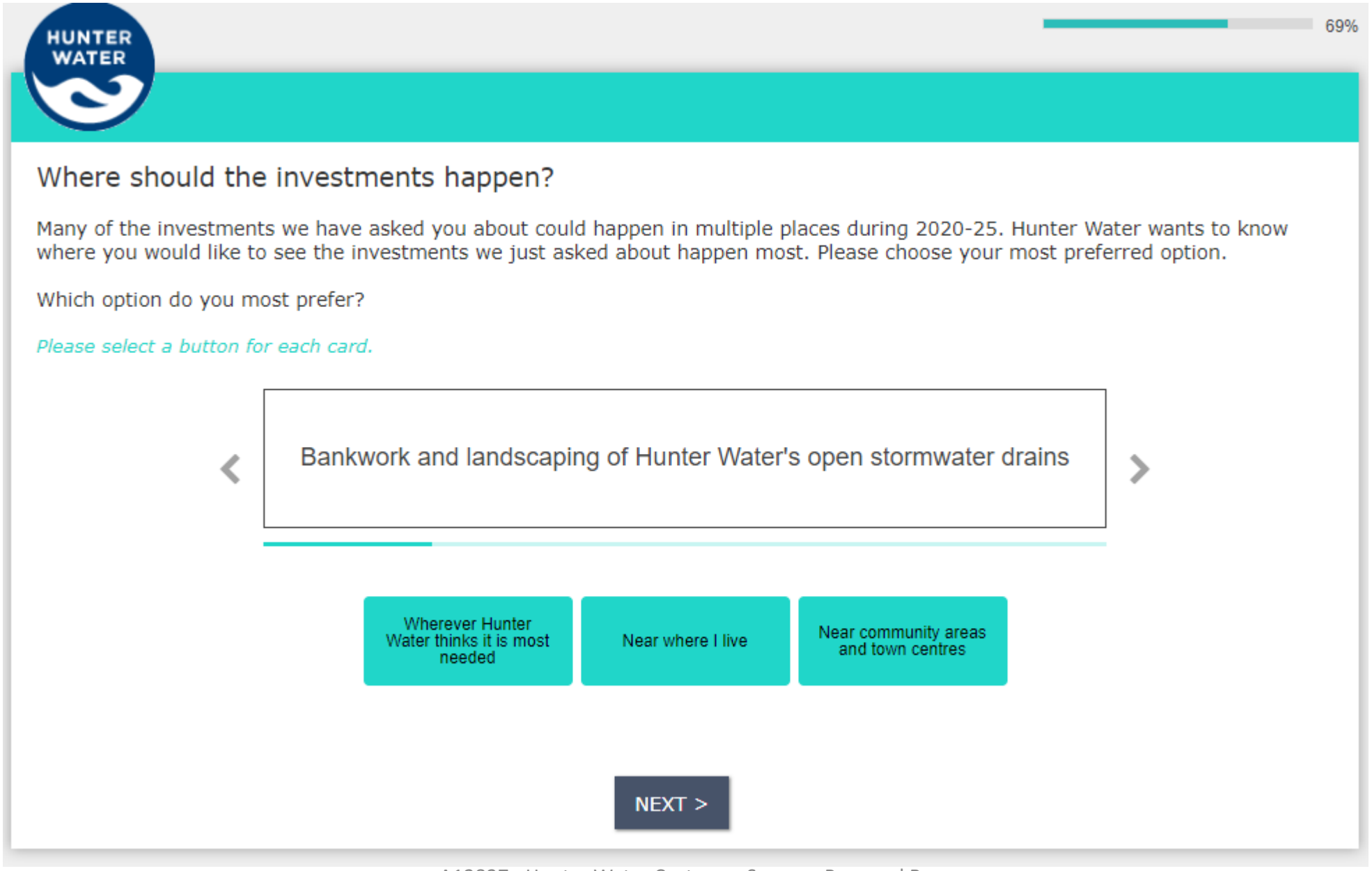
Your water and sewer service charge, Environmental Improvement Charge, stormwater drainage charge and water usage charge are shown so you can see what your bill might look like in the future. You cannot change these charges in this survey.

Hunter Water customers pay 3 water bills each year. To show you what a water bill will look like we show you an average bill. We also show you how much you might pay a year in total from 2020 to 2025.

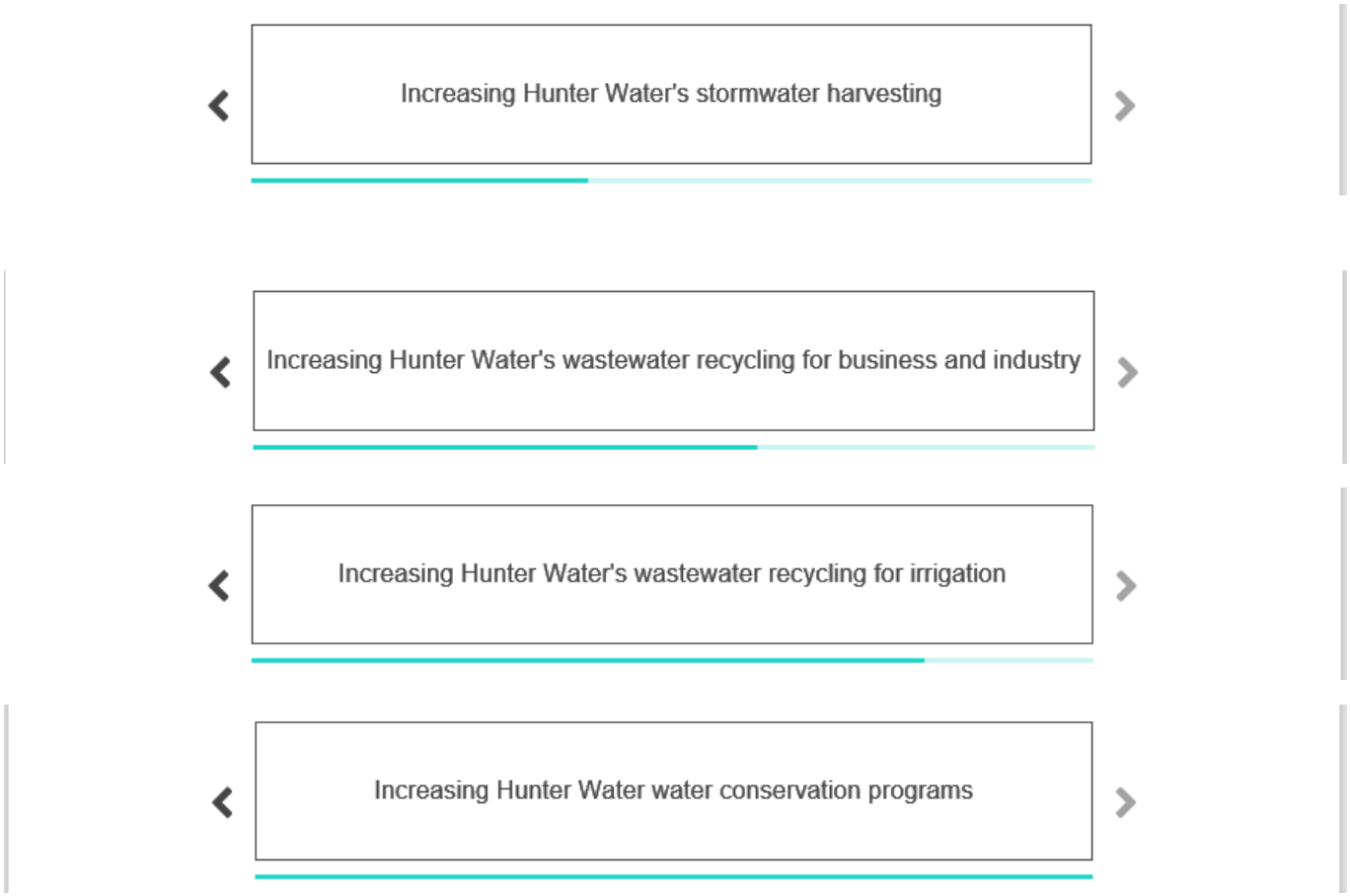
If you want to change any of your options for how much stormwater, carbon, wastewater recycling, and water conservation Hunter Water provides during 2020-25, you can go back to the question and change your answers. Click here to see how you can go back and change your answer.

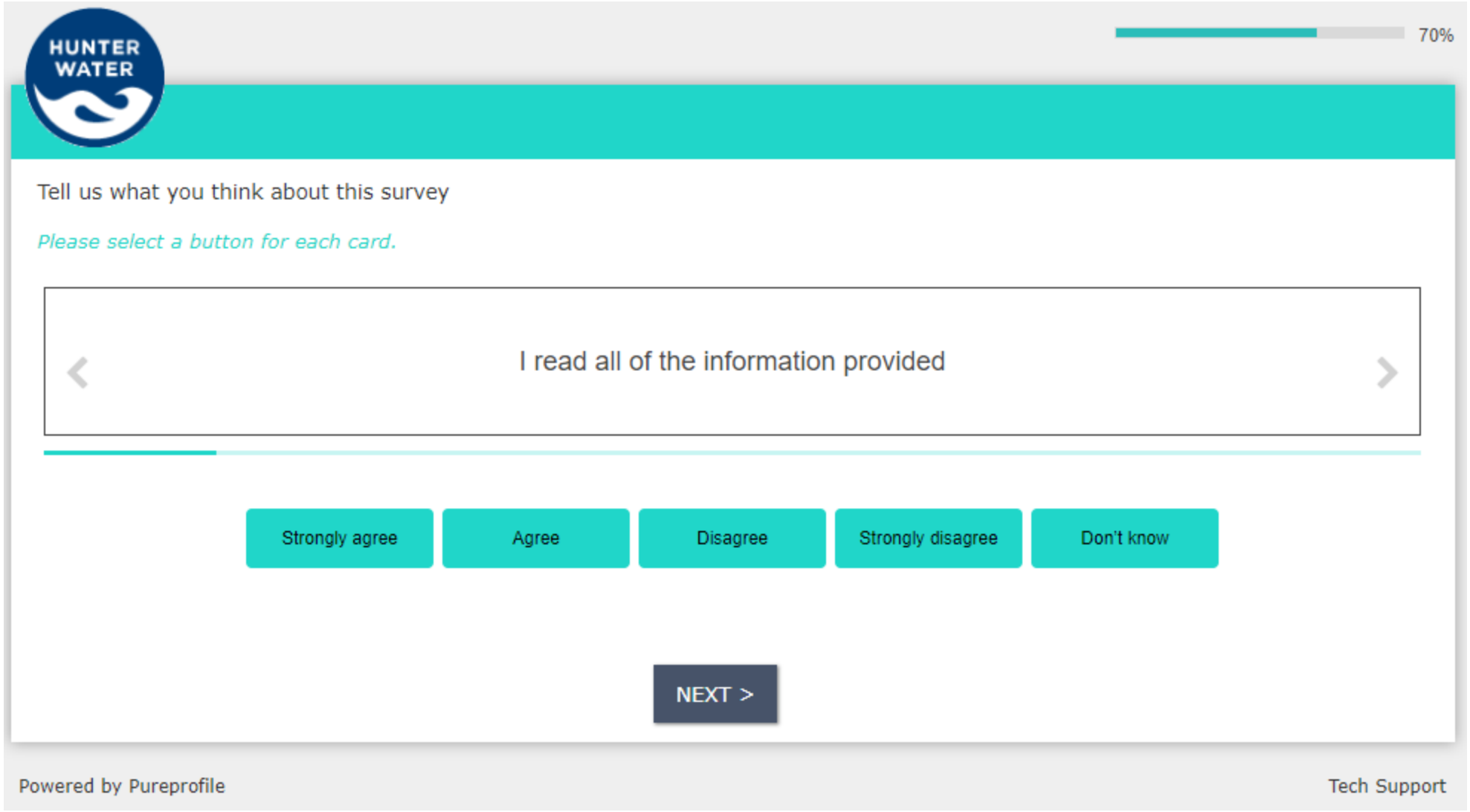
If you are willing to pay the amounts shown as "Total payable by you" in the bill estimate below please click NEXT to finish off the survey.

Residential water charges	How much you will pay each year	Additional service that Hunter Water will provide during 2020-25	Your estimated Maximum annual bill 2020-25	Your estimated trimester bill 2020-25
Water service charge	$95.0		$95.0	$31.67
Sewer service charge	$620.0		$620.0	$206.67
Environmental Improvement Charge	$39.0		$39.0	$13.0
Stormwater drainage charge	$0.0		$0.0	$0.0
Water usage charge	$976.0	kL consumed by household	$976.0	$325.33
Subtotal before additional charges	**$1730.0**		**$1730.0**	**$576.67**
Bankwork and landscaping of Hunter Water's open stormwater drains	$0.0-50.0 per year for 2020-25	0.0-6.0 kilometers naturalised	$50.0	$16.67
Increasing Hunter Water's carbon footprint	$0.2-3.0 per year for 2020-25	0.0-2000.0 cars off roads	$3.0	$1.0
Increasing Hunter Water's stormwater harvesting	$1.0-4.0 per year for 2020-25	40.0-150.0 ML harvested	$4.0	$1.33
Increasing Hunter Water's wastewater reclycling for business and industry	$0.0-30.0 per year for 2020-25	1000.0-1800.0 ML recycled	$30.0	$10.0
Increasing Hunter Water's wastewater reclycling for irrigation	$0.5-5.0 per year for 2020-25	248.0-400.0 ML recycled	$5.0	$1.67
Increasing Hunter Water's water conservation programs	$1.0-1.5 per year for 2020-25	30000.0-50000.0 household supported	$1.5	$0.5
Wallsend Flood Levy	$10.0-15.0 per year for 2020-25		$15.0	$5.0
Subtotal after additional charges			**$1838.5**	**$612.83**
Pensioner rebate - water			$0.0	$0.0
Pensioner rebate - wastewater			$0.0	$0.0
Total payable by you			**$1838.5**	**$612.83**


HUNTER WATER
69%
Where should the investments happen?
Many of the investments we have asked you about could happen in multiple places during 2020-25. Hunter Water wants to know where you would like to see the investments we just asked about happen most. Please choose your most preferred option.
Which option do you most prefer?
Please select a button for each card.
Bankwork and landscaping of Hunter Water's open stormwater drains
Wherever Hunter Water thinks it is most needed
Near where I live
Near community areas and town centres
NEXT >

Flash cards display in the centre for each statement below.




HUNTER WATER
70%
Tell us what you think about this survey
Please select a button for each card.
I read all of the information provided
Strongly agree
Agree
Disagree
Strongly disagree
Don't know
NEXT >
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I read all of the information provided

I understood all of the information provided

I was given enough information to make a decision

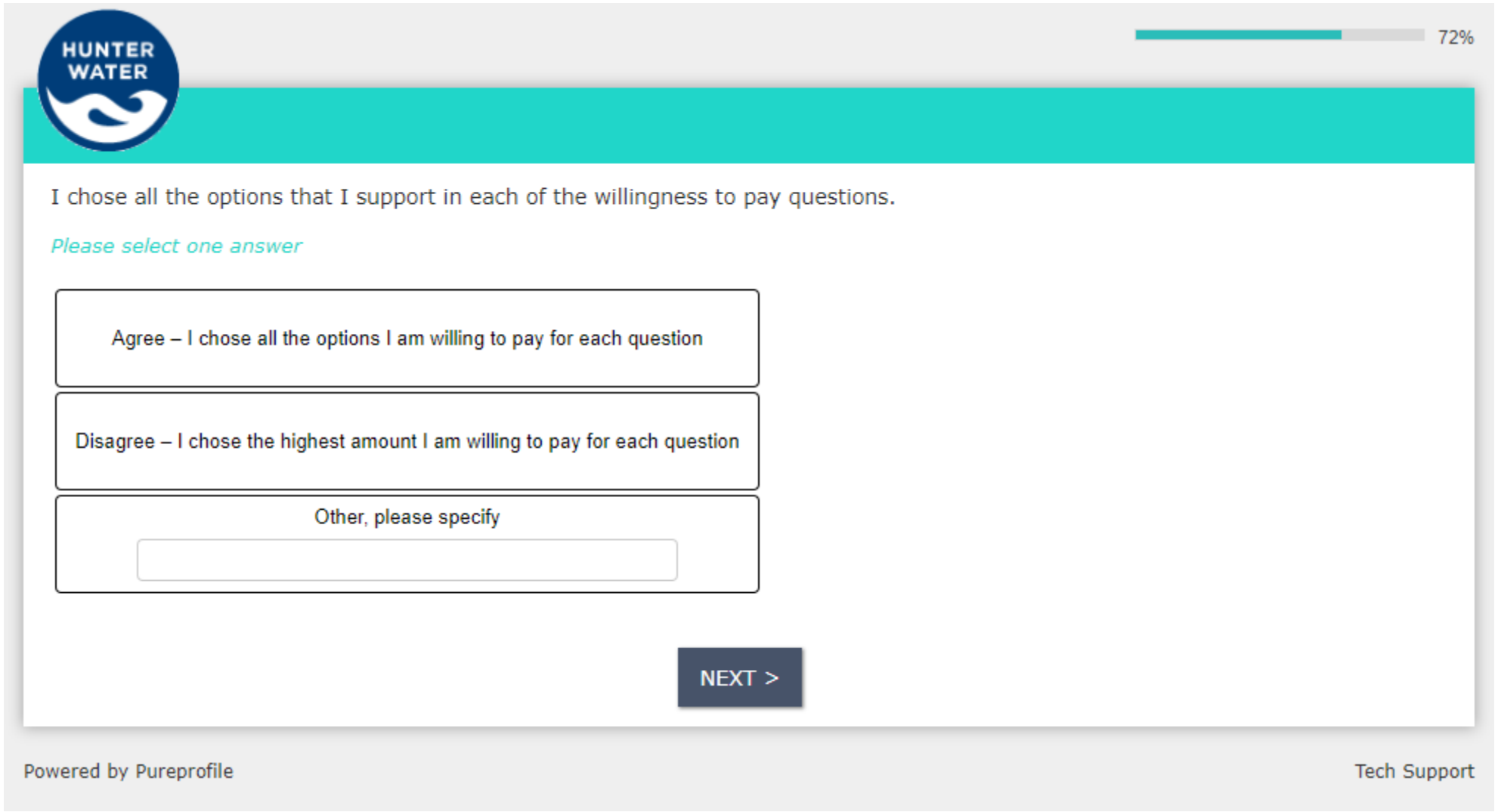
I understood the outcomes described

I understood the idea of making choices between different outcomes

I clicked on at least one of the hyperlinks to get more information about what was being described to me

I think my choices will impact on whether the investments Hunter Water asked me about in this survey will happen

I think Hunter Water customers' water bills will increase if Hunter Water makes some or all of the investments


HUNTER WATER
72%
I chose all the options that I support in each of the willingness to pay questions.
Please select one answer
Agree – I chose all the options I am willing to pay for each question
Disagree – I chose the highest amount I am willing to pay for each question
Other, please specify
NEXT >
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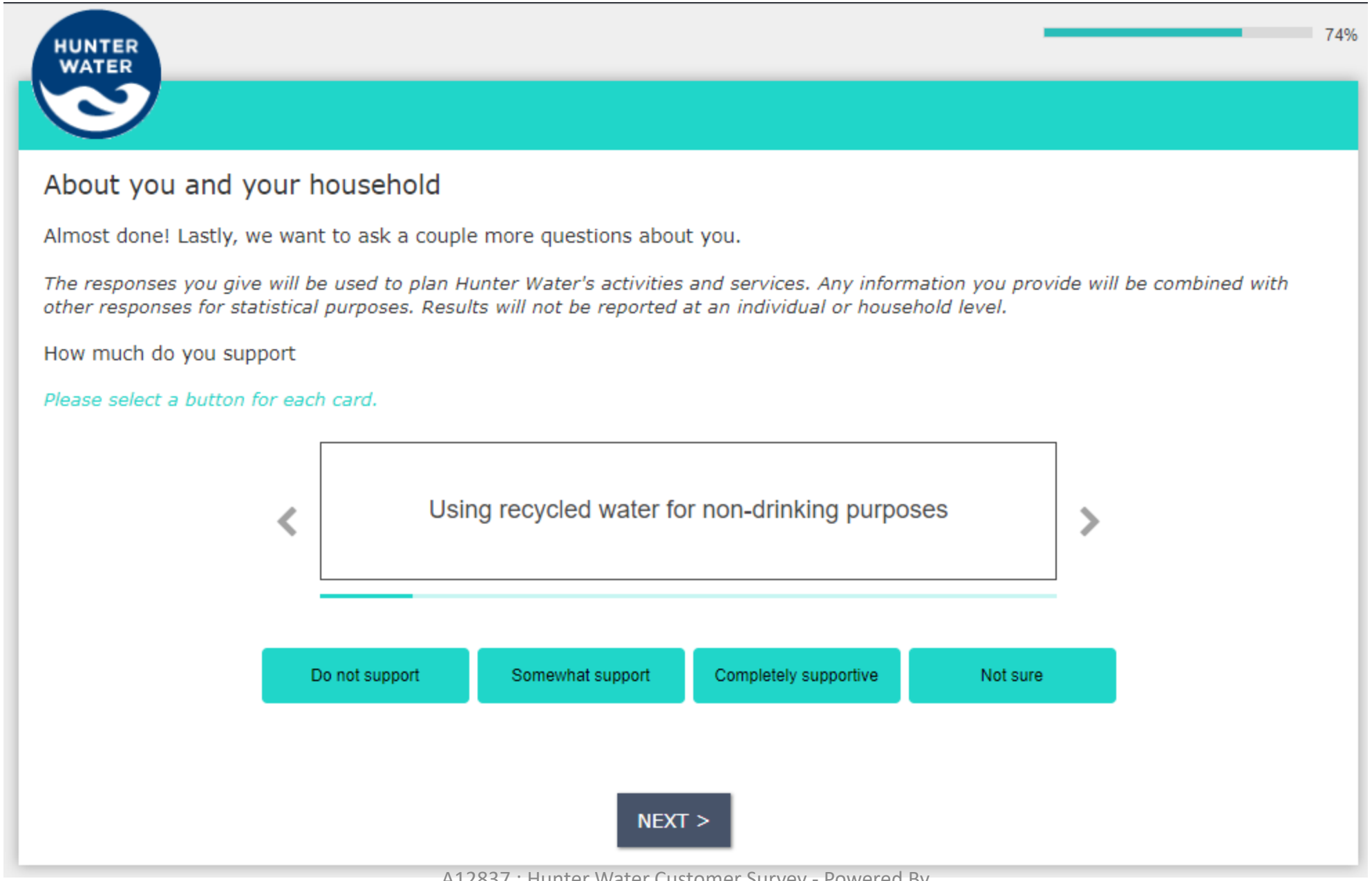
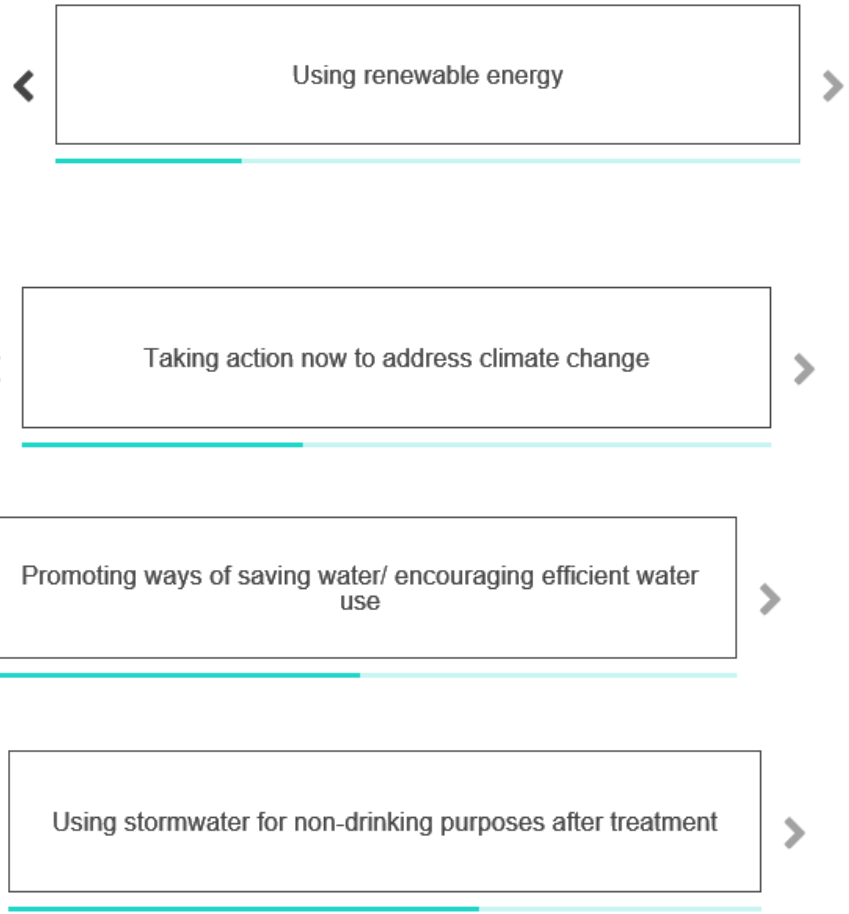

HUNTER WATER
74%
About you and your household
Almost done! Lastly, we want to ask a couple more questions about you.
The responses you give will be used to plan Hunter Water's activities and services. Any information you provide will be combined with other responses for statistical purposes. Results will not be reported at an individual or household level.
How much do you support
Please select a button for each card.
Using recycled water for non-drinking purposes
Do not support
Somewhat support
Completely supportive
Not sure
NEXT >

Flash cards display in the centre for each statement below.



Compulsory rainwater tanks in homes for non-drinking purposes

Penalising people that do not comply with water restrictions

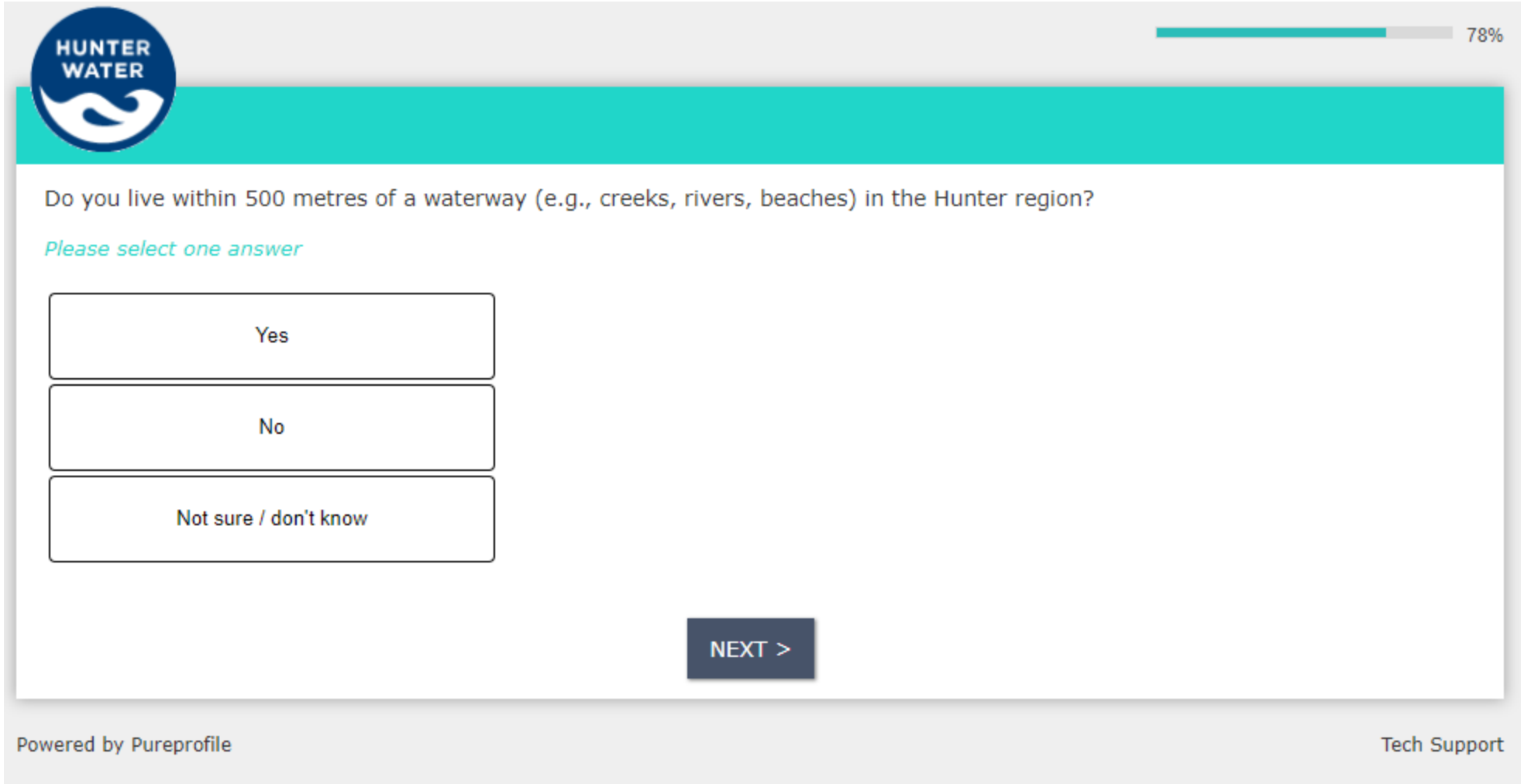
Increasing resilience to events (e.g. floods, droughts, fires)

76%

Do you use any of the following water saving devices in your home?

Please check all that you use

- Water efficient showerheads
- Dual flush toilet
- Water-efficient washing machine
- Water-efficient dishwasher
- Tap timers for outdoor taps
- Outdoor hoses with trigger nozzles
- Pool cover


HUNTER WATER
78%
Do you live within 500 metres of a waterway (e.g., creeks, rivers, beaches) in the Hunter region?
Please select one answer
Yes
No
Not sure / don't know
NEXT >
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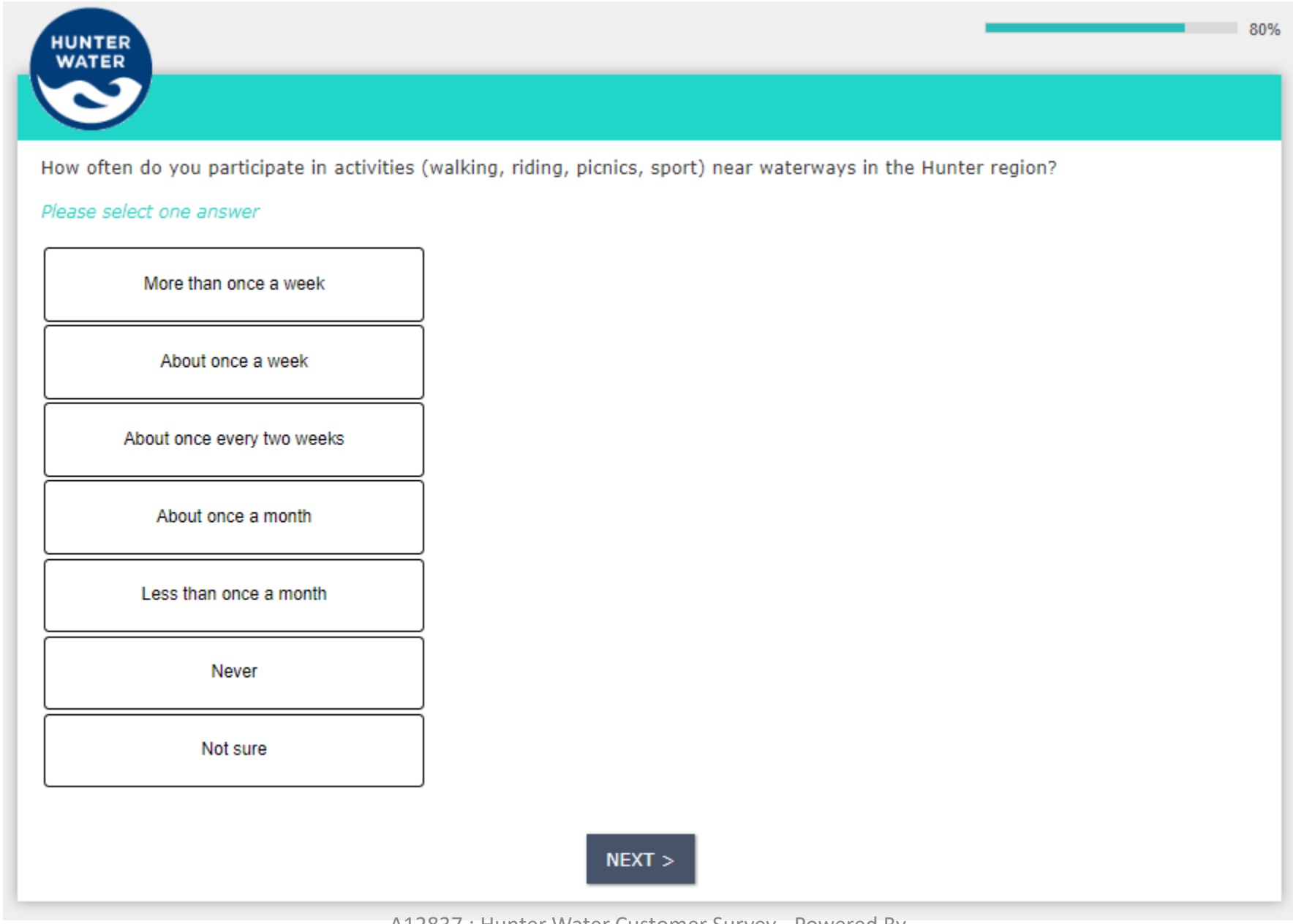
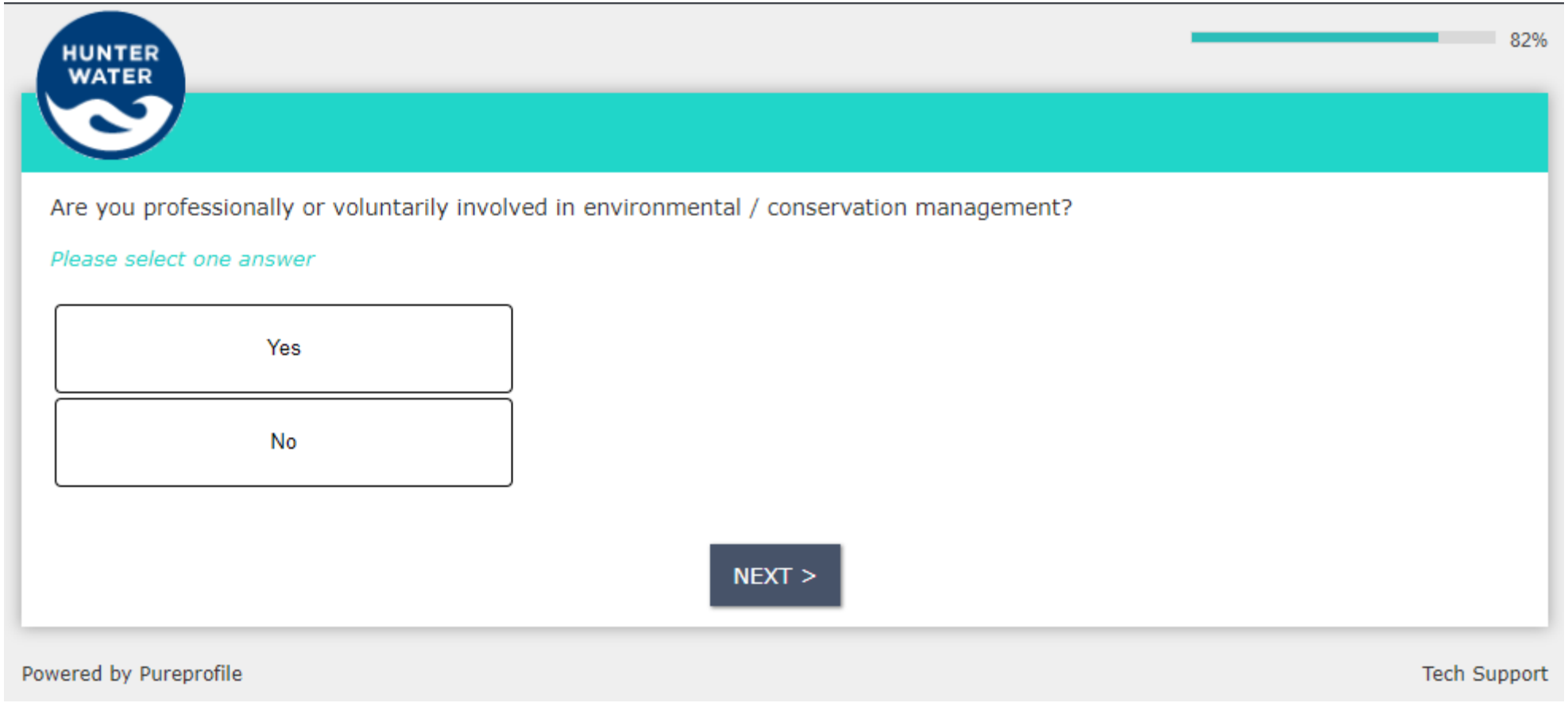

HUNTER WATER
80%
How often do you participate in activities (walking, riding, picnics, sport) near waterways in the Hunter region?
Please select one answer
More than once a week
About once a week
About once every two weeks
About once a month
Less than once a month
Never
Not sure
NEXT >


HUNTER WATER
82%
Are you professionally or voluntarily involved in environmental / conservation management?
Please select one answer
Yes
No
NEXT >
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HUNTER WATER
85%
Are you a Hunter Water employee?
Please select one answer
Yes
No
NEXT >
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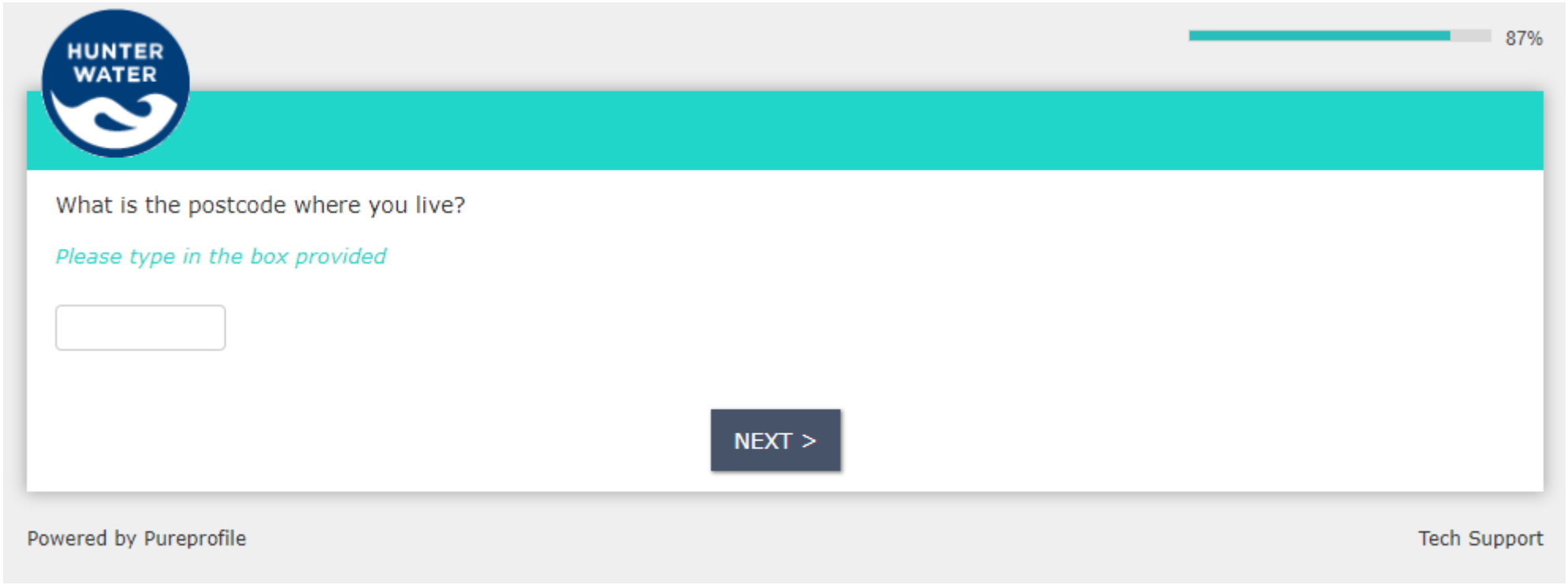
HUNTER WATER
87%
What is the postcode where you live?
Please type in the box provided
NEXT >
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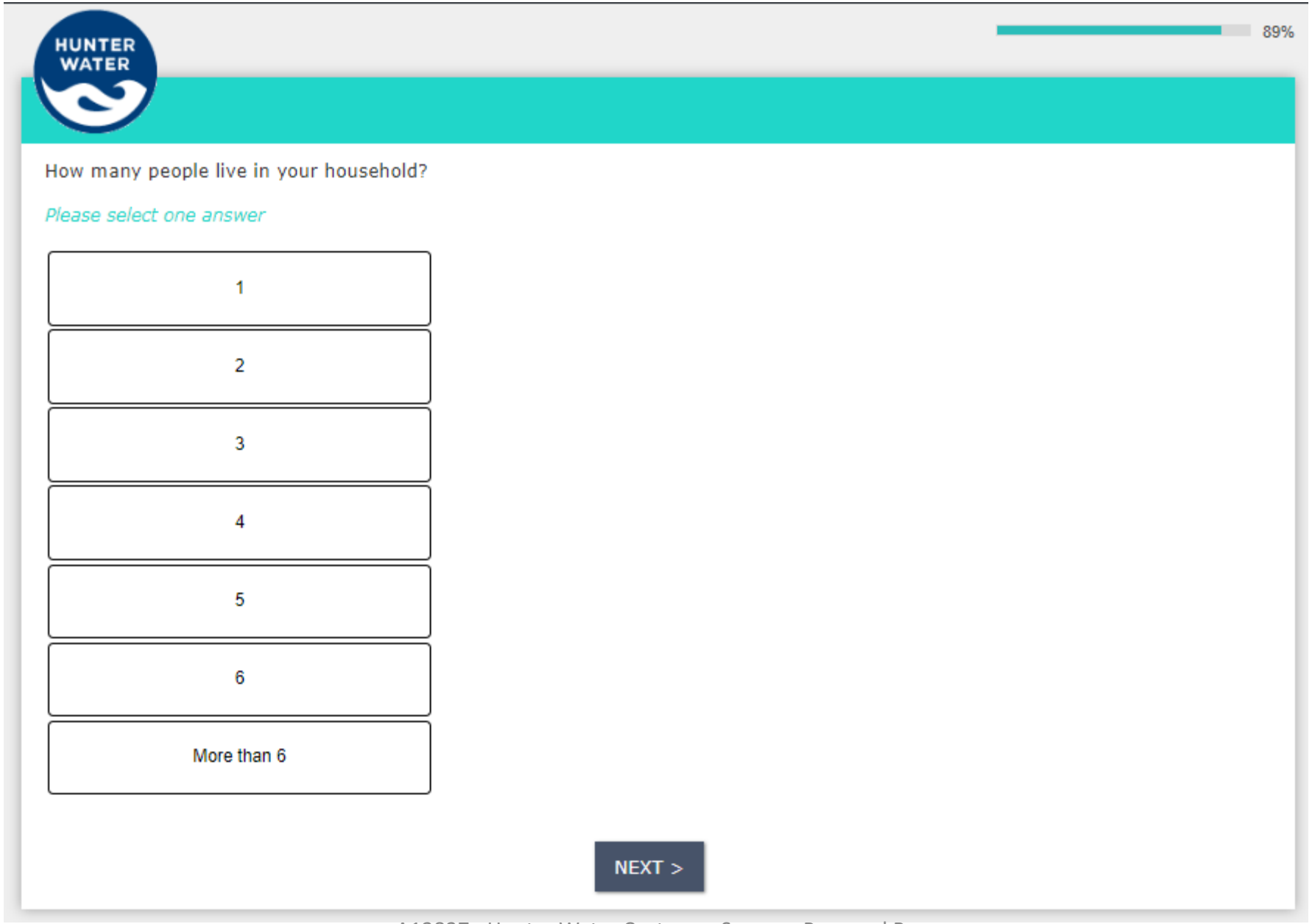
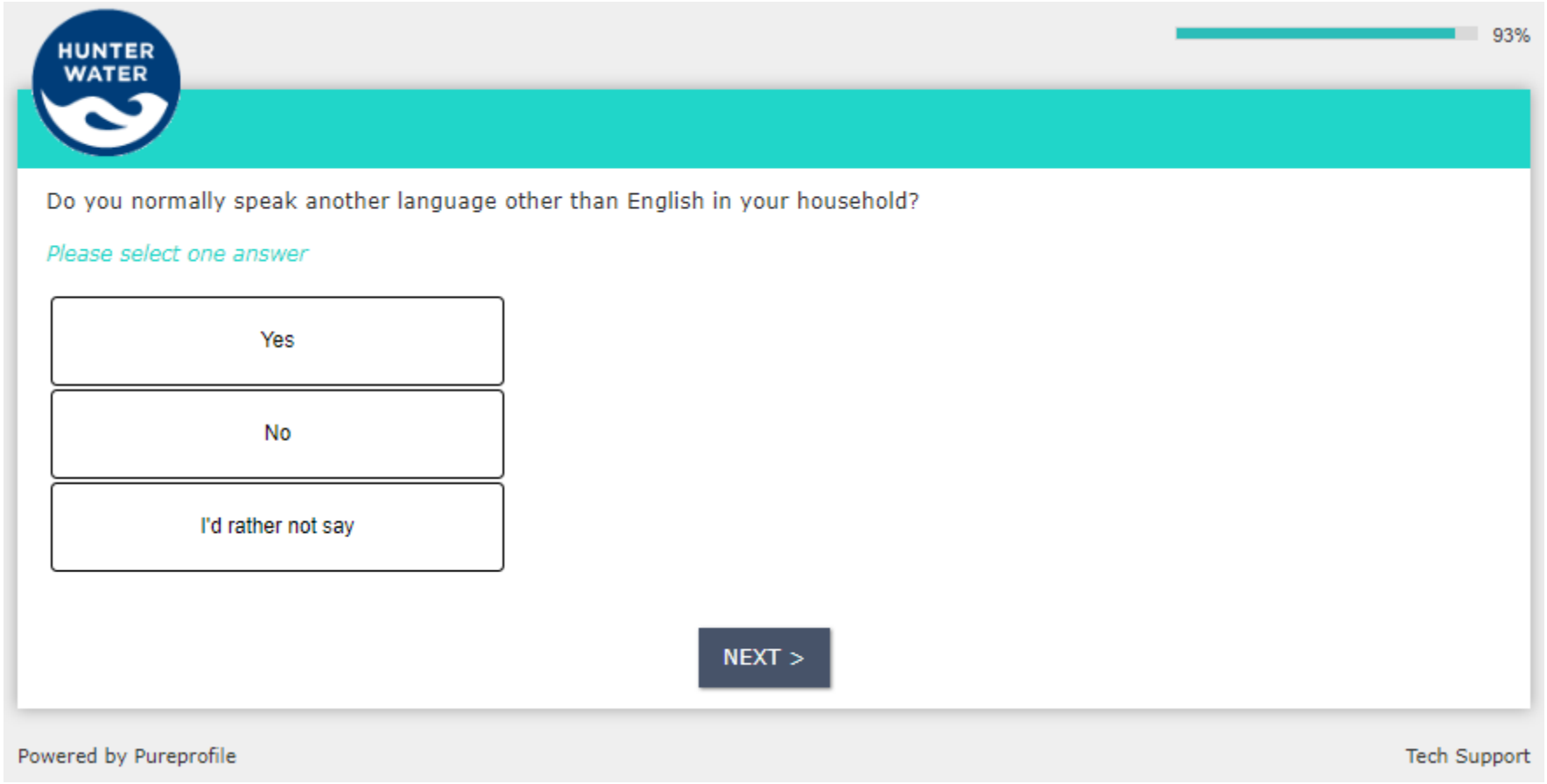

HUNTER WATER
89%
How many people live in your household?
Please select one answer
1
2
3
4
5
6
More than 6
NEXT >

91%

What was your total household income last year (total income before tax and any deductions from all wages and salaries, pensions, allowances, and investment)?

Please select one answer

- Less than $20,800
- Between $20,800 and $33,800
- Between $33,800 and $41,600
- Between $41,600 and $52,000
- Between $52,000 and $65,000
- Between $65,000 and $78,000
- Between $78,000 and $91,000
- Between $91,000 and $104,000


HUNTER WATER
93%
Do you normally speak another language other than English in your household?
Please select one answer
Yes
No
I'd rather not say
NEXT >
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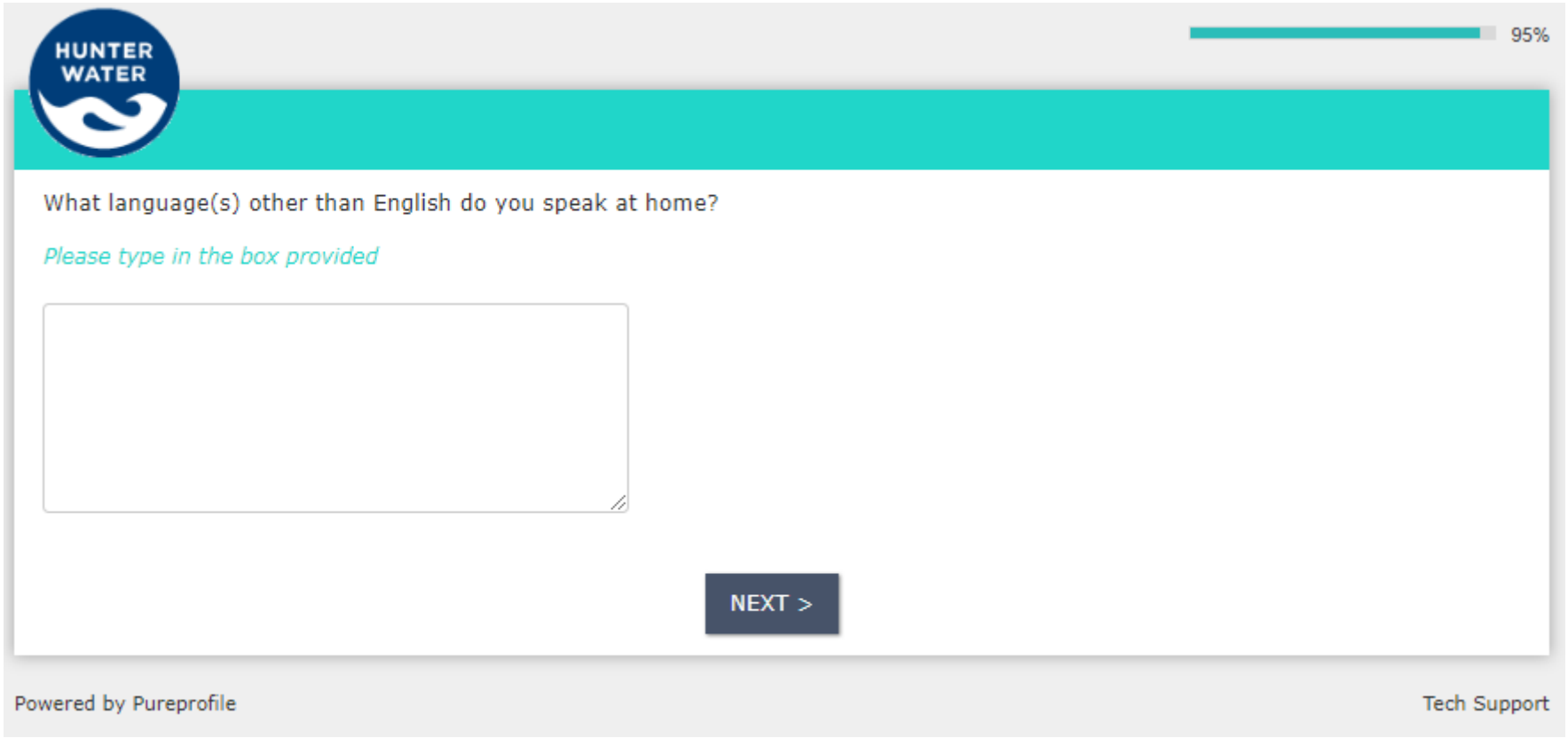
HUNTER WATER
95%
What language(s) other than English do you speak at home?
Please type in the box provided
NEXT >
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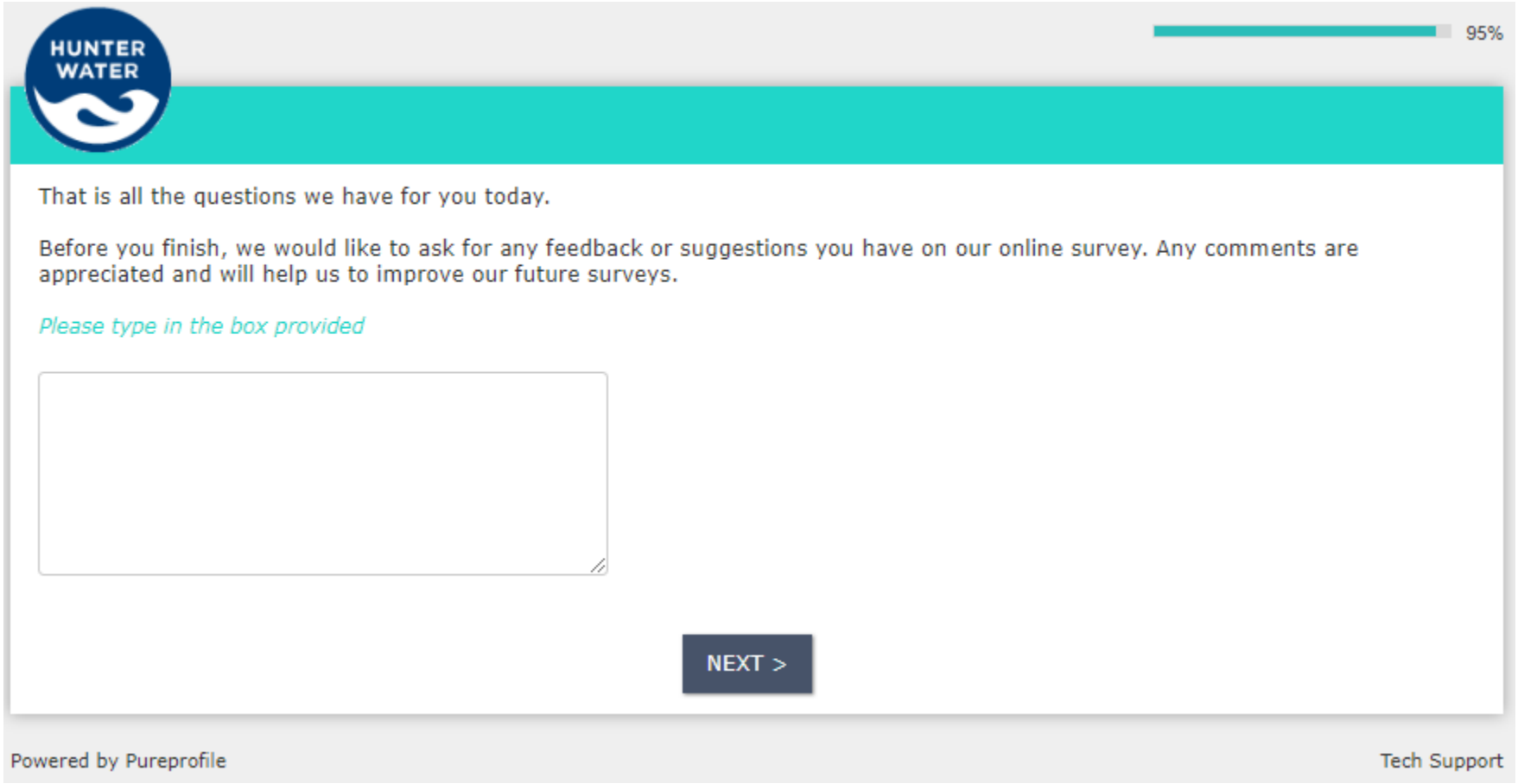
HUNTER WATER
95%
That is all the questions we have for you today.
Before you finish, we would like to ask for any feedback or suggestions you have on our online survey. Any comments are appreciated and will help us to improve our future surveys.
Please type in the box provided
NEXT >
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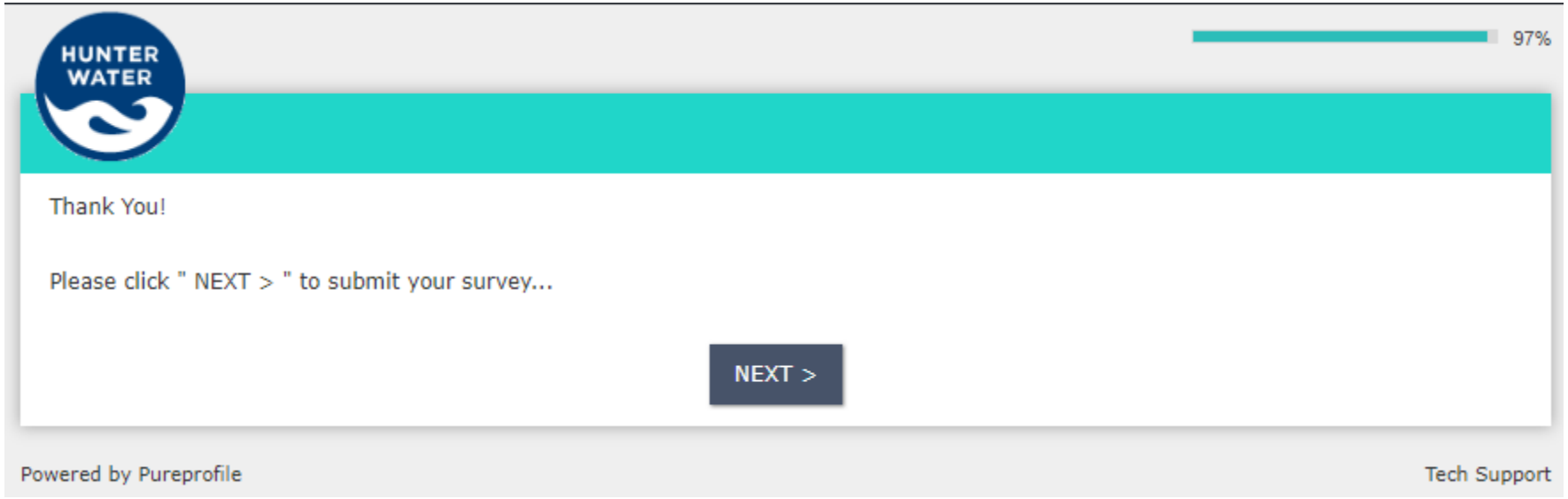
HUNTER WATER
97%
Thank You!
Please click " NEXT > " to submit your survey...
NEXT >
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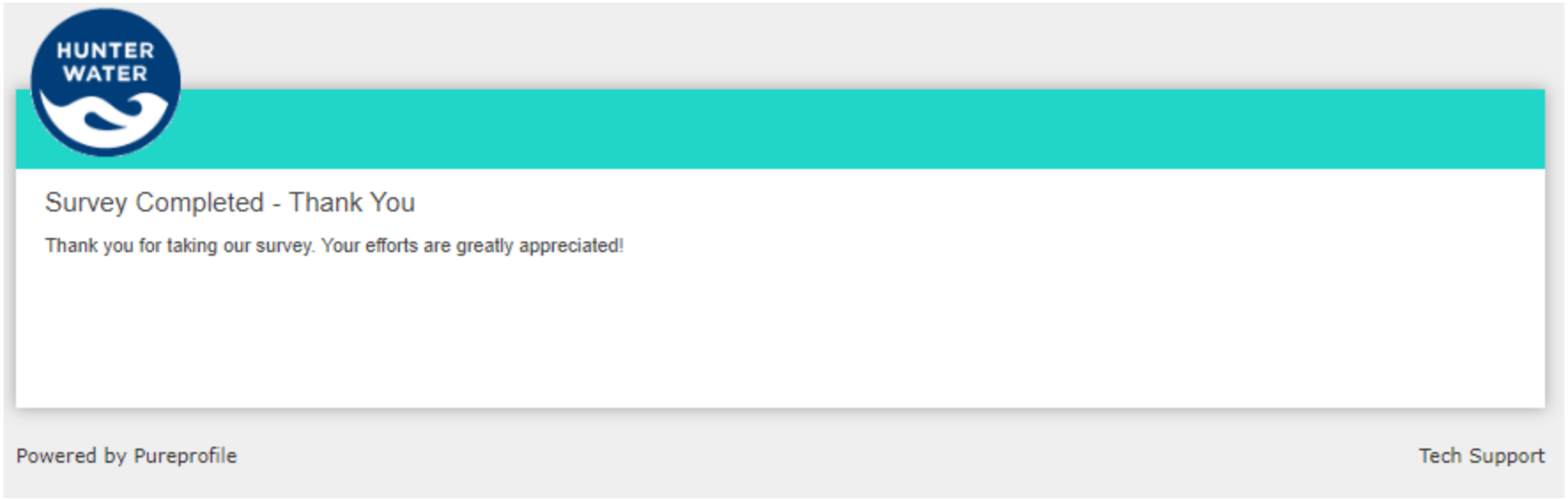
HUNTER WATER
Survey Completed - Thank You
Thank you for taking our survey. Your efforts are greatly appreciated!
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EMAIL INVITE

Hunter Water is running an important survey about the services we provide to your household in the future. The survey will take about 15 minutes for you to complete.

To say thanks for taking the time to complete our survey, once you finish the survey you will automatically go into the draw to win a $100 credit on your account. We have 50 to give away. To see more details on the chance to win please click here

Start the survey
To start the survey please click
here http://surveydeu.pureprofile.com/survey/selfserve/59e/180520?list=1&userid=TESTTT&source=lGFGa5nFnw

What's the survey about?
Hunter Water is currently deciding what investments in water, wastewater, stormwater, liveability and other services we will make between 2020 and 2025.

Between 2020 and 2025 we will be required to make some investments that increase costs to comply with regulations and standards set by government. There are other investments where we have a choice about if we make them or not – these are discretionary investments.

Hunter Water is running this survey because we want to know from you what discretionary investments you would like us to make between 2020 and 2025.

What you tell us in the survey will be used to help plan Hunter Water's future activities and services, and to help set water prices for Hunter Water customers from 2020 for 4 or 5 years.

Who should complete the survey, and why we're asking your household to complete it
We need the survey to be completed by someone in your household who is responsible for paying Hunter Water bills.

We encourage you to complete this survey. By getting enough responses from households like yours we'll have a good understanding of the services you want us to provide in the future.

If we don't get your feedback, then we must make decisions that will impact the services we provide and your future Hunter Water bills without your input. We don't want to do this. That's why your input is so important to us.

How do I complete the survey?
You can complete the survey on a computer, laptop, tablet or your smartphone. Any information you give us in the survey will be combined with other responses for statistical purposes. Results will not be reported at an individual or household level.

Thanks for your input, it's valuable to Hunter Water, and it will help us to provide the services you want.

To start the survey please click here
http://surveydeu.pureprofile.com/survey/selfserve/59e/180520?list=1&userid=TESTTT&source=lGFGa5nFnw

If you have any questions about this research, please contact Hunter water on 1300 657 657 or email enquiries@hunterwater.com.au.

Thank you,

Jim Bentley
Hunter Water Managing Director

Attachment B – Price structures survey report

COMMERCIAL IN CONFIDENCE

FINAL REPORT

Water and wastewater pricing structure

Customer survey

Prepared for
Hunter Water

15 March 2019

THE CENTRE FOR INTERNATIONAL ECONOMICS
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Summary

Introduction

This report details the method and results from online surveys about water and wastewater price structure conducted within Hunter Water's operating area between December 2018 and February 2019.

Two surveys were conducted – one for residential customers and one for non-residential customers.

The surveys were completed by 546 residential customers (458 as a stratified sample from an online panel and 88 customers who responded to advertisements) and 51 non-residential customers (49 in response to direct email invitations and two in response to advertisements).

Balance between water usage and supply charges

- There is a range of preferences in the community regarding the balance between water usage and fixed charges.
- It appears that a significant proportion – around 40 per cent of respondents – were not engaged with this topic or have weak preferences, since the distribution of responses varied dramatically depending on whether the existing balance was provided as a starting point.
- When we remove this group from the distribution, the median preferred usage charge is the existing $2.34/kL (the full sample median was similar at $2.30/kL). This provides support for maintaining the current structure, since a majority of residential customers have a preferred usage charge of at least $2.34/kL and a majority of residential customers have a preferred usage charge of no more than $2.34/kL.
- However, most customers prefer some change in the structure. Just under half of residential customers want the usage price decreased. The proportion of residential customers wanting a usage price increase was between 20 and 38 per cent depending on the treatment of weak preferences/disengaged responses, with a majority of this group preferring a larger increase to a price above $2.60/kL.
- Motivations relating to the respondents' own bill were more important than social motivations, such as impacts on low-income households and providing the right incentives for water use.

- Consistent with these motivations, customers with lower usage tended to prefer a higher usage charge. Renters preferred a lower usage charge, which is consistent with the fact that many renters pay only the usage component of the bill.
- There was a wide range of views on the preferred transition period for any change in the pricing structure. Around half of respondents preferred a period of two years or less. Roughly one in five respondents did not have a firm preference.

Large water user price discount

- Residential customers did not indicate majority support for either continuing or ceasing the discount for large industrial/commercial customers. Stopping the discount was the most popular option at 38 per cent, with a third of residents indicating they didn't have a firm preference.
- Fairness was the motivation most commonly reported by those preferring removal of the discount. Respondents preferring to keep the discount had a range of reasons, with impacts on the customers receiving the discount the most common.

Wastewater price structure

- The most popular approach to residential wastewater pricing structure was a uniform fixed charge across houses and apartments, with no usage charge.
- The preferred transition to a uniform fixed charge was to maintain the current rate, which would see equality reached after seven years.
- Customers in apartments preferred approaches with different fixed charges for houses and apartments and a slower transition to any unification of fixed charges.
- The primary motivation for wastewater pricing preferences is fairness, regardless of the preferred type of structure.

1 Introduction

This report details the method and results from online surveys about water and wastewater price structure conducted within Hunter Water's operating area between December 2018 and February 2019.

Two surveys were conducted – one for residential customers and one for non-residential customers.

The key matters covered by the surveys are:

- the balance between water usage and supply charges;
- whether to continue providing a discounted water usage price to large industrial/commercial users;
- whether to reintroduce a wastewater usage charge based on discharge factors; and
- whether the wastewater supply charge should differ across houses and apartments.

The surveys were approximately 10 minutes in length. They were scripted and hosted by Woolcott Research and Engagement. Several different approaches were used to recruit respondents, as detailed in chapter 2. The surveys were completed by 546 residential customers (458 as a stratified sample from an online panel and 88 customers who responded to advertisements) and 51 non-residential customers (49 in response to direct email invitations and two in response to advertisements).

2 Who we talked with

Recruitment

Residential panel

The panel sample of 458 residential customers was recruited through Lightspeed Research in December 2018. Respondents were provided incentives through the panel's points system, which are likely to equate to between $1.50 and $2.50 per respondent. No quotas were applied to the sample in order to maximise the size of the sample. Some reweighting of the data was applied to account of over and undersampling of particular groups, as discussed later in this chapter.

Residential advertised

Some 88 residential customers responded to a generic link for the residential survey that was advertised in December 2018:

- on Hunter Water's Facebook and Twitter accounts;
- on the Your Voice website; and
- via emails to around 1000 customers on an existing Hunter Water panel.

2.1 Recruitment through Twitter

Non-residential

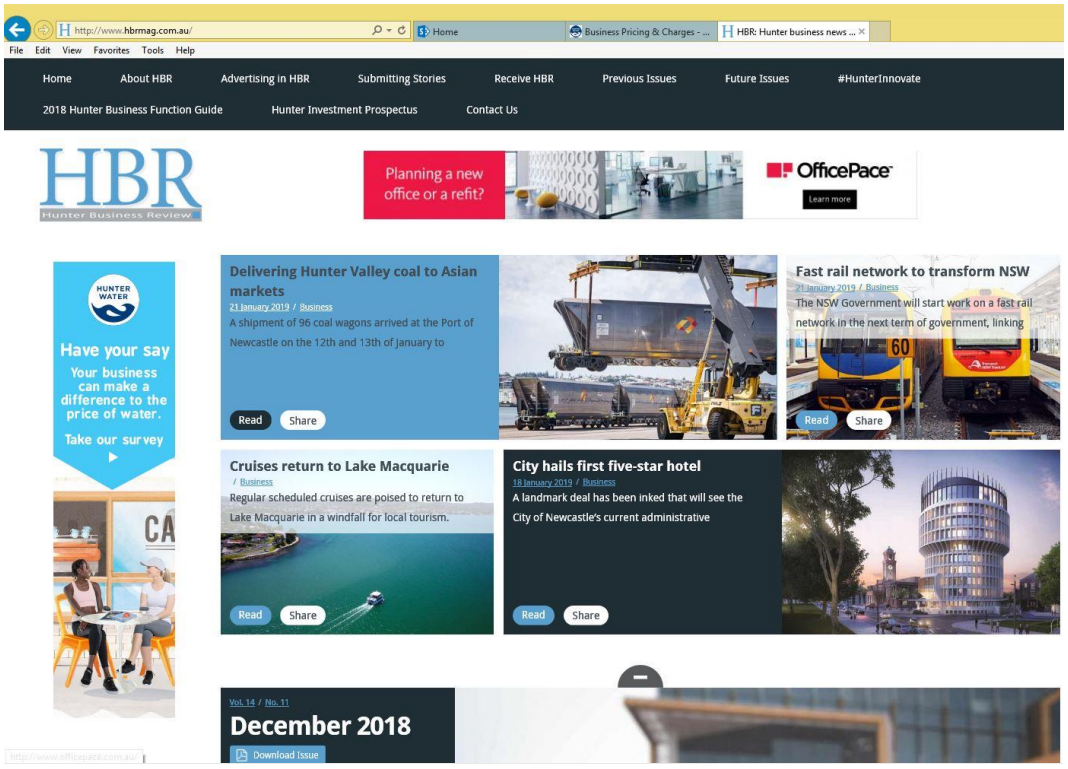
Recruiting large, representative samples of business customers is always a challenge, even for large populations. While online panels can provide samples of up to 300 businesses in Sydney, they were only able to offer a sample of 15 businesses in the Hunter Water operating area. Recruitment for the non-residential survey relied instead on email invitations and advertising. It was undertaken in two waves.

In December 2018, direct email invitations were sent to approximately 4 000 businesses using email addresses provided by Hunter Water. These invitations, along with subsequent reminders, resulted in 49 completions of the non-residential survey.

In January and February 2019, a generic link for the non-residential survey was advertised on:

- the non-residential pricing page of Hunter Water's website;
- the Newcastle Herald online;
- the Hunter Business Review online (see figure 2.2); and
- LinkedIn.

2.2 Recruitment through advertising



A prize draw for a $250 Coles Myer gift card was offered as an incentive to improve the response rate and representativeness of the sample.

Unfortunately, this second wave of fieldwork resulted in only a further two completions.

Characteristics of the residential panel

The purpose of recruiting though the online panel was to generate a representative sample of residential customers. The sample from the advertised link, in contrast, is affected by self-selection bias and will not be considered representative. For this reason, data from the two samples are analysed separately in this report.

The unweighted residential panel was reasonably representative of the population considering no quotas were applied during sample recruitment. The most significantly oversampled groups were females and lower-income households. The data were weighted prior to analysis to reflect the mix of gender and income in the underlying population.

The sample, weighted sample and population statistics are compared below for household income (table 2.3), age (table 2.5) and a range of other characteristics (table 2.4).

2.3 Household income of the residential panel sample

28. What is your approximate annual household income before tax?	Sample	Reweighted sample	Sample excl. 'prefer not to say'	Reweighted sample excl. 'prefer not to say'	Population
Less than $41,600	31%	18%	35%	20%	20%
Between $41,600 and $78,000	25%	23%	28%	26%	26%
Between $78,000 and $104,000	14%	13%	15%	15%	14%
Between $104,000 and $156,000	12%	20%	13%	22%	23%
More than $156,000	8%	15%	9%	17%	17%
Prefer not to say	11%	11%			0%

Source: Sample from CIE, population from Hunter Water

2.4 Other characteristics of the residential panel sample

	Sample	Reweighted sample	Population
Median water usage per four months (kL)	56	48	
Mean water usage per four months (kL)	70	70	
2. Which of the following best describes the water and wastewater bills you receive for the residence you live in?			
I get bills from Hunter Water	73%	77%	
I get bills from Hunter Water and from my body corporate	2%	2%	
I get my bills from the body corporate	2%	2%	
My landlord/managing agent gets bills from Hunter Water and charges part of the bill to me as a specific charge separate	13%	11%	
My landlord/managing agent gets bills from Hunter Water and charges the full amount to me as a specific charge separate	9%	8%	
4. Are you...			
Female	62%	51%	51%
Male	38%	49%	49%
Prefer not to say	0%	0%	
6. Is the house in which you live...			
Owned outright or with a mortgage	72%	76%	68%
Being rented or occupied rent-free	26%	23%	28%
Other (please specify)	1%	1%	3%
23. How many people, including yourself, live in the household?			
1	17%	12%	
2	46%	45%	
3	16%	18%	
4	14%	15%	

	Sample	Reweighted sample	Population
5	5%	6%	
6	2%	2%	
7	1%	1%	
>7	1%	1%	
24. Is the house in which you live a...			
House (standalone)	84%	86%	81%
Semi-detached, row or terrace house, townhouse	6%	6%	11%
Flat, unit or apartment	8%	7%	8%
Other dwelling	2%	1%	0%
25. What is the size of your land?			
Less than 150 m2	6%	5%	
Greater than 150 m2 but less than 300 m2	16%	17%	
Greater than 300 m2 but less than 500 m2	13%	13%	
Greater than 500 m2 but less than 800 m2	21%	24%	
Greater than 800 m2 but less than 1,200 m2	11%	13%	
Greater than 1,200 m2	5%	7%	
Don't know	18%	15%	
26. Do you receive a pensioner rebate from us?			
Yes	31%	24%	19%
No	60%	69%	81%
Prefer not to say	2%	1%	
Don't know	7%	5%	
27. Have you ever used one of our assistance programs?			
Yes	8%	7%	
No	85%	86%	
Prefer not to say	2%	2%	
Don't know	5%	5%	

Source: Sample from CIE, population from Hunter Water

2.5 Age of the residential survey panel

5. What is your age?	Sample	Reweighted sample	Age	Population
18-29 years	10%	10%	18-24 years	11%
30-39 years	16%	17%	25-34 years	16%
40-49 years	16%	16%	35-44 years	16%
50-59 years	17%	18%	45-54 years	17%
60-69 years	25%	25%	55-64 years	16%
70 years or more	16%	14%	65-74 years	13%

5. What is your age? Sample	Reweighted sample	Age	Population
		75 years or more	10%

Source: Sample from CIE, population from Hunter Water

Characteristics of the non-residential sample

The average water usage amongst non-residential respondents was 434 kL per four months, or around six times the size of the average usage in the residential sample. There was a wide distribution of water usage among non-residential customers with a small number of customers having large connection sizes (and typically using more water). The average usage for each connection size is shown in table 2.6.

2.6 Water usage, by connection size

	Number of respondants	Share of respondents	Average usage
Meter size	Number	Per cent	kL/four months
20mm	26	51.0	305
25mm	12	23.5	222
32mm	4	7.8	219
40mm	6	11.8	967
50mm	2	3.9	949
100mm	1	2.0	2947
Total	**51**	**100**	**434**

Source: 6a. Please indicate the meter size on the back of the bill (mm). 6. Please indicate the four-monthly water usage on the back of the bill.

2.7 Other characteristics of the non-residential panel sample

	Number of responses	Share of responses
Q1. Which of the following best describes the water and wastewater bills you receive for the residence you live in?		
a. The business gets bills from Hunter Water	34	66.7
b. The business gets bills from Hunter Water and from the body corporate for the premises	3	5.9
c. My landlord/managing agent gets bills from Hunter Water and charges the full amount to me as a specific charge separate from rent	12	23.5
d. My landlord/managing agent gets bills from Hunter Water and charges part of the bill to me as a specific charge separate from rent	2	3.9
Q3 Approximately how many staff does your business employ		
Non-employing sole trader	7	13.7

	Number of responses	Share of responses
1-4 employees	12	23.5
5-19 employees	10	19.6
20-199 employees	22	43.1
Q4 In which industry do you operate		
Accommodation and Food Services	5	9.8
Administrative and Food Services	1	2.0
Agriculture, Forestry and Fishing	0	0.0
Arts and Recreation Services	1	2.0
Construction	3	5.9
Electricity, Gas, Water and Waste Services	0	0.0
Education and Training	4	7.8
Financial and Insurance Services	4	7.8
Health Care and Social Assistance	3	5.9
Information Media and Telecommunications	0	0.0
Manufacturing	7	13.7
Mining	0	0.0
Other	6	11.8
Professional, Scientific and Technical Services	0	0.0
Public Administration and Safety	0	0.0
Rental, Hiring and Real Estate Services	3	5.9
Retail Trade	10	19.6
Transport, Postal and Warehousing	1	2.0
Wholesale Trade	0	0.0

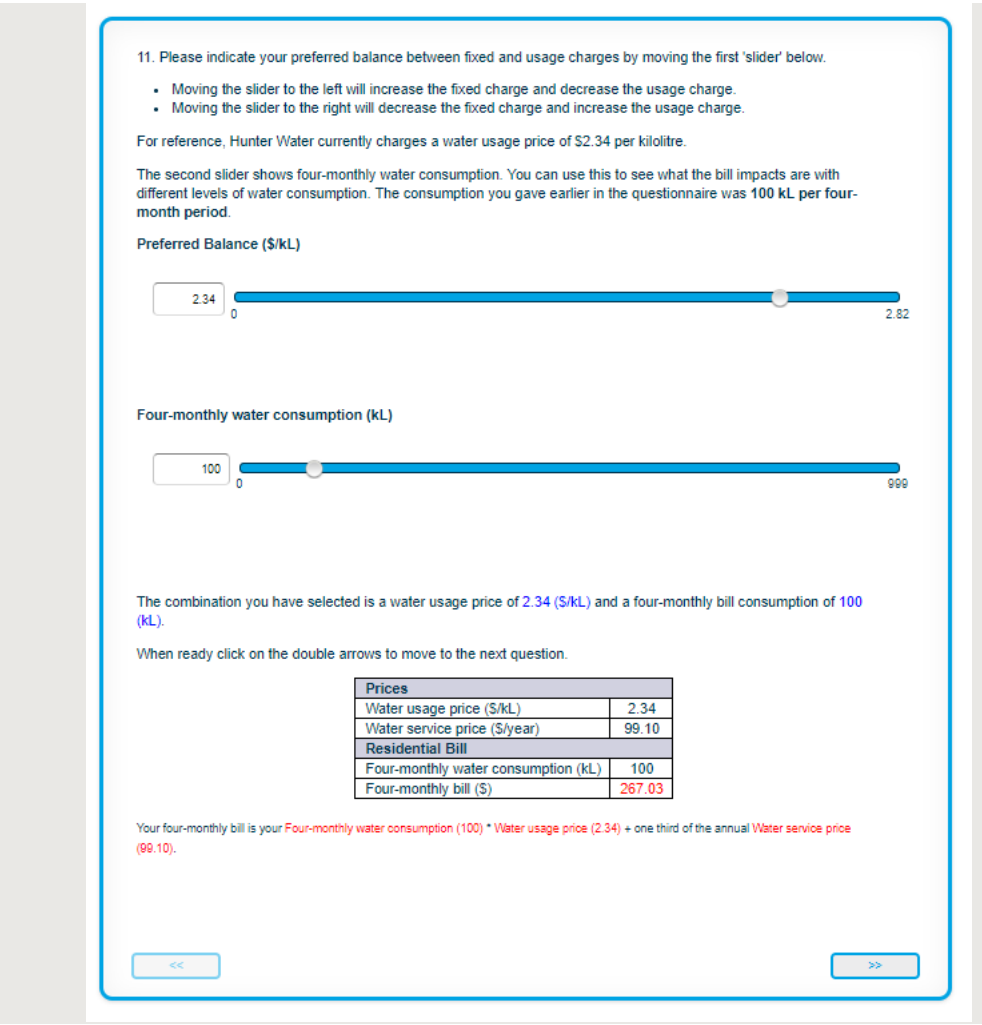
Source: As listed in table.

3 Balance between water usage and supply charges

- **There is a range of preferences in the community regarding the balance between water usage and fixed charges.**
- **It appears that a significant proportion – around 40 per cent of respondents – were not engaged with this topic or have weak preferences, since the distribution of responses varied dramatically depending on whether the existing balance was provided as a starting point.**
- **When we remove this group from the distribution, the median preferred usage charge is the existing $2.34/kL (the full sample median was similar at $2.30/kL). This provides support for maintaining the current structure, since a majority of residential customers have a preferred usage charge of at least $2.34/kL and a majority of residential customers have a preferred usage charge of no more than $2.34/kL.**
- **However, most customers prefer some change in the structure. Just under half of residential customers want the usage price decreased. The proportion of residential customers wanting a usage price increase was between 20 and 38 per cent depending on the treatment of weak preferences/disengaged responses, with a majority of this group preferring a larger increase to a price above $2.60/kL.**
- **Motivations relating to the respondents' own bill were more important than social motivations, such as impacts on low-income households and providing the right incentives for water use.**
- **Consistent with these motivations, customers with lower usage tended to prefer a higher usage charge. Renters preferred a lower usage charge, which is consistent with the fact that many renters pay only the usage component of the bill.**
- **There was a wide range of views on the preferred transition period for any change in the pricing structure. Around half of respondents preferred a period of two years or less. Roughly one in five respondents did not have a firm preference.**

Respondents were provided with information on considerations relevant to the balance between usage and fixed charges and then asked to indicate their preferred usage charge on a 'slider'. The corresponding fixed charge and annual bill were shown on the same page and changed in real time as respondents moved the usage charge slider. The bill estimate was based on a usage level, which could be changed with another slider. The non-residential version also included meter size as an input, which could be changed using a combo box. An example of this question from the residential survey is shown in figure 3.1.

3.1 Screenshot of 'slider' question in the residential survey



Data source: CIE/Woolcott

Residential panel respondents

The average response from the weighted panel sample was $1.87 per kilolitre, with a median at $2.30 per kilolitre.

3.2 Summary of preferred balance between fixed and usage charges (Q11 slider)

Mean	$1.87 per kilolitre
Median	$2.30 per kilolitre
N	458

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

When broken roughly into groups, we observe that roughly 50 per cent of people chose a decrease in the usage charge, 30 per cent chose to retain the current usage charge and 20 per cent chose to increase the usage charge.

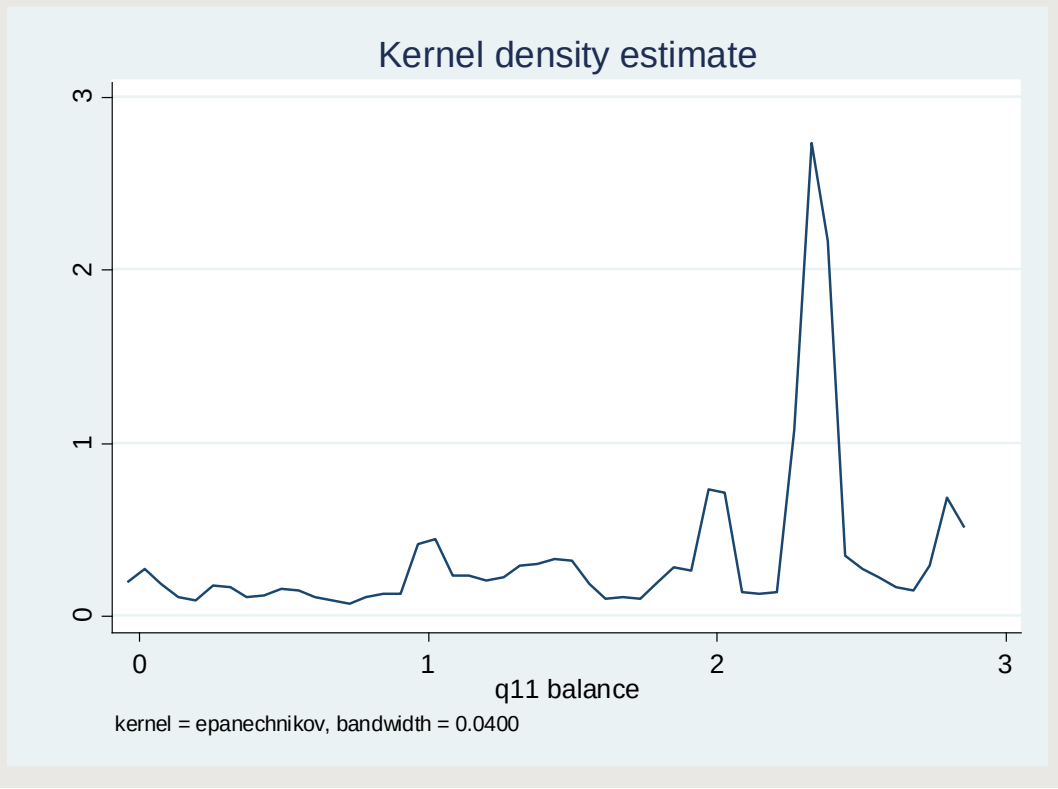
3.3 Preferred balance between fixed and usage charges, by size of change

Preferred change in usage charge	Share of respondents
	Per cent
Large reduction (Price drops below $2/kL)	39.28
Small reduction (Price drops but stays above $2)	11.40
No Change (Stay at $2.34)	29.88
Small increase (Price increases but stays below $2.60)	8.01
Large increase (Price increases above $2.60)	11.43

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

The full distribution shows peaks at the current price ($2.34/kL), at round numbers $1/kL and $2/kL, and at the extremes of the slider.

3.4 Estimated distribution of preferred usage price (full sample)



Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

The impact on the respondents' own bill was the primary reason given for their preferred balance. Social motivations, like impacts on low-income households and providing the

right incentives for water use, were clearly less important than private motivations regarding the respondents' own bill.

3.5 Reasons for preferred balance

	Share first priority	Share second priority	Cumulative share top two priority
	Per cent	Per cent	Per cent
The expected impact on my bill	35.90	23.56	59.46
Bill certainty (i.e. keeping bills predictable)	20.27	15.26	35.53
Ability to influence my bill	14.83	25.90	40.73
Impacts on low-income households	14.37	15.06	29.43
Providing the right incentive for water usage	13.72	19.96	33.68
Other (please specify)	0.91	0.26	1.16

Source: 12. What was your most important consideration when choosing your preferred balance between fixed and usage charges, 13. What was your second most important consideration when choosing your preferred balance between fixed and usage charges?

There was a wide range of views on the preferred transition period for any change in the pricing structure. Around half of respondents preferred a period of two years or less. Roughly one in five respondents did not have a firm preference.

3.6 Preferred transition period

	If increase the usage charge (Q14)	If decrease the usage charge (Q15)
	Per cent	Per cent
Change immediately	23.33	23.15
Change over two years	24.90	25.15
Change over three to five years	20.83	19.42
Change over more than five years	13.14	13.67
I don't have a firm preference	17.80	18.61

Source: 14. If Hunter Water were to increase the usage charge and decrease the fixed charge, how gradual should the change be? 15. If Hunter Water were to decrease the usage charge and increase the fixed charge, how gradual should the change be?

Impact of default positioning of slider

Initially, there was no default level on the slider and respondents needed to select a level before proceeding in the survey. Partway through the fieldwork period, the slider question was changed so that it prefilled at the existing price level ($2.34/kL). The results from the slider question set out above need to be viewed cautiously, as there was a large difference in the results between the group who answered with the slider prefilled at the existing usage charge (the 'with default' group) and those who answered with no prefilled amount on the slider (the 'no default' group):

- When the slider was prefilled, more than half of respondents left it at the prefilled amount ($2.34/kL)
- When the slider was not prefilled, there were a lot more people looking to reduce the current usage charge.

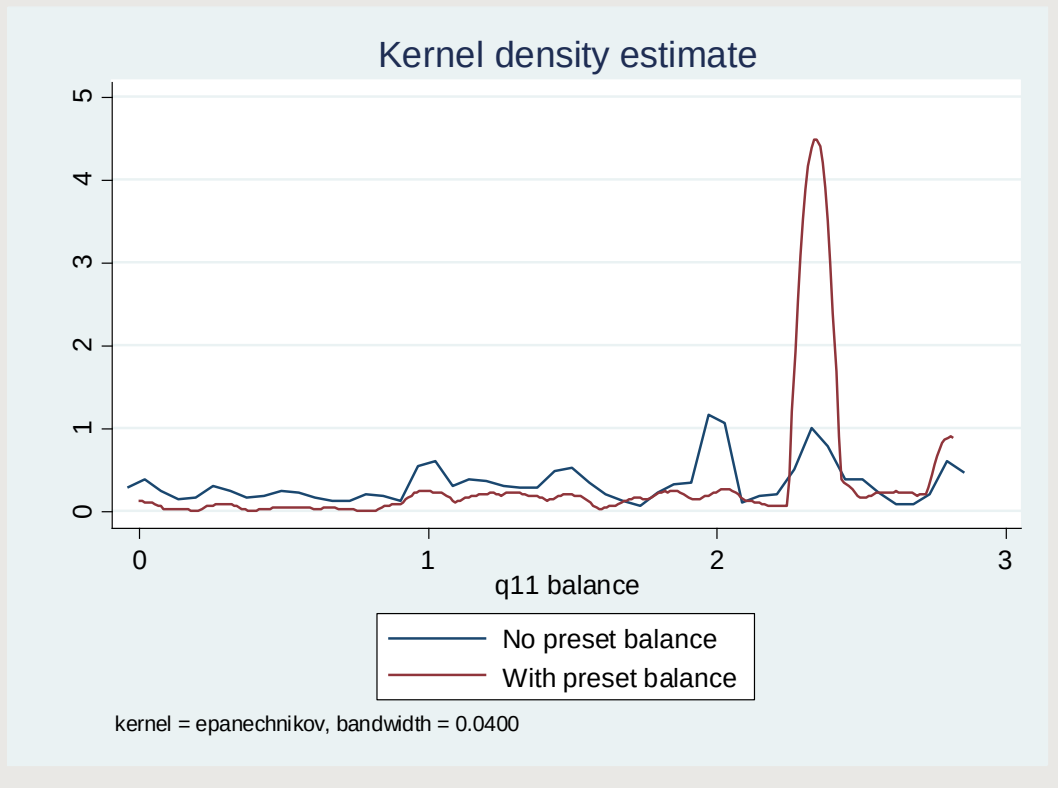
The median price chosen was $1.80/kL when no level was prefilled. Once $2.34/kL was prefilled, it became the median response.

3.7 Usage charge preference, by default positioning

	Full sample	No default answer	With default answer
	Per cent	Per cent	Per cent
Large reduction (Price drops below $2/kL)	39.3	56.8	22.9
Small reduction (Price drops but stays at or above $2)	11.4	18.2	5.0
No Change (Stay at $2.34)	29.9	7.9	50.6
Small increase (Price increases but stays at or below $2.60)	8.0	8.4	7.7
Large increase (Price increases above $2.60)	11.4	8.8	13.9

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.8 Distribution of responses with and without the pre-set balance at $2.34



Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

There are a number of possible reasons for this result, including:

- that some respondents may be relatively indifferent between different points on the slider; or
- that some respondents may not be paying close attention to the question or giving it proper consideration, so that they:
  - select a random point on the slider when no default in provided; and
  - leave the slider on the default when a default is provided.

Excluding respondents who may have given insufficient consideration

In the case of the latter reason, it would be informative to omit responses given without consideration. One way of approximating the preferences of respondents that gave the question due consideration would be to take:

- the share of respondents who answer \$2.34/kL when there is no default provided as the share who want to stay at \$2.34/kL; and
- the distribution of those who move away from the default as the distribution of those who don't want to stay at \$2.34/kL.

Under this approach, we take the data from the prefilled slider question (originally 237 responses) and adjust the 119 responses (after weighting) selecting \$2.34/kL down to 19 responses, since this is the rate of status quo selection observed when the slider was not prefilled. This gives a revised distribution comprising 135 responses.

In other words, we assume that 42.7 per cent of respondents to the prefilled slider question gave insufficient consideration (50.6 per cent who chose the default minus the 7.9 per cent share of respondents who chose \$2.34/kL in the slider question when it wasn't prefilled).

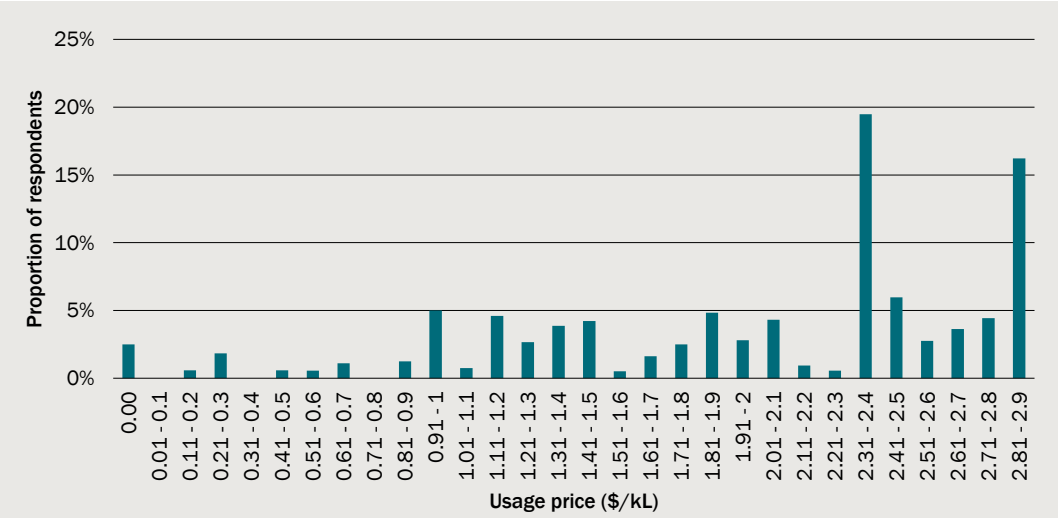
Removing this proportion of 'no change' responses from the prefilled slider responses gives a mean response of \$1.99/kL, a median response of \$2.34/kL, and the distribution of preferences displayed below.

3.9 Usage charge preference excluding respondents who may have given insufficient consideration – major categories

	No default answer	With default answer	Constructed combination
	Per cent	Per cent	Per cent
Large reduction (Price drops below \$2/kL)	56.8	**22.9**	**39.9**
Small reduction (Price drops but stays at or above \$2)	18.2	**5.0**	**8.7**
No Change (Stay at \$2.34)	**7.9**	50.6	**13.7**
Small increase (Price increases but stays at or below \$2.60)	8.4	**7.7**	**13.4**
Large increase (Price increases above \$2.60)	8.8	**13.9**	**24.3**

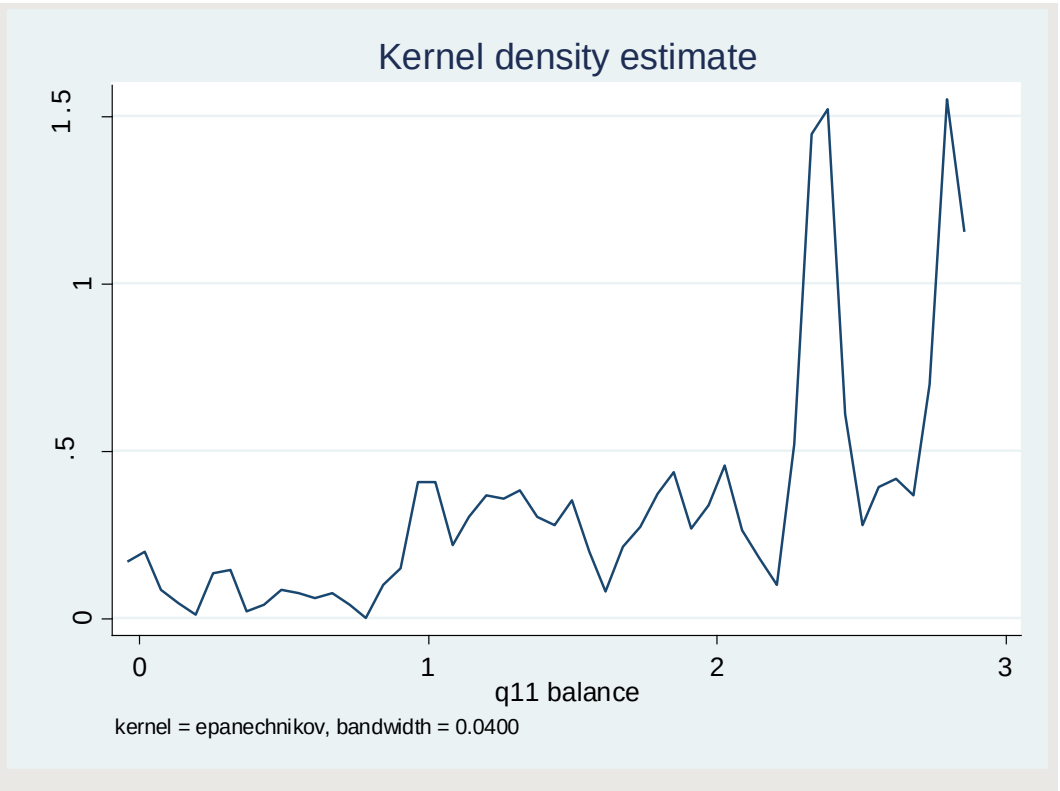
Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.10 Usage charge preference excluding respondents who may have given insufficient consideration – histogram



Data source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.11 Usage charge preference excluding respondents who may have given insufficient consideration – Kernel estimate



Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

Five respondents indicated in the comments field at the end of the survey that they needed more information or weren't confident about the survey calculations. Interestingly, none of these five respondents chose $2.34/kL in the slider question, with preferred prices of $0.50/kL, $2.00/kL, $2.01/kL, $2.21/kL and $2.65/kL. We did not

generate a separate set of results without these respondents, since omitting such a small group would not have a discernible impact.

Results by respondent characteristics

There are some challenges in looking at subgroups as people reacting to the default option creates noise in the underlying data. Therefore, in order to understand how the results, vary by subgroup, the results are presented in two parts:

- the total sample; and
- the subgroup of people who had a pre-set balance and changed to a different answer.

The total sample represents the best estimate of the preferences of each group. However, the high number of default responses may disguise any relationship that exists across groups. The restricted sample will overstate any underlying relationship but is a useful secondary check to see if a relationship exists. The restricted sample has 113 respondents, resulting in a small number of respondents in some subcategories.

As expected based on bill impacts, customers with lower usage tended to prefer a higher usage charge. The difference is particularly marked among respondents who moved the prefilled slider.

3.12 Average response of Q11, by usage quintile

	Tariff - Full sample	Tariff - Restricted sample
	($/kL)	($/kL)
Lowest usage	1.98337	2.189
Second lowest usage	1.93518	2.21821
Middle usage	1.85789	1.63267
Second highest usage	1.77904	1.6615
Highest usage	1.66044	1.342

Note: Usage is based on question 8 or question 9 if question 8 isn't answered.

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.13 Average response of Q11, by age grouping

	Tariff - Full sample	Tariff - Restricted sample
	($/kL)	($/kL)
18-29 years	1.96839	1.16 [a]
30-39 years	1.96863	2.2093
40-49 years	1.83666	1.79694
50-59 years	1.80885	1.98184
60-69 years	1.80795	1.89421
70 years or more	1.92981	NA

[a] N=2 for this subcategory.

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.14 Average response of Q11, by gender

	Tariff - Full sample	Tariff - Restricted sample
	($/kL)	($/kL)
Male	1.83827	1.97166
Female	1.9035	1.86498

Note: Table excludes one respondent that 'prefer not to say' to question 4.

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

Among respondents who moved the prefilled slider, renters preferred a lower usage charge, which is consistent with the fact that many renters pay only the usage component of the bill.

3.15 Average response of Q11, by home ownership

	Tariff - Full sample	Tariff - Restricted sample
	($/kL)	($/kL)
Renters	1.86462	1.66955
Owners	1.87201	1.96772

Source: Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.16 Average response of Q11, by building type

	Tariff - Full sample	Tariff - Restricted sample
	($/kL)	($/kL)
Flat, unit or apartment	1.90898	2.11508
House (standalone)	1.86106	1.9074
Other dwelling	2.32815	2.2685
Semi-detached, row or terrace house, tow	1.90045	1.96207

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.17 Average response of Q11, by land size

	Tariff - Full sample	Tariff - Restricted sample
	($/kL)	($/kL)
Less than 150 square metres	1.76421	1.54222
Greater than 150 square metres but less than 300 square metres	1.83973	1.78579
Greater than 300 square metres but less than 500 square metres	1.86856	2.09566

	Tariff - Full sample	Tariff - Restricted sample
	($/kL)	($/kL)
Greater than 500 square metres but less than 800 square metres	1.84313	1.90442
Greater than 800 square metres but less than 1,200 square metres	2.09324	2.08888
Greater than 1200 square metres	1.71994	1.90943
Don't know	1.81933	1.66799

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.18 Average response of Q11, by income group

	Tariff - Full sample	Tariff - Restricted sample
	($/kL)	($/kL)
Less than $41,600	1.73217	1.77058
Between 41,600 and $78,000	1.8048	1.82209
Between $78,000 and $104,000	1.77306	1.86285
Between $104,000 and $156,000	1.92717	1.82855
More than $156,000	1.97861	2.27922
Prefer not to say	na	2.12639

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

Residential advertised link respondents

The survey was also advertised using a generic link, which saw an additional 88 questionnaire completions. This section provides the main results from these supplementary data and compares them to those from the stratified panel.

Respondents to the advertised link were more likely (relative to the panel respondents) to want an increase in the usage price.

3.19 Average water price structure preference, by sample

	Advertised sample	Panel sample
Mean	$2.20 per kilolitre	$1.87 per kilolitre
Median	$2.34 per kilolitre	$2.30 per kilolitre
N	88	458

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

The advertised link had a prefilled slider at the existing usage price of $2.34 for all respondents. It appears the results are similar to those of the panel sample when the slider was prefilled, except with fewer respondents preferring the existing price and more

respondents preferring an increased price. The extent of this difference is very uncertain, however, since 95 per cent confidence intervals for the results from responses to the advertised link are roughly ±10 percentage points.

3.20 Preferred water price structure, by sample

Preferred change	Advertised sample	Panel sample (all responses)	Panel sample (only responses with default)
	Per cent	Per cent	Per cent
Large reduction (Price drops below $2/kL)	22.73	39.28	22.9
Small reduction (Price drops but stays above $2)	6.82	11.4	5.0
No Change (Stay at $2.34)	35.23	29.88	50.6
Small increase (Price increases but stays below $2.60)	13.64	8.01	7.7
Large increase (Price increases above $2.60)	21.59	11.43	13.9

Source: 11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

Non-residential respondents

The average response from non-residential respondents was $2.34. This is also the median response amongst this group (table 3.21). All non-residential respondents received the 'default' version of the slider question. As was the case in the residential sample, a large proportion of respondents left the slider at this level.

Non-residential respondents wanting a higher usage price tended to be lower water users. The average water usage in this group was 17.5kL/four-month billing cycle, which is just 4 per cent of the average usage value of all non-residential customers.

3.21 Preferred balance between fixed and usage charges (non-residential)

Mean	$2.34 per kilolitre
Median	$2.34 per kilolitre
N	51

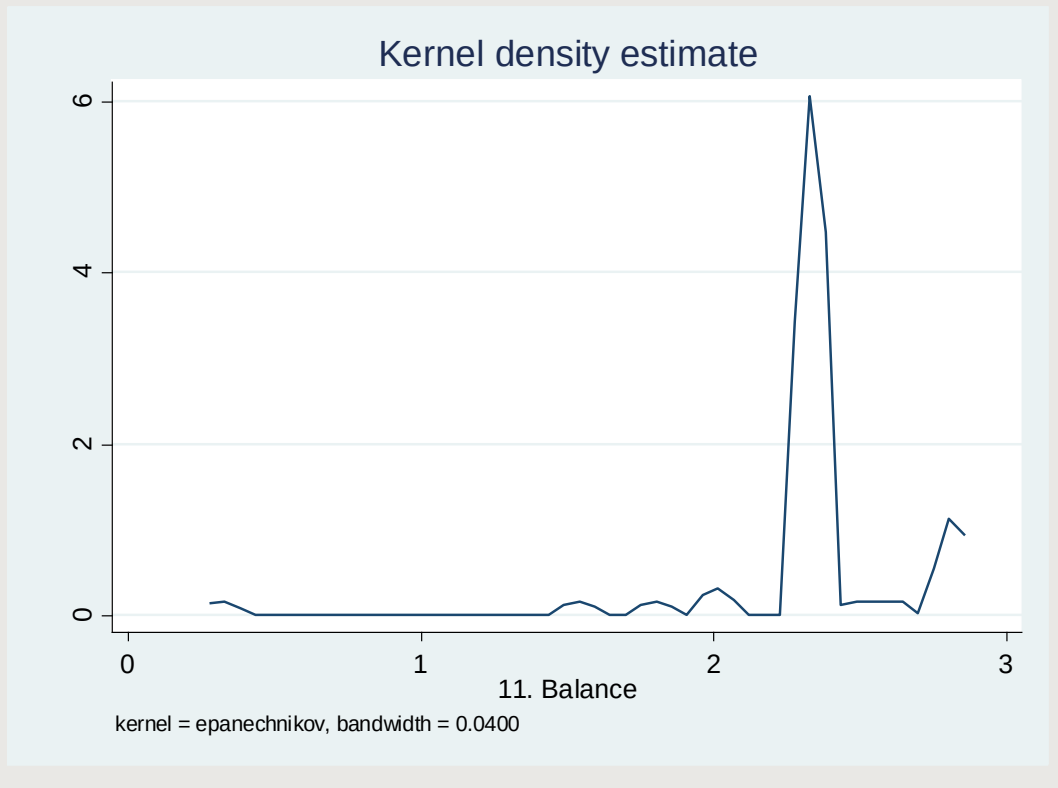
Source: 8. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.22 Preferred balance between fixed and usage charges, by size of change

Preferred change in usage charge	Share of respondents
	Per cent
Large reduction (Price drops below $2/kL)	5.8
Small reduction (Price drops but stays above $2)	3.9
No Change (Stay at $2.34)	71.2
Small increase (Price increases but stays below $2.60)	1.9
Large increase (Price increases above $2.60)	17.3

Source: 8. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

3.23 Estimated distribution of preferred usage price (non-residential)



Source: 8. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

The main reasons given for choosing these values are presented in table 3.5, with 'the expected impact on my bill' being the most common response. Some 70.6 per cent of respondents chose this as one of the two most important priorities, which is a larger share than was found in the residential sample (59.5 per cent).

3.24 Reasons for preferred balance

	Share first priority	Share second priority	Cumulative share top two priority
	Per cent	Per cent	Per cent
The expected impact on my bill	52.9	17.7	70.6
Bill certainty (i.e. keeping bills predictable)	25.5	11.8	37.3
Ability to influence my bill	5.9	39.2	45.1
Impacts on other businesses	0.0	5.9	5.9
Providing the right incentive for water usage	13.7	23.5	37.2
Other (please specify)	2.0	2.0	4.0

Source: 9. What was your most important consideration when choosing your preferred balance between fixed and usage charges, 10. What was your second most important consideration when choosing your preferred balance between fixed and usage charges?

Like the residential sample, non-residential respondents also expressed a wide range of views over the preferred transition period for any policy change.

3.25 Preferred transition period

	If increase the usage charge (Q14)	If decrease the usage charge (Q15)
	Per cent	Per cent
Change immediately	33.3	31.4
Change over two years	25.5	23.5
Change over three to five years	13.7	17.7
Change over more than five years	5.9	5.9
I don't have a firm preference	21.6	21.6

Source: 11. If Hunter Water were to increase the usage charge and decrease the fixed charge, how gradual should the change be? 12. If Hunter Water were to decrease the usage charge and increase the fixed charge, how gradual should the change be?

4 Large water user price discount

- **Residential customers did not indicate majority support for either continuing or ceasing the discount for large industrial/commercial customers. Stopping the discount was the most popular option at 38 per cent, with a third of residents indicating they didn't have a firm preference.**
- **Fairness was the motivation most commonly reported by those preferring removal of the discount. Respondents preferring to keep the discount had a range of reasons, with impacts on the customers receiving the discount the most common.**

Residential panel respondents

Views on the continuation of the discount for large industrial/commercial customers were split almost evenly between keeping the discount, stopping the discount and not having a firm preference. Stopping the discount was the most popular option at 38 per cent (with confidence intervals of around ±4.4 per cent).

4.1 Preferred approach to large industrial/commercial usage price

	Share of respondents
	Per cent
Keep providing the discount per kilolitre of water used, for water usage over 50,000 kilolitres per year	30.86
Stop providing the discount (charge all customers the same for each kilolitre of water used)	38.19
I don't have a firm preference	30.95

Source: 16. Please indicate your preference for charging the twenty (20) businesses and industrial customers per unit of water used

Fairness was the motivation most commonly reported by those preferring removal of the discount. Respondents preferring to keep the discount had a range of reasons, with impacts on the customers receiving the discount the most common.

4.2 Reasons given for view on industrial discount

	Total sample	Those saying keep the discount	Those saying remove the discount	Those unsure
	Per cent	Per cent	Per cent	Per cent
The expected impact on my bill	18.04	20.15	12.94	22.24
Providing the right incentive for water usage	21.99	22.18	28.54	13.73

	Total sample	Those saying keep the discount	Those saying remove the discount	Those unsure
	Per cent	Per cent	Per cent	Per cent
Impacts on other customers (including the twenty customers)	17.97	31.54	12.81	10.8
Fairness	39.84	23.26	45.71	49.12
Other (please specify)	2.16	2.87	0	4.11

Source: 17. What was your most important consideration when choosing your preference for the usage charge for twenty (20) businesses and industrial customers?

Residential advertised link respondents

Respondents to the advertised link were more likely to prefer stopping the discount than the panel respondents (49 per cent compared to 38 per cent). Only 26 per cent indicated a preference to keep the discount. Due to the limited sample size, 95 per cent confidence intervals for the results from responses to the advertised link are roughly ±10 percentage points.

4.3 Preferred approach to large industrial/commercial usage charge, by sample

	Advertised data	Panel data
	Per cent	Per cent
Keep providing the discount per kilolitre of water used, for water usage over 50,000 kilolitres per year	26.14	30.86
Stop providing the discount (charge all customers the same for each kilolitre of water used)	48.86	38.19
I don't have a firm preference	25.00	30.95

Source: 16. Please indicate your preference for charging the twenty (20) businesses and industrial customers per unit of water used

Non-residential respondents

Non-residential respondents were split over whether to continue the large customer discount. Those that wanted to keep the discount reported that 'the expected impact on my bill' was the most important factor, while those wanting to remove the discount were most concerned about 'providing the right incentive for water usage'.

4.4 Preferred approach to large industrial/commercial usage price

	Share of respondents
	Per cent
Keep providing the discount per kilolitre of water used, for water usage over 50,000 kilolitres per year	25.5

	Share of respondents
Stop providing the discount (charge all customers the same for each kilolitre of water used)	33.3
I don't have a firm preference	41.2

Source: 13. Please indicate your preference for charging the twenty (20) businesses and industrial customers per unit of water used

4.5 Reasons given for view on industrial discount

	Total sample	Those saying keep the discount	Those saying remove the discount	Those unsure
	Per cent	Per cent	Per cent	Per cent
The expected impact on my bill	29.4	53.9	5.9	33.3
Providing the right incentive for water usage	31.4	23.1	64.7	9.5
Impacts on other customers (including the twenty customers)	3.9	7.7	0.0	4.8
Fairness	33.3	15.4	29.4	47.6
No Preference	2.0	0.0	0.0	4.8

Source: 14. What was your most important consideration when choosing your preference for the usage charge for twenty (20) businesses and industrial customers?

5 Wastewater price structure

- **The most popular approach to residential wastewater pricing structure was a uniform fixed charge across houses and apartments, with no usage charge.**
- **The preferred transition to a uniform fixed charge was to maintain the current rate, which would see equality reached after seven years.**
- **Customers in apartments preferred approaches with different fixed charges for houses and apartments and a slower transition to any unification of fixed charges.**
- **The primary motivation for wastewater pricing preferences is fairness, regardless of the preferred type of structure.**

Residential panel respondents

Around half of residential customers preferred a continuation of the current wastewater structure with only a fixed charge, with only 26 per cent indicating a usage charge should be introduced.

5.1 View on the introduction of a wastewater usage charge

	Per cent
Yes	25.8
No, I prefer the current approach with a fixed charge only	49.85
I don't have a firm opinion	24.35

Source: Do you think the wastewater part of your bill should include a usage charge on the estimated volume of wastewater discharged from your household?

Just over half of residential customers indicated that houses and apartments should pay the same fixed charge. Some 30 per cent indicated houses should pay a different fixed charge, but these respondents were evenly split on whether it should be higher or lower than the charge paid by apartments. Respondents living in apartments were in favour of houses paying a higher fixed charge than apartments.

5.2 Preference on the relative fixed charge paid by houses and apartments

	All respondents	Houses	Apartments
	Per cent	Per cent	Per cent
All dwellings should pay the same fixed charge	53.53	56.79	13.83

	All respondents	Houses	Apartments
	Per cent	Per cent	Per cent
Houses should pay a higher fixed charge	14.39	10.17	62.44
Houses should pay a lower fixed charge	13.58	14.86	0
I don't have a firm preference	18.5	18.18	23.72

Note: All respondents also includes 27 'semi-detached row or terrace houses', and 7 'Other dwelling'

Source: If the wastewater part of your bill remains fixed with no usage component, should the fixed amount be the same for apartments and houses?

The uniform fixed charge was the favoured option across all income categories.

5.3 Preference on the fixed charge paid by houses and apartments by income

	Less than $41 600	Between $41 600 and $78 000	Between $78 000 and $104 000	Between $104 000 and $156 000	More than $156 000	Prefer not to say
	per cent	per cent	per cent	per cent	per cent	per cent
All dwellings should pay the same fixed charge	46.64	58.62	49.68	61.81	59.90	34.99
Houses should pay a higher fixed charge than apartments	13.44	19.59	16.88	15.45	5.89	11.82
Houses should pay a lower fixed charge than apartments	15.25	9.23	15.61	5.64	17.68	26.36
I don't have a firm preference	24.68	12.56	17.83	17.10	16.52	26.83

Source: If the wastewater part of your bill remains fixed with no usage component, should the fixed amount be the same for apartments and houses?

The preferred transition to a uniform fixed charge was to maintain the current rate, which would see equality reached after seven years. Customers living in apartments preferred a slower transition.

5.4 Preferred period of transition to uniform fixed charges

	All respondents	Houses	Apartments
	Per cent	Per cent	Per cent
Change at the current rate (2.5% increase per year, so that they are equal after seven years)	40.6	41.02	29.25
Slower than the current rate	16.35	14.29	46.51
Faster than the current rate	15.73	17.31	3.8
I don't have a firm preference	27.32	27.38	20.44

Note: All respondents also includes 27 'semi-detached row or terrace houses', and 7 'Other dwelling'

Source: 19. If the wastewater part of your bill remains fixed with no usage component, should the fixed amount be the same for apartments and houses? 20. If Hunter Water were to increase the fixed charge for apartments so that they pay the same fixed charge as houses, how gradual should the change be?

Consistent with the responses to the questions discussed above, the most popular overall approach to wastewater pricing structure was a uniform fixed charge with no usage charge. Customers in apartments preferred approaches with different fixed charges for houses and apartments.

5.5 Preferred overall approach to wastewater pricing

	All respondents	Houses	Apartments
	Per cent	Per cent	Per cent
Current approach with different fixed charges for houses and apartments. No usage charge.	18.34	17.32	38.95
One fixed charge for all dwellings. No usage charge.	30.13	34.37	6.26
Different fixed charges for houses and apartments and a usage charge based on a discharge factor	15.07	11.21	36.24
One fixed charge for all dwellings and a usage charge based on a discharge factor	15.28	15.62	0
Don't have a firm preference	21.18	21.48	18.55

Note: All respondents also includes 27 'semi-detached row or terrace houses', and 7 'Other dwelling'

Source: Overall, which wastewater pricing approach do you prefer?

The primary motivation for wastewater pricing preferences is fairness, regardless of the preferred type of structure.

5.6 Reason for wastewater pricing structure preference

	Current approach with different fixed charges for houses and apartments, No usage charge	Different fixed charges for houses and apartments + Usage charge based on a discharge factor	I don't have a firm preference	One fixed charge for all dwellings + Usage charge based on a discharge factor	One fixed charge for all dwellings, No usage charge	Total
	per cent	per cent	per cent	per cent	per cent	per cent
Fairness of bills across all households	41.3	43.1	32.9	63.3	60.9	49.5
The expected impact on my bill	37.1	35.9	36.1	17.8	15.0	26.6
Bill certainty / ability to influence my bill	17.1	5.6	8.2	2.9	19.4	12.3
Providing the right incentives for water usage	4.4	15.3	22.0	16.0	3.6	11.0
Other (please specify)	0.0	0.0	0.8	0.0	1.0	0.5

Source: 22. What was your most important consideration when choosing your preferred approach?

Residential advertised link respondents

Preferences for wastewater price structure were fairly similar across the advertised link and the panel. Due to the limited sample size, 95 per cent confidence intervals for the results from responses to the advertised link are roughly ±10 percentage points.

5.7 Support for wastewater usage charge, by sample

	Advertised sample	Panel sample
	Per cent	Per cent
Yes	31.82	25.8
No, I prefer the current approach with a fixed charge only	48.86	49.85
I don't have a firm opinion	19.32	24.35

Source: Do you think the wastewater part of your bill should include a usage charge on the estimated volume of wastewater discharged from your household?

5.8 Support for differentiating wastewater fixed charge, by sample

	Advertised sample	Panel sample
	Per cent	Per cent
All dwellings should pay the same fixed charge	61.36	53.53
Houses should pay a higher fixed charge	13.64	14.39
Houses should pay a lower fixed charge	11.36	13.58
I don't have a firm preference	13.64	18.5

Source: If the wastewater part of your bill remains fixed with no usage component, should the fixed amount be the same for apartments and houses?

5.9 Preferred transition in wastewater fixed charge for apartments, by sample

	Advertised sample	Panel sample
	Per cent	Per cent
Change at the current rate (2.5% increase per year, so that they are equal after seven years)	38.64	40.6
Slower than the current rate	13.64	16.35
Faster than the current rate	22.73	15.73
I don't have a firm preference	25.00	27.32

Source: 19. If the wastewater part of your bill remains fixed with no usage component, should the fixed amount be the same for apartments and houses? 20. If Hunter Water were to increase the fixed charge for apartments so that they pay the same fixed charge as houses, how gradual should the change be?

One of the few significant differences between the advertised link and panel samples was that the pricing structure with a uniform fixed charge and a usage charge was much more popular with respondents to the advertised link (28 per cent compared to 15 per cent of the panel sample).

5.10 Preferred overall approach to wastewater pricing, by sample

	Advertised sample	Panel sample
	Per cent	Per cent
Current approach with different fixed charges for houses and apartments. No usage charge.	13.64	18.34
One fixed charge for all dwellings. No usage charge.	32.95	30.13
Different fixed charges for houses and apartments and a usage charge based on a discharge factor	11.36	15.07
One fixed charge for all dwellings and a usage charge based on a discharge factor	28.41	15.28
Don't have a firm preference	13.64	21.18

Source: Overall, which wastewater pricing approach do you prefer?

Non-residential respondents

Non-residential respondents were not surveyed about wastewater preferences.

A Residential survey questionnaire

Thank you for participating in this survey, which is being run by Woolcott Research and the Centre for International Economics on behalf of Hunter Water.

Hunter Water wants to understand its customers' views on the water and wastewater services we provide as well as their preferences for the future. We are running this survey because we want feedback from residential customers on the structure of the prices we charge. Your feedback is valuable and it will be used in a review by the independent regulator (IPART) to help set prices for Hunter Water customers from 2020 for 4 or 5 years.

Please complete this questionnaire on behalf of your household. It will take around 15 minutes. You do not need to know anything about pricing for these services. Background information is provided.

Published results will report on survey responses only in a grouped format, so that individuals' responses will not be identifiable.

If you have any technical problems with the questionnaire, please contact Hayden Evans at hevans@woolcott.com.au or call 92615221.

If you have enquiries about this project, please contact Hunter Water on 1300 657 657 or yourvoice@hunterwater.com.au.

Section 1. Screener questions

First, some questions to make sure we have a good cross section of respondents.

1. Do you or anyone in your household work for any of the following organisations?

   Hunter Water

   IPART (Independent Pricing and Regulatory Tribunal)

   a. Yes **TERMINATE**
   b. No

TERMINATE PAGE

Thank you for your patience in answering this question. Unfortunately, we do not need you to participate in our research this time, but we sincerely appreciate your time and assistance today.

To keep up to date with opportunities to be involved in ongoing research and consultation, visit https://yourvoice.hunterwater.com.au/

2. Which of the following best describes the water and wastewater bills you receive for the residence you live in?

   a. I get bills from Hunter Water
   b. I get bills from Hunter Water and from my body corporate
   c. My landlord/managing agent gets bills from Hunter Water and charges the full amount to me as a specific charge separate from rent
   d. My landlord/managing agent gets bills from Hunter Water and charges part of the bill to me as a specific charge separate from rent
   e. I get my bills from the body corporate
   f. I don't pay a separate amount for water and wastewater **TERMINATE**

3. What is the postcode of your home address? **TERMINATE IF OUT OF AREA. CHECK QUOTAS.**

4. Are you… **CHECK QUOTAS**

   a. Male
   b. Female
   c. Other
   d. Prefer not to say

5. What is your age? **CHECK QUOTAS**

   a. Less than 18 years **TERMINATE**
   b. 18-29 years
   c. 30-39 years
   d. 40-49 years
   e. 50-59 years

f. 60-69 years

g. 70 years or more

6. Is the house in which you live… **SR AUTOMATIC NEXT QUESTION**

a.	Owned outright or with a mortgage	1
b.	Being rented or occupied rent-free	2
c.	Other (please specify)	3

This questionnaire is about the prices that you pay for water and wastewater services.

It has three parts:

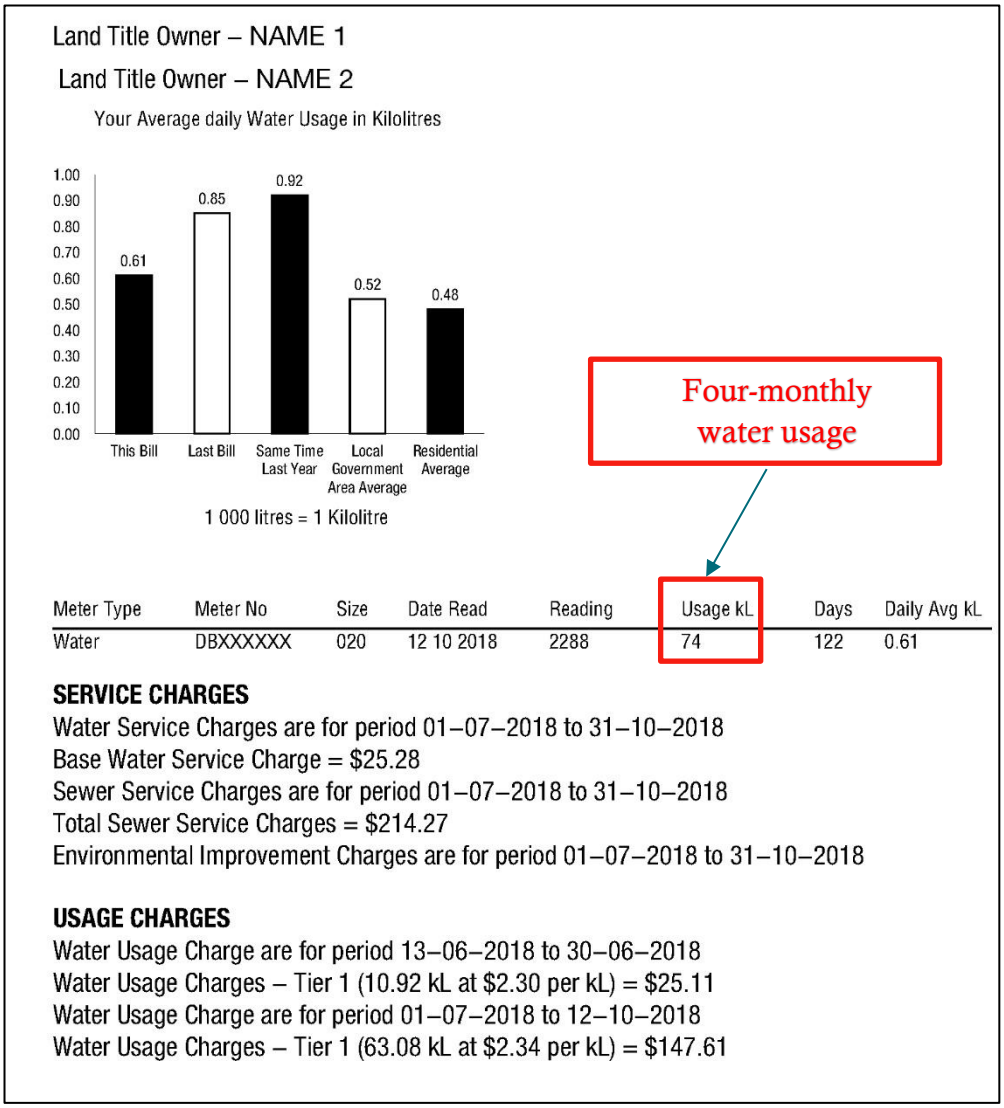
- Background information and questions on the structure of pricing for water
- Background information and questions on the structure of pricing for wastewater
- Questions about you

Section 2. Water use characteristics

7. Do you have access to your most recent household water bill? **SR AUTOMATIC NEXT QUESTION**.

   a. Yes. **Proceed to question 8, skip q9.**

   b. No. **Proceed to question 9, skip q8.**



8. Please indicate the four-monthly usage on the back of your bill (the example above shows where you can find this number on your bill):

    a. Insert number

Please give a rough estimate of the amount of water that you use each four-monthly period. Four months is the period between water bills.

As a guide:

- a small household (e.g. one adult in a two-bedroom townhouse), with no garden, uses around 30 kL in four months
- a typical flat or apartment uses around 50 kL in four months
- a typical household uses around 60 kL in four months
- a large household, or a household with a large garden, uses around 100 kL in four months

9. The amount of water that I use in four months is about:

Insert number

10. Do you monitor your water usage and change your behaviour if your bill increases **SR AUTOMATIC NEXT QUESTION**.

    a. Yes

    b. No

    c. Not applicable

Section 3. Water price structure

Hunter Water charges customers for water and wastewater services. Prices for these services are set by IPART, an independent regulator (www.ipart.nsw.gov.au).

For water services, residential customers pay:

- a fixed charge per household; and
- a charge that varies with the volume of water used by the household.

Hunter Water is seeking your views on whether to maintain, increase or decrease the usage charge for water services. If there is an increase in the water usage charge, there will be a reduction in the fixed charge. Likewise, any decrease in the water usage charge will also need to have an increase in the fixed charge. **Hunter Water will receive the same revenue under all scenarios.**

Information to help your decision

Some of the things customers consider when thinking about their preferred balance between fixed and usage charges include…

Bill certainty or ability to influence their bill

Some customers prefer a higher usage charge because they can change their behaviour to reduce bills. On the other hand, a higher fixed charge gives customers greater bill certainty and it is easier to plan household budgets.

Impacts on your own bill

Increasing the usage charge will tend to:

- decrease bills for households with lower water usage
- increase bills for households with higher water usage

Impacts on others' bills

Changing the balance between fixed and usage prices will impact households differently, depending on their water usage. Research shows the biggest driver of water use is the number of people in the household. Households with larger families are likely to use more water. Households with large gardens are also likely to use more water. Wealthier households don't necessarily use more water – other factors influence water use more than income.

The price scenarios below illustrate the bill impacts on different types of households.

	Next year (without inflation)	Scenario A	Scenario B
Water usage charge	$2.34 per kilolitre	$1.80 per kilolitre	$2.84 per kilolitre
Water fixed charge	$99 per dwelling per year	$208 per dwelling per year	$1 per dwelling per year

Annual water bill (excluding wastewater)

 Low consumption (100 kL per year)	$333	$388	$285
 Typical apartment (150 kL per year)	$450	$478	$427
 Typical house (185 kL per year)	$532	$541	$526
 High consumption (300 kL per year)	$801	$748	$853
 Apartment tenant (150 kL per year)	$351	$270	$426

Incentives for water conservation

Reducing household water use is one way that we can work together to delay expensive investment in water supply infrastructure. The higher the water usage charge, the greater incentive households have to conserve water.

11. Please indicate your preferred balance between fixed and usage charges by moving the first 'slider' below.

    - Moving the slider to the left will increase the fixed charge and decrease the usage charge.
    - Moving the slider to the right will decrease the fixed charge and increase the usage charge.

    For reference, Hunter Water currently charges a water usage price of $2.34 per kilolitre.

    The second slider shows four-monthly water consumption. You can use this to see what the bill impacts are with different levels of water consumption. The consumption you gave earlier in the questionnaire was **XXX** per four-month period.

    When ready click on the double arrows to move to the next question.

    For usage price $0 to $1.22/kL, fixed charge (per year) = 585.15 – 212.42 * usage price

    For usage price $1.23 to $2.82/kL, fixed charge (per year) = 573.02 – 202.53 * usage price

12. What was your most important consideration when choosing your preferred balance between fixed and usage charges? **SR**.

    a. The expected impact on my bill
    b. Bill certainty (i.e. keeping bills predictable)
    c. Ability to influence my bill
    d. Impacts on low-income households
    e. Providing the right incentive for water usage
    f. Other (please specify)

13. What was your second most important consideration when choosing your preferred balance between fixed and usage charges? **SR. DON'T SHOW THE CODE SELECTED AT Q12**.

    a. The expected impact on my bill
    b. Bill certainty
    c. Ability to influence my bill
    d. Impacts on low-income households
    e. Providing the right incentive for water usage
    f. Other (please specify)

14. If Hunter Water were to increase the usage charge and decrease the fixed charge, how gradual should the change be? **SR AUTOMATIC NEXT QUESTION**.
    a. Change immediately
    b. Change over two years
    c. Change over three to five years
    d. Change over more than five years
    e. I don't have a firm preference
15. If Hunter Water were to decrease the usage charge and increase the fixed charge, how gradual should the change be? **SR AUTOMATIC NEXT QUESTION**.
    a. Change immediately
    b. Change over two years
    f. Change over three to five years
    g. Change over more than five years
    c. I don't have a firm preference

About twenty (20) businesses and industrial customers pay different usage prices compared with other customers. They pay:

- The same usage charge as everyone else ($2.34 per kilolitre) for the first 50,000 kilolitres of water per year. 50,000 kilolitres is about the same as the amount of water used by 270 freestanding houses.
- A lower usage charge for each kilolitre over 50,000 kilolitres. The current price varies from $1.89 to $2.32 per kilolitre of water used, depending on location.

This way of charging large customers was introduced in 2001.

Hunter Water is seeking your view on whether to keep the current usage charges for these large customers or charge all customers the same usage charge. **Hunter Water will receive the same revenue under all scenarios.**

Information to help your decision

Some of the things customers consider when thinking about their preferences include….

Impacts on their own bill

Removing the discount for the 20 big customers will tend to decrease bills for households and all other business customers. If everything else stays the same, household water bills would decrease by around $8 per year (around 1%).

Impacts on the big customers

The types of customers that currently get the discount vary quite a lot. There are mines, shopping centres, manufacturers, education facilities and hospitals. These businesses employ people, who then spend money in our region.

Cost to provide services

One of the reasons Hunter Water started charging this way was because large customers located near Hunter Water's dams and major pipelines do not use all the smaller pipes in the network – that is, these customers are cheaper to serve.

16. Please indicate your preference for charging the twenty (20) businesses and industrial customers per unit of water used

    a. Keep providing the discount per kilolitre of water used, for water usage over 50,000 kilolitres per year

    b. Stop providing the discount (charge all customers the same for each kilolitre of water used)

    c. I don't have a firm preference

17. What was your most important consideration when choosing your preference for the usage charge for twenty (20) businesses and industrial customers?

    a. The expected impact on my bill

    b. Providing the right incentive for water usage

    c. Impacts on other customers (including the twenty customers)

    d. Fairness

    e. Other (please specify)

Section 4. Wastewater price structure

Wastewater, also known as sewage, is the water and anything that is added to it that comes from your sinks, bathrooms, showers, toilets and laundry that is discharged to Hunter Water's system.

For wastewater services, customers living in flats and units pay less than customers living in freestanding houses. Flats and units pay 80% of the wastewater charge for houses. This proportion is increasing every year and will be 82.5% next year.

Even though wastewater charges vary depending on the type of residential dwelling, each charge is fixed – it does not vary with the amount of wastewater you put into our pipes (discharge).

If a charge for estimated wastewater discharge was introduced there would be a reduction in the fixed charge, so that Hunter Water receives the same amount of revenue.

We want to know your views on whether flats and units should continue to pay a different charge to houses and whether a charge for estimated wastewater discharge should be introduced.

Information to help your decision

Some of the things customers consider when thinking about their preferred way of being charged for wastewater services include….

No wastewater meter

Wastewater would not be metered because it is very costly and technically difficult. Without a meter an estimate of a household's wastewater volume is needed. For example, Hunter Water could assume that 75% of water usage is discharged to the wastewater system and apply the usage charge to that amount. This percentage is known as the 'discharge factor'. It would apply to all households. There would not be a way for each household to have their own specific discharge factor.

If a household wanted to reduce the usage portion of their wastewater bill they would need to reduce their water usage (i.e. the amount of water supplied to the house).

Cost to provide services

Most of the costs of wastewater systems are fixed and do not change with the volume of wastewater discharged into the system. This means that if we include a usage charge in your wastewater bill it would be lower than the usage charge for water. A wastewater usage charge would probably be less than $0.70 per kilolitre of wastewater discharged.

18. Do you think the wastewater part of your bill should include a usage charge on the estimated volume of wastewater discharged from your household? **SR AUTOMATIC NEXT QUESTION**.

    a. Yes

    b. No, I prefer the current approach with a fixed charge only

    c. I don't have a firm preference

19. If the wastewater part of your bill remains fixed with no usage component, should the fixed amount be the same for apartments and houses? **SR AUTOMATIC NEXT QUESTION**.

    a. All dwellings should pay the same fixed charge

    b. Houses should pay a higher fixed charge than apartments

    c. Houses should pay a lower fixed charge than apartments

    d. I don't have a firm preference

20. If Hunter Water were to <u>increase</u> the fixed charge for apartments so that they pay the same fixed charge as houses, how gradual should the change be?

    a. Change at the current rate (2.5% increase per year, so that they are equal after seven years)

    b. Slower than the current rate

    c. Faster than the current rate

    d. I don't have a firm preference

21. Overall, which wastewater pricing approach do you prefer? **SR AUTOMATIC NEXT QUESTION**.

1	2	3	4	5
Current approach with different fixed charges for houses and apartments **No usage charge**	**One fixed charge for all dwellings** **No usage charge**	**Different fixed charges for houses and apartments** **+** **Usage charge based on a discharge factor**	**One fixed charge for all dwellings** **+** **Usage charge based on a discharge factor**	**Don't have a firm preference**

22. What was your most important consideration when choosing your preferred approach? **SR AUTOMATIC NEXT QUESTION**.

    a. The expected impact on my bill

    b. Bill certainty / ability to influence my bill

    c. Fairness of bills across all households

    d. Providing the right incentives for water usage

    e. Other (please specify)

Section 4. Household characteristics

And just some final questions to help us ensure we are speaking to a cross-section of Hunter Water customers…

23. How many people, including yourself, live in your household?
    a. One
    b. Two
    c. Three
    d. Four
    e. Five
    f. Six
    g. Seven
    h. More than Seven
24. Is the house in which you live a
    a. House (standalone)
    b. Semi-detached, row or terrace house, townhouse
    c. Flat, unit or apartment
    d. Other dwelling
25. **[If 'House' or 'Semi-detached, row or terrace house, townhouse']** What is the size of your land?
    a. Less than 150 square metres
    b. Greater than 150 square metres but less than 300 square metres
    c. Greater than 300 square metres but less than 500 square metres
    d. Greater than 500 square metres but less than 800 square metres
    e. Greater than 800 square metres but less than 1,200 square metres
    f. Greater than 1,200 square metres
    g. Don't know

26. You are eligible for a pensioner rebate on your Hunter Water bill if you are the owner and occupier of a property and hold a Pensioner Concession Card or a Department of Veterans' Affairs Gold Card. Do you receive a pensioner rebate from us?
    a. Yes
    b. No

c. Don't know

d. Prefer not to say

27. If you are a residential customer finding it hard to pay your water bill we can help through flexible payment options or the Payment Assistance Scheme operated through registered community welfare agencies. Have you ever used one of our assistance programs?

    a. Yes

    b. No

    c. Don't know

    d. Prefer not to say

28. What is your approximate annual household income before tax?

    a. Less than $41,600

    b. Between 41,600 and $78,000

    c. Between $78,000 and $104,000

    d. Between $104,000 and $156,000

    e. More than $156,000

    f. Prefer not to say

29. Finally, do you have any further comments about prices for your water and wastewater services that you do not feel are covered by this survey?

    _____
    _____
    _____
    _____

Thank you for participating in this survey. Your views and preferences are very important to Hunter Water.

B Non-residential survey questionnaire

Thank you for participating in this survey, which is being run by Woolcott Research and the Centre for International Economics on behalf of Hunter Water.

Hunter Water wants to understand its customers' views on the water and wastewater services we provide as well as their preferences for the future. We are running this survey because we want feedback from customers on the structure of the prices we charge. Your feedback is valuable and it will be used in a review by the independent regulator (IPART) to help set prices for Hunter Water customers from 2020 for 4 or 5 years.

Please complete this questionnaire on behalf of your business. It will take around 15 minutes. You do not need to know anything about pricing for these services. Background information is provided.

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If you have enquiries about this project, please contact Hunter Water on 1300 657 657 or yourvoice@hunterwater.com.au.

Section 1. Screener questions

First, some questions to make sure we have a good cross section of businesses.

1. Which of the following best describes the water bills you receive for your business?

    a. The business gets bills from Hunter Water

    b. The business gets bills from Hunter Water and from the body corporate for the premises

    c. My landlord/managing agent gets bills from Hunter Water and charges the full amount to me as a specific charge separate from rent

    d. My landlord/managing agent gets bills from Hunter Water and charges part of the bill to me as a specific charge separate from rent

    e. The business does not pay a separate amount for water **TERMINATE**

2. What is the postcode of your business address? **TERMINATE IF OUT OF AREA.**

3. Approximately how many staff does your business employ…

   a. Non employing/sole trader
   b. 1-4 Employees
   c. 5-19 Employees
   d. 20-199 Employees
   e. 200+ Employees

4. In which industry do you operate?

   a. Accommodation and Food Services
   b. Administrative and Support Services
   c. Agriculture, Forestry and Fishing
   d. Arts and Recreation Services
   e. Construction
   f. Education and Training
   g. Electricity, Gas, Water and Waste Services
   h. Financial and Insurance Services
   i. Health Care and Social Assistance
   j. Information Media and Telecommunications
   k. Manufacturing
   l. Mining
   m. Other
   n. Professional, Scientific and Technical Services
   o. Public Administration and Safety
   p. Rental, Hiring and Real Estate Services
   q. Retail Trade
   r. Transport, Postal and Warehousing
   s. Wholesale Trade

This questionnaire is about the prices that you pay for water services. You may also pay wastewater and trade waste charges for your business. Wastewater and trade waste prices are not covered in this survey.

Section 2. Water use characteristics

5. Do you have access to the most recent water bill for your business premises? **SR AUTOMATIC NEXT QUESTION**.

   c. Yes. **Proceed to question 6, skip q7.**

   d. No. **Proceed to question 7, skip q6.**

6. Please indicate the four-monthly water usage on the back of the bill:

   b. Insert number kL

7. Please give a rough estimate of the amount of water that you use each four-monthly period. Four months is the period between water bills for most customers.

The following table provides a guide of the water usage and meter sizes for different types of businesses which could help you to provide an estimate.

The amount of water that my business uses each four-monthly period is about:

Insert number kL

Average water per four-monthly period and typical meter sizes for business customers

Customer type	Type	Meter size	Average usage
		mm	kL/four-monthly period
Industrial	Low e.g. tyre dealer	20	65
	Medium e.g. small food manufacturer, small brewery,	40	1,950
	High. E.g. Paper mill, large brewery, textile producer, commercial laundry	80	8,600
Industrial strata unit	Low e.g. equipment hire,	20	25
	Medium e.g furniture manufacturer, mechanic	25	30
	High e.g. micro brewery	50	6,000
Commercial	Low e.g. hairdresser, fish & chips shop, petrol station	20	100
	Medium e.g. small shopping centre, plaza, small club, pubs, market place, low rise office building, schools	40	2,200

	High. E.g High rise office building, large shopping centres, hotels, club, universities	80	7,000
Commercial strata unit	Low e.g newsagent, café, convenience store	20	45
	Medium e.g. fast food restaurants	25	60
	High e.g. large restaurant, function centre	40	700

8. Do you monitor your water usage and change your behaviour if your bill increases SR AUTOMATIC NEXT QUESTION.
    a. Yes
    b. No
    c. Not applicable

Section 2. Water price structure

Hunter Water charges customers for water and wastewater services. Prices for these services are set by IPART, an independent regulator (www.ipart.nsw.gov.au).

For water services, customers receive:

- a fixed charge per property that is based on the water meter size; and
- usage charges that vary with the volume of water consumed by the property.

Hunter Water is seeking your views on whether to maintain, increase or decrease the usage charge for water services. If there is an increase in the water usage charge, there will be a reduction in the fixed charge. Likewise, any decrease in the water usage charge will also need to have an increase in the fixed charge. **Hunter Water will receive the same revenue under all scenarios.**

Information to help your decision

Some of the things customers consider when thinking about their preferred balance between fixed and usage charges include…

Bill certainty or ability to influence their bill

Some customers prefer a higher usage charge because they can change their behaviour to reduce bills. On the other hand, a higher fixed charge gives customers greater bill certainty and it is easier to plan budgets.

Impacts on your own bill

Increasing the usage charge will tend to:

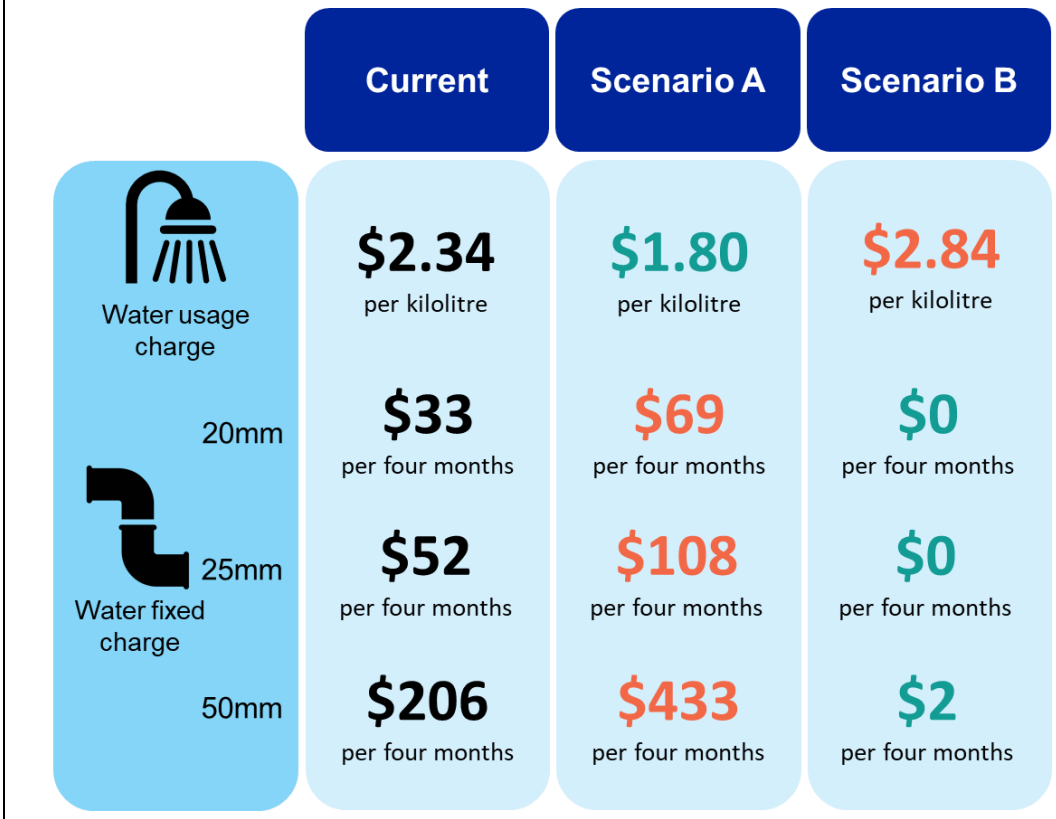
- decrease bills for businesses with lower water usage
- increase bills for businesses with higher water usage.

Impacts on others' bills

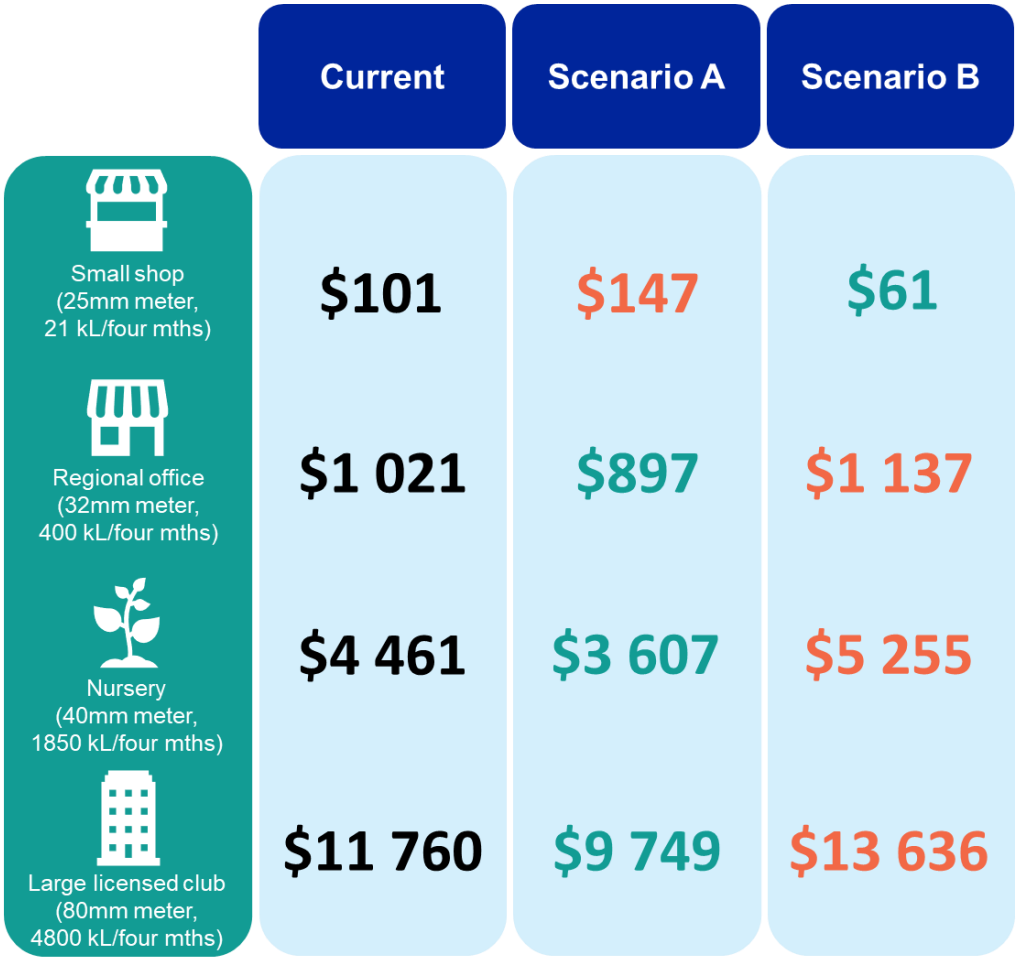
Water usage patterns vary across customers in Hunter, depending on the type of business being operated.

Different businesses will be impacted by a move toward changing the balance between fixed and usage prices. The price scenarios below are used to illustrate the bill impacts on different types of businesses.

Water price scenarios



Four-monthly water bill (excluding wastewater)



Incentives for water conservation

Reducing water use is one way that we can work together to delay expensive investment in a major source augmentation. The higher the water usage charge, the greater incentive customers have to conserve water.

Please indicate your preferred balance between fixed and usage charges by moving the 'slider' below.

- Moving the slider to the left will increase the fixed charge and decrease the usage charge.
- Moving the slider to the right will decrease the fixed charge and increase the usage charge.

For reference, Hunter Water currently charges a water usage price of $2.34 per kilolitre.

The second slider shows four-monthly water consumption so you can use this to see what the bill impacts are with different levels of water consumption. The

consumption you gave earlier in the questionnaire was XXX per four-monthly period. If you don't know your meter size, the following table provides a guide for meter sizes for different types of businesses [ADD TABLE FROM Q6]

When ready click on the double arrows to move to the next question.

Insert sliders as per residential survey and incorporate an input for meter size (the fixed charge equals the ordinary 20mm fixed charge x meter size (mm) squared divided by 400)

10. What was your most important consideration when choosing your preferred balance between fixed and usage charges? SR AUTOMATIC NEXT QUESTION.
    a. The expected impact on my bill
    b. Bill certainty (i.e. keeping bills predictable)
    c. Ability to influence my bill
    d. Impacts on other businesses
    e. Providing the right incentive for water usage
    f. Other (please specify)
11. What was your second most important consideration when choosing your preferred balance between fixed and usage charges? SR AUTOMATIC NEXT QUESTION.
    a. The expected impact on my bill
    b. Bill certainty (i.e. keeping bills predictable)
    c. Ability to influence my bill
    d. Impacts on other businesses
    e. Providing the right incentive for water usage
    f. Other (please specify)
12. If Hunter Water were to increase the usage charge and decrease the fixed charge, how gradual should the change be? SR AUTOMATIC NEXT QUESTION.
    a. Change immediately
    b. Change over two year
    c. Change over three to five years
    d. Change over more than five years
    e. I don't have a firm preference

13. If Hunter Water were to decrease the usage charge and increase the fixed charge, how gradual should the change be? SR AUTOMATIC NEXT QUESTION.

    a. Change immediately

    b. Change over two year

    c. Change over three to five years

    d. Change over more than five years

    e. I don't have a firm preference

About twenty (20) businesses and industrial customers pay different usage (variable) prices compared with other customers. They pay:

- The same usage charge as everyone else ($2.34 per kilolitre) for the first 50,000 kilolitres of water per year. 50,000 kilolitres is about the same amount of water as 270 freestanding houses.
- A lower usage charge for each kilolitre over 50,000 kilolitres. The current price varies from $1.89 to $2.32 per kilolitre of water used, depending on location.

This way of charging large customers was introduced in 2001.

In this section Hunter Water is seeking your view on whether to keep the current usage charges for these large customers or charge all customers the same usage charge. **Hunter Water will receive the same revenue under all scenarios.**

Information to help your decision

Some of the things customers consider when thinking about their preferences include….

Impacts on their own bill

Removing the discount for the 20 big customers will tend to decrease bills for households and all other business customers. If everything else stays the same, water bills would decrease by around $3 per property per four-monthly period for a business with a 20mm meter, $17 for a 50mm meter and $43 for an 80mm meter.

Impacts on the big customers

The types of customers that currently get the discount vary quite a lot. There are mines, shopping centres, manufacturers, education facilities and hospitals. These businesses employ people, who then spend money in our region.

Cost to provide services

One of the reasons Hunter Water started charging this way was because large customers located near Hunter Water's dams and major pipelines do not use all the smaller pipes in the network – that is, these customers are cheaper to serve.

14. Please indicate your preference for charging the twenty (20) businesses and industrial customers per unit of water used

a. Keep providing the discount per kilolitre of water used, for water usage over 50,000 kilolitres per year

b. Stop providing the discount (charge all customers the same for each kilolitre of water used)

c. I don't have a firm preference

15. What was your most important consideration when choosing your preference for charging the twenty (20) businesses and industrial customers per unit of water used?

    a. The expected impact on my bill

    b. Providing the right incentive for water usage

    c. Impacts on other customers (including the twenty customers)

    d. Fairness

    e. Other (please specify)

16. What is your position or title within your business?

    a. Owner / proprietor

    b. Senior management

    c. Other employee

17. Finally, do you have any further comments about your water and wastewater services that you do not feel are covered by this survey?

    _____
    _____
    _____
    _____

18. Would you like to be entered into the draw to win a $250 Coles Group and Myer gift card?

    a. Yes

    b. No

19. **IF YES** Please provide an email address or phone number we can use to contact you if you are drawn as a prize winner. (Contact details will not be used for any other purpose)

    Name _____

    Phone_____

Email_____ (**ALLOW EITHER PHONE OR EMAIL TO BE BLANK, BUT NOT BOTH**)

Thank you for participating in this survey. Your opinions are very important to Hunter Water.

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