

UUW21

Customer research methodology

October 2023

Chapter 3 supplementary document

This document demonstrates our high quality customer research approach underpinning evidence across all themes and programme streams, and provides information on customer research approach, challenge and assurance processes.

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1. Customer Research Methodology

1.1 Key Messages

- **Our research is high-quality and has been subject to rigorous challenge and assurance:** The programme meets requirements set out by Ofwat, CCW and third-party experts. The approach and results have been challenged and assured, including by the board, independent assurers and the North West's independent customer challenge group (YourVoice).
- **Our research takes into account voices from across the North West and uses innovative methods for effective engagement:** The programme has a robust and inclusive segmentation to hear and understand the point of view of customers around the North West. The research is designed to illicit meaningful customer views and uses innovative methods to effectively engage on a broad range of subject areas.
- **Our research programme drives embedded and iterative improvement:** The programme drives quality research which iteratively improves our strategy and plans over time. We co-create and adapt with customers continuously to create a customer-led strategy that is approved by customers.

1.2 Structure

1.2.1 This supplementary is structured as follows;

- **Section 2** is our high quality research programme, highlighting the key strengths in our methodology and approach
- **Section 3** outlines how our research achieves high quality standards ,
- **Section 4** details United Utilities' external challenge, assurance and scrutiny
- **Section 5 and 6** provides our appendices of research case studies and the research catalogue where you can find detailed information about our research projects.

1.3 Overview

1.3.1 This supplementary document describes our high quality customer research approach underpinning evidence across all themes and programme streams. It demonstrates we have upheld the key principles of high quality research as set out in the Ofwat 'PR24 Customer Engagement Policy' positioning paper¹, 'PR24 draft methodology' document², CCW's 'lessons learned from 2019 price review'³ and 'Framework for water company research'⁴ report.

1.3.2 Our plan has been shaped by customers priorities and views gathered through a range of research projects – both ongoing research and research that was planned specifically for regulatory submissions such as PR24, the DWMP and WRMP – alongside operational data on our service and performance. This supplementary sets out the principles of high quality research, challenge and assurance that we abide by and offers examples of how we have demonstrated this in our customer research programme.

1.3.3 This supplementary provides information on customer research approach and methodology and provides more comprehensive supporting information in the following areas:-

- (a) Demonstrating our approach to ensuring customer research is high-quality, meaningful and embedded in what we do

¹ Ofwat, PR24 and beyond: Customer engagement policy – a position paper, February 2023

² Ofwat, PR24 Draft Methodology, July 2022

³ CCW, Lessons Learnt from the 2019 Price Review, December 2020

⁴ CCW, Framework for water company research, November 2020

- (b) Demonstrating our approach to engaging with independent challenge on the nature, quality and use of customer engagement evidence
 - (c) Demonstrating our approach to assurance of the quality and use of customer engagement evidence
- 1.3.4 This supplementary does not, in its entirety, demonstrate customer opinions on our business plan and how research has impacted decision making. For information on this, please refer to *Chapter 3 – Customers and communities shaped our business plan*.

2. Our high-quality research programme

- 2.1.1 This section shows examples of how our methodology has evolved from PR19, the additional strengths of our customer research programme and its embedment in our everyday operations and strategy.
- 2.1.2 We demonstrate how we have met the standards of high-quality research as set out in the Ofwat 'PR24 Customer Engagement Policy' positioning paper⁵ and CCW's 'lessons learned from 2019 price review'⁶ and 'Framework for water company research' report⁷.

2.2 PR19 to PR24: How our approach has evolved

- 2.2.1 As an industry, we recognise many of the strengths of the PR19 research programmes and approaches. PR19 allowed us to trial a variety of methods of research and the limitations of certain methodologies became clearer. The industry set out to drive innovation in the design of our research to ensure better quality research design and feedback. As a result, we saw a wide variety of research styles and methods being used.
- 2.2.2 Just as our core service should never cease to improve and adapt, we recognise our approach to research should constantly evolve. Whilst in PR19 there was a push for innovation and variety of methodologies were used, we saw comparability of research and results become more difficult. As a result, Ofwat, CCW, water companies and key stakeholders have collaborated to support centralised research on ODI rates⁸ and Affordability and Acceptability testing research⁹.
- 2.2.3 United Utilities has been an active member in the Ofwat and CCW collaborative research sessions, helping inform and shape the design to ensure best practice, meaningful and comparable research results for the ODI rates research and the Business Plan Affordability and Acceptability Testing Research. For Acceptability and Affordability testing¹⁰, we ran a pilot study and actively informed regulators and fellow water companies of our findings to improve the research design. We are fully committed to using the products and outputs of the centralised research as far as possible in our plan development. We have applied the guidance set out for Affordability and Acceptability Testing of our business plans. Additionally, we regularly use the research published by Ofwat and CCW to compare against our own research findings to identify similarities and differences. One example of this is the Ofwat/ CCW Customer Priorities research¹¹ which aligned with our findings showing trust, resilience and affordability to be high priorities to customers. External and regulatory research is regularly used to gather insight and forms part of our research and insight to impact triangulation process. For more on how we have triangulated our research results, please see supplementary *UUW31 – Customer Research Triangulation*.
- 2.2.4 At PR24, we have been more committed than ever to sharing and collaborating to improve the way we design and use our research. In addition to the Ofwat and CCW collaborative research sessions, we are members of various other groups for research and insight teams to collaborate and share. One example of this is the research support group which includes research and insight colleagues from all water and wastewater companies, and the Water Resources West collaborative research group.
- 2.2.5 Another example is that UUW was the first water company to pioneer a quarterly customer research newsletter, 'The Source'. The open data source and newsletter was established in July 2022 and allows

⁵ Ofwat, PR24 and beyond: Customer engagement policy – a position paper, February 2023

⁶ CCW, Lessons Learnt from the 2019 Price Review, December 2020

⁷ CCW, Framework for water company research, November 2020

⁸ Ofwat/CCW, Collaborative ODI Rates Research, October 2022

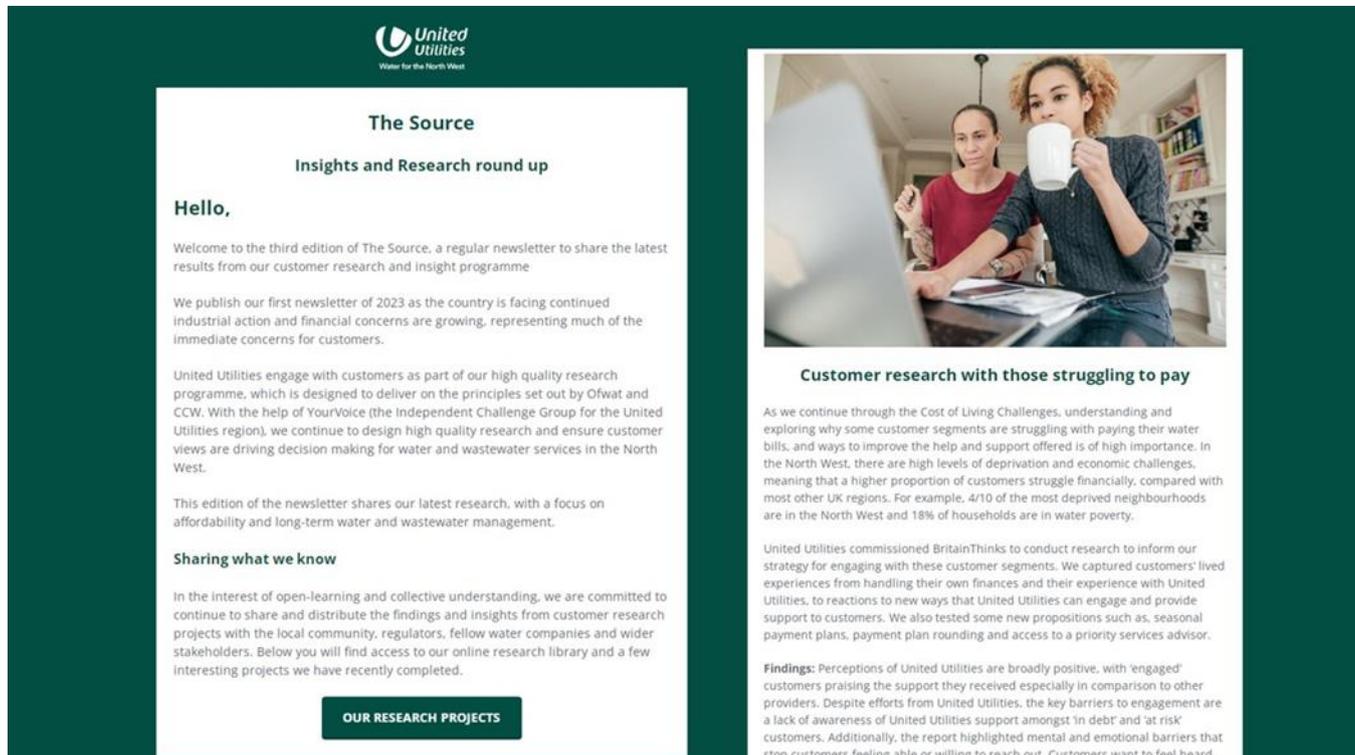
⁹ Ofwat/CCW, Guidance for water companies: AAT, March 2023

¹⁰ Accent on behalf of United Utilities, Affordability and Acceptability Testing, May 2023

¹¹ Ofwat/CCW, Customer Preferences, April 2022

UUW to signpost all stakeholders - including regulators, stakeholders, researchers, customers and other companies to our work on engaging with customers' to understand their views. We have published an extensive library of research and insight on our website.¹² The research library provides free and open access to research reports, raw data, questionnaires and research stimulus. We have received positive feedback from recipients of the newsletter as to the usefulness of the content and transparency of the data shared.

Figure 1: The Source, customer insight and research industry newsletter



Source: UUW customer research newsletter

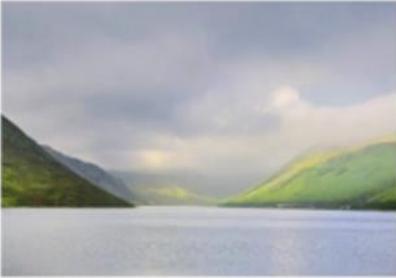
¹² <https://www.unitedutilities.com/corporate/about-us/our-future-plans/listening-to-our-customers/insight-and-research-library/>

Figure 2: Our published customer research library

Corporate | About us | Our Future Plans | Listening to our customers | Welcome to the United Utilities' customer insight and research library

Welcome to the United Utilities' customer insight and research library

The following library provides an overview of the research and insight projects we have delivered within AMP 7 (currently in progress from 2020 – 25). We've provided links to the detailed reports so you can see the objectives, the methodology used, key findings, any key messages from the research and action taken.



WRMP Acceptability



Water Acceptability



State of the Nation

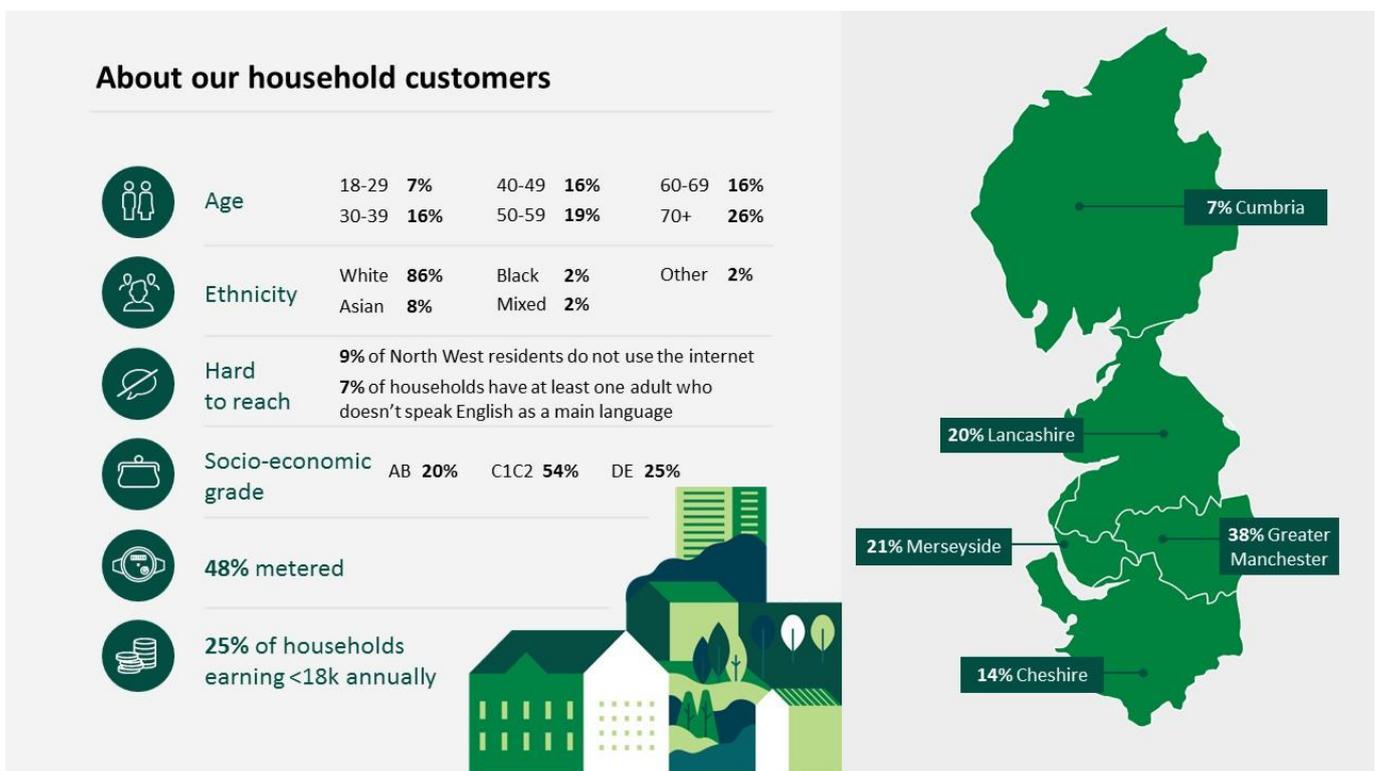
Source: <https://www.unitedutilities.com/corporate/about-us/our-future-plans/listening-to-our-customers/insight-and-research-library/>

- 2.2.6 The learnings from PR19 are fully embedded in our research programme, and cover several areas of differentiation:
- (a) **Our approach allows us to strive for quality of research over quantity;** we have a process to ensure that before any project is commissioned, we check for sources of insight elsewhere to avoid duplication, we ensure research and customer views can have a meaningful impact on our decision making and/or there is a clear link to enhancement plans or discretionary spend/ strategy. This helps us focus resources on the most useful research projects, minimise waste and increase efficiency.
 - (b) **Our research is embedded in what we do, so development of strategies or partnerships are often taking place in tandem, with research and insight to inform this.** From upfront strategic and exploratory work, all the way to adapting, co-creating and validating our plans – understanding customers, including through research, is part of our everyday approach, whether for a PR24 or regulatory submission or to inform and improve operational and everyday service and challenges we face.
 - (c) **Our research is iterative;** across many streams of work, we operate a test and adapt approach to ensure our learnings are continuous and iterative. This strengthens our confidence in the final decision and ensures our approach is truly customer-led. We combine the use of multiple sources, such as operational insights, trials and continual tracking data to help inform customer research requirements.
 - (d) **Our engagement with customers is better than ever.** We put a lot of thought, time and effort into selecting the right methodology and designing stimulus in a way that is engaging, easy to understand, neutral and meaningful for customers. Materials focus on the customer impact, rather

than internal processes or infrastructure. This often involves multiple rounds of cognitive testing of materials, design work and tracking the success of this by asking customers themselves if they feel they could provide meaningful feedback and understand the questions and materials presented to them. Comparative company data is provided where we have access to comparable information and customers feel this is helpful, for example when discussing temporary usage bans in our WRMP research^{13,14} or in our Affordability and Acceptability Testing research¹⁵.

- (e) **Our segmentation approach is more robust.** We have identified a set of critical segments to ensure the views of all customers are represented in research. Research is targeted to ensure good coverage and meaningful sub-group analysis is completed on the data and findings. This robust approach has helped us understand similarities and differences in our critical segments and tailor or adapt our approach accordingly. Our critical segments include sub-region, hard to reach customers, future bill payers, vulnerable customers, low-income customers, and non-household customers. Research samples aim to include a mix of demographics and we will always undertake sub-group analysis where sample sizes are robust enough to do so. If sample sizes are not robust enough for sub-group analysis, indicative differences are reported on with the limitations of this made clear.

Figure 3: Demographic breakdown of customer base



Source: North West census (ONS) and UUW customer data

- 2.2.7 Although Figure 3 is focused on household customers, we also regularly engage with non-household customers as part of PR24 customer research and also for topics specific to them in dedicated business customer research. For this audience, we always endeavour for a mix of size, sector and type of water usage.
- 2.2.8 For certain audiences, such as vulnerable or hard to reach groups, we may adapt our methodology or recruitment methods to ensure good representation and inclusivity. For example, this could be through using local authority or census data to target these audiences, using the ICG and/or local community groups to recruit for these customers. Where possible, we have analysed customer views by county to

¹³ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

¹⁴ DJS Research on behalf of United Utilities, WRMP , January 2022

¹⁵ Accent and DJS Research on behalf of United Utilities, Affordability and Acceptability Testing, September 2023

support our five counties-led approach to ensure that we are able to communicate the aspects of our plans that address each community's local priorities. Evidence of this can be displayed in customer segmentation approach, community engagement and through the case studies presented in Chapter 3 sections 3.5 to 3.8 and the case studies in the appendix section 5.

- 2.2.9 The appropriate sample set of each research project is assessed at the scoping and design stage, but many key PR24 projects have representation of the below groups:

Table 1: Customer research segmentation

Segment	Sub-segment				
Meter type	Metered	Unmetered			
Age	18–30	31–50	Over 50		
County	Greater Manchester	Merseyside	Cumbria	Lancashire	Cheshire
Future bill payers	18–29-year-olds living in the North West but not currently paying their water bill				
Hard to reach	Digitally excluded due to limited or no access to the internet, or not being tech proficient		Those who struggle to talk to us due to language or cultural factors (for example, English is not their first language)		
Vulnerable customers	Physical or mental disability	Pensionable age	Priority Services customers		
Low-income customers	Household income of less than £21k	C2D2 Social Economic Group			
Non-household customers	Size of business	Type of water usage			
Ethnicity	Ensure a spread of ethnicity and representation of BAME groups in line with Office of National Statistics (ONS) figures				

Source: UUW research segmentation

2.3 Co-creation and co-delivery

- 2.3.1 As part of our approach where customer research is embedded and ongoing, where appropriate, we look to engage with customers via co-creation and co-delivery and allow them to iterate and inform our plans and strategies through a number of interactions over time. This is an ongoing form of challenge and iterative approach with customers across many of our research projects.
- 2.3.2 This case study demonstrates one example of co-design allowing us to create a customer-centric service proposition.



Case study: Water Usage Visualisation Co-design¹⁷

Over the last 12 months, we have undertaken 24 pilot schemes that have tested new ideas, concepts and ways of working in order to inform our business plan. Some of these pilots required customers' input to help inform us that we are doing the right thing and to shape how these pilots would most effectively be implemented within our future plans.

For example, customer visualisation of consumption pilot was launched to explore how to best present consumption information to customers and encourage them to use less water. A small group of customers was recruited to understand views and submit ideas to help customers visualise their consumption. The same

¹⁶ Explain Research on behalf of United Utilities, Water Visualisation Customer Co-creation, March 2023

customer group was used to co-create our water visualisation tools and help decide on how to promote engagement. We met with this group several times to iterate and co-design the proposition and tools around this.

Following the customer design and input into the creation of the app functions and email water usage updates, we then tested the output of the concepts with a larger audience. 73% of measured customers surveyed said they liked the tool and would use it, as well as most saying they would change their water usage behaviour as a result of having this information in an app. 26% of unmeasured customers surveyed said the tool would make them more likely to install a water meter.

We have used these results to pilot our water communications with an initial trial of 500 people, which was then expanded to 10,000 customers. We monitor the trial group's usage to understand if water usage is changing as a result of the communications and receive feedback on the communications themselves and how useful they are. This is as a result of continual and iterative learning and engagement.

3. How our research achieves high quality standards

3.1.1 This section sets out the processes we follow to achieve the high quality standards as outlined in the Ofwat ‘PR24 Customer Engagement Policy’. Each section describes what UUW is aiming to achieve and the process in which we achieve this. Each section provides evidence of quality with detailed case studies to demonstrate this approach in action. Our research has been independently assured against these standards by Turner and Townsend with high evidence grades. For more on this, please see section 4.3 and Chapter 10.

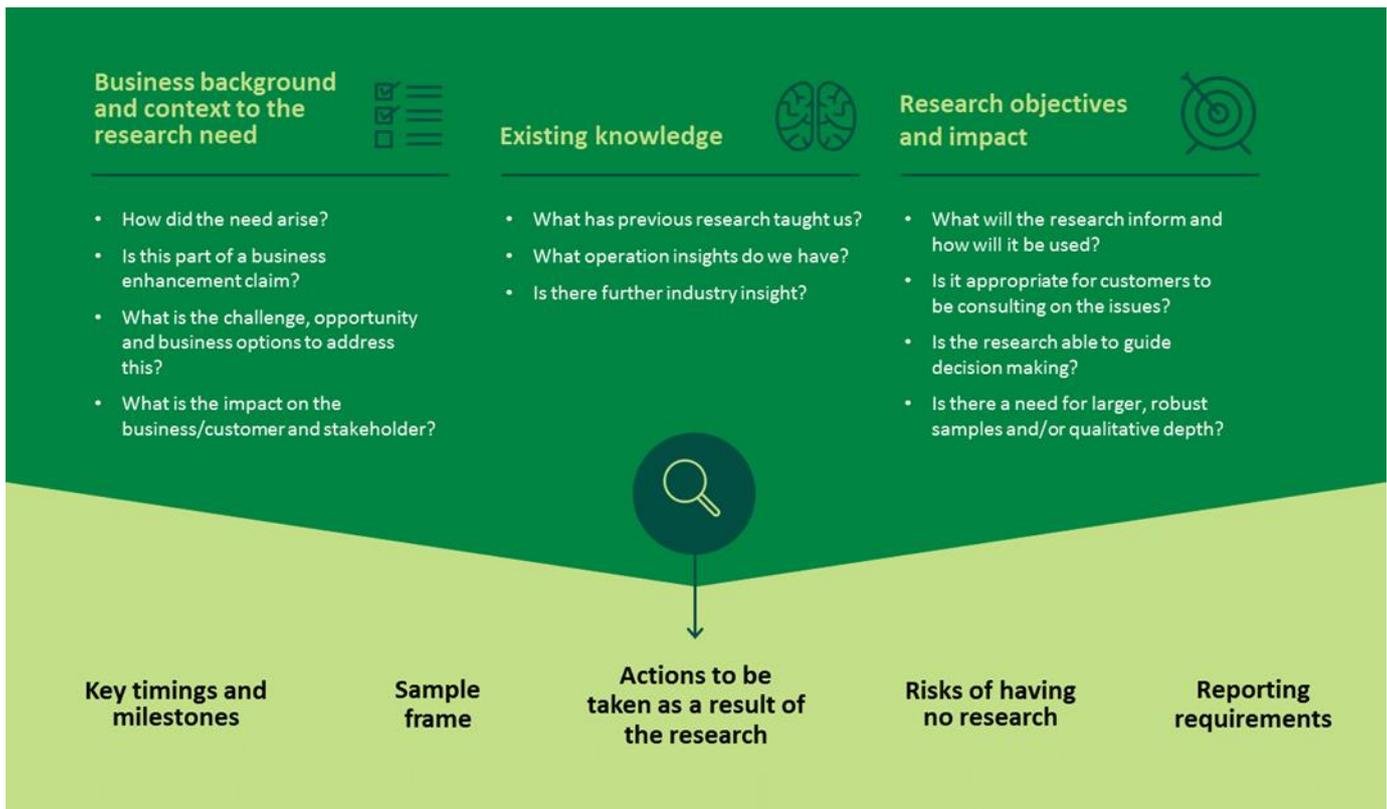
3.2 Our research is useful and contextualised

3.2.1 Ensuring high-quality and meaningful customer research, is an ongoing and continuous cyclical process. Each research project undertakes a robust project lifecycle from accurately defining and refining the need for research to execution of a sound and robust methodology.

Defining the need

3.2.2 Before undertaking any research, an extensive scoping exercise is undertaken to identify the key business issue and whether customer research is appropriate. The methodology framework in Figure 4 below outlines the questions we ask ourselves to ensure customer research is useful, appropriate and can inform decision making.

Figure 4: Defining the need for research to ensure it is useful and contextualised



Source: UUW research methodology framework

3.2.3 The scoping exercise is captured in a project briefing document which outlines:

(a) The business background and context to the research need – how did the need arise and what is the purpose of the research?

- (i) This ensures the research can be contextualised to stakeholders and customers and there is an understanding of the need for research to be conducted.

- (ii) We will assess whether the subject area can be linked to an enhancement claim or discretionary investment i.e. whether customer views and/or support are needed to ascertain whether United Utilities should pursue an enhanced level of service or offering. This is important to ensure customer views will have meaningful impact.

(b) Existing knowledge – what previous research or insight do we have in this area?

- (i) An assessment of this avoids duplication of research and allows for more focused research questions to be asked. We take into account operational insights, day-to-day tracking data (e.g. CMEX) and external and industry research and insights in our assessments.
- (ii) This exercise may identify areas we need to partner with other companies or bodies on to deliver an effective research exercise. For example, we have partnered with Severn Trent to deliver a dual research project on Water Resources Management¹⁷ and several stakeholders such as Keep Britain Tidy¹⁸ and Northern Roots Oldham¹⁹ on what not to flush behavioural change projects.

(c) The key research objectives - what will the research inform?

- (i) An assessment of this allows us to design the research with the subject matter in mind, assess the methodology needed and gives us confidence that the research will have impact on decision making.

(d) Key timings and milestones – when does the research need to be completed in order to inform decision-making?

- (i) This ensures timelines take into account key milestones and results are delivered in a timely manner to be used effectively.

(e) Sample frame – who is the key audience to engage in this research?

- (i) This allows us to document the appropriate target audience, key customer groups and assess representativeness and inclusivity of the customer sample. We use a combination of customer lists, online research panels of North West customers, and targeted recruitment to hear from a mix of customers across our research programme.
- (ii) We have a robust approach to segmentation to ensure we understand how views differ by sub-group. Please see section 3.5 for more on inclusivity.

(f) Actions to be taken as a result of the research – what is to be done with the output?

- (i) This is used to ensure research is useful and inform design.
- (ii) We explore how our research has impacted our decision making in Chapter 3.

(g) Risks - what would happen if we did not have research to inform in this area?

- (i) This allows us to understand the priority of the research and assess whether research is suitable and will have sufficient impact.

(h) Reporting – are there any considerations for successful dissemination or sub-group analysis that need to be considered?

- (i) This will inform the design and analysis stages to ensure research is disseminated successfully and delivered to a high standard. We can ensure we are aware of any differences by sub-group to help inform our plan.

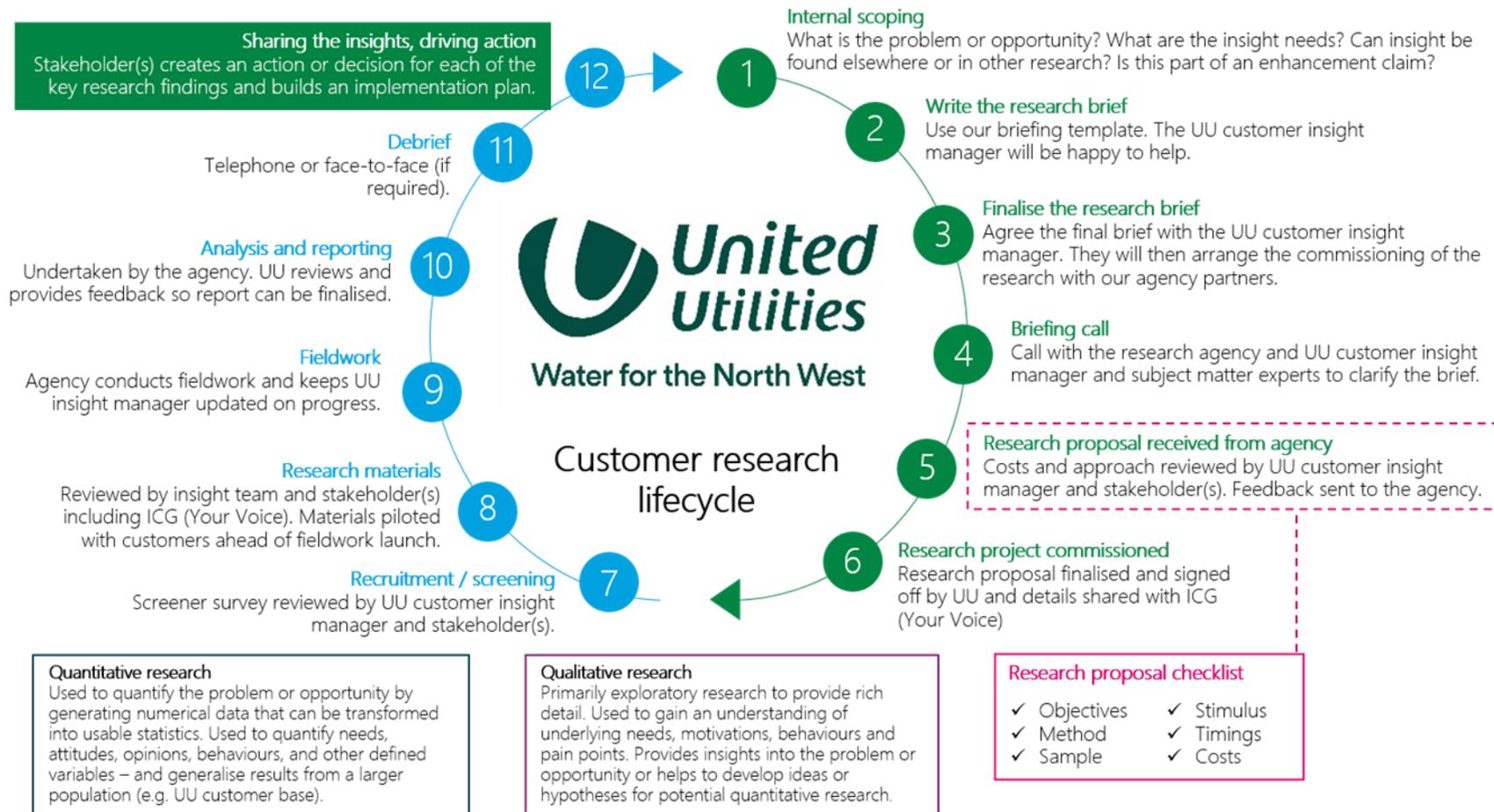
¹⁷ DJS Research on behalf of United Utilities, WRMP , January 2022

¹⁸ Keep Britain Tidy on behalf of United Utilities, Understanding Wet Wipe Disposal Behaviour, October 2021

¹⁹ DJS Research on behalf of United Utilities, Glodwick community trial: sewer behaviour research, October 2022

Refining the research

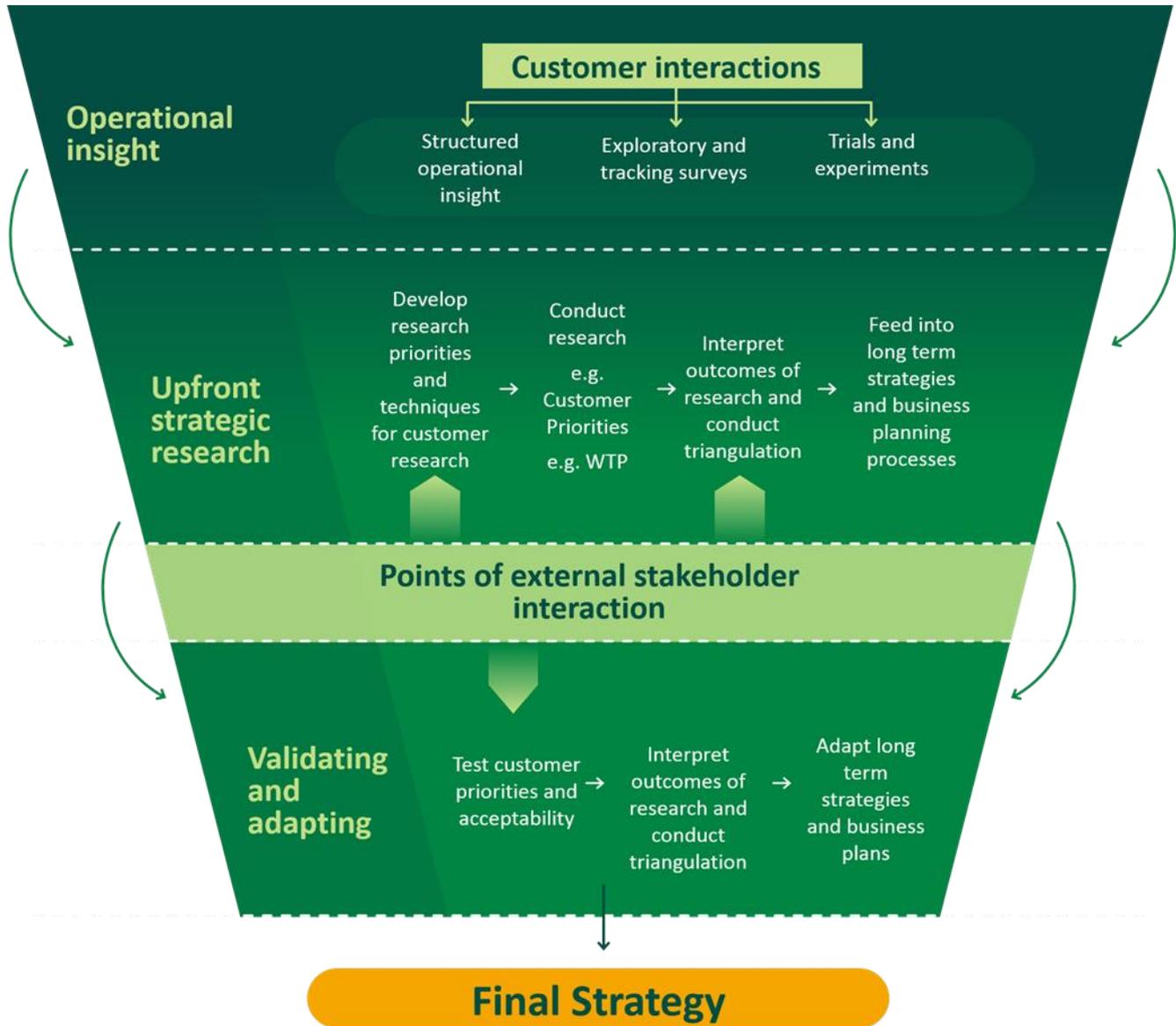
Figure 5: A typical project lifecycle ensures ample opportunity for scoping, design, feedback and refinement of both the need for research and engagement itself.



Source: UUW research lifecycle

3.2.4 Our research lifecycle approach, shown in Figure 5 above, demonstrates that critical assessment of the research is made throughout the project lifecycle. From assessing the need for the research to refining and iterating on ideas and materials; it is embedded in our way of working. We regularly engage with stakeholders, customers and YourVoice, the Independent Challenge Group for critical feedback please see Section 4 for more on this.

Figure 6: Our high level customer research framework seeks to ensure high quality research directly informs company business planning



Source: UUW customer research framework

3.2.5 Our approach to customer research at PR24 is outlined in Figure 6 above. We have made several improvements to our programme since PR19 as outlined in section 2. Our approach allows us to strive for quality of research over quantity and ensure customer engagement is maintained throughout the decision-making process, from upfront strategic and exploratory work, all the way to adapting, co-creating and validating our plans. Our approach combines the use of operational insights, trials and continual tracking data to help inform customer research requirements. The programme is on-going and uses multiple and continual sources of insight to better our understanding of customer views. At PR24, we are using more innovative ways to engage customers in the research materials and ensure meaningful response through our methodology and research design.

- 3.2.6 Our business plan has undergone continuous iterations thoughtfully incorporating valuable feedback from customers. By actively considering their perspectives, we have been able to make well-informed decisions that proactively influence the direction of the plan. For example, we saw early shifts in customer perspectives from PR19, specifically on the need to proactively tackle environmental challenges and were therefore, able to build these views into our strategy early on. This collaborative approach has allowed us to stay responsive to the needs of customers, resulting in a stronger and more successful strategy that caters to their preferences and needs.
- 3.2.7 Our research agency partners are held to high-quality standards. They are members of the market research society (MRS) and follow the market research guidelines and code of conduct. Internally, we review all materials to ensure insight is disseminated accurately and positioned appropriately, with any limitations made clear and the Independent Customer Challenge Group, YourVoice, hold us to high standards in this regard. For more information, please see section 5.

Ensuring research has impact

- 3.2.8 Following the design and delivery of research projects an implementation plan is created to outline how the research will inform decision making and track actions against this.
- 3.2.9 The customer insight team have an 'Insight to Action' tracker which research sponsors complete every 3 months to update how the research has been used and had impact on key decisions. Following completion of the research, we ensure the findings are used to inform decision making. Figure 7 below describes this process. In addition to this, all research projects are scored according to our triangulation framework independently created by Frontier Economics and in line with the CCW/ SIA triangulation best practice principles²⁰. Those that score higher on robustness and validity become key sources of insight for our PR24 business plan. For more on our triangulation approach, please see supplementary UUW31.

Figure 7: Ensuring our research has impact

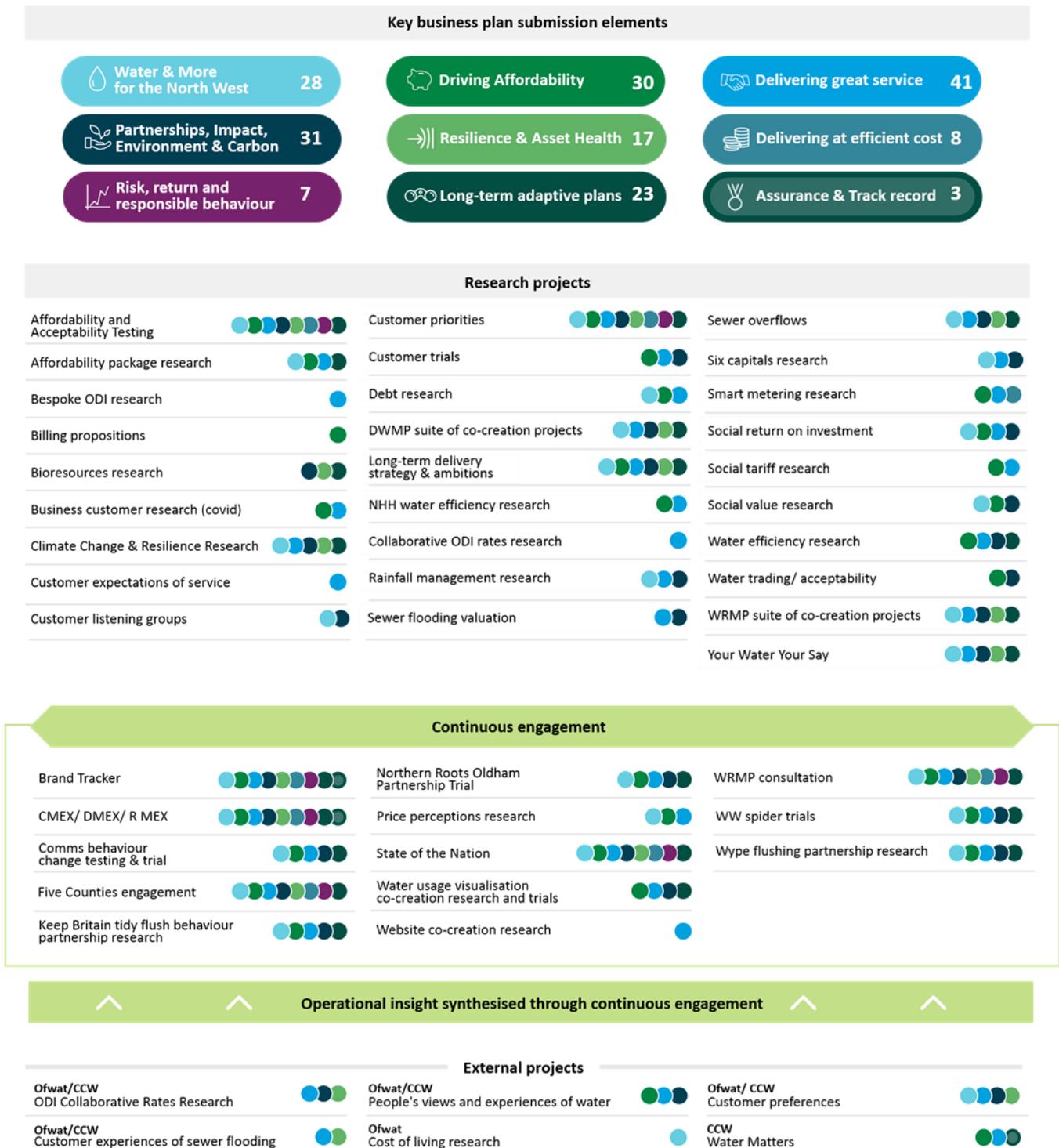


Source: UUW research framework

- 3.2.10 Chapter 3 describes how our research programme has shaped our business plan for AMP8. Figure 8 below outlines how research is embedded and informs the key areas of our plan. Using our scoping and methodology framework described in section 3.2 we define and refine the need for the research, ensuring we are imploring quality over quantity and only researching areas that can have a meaningful impact on strategy or discretionary/ enhancement expenditure.

²⁰ SIA partners on behalf of CCW, PR19 Triangulation Review, May 2021

Figure 8: Our research is used to inform discretionary areas of business planning



Source: UUW research programme

- 3.2.11 Figure 8 above outlines how certain research projects have had an impact in our key business plan submission areas. Our day to day business as usual research has an impact on our strategy and provides iterative and continuous feedback to inform plans.
- 3.2.12 Some areas which are more specific have limited research commissioned as valuations cannot be appropriately derived from customer research and instead we use the findings from other research areas to contextualise and understand more on customer views. Similarly, topics such as statutory requirements for issues such as environmental standards or safety and security requirements for our assets are driven principally by legal and regulatory requirements, with a presumption that we will need to act in order to be in compliance with these requirements. Customer views will have limited impact on

management decision making in such areas as there will be an expectation that we will seek the most efficient and sustainable means of achieving compliance. Therefore, we do not tend to commission research on such topics. Conversely, areas with more discretionary spend and where customers can have meaningful impact on future choices are subject to substantially more bespoke research pieces.

3.2.13 As mentioned in the CCW ‘Framework for water company research’²¹ a lot of our insight on affordability comes from everyday interactions with customers. To find out more on this see *Chapter 4 -Driving Affordability* document. Meanwhile, *Chapter 3* of our business plan sets out further information about how research has informed our business planning.

Ensuring research is useful

3.2.14 Below is a case study to demonstrate how we ensure research is useful to business planning and contextualised in a way to ascertain meaningful feedback.

 **Case study: Customer research on expectations of service when things go wrong²³**

We set out to conduct customer research to understand customers’ expectations of service when things go wrong and use this to inform our service strategy and target timelines to restore service. This research directly informed changes in the operational response UUW now applies to customer service issues directly affecting customers.

We have examined evidence from a wide variety of insight sources as shown in Figure 9:

Figure 9: Sources of insight for customer expectations of service



Source: UUW key research sources

The customer research and data analysis has provided us with several key insights to inform our strategy:

- (a) Wastewater incidents such as internal sewer flooding are seen as the most impactful and important to prevent by customers, with repeat events rated as much worse than one-off instances of flooding.
- (b) Customer contact centre response times are in line with customer expectations, and this confirmed our thinking that a robust contact centre offering is needed to support customers’ needs for reassurance when in distress.
- (c) As well as the reassurance that incidents have been logged, customers want to feel more control in these situations. There is, therefore, an important role for advice from phone agents in terms of steps customers can take themselves to help the situation and mitigate damage, while they wait for UUW teams to arrive.
- (d) Customers’ expectations are driven by how much of an emergency they perceive the situation to be and the likelihood of damage to their/neighbouring property. As a general rule, sewage flooding incidents, large leaks and unplanned loss of water are considered an ‘emergency’ – other situations are generally more likely to be considered an ‘inconvenience’.

²¹ CCW, Framework for water company research, November 2020

²² InSites Consulting on behalf of United Utilities, Expectations of Service, October 2021

- (e) Customers prioritise having a first responder on site as soon as possible – even if this team cannot always resolve the issue. This is particularly the case with sewer flooding as customers do not feel qualified to assess the situation.
- (f) In light of the customer research and insight, we identified our previous service wastewater flooding recovery offering required improvement and we have adopted a three-point strategy to improve:
- **Stop the problem** – our sewer flooding strategy invests in works to reduce the risk of repeat hydraulic flooding and invests circa £100 million in Dynamic Network Management to proactively detect areas and assets at risk of flooding.
 - **Make it easy** – our service strategy focuses on promoting empathy when communicating with those affected by service failures. As customers prioritise our time to respond, we have changed our service models to increase the speed of response and ‘containment’ times in line with customer expectations. We have implemented video calling to help reassure customers of the situation and provide a more accurate diagnosis tool.
 - **Do the right thing** – we have streamlined the process to provide compensation to customers affected by service failures, so customers receive compensation more quickly and easily. For each case there will be a single point of contact for resolution with enhanced engagement and focus on recovering customer service. We ensure our compensation approach exceeds the GSS requirements with an additional £100 discretionary payment for inconvenience and where a customer doesn’t have insurance, we empower our teams to cover uninsured losses up to £2000. However, we see financial hardship cases where insurance has not been obtained or declined and for these customers we are establishing a recovery fund which will be independently run alongside our affordability trust fund, where customers can seek additional financial support.

UUW55- Retail business plan, section 8 sets out our future plans to improve household customer service and to deliver against C-MeX objectives.

Table 2: This case study demonstrates our approach is high quality

<p>Neutrally designed – materials were designed with the customer in mind, our independent research agency and ICG (YourVoice) challenged and piloted the materials and questions. The order of questions was carefully considered to prevent order bias/ leading the customer. Participants were encouraged to give their open and honest perspectives. Reassurances were given throughout the research that United Utilities Water were open to hearing their honest views and experiences.</p>	<p>Continual – research was contextualised using a wide evidence base including operational data and industry research (e.g. CCW sewer flooding expectations research). The outputs from this collection of research continually feeds into the service interruptions strategy.</p>
<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our service interruptions strategy. We took into account a wide evidence base including operational data and industry research. The research had a clear purpose of understanding expectations and emotions of customers in the event of service failures. Talking to customers who both had and hadn’t experienced a service failure in the past to get a mixture of views.</p>	<p>Inclusive – the full suite of projects feeding into the strategy allowed for both online and offline methods of recruitment and participation. The sample was representative of the United Utilities Water household customer base. Extra accessibility support was provided to those who needed it. There was a robust sample size for sub-group analysis for those who had experienced certain service failures in the past versus those that hadn’t.</p>
<p>Fit for purpose – materials were piloted with customers and the ICG (YourVoice), the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis and understand differences of those who had and had not experienced service interruptions before. A mix method qualitative and quantitative approach was used to gain breadth and depth of views.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>

Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.

Independently assured and challenged – All research was conducted by an independent research and insight consultancy and challenged by the ICG YourVoice.

Ensuring research is useful and innovative

3.2.15 This case study demonstrates our approach to ensuring research is useful to business planning, but innovative in its design to overcome challenges such as customer engagement on complex topic areas.



Case study: Immersive Long-term Futures Customer Research

In section 2.2 ‘PR19 to PR24: How our approach has evolved’ we described the shift from driving innovative methodologies and using a variety of methods in PR19, to ensuring our focus is on using the most effective methods of research in PR24. The primary purpose of this has been to increase the relevance of research and deliver a bigger impact on our decision making.

Identifying customers’ views on the long-term future is more difficult to achieve than eliciting views on the “here and now.” Whilst current customers are able to articulate their current needs, wants and concerns it is often difficult for individuals to forecast how their own lives may change in the future. In addition, the mix of the UUW customer base will change over time, with today’s young people becoming future bill payers.

However, while understanding how customers may view their water and wastewater services in the future is difficult, it is vitally important that our long-term plans consider these views. Therefore, we have developed a three-pronged approach to understanding how customers’ views may change overtime, and feeding those projections into long-term business planning. This approach was shared at the Future of Utilities summit to great feedback from our peers for our innovative approach.

Figure 10: Our three-pronged approach to co-creating our long-term delivery strategy



Source: Long Term Delivery Strategy Engagement Plan

Phase 1: Research Synthesis²³

As part of our PR24 submission, we have set out our five-year business plans in the context of a 25-year Long-term Delivery Strategy (LTDS) in (UUW12).

We required customer insight and research to directly inform our LTDS – a plan for the years until 2050. It covers ambitions and future targets for performance commitments, such as water supply, customer experience, affordability, biodiversity, and carbon/net zero ambitions.

Continuous research and engagement programmes allow us to track customer priorities over time and compare this with revealed preference data. Our approach was to look back to see what we could learn from customer priorities and past events. We recognised this data is invaluable in feeding into our long-term planning and we set out to synthesise and triangulate data from various sources to:

- (a) Identify how customer priorities have changed over time and what lessons can be learnt from this.

²³ SHED Research Consulting on behalf of United Utilities, LTDS: Customer Insight Synthesis, February 2023

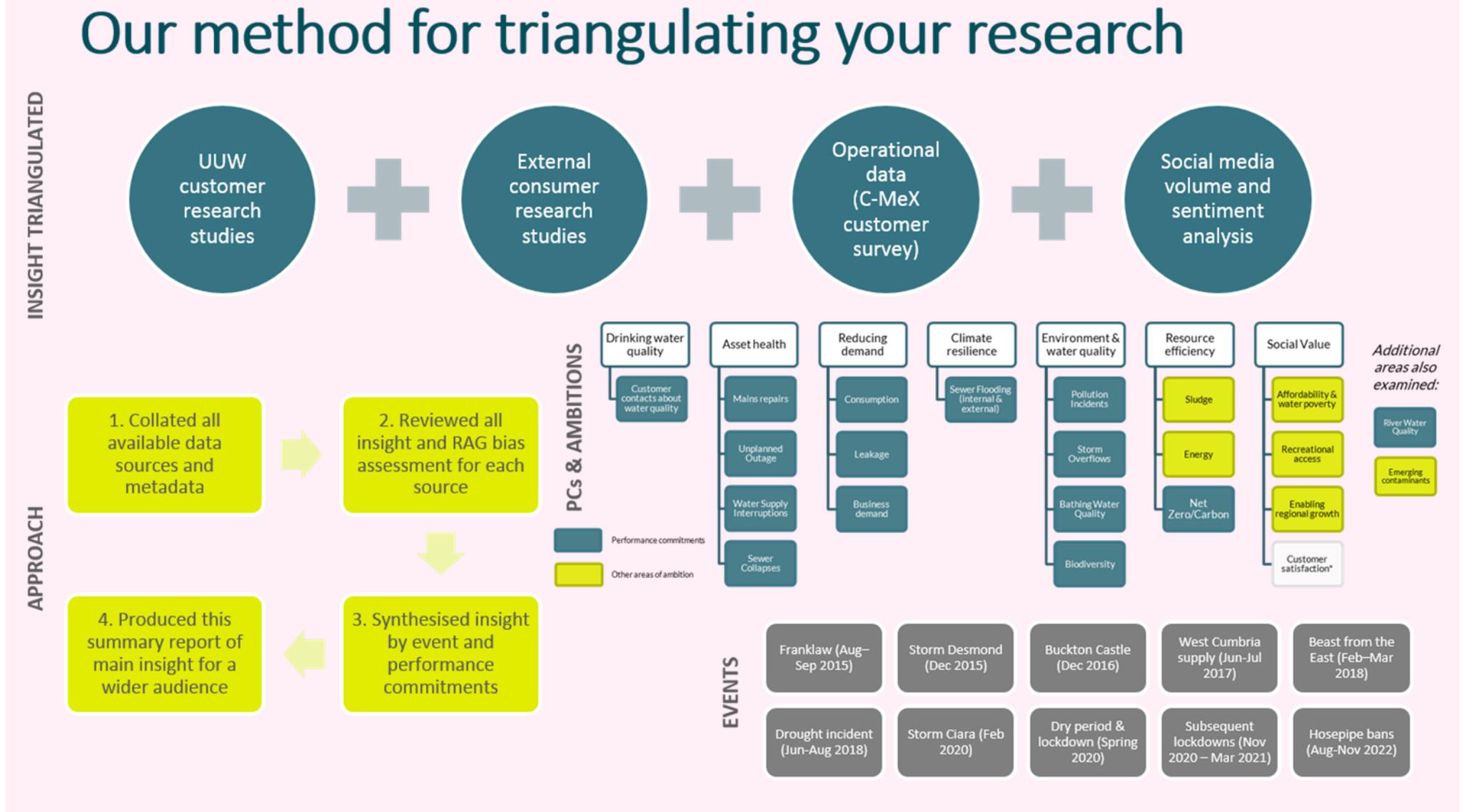
- (b) Understand how macro events and interruptions impact customers' priorities and what this tells us about similar events happening in the future.
- (c) Map industry climate scenarios against this insight to understand how priorities might change in the future.

We used an independent consultancy, to synthesise the insight and followed the principles laid out in the CCW/SIA report on best practice for triangulating customer evidence²⁴. Varied and continuous sources of insight such as UUW and external research studies, operational data and social media volume data were used to inform our synthesis. For more information, please see the full research synthesis report²⁵, and summarised in Figure 11 below.

²⁴ SIA partners on behalf of CCW, PR19 Triangulation Review, May 2021

²⁵ SHED Research Consulting on behalf of United Utilities, LTDS: Customer Insight Synthesis, February 2023

Figure 11: Method for synthesis of key sources by our independent triangulation consultant



Source: SHED Research Consulting on behalf of United Utilities, [LTDS: Customer Insight Synthesis](#), February 2023

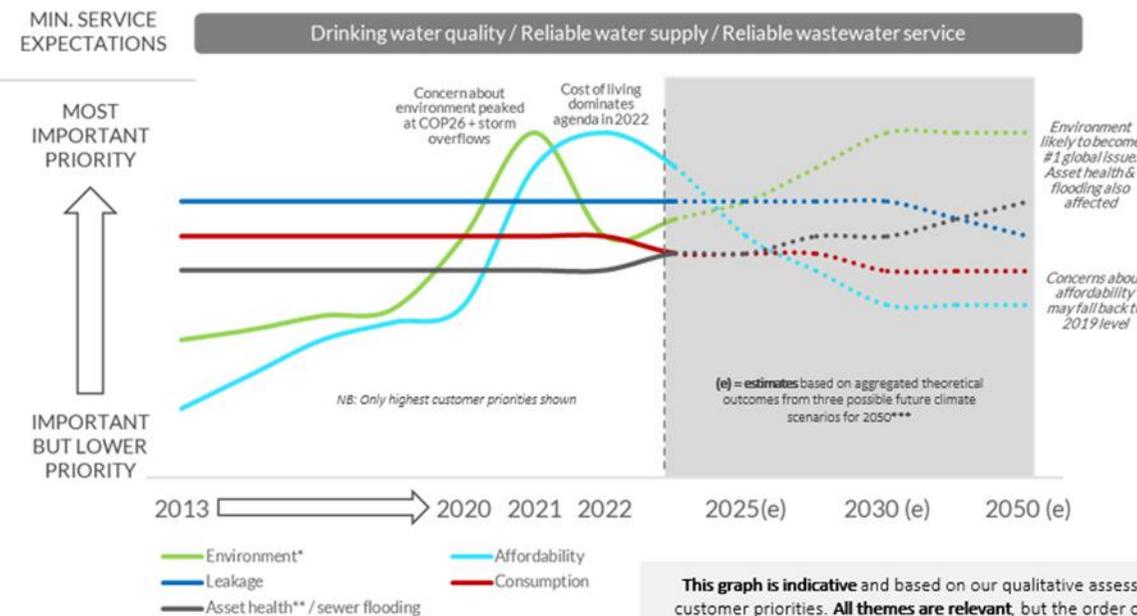
- 3.2.16 As shown in Figure 12 below, the analysis allowed us to understand that individual events do not tend to permanently shift overall customer priorities, but cumulative events (e.g. storm overflows) and macro trends (e.g. cost-of-living challenges and environmental focus) do move them over time. Affordability is the current number one driver given cost-of-living challenges, but the independent synthesis allows us to indicatively predict which priorities are likely to remain priorities in the future, based on their performance in the past.
- 3.2.17 For example, environmental issues are likely to rise to the fore by 2050, either as a reaction to negative climate events or after global efforts to tackle adverse effects in the intervening decades. Specifically, biodiversity, storm overflows, carbon and bathing/river water quality will likely grow in priority due to cumulative events and macro trends. Our priorities tracking over time shows us that minimum service expectations, leakage reduction, and consumption, as well as investing in long-term asset health and sewer flooding prevention will always be important.
- 3.2.18 These findings support the improvements in resilience and asset health, pollution, leakage and environmental protection in our AMP8 plan and enables us to prioritise these areas in both the short and long term. Our AMP8 plan is the first step on our journey to achieving long-term improvements. This research supports our prioritisation of environmental investment including nature-based solutions, rainwater management, and hybrid and partnership working.
- 3.2.19 After understanding how priorities were lie which priorities are likely to continue to grow or remain priorities in the future, we were able to use this insight to create ambitions for our long-term delivery strategy, which were to be tested in Phase 2 of our research.

Figure 12: How climate scenarios may impact customer priorities in the future

Summary: evolution of customer priorities

How customer priorities have evolved and *may* evolve

Five key messages



- 1.1. Individual events don't tend to permanently shift overall customer priorities
- 2. But cumulative events (e.g. storm overflows) and macro trends (e.g. the economy, the environment) do move them over time
- 3. Affordability is the current #1 customer priority, given the economic climate. While still important, it may be overtaken by other themes in the future
- 4. The environment* is likely to rise to the fore by 2050 – either as a reaction to negative climate events or after global efforts to tackle adverse effects in the intervening decades

5. Core hygiene factors, leakage reduction, and consumption, as well as investing in long-term asset health and sewer flooding prevention will always be important

This graph is indicative and based on our qualitative assessment of customer priorities. **All themes are relevant**, but the order of priority shown reflects the relative priority of themes within the time frame. It **includes only the highest customer priorities** i.e. it excludes regional growth, recreational access, as well as areas where we have less insight (sludge, emerging contaminants, energy, business demand, and unplanned outage).

* Includes storm overflows, biodiversity, net zero/carbon, pollution and bathing water quality / ** Includes sewer collapses, main repairs and water supply interruptions / *** See Slides 42-45

© Shed Research Consulting Limited, 2022

Source: SHED Research Consulting on behalf of United Utilities, [LTDS: Customer Insight Synthesis](#), February 2023

PHASE 2: Immersive Ambitions Testing²⁶

- 3.2.20 Following our work to look back and see what we can learn from past events and customer priorities data, we needed to look forward to the future. We recognise engaging with customers on the future is difficult, therefore we needed to focusing on quality and ensuring our research is useful and contextualised, which led to innovation in the design and impact of our research.
- 3.2.21 We commissioned an innovative immersive research project, which used AI to immerse customers in possible future scenarios. Projective techniques were used to encourage customers to think of changes to the world over the last 25 years and then using AI, project them into possible futures. We used two accessible scenarios 'green guardianship' and 'climate inaction' to explore a benign and adverse future (see Figure 13). This enabled customers to consider our ambitions with the short and long-term context in mind, and enabled us to meaningfully understand what customers want us to strive for and whether this is deemed good enough within the context of variable futures. Using AI technology helped customers consider the scale of change in day to day life over the last 25 years and apply this thinking forwards to separate from the pressing concerns of today and instead consider objectively ambitions over the long term.
- 3.2.22 Throughout the research the independent research agency probed to explore key issues in the context of intergenerational fairness. This allowed us to gain greater depth of insight to understand views on intergenerational fairness and to explore how, if at all, opinions change after the long-term AI futures were introduced. A post-task exercise was conducted to get participants to talk to a family or friend of a different generation who had not been part of the research, and discuss their views. This led to rich follow-up interviews and nuanced conversation around intergenerational fairness, giving us confidence in this approach and the results.

²⁶ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

Figure 13: AI generated scenarios for the future

The Past (1998)	The Present	Green Guardianship Future	Climate Inaction/Chaos Future
			
<p>🎵 Oasis: Wonderwall</p>	<p>🎵 Harry Styles: As It Was</p>	<p>🎵 Nature Sounds</p>	<p>🎵 Traffic Noise</p>
<p>A house from 25 years ago encouraged consideration of how water usage and life has changed and how different challenges and ambitions would have been in 1998.</p>	<p>Present day house reminded participants how life has moved on since 1998 and the challenges these differences has created.</p>	<p>Two extreme scenarios 25 years in the future - 'Green Guardianship' and 'Climate Inaction/Chaos' future - to encourage thoughts about how the world might change, and how this could impact what United Utilities need to deliver on. E.g. Climate Inaction/Chaos future highlighted potential water disruption due to dry weather events/outages, using imagery of emergency bottled water in the kitchen.</p>	

Source: PwC on behalf of United Utilities, [Long Term Delivery Strategy Ambition Testing](#), April 2023

Figure 14: Customer feedback on long-term impacts and intergenerational equity

“”
 Having to think back to 1998... Obviously, I was a younger girl whose parents dealt with the water bill. And then now, I've got my water bill, and I've got my kids. As a mother, I would like to ensure that going forward, that they're going to experience the same sort of quality that I've had all my life and that they're not going to suffer.
 General Public, Over 40, Greater Manchester, Suburban

“I was wondering with my Grandma if she would have a different opinion being significantly older, but actually she also said it's better to pay more now rather than leave it till later.”
 General Public, Under 40, Cheshire, Suburban

“My Dad took more of an avid interest in the environmental side, which kind of surprised me, because I expected [net zero] to be targeted towards my generation and opposed to the elder generation.”
 Future Bill Payer, 18-22, Greater Manchester, Suburban

Phase 3: Synthesis and triangulation

These learnings were fed back to the long-term delivery strategy team and triangulated alongside other relevant research insights, taking into account deliverability, cost, risk etc. Please see section 5.6, for how each research piece informed our long-term delivery strategy and its component parts, such as water resources, Bioresources etc.

Table 3: This case study demonstrates our approach is high quality

<p>Neutrally designed – every effort has been made to ensure that the research is neutral and free from bias. Participants were encouraged to give their open and honest views and reassurances were given throughout the research that United Utilities were open to hearing their honest opinions and experiences. Materials were piloted and challenged by our ICG, YourVoice.</p>	<p>Continual – research was contextualised using a wide evidence base including primary research, operational data, social media data, and regulatory customer priorities research. Each phase of research fed into iterations of the long-term delivery strategy to build on the continual learnings.</p>
<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our long-term delivery strategy. The research captured representation from United Utilities’ range of customer types, regions, as well as vulnerable audiences and future bill payers. A review of existing research was conducted ahead of commissioning.</p>	<p>Inclusive – a mix of online and telephone interviews were conducted to ensure that digitally excluded, vulnerable and hard-to-reach customers were included in the research. Quotas were set based on the known profile of United Utilities’ customers, including age, gender, ethnicity and social grade. Future bill payers and non-household customers were consulted.</p>
<p>Fit for purpose – materials were piloted with customers and the ICG (YourVoice), the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis of different critical segments. Innovative, AI visuals of different future-based scenarios were created in order to engage and transport customers into a longer-term mind-set. A mural was designed to create interactive tasks to encourage engagement and present ambition summaries in more digestible formats. Cognitive testing was carried out during the design phase to ensure the complex subject matter was presented in a way that was as understandable and engaging as possible.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – All research was conducted by PwC, an independent market research agency. United Utilities collaborated with the ICG, YourVoice, who reviewed all research materials and provided a check and challenge approach on the method and findings.</p>

3.3 Our research is neutrally designed

3.3.1 To ensure research is neutrally designed and free from bias, we undertake a number of checks at all stages of the project including set up, question wording, question ordering, stimulus materials, selective use of quotes or data in reporting and interpretation of findings. Some examples of the checks we do are outlined below:

- (a) **Avoiding selection bias** - we review sample sets to ensure we are targeting a representative sample of the United Utilities customer base, our research design is inclusive and designed in an accessible way (for example, compatible with accessibility programmes, and often tested with 12-year old testers so reading age is not a barrier). This is to take into account selection bias; where a sample is not representative, results are weighted or the limitations are made clear in the final report.
- (b) **Avoiding order bias** – when evaluating propositions or choices, the order in which concepts are shown are randomised and neutrally labelled to avoid order bias. The order of questions asked are

evaluated to avoid leading the respondent and to be able to assess uninformed vs informed response.

(c) **Framing of question wording and stimulus** – this is regularly reviewed to ensure question wording and answer code frames are neutral and allow for customers to provide a meaningful response. Stimulus is tested to ensure neutrality by assessing the balance of information presented and often piloted before full launch to allow for adaptation and improvement.

(d) **Analysis and reporting** – reporting provides the majority and minority views and quotations with adequate sub-group analysis so findings are representative of all views.

3.3.2 Our ICG, YourVoice and the independent research agencies we work with, are instrumental in ensuring our research design and content is neutral.

Ensuring research is neutrally designed

3.3.3 This case study demonstrates our approach to ensuring research is neutrally designed in order to ensure customer views are meaningful and free from bias.



Case study: Water Resources West WRMP Research (United Utilities)²⁸

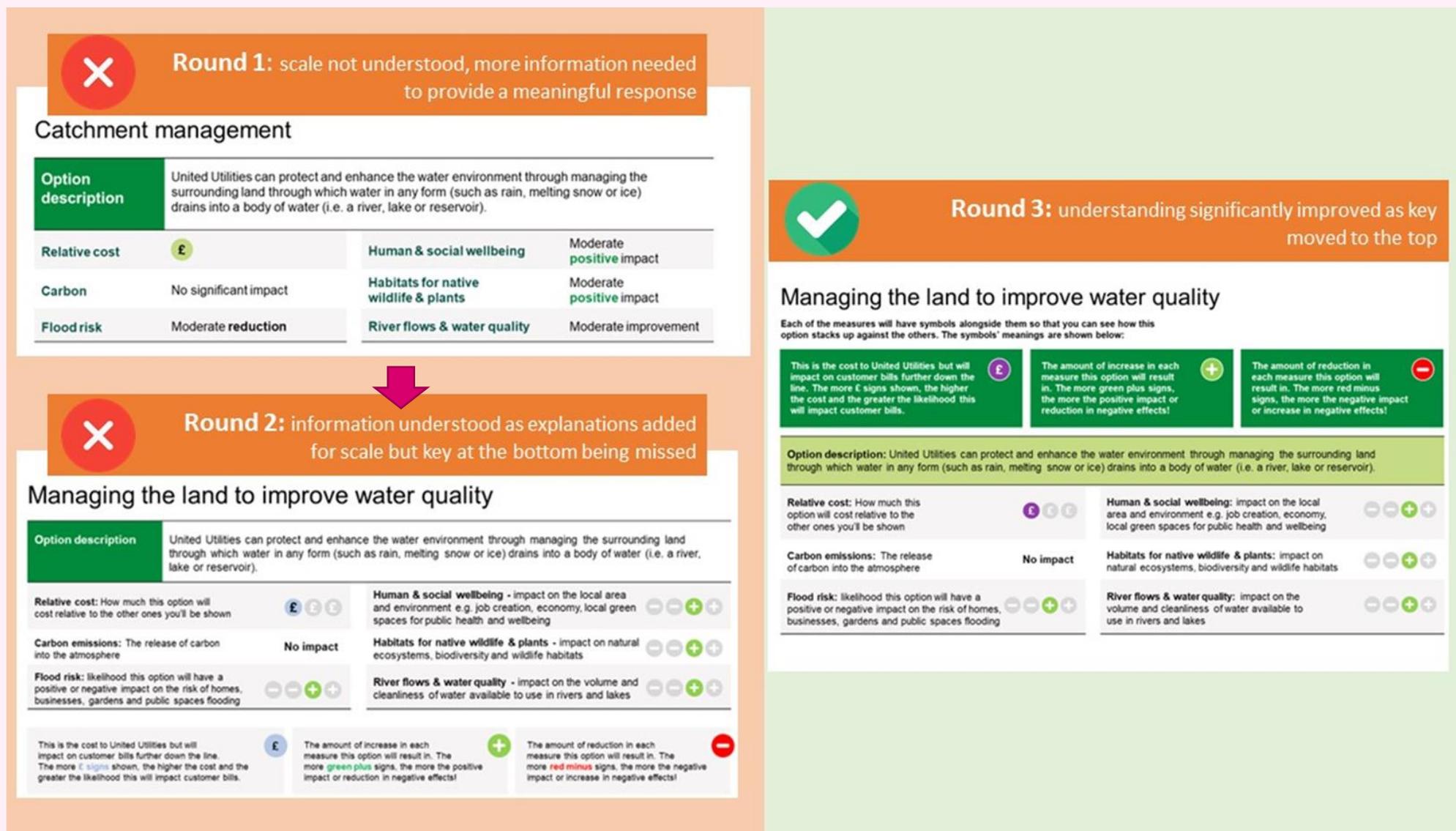
Below is an example where our Water Resources West WRMP research underwent 3 rounds of cognitive testing to ensure the stimulus was easily understood and that customers could provide a meaningful response based on the information shown.

- **First round of cognitive testing** – our first set of interviews highlighted that the materials weren't working optimally. People were struggling with the wording and querying what exactly a 'moderate increase' actually is etc. It was apparent that, whilst the survey couldn't accommodate full descriptions of the various bits of information, the summary wording was causing issues. We then went back to the drawing board and created cards with revamped symbols, rather than words to denote improvements, negative impacts etc.
- **Second round of cognitive testing** – our second interviews showed that the stimulus was improved but the symbols used were causing confusion. This was intriguing because there was a key below the table of metrics and on further delving, the confusion was largely driven by the key being ignored due to the fact that it was at bottom of the slides and therefore wasn't really being read and absorbed.
- **Third round of cognitive testing** - we then re-designed the slides again, this time moving the key to the top of the charts and this seemed to really make a difference. When people first encountered the template chart for the first time, they did read the key first – because it was the first thing they encountered. This then set them up to understand the subsequent charts' information. Understanding was significantly improved and customers felt they could interpret the information and provide a meaningful response.

Demonstration of the different materials used in each round of testing is given in Figure 15 below.

²⁷ DJS Research on behalf of United Utilities, WRMP, January 2022

Figure 15: A demonstration of how our research stimulus materials evolved using the learnings from the cognitive tests described above.



Source: DJS Research on behalf of United Utilities, [WRMP](#), January 2022

Table 4: This case study demonstrates our approach is high quality

<p>Neutrally designed – materials were designed with the customer in mind, our independent research agency conducted several rounds of cognitive testing. The order of questions was carefully considered to prevent order bias/ leading the customer.</p>	<p>Continual - research was contextualised using a wide evidence base including WRW company research and other WRMP research and data sources</p>
<p>Useful and contextualised –the insight directly influenced decision making and the values were used in our value stream decision making tool. We took into account a wide evidence base including operational data and industry research. Comparative data was shown to contextualise UUW’s resilience performance amongst other companies.</p>	<p>Inclusive – the full suite of projects feeding into the strategy allowed for both online and offline methods of recruitment and participation. The sample was representative of the United Utilities Water household customer base.</p>
<p>Fit for purpose – materials were piloted with customers (as noted in the section above). The sample was carefully considered to ensure sub group analysis and understand differences between certain groups.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – this research was undertaken by an independent research agency and peer review of the methodology and usage into the value stream tool was undertaken by Dr Silvia Ferrini.</p>

3.4 Our research is fit for purpose

- 3.4.1 Our approach ensures the correct methodology is selected based on the objectives of the project and the usage of the findings. It is important to be method agnostic at the point of scoping out the research requirements to ensure the appropriate methodology can be selected without bias. Figure 16 below outlines some of our considerations when choosing the methodology for the research.

Figure 16: The framework below outlines the different types of research and examples of suitability

What are the different types of research?

Quantitative Research

(robust samples, conclusions based on numerical data)

Understanding the what/how

- Testing a hypothesis
- Quantifying the problem or opportunity (e.g. behaviour, attitudes, opinions)
- Concept or proposition testing

Data is the main output

- Structure methods such as questionnaires, surveys, polls
- Uses robust (large) sample groups
- Allows you to look at statistical differences between certain groups
- Asks mostly closed questions, rather than open ended responses
- Responses are often private as they are not exposed to the views of other participants



Example objectives



Methodology

Qualitative Research

(smaller samples, based on experiences and opinions)

Understanding why

- Exploratory or understanding reasons/motivations
- Customer co-creation or iterative design (e.g. design your own bull)
- Understanding in-depth experiences, underlying needs, motivations and pain-points
- Hypothesis generating

Key themes are analysed with quotations/case studies as evidence

- Methods include one-to-one interviews focus groups, online discussions or live chats, participant video, behaviour and observation
- Typically use smaller sample groups
- Method is flexible and can probe/adapt research questions based on responses
- Asks open-ended questions
- Responses can be both private or influenced by other views, depending on methodology

Sometimes we use a multi-method approach (quant and qual) to get more in-depth feedback.

- 3.4.2 Materials are regularly piloted and cognitive testing undertaken to ensure research questions can be understood and participants are able to provide a meaningful response.
- 3.4.3 Whilst breadth of methodologies used was something that was driven in PR19, for PR24, United Utilities is focused on using the most effective methods of research and driving innovation in the way we meaningfully engage with customers, execute the research and use the results.

Ensuring research is fit for purpose

- 3.4.4 This case study demonstrates our approach to ensuring research is fit for purposes and ensuring the research sample and methodology is appropriate to address the research objectives and where this can lead to innovation in effective engagement.



Case study: WRMP & DWMP Immersive Research²⁹

Our DWMP, WRMP Immersive Research took a novel approach to options appraisal. A key part of the options development approach was accounting for customer preferences.

We conducted a bespoke piece of research that could be used to inform the development of our options hierarchy. We recognise that long term planning is challenging to ascertain meaningful engagement on and that customers don't often differentiate between 'water' and 'wastewater' services. Consequently a joint approach to engaging on long term planning across WRMP and DWMP was appropriate.

A three week 'pop-up' community made up of 153 customers, 18 business users and 17 future bill payers was established. The customers involved were representative of customer base across socio-economic grade (SEG), vulnerability and a mix of environmental engagement.

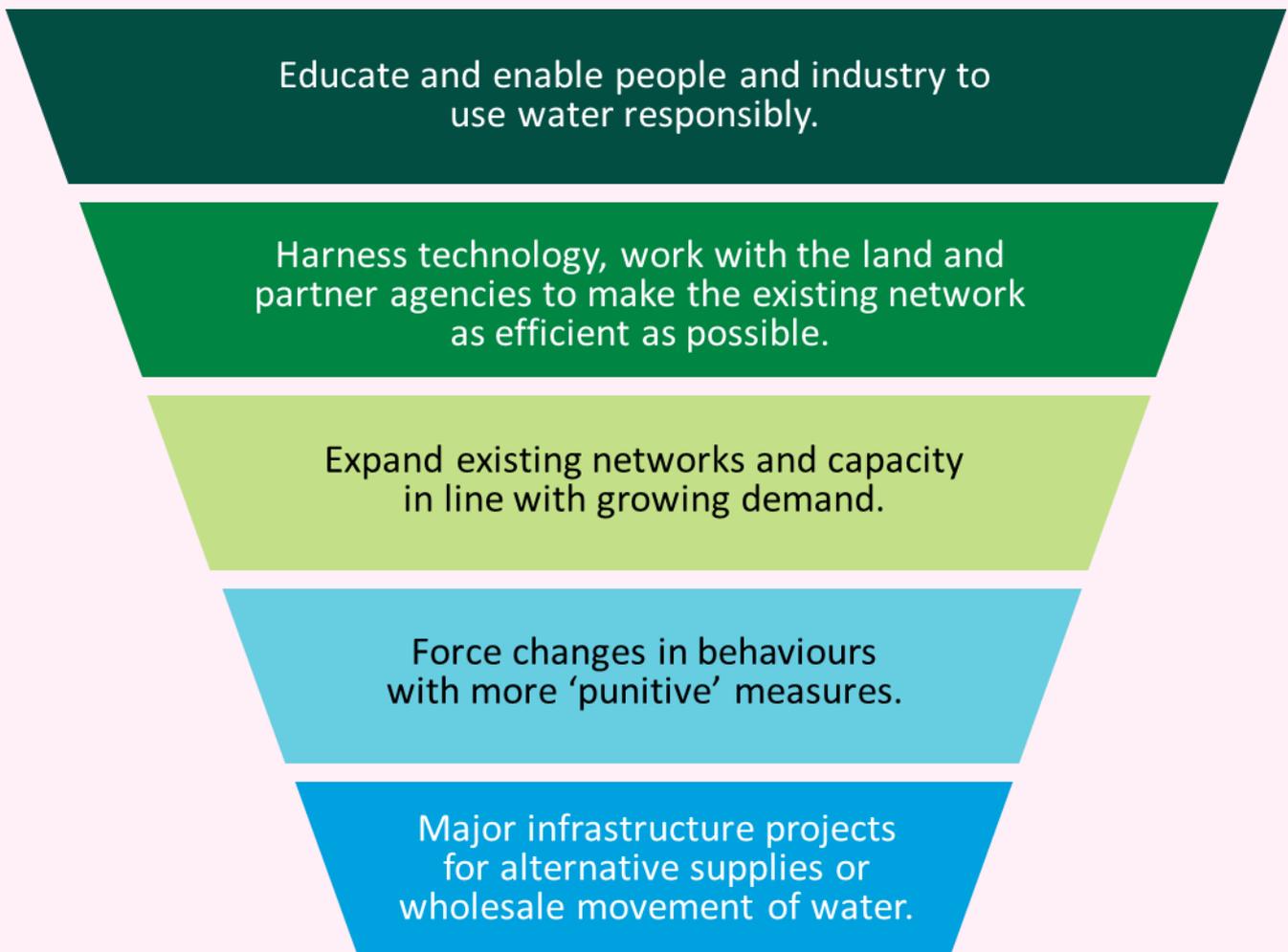
The research was conducted across three stages:

- (1) Knowledge building: mini-surveys and discussions
- (2) Depth and understanding: video groups and depth interviews
- (3) Final verdict/consensus: survey

Due to the longitudinal community approach, the research gave us incredible detail of how customers view the future of water and wastewater management in the North West. From across both the DWMP and WRMP elements, there was a similar patterns for customers' preferences for meeting long term challenges. There is appetite for more education, innovation and smart ways of working before the more traditional grey measures.

²⁸ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

Figure 17: Customers presented a hierarchy for how solutions for long-term planning should be approached



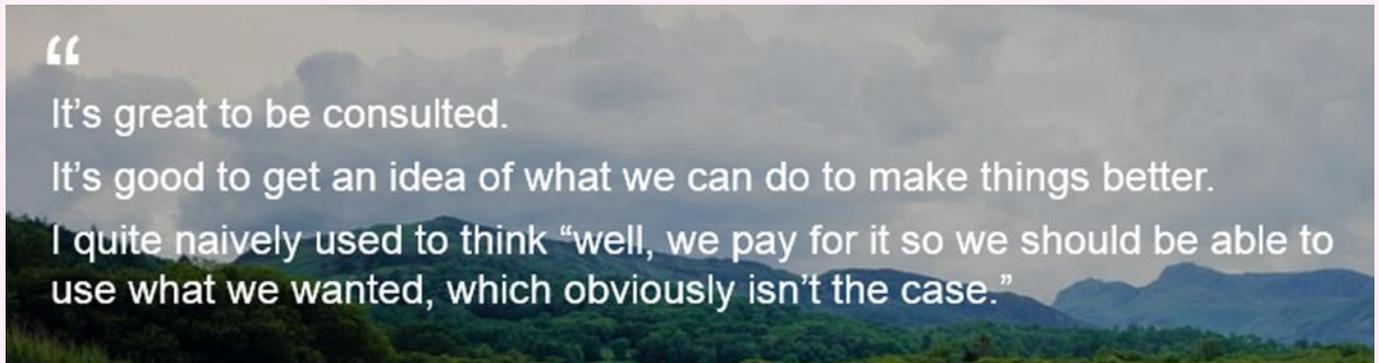
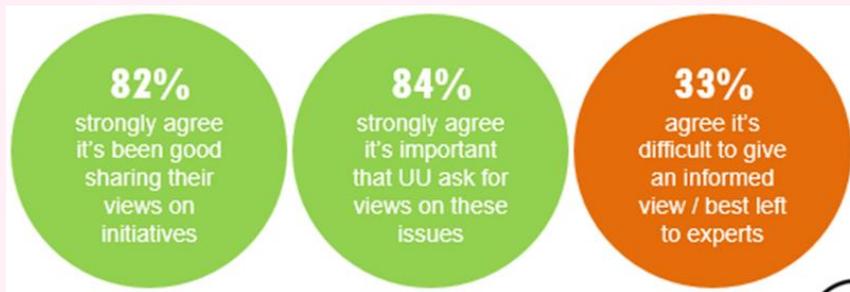
Source: InSites Consulting on behalf of United Utilities, [WRMP & DWMP Immersive Options Testing](#), April 2021

The approach encouraged open feedback on all of the options presented and the longitudinal approach ensured customers had the time to digest the information and did not feel overwhelmed with the amount of options to discuss. There was opportunity for customers to call out any questions they had or things that weren't understood so that we could address any gaps.

Overall, for WRMP, customers felt emphasis should be on individual behaviour, UUW's responsibility to minimise leakage, and working with 'what we've got'. With DWMP there is a similar strong emphasis on individual responsibility, harnessing technology and partnership working.

This research has enabled collaboration with customers. Customers were able to understand different option types and the benefits and drawbacks associated with each of these. Subsequently, this enabled customers to rank their priorities for solution types. By taking this approach, we have been able to develop our options hierarchy with customers' views and priorities in mind. The use of a hierarchy approach was supported by ICG and has directly informed the selection of preferred option blends.

As part of this research, we received great feedback from customers who participated in the research as show in Figure 18 below. This emphasises the importance of consulting with customers to give them reassurance and confidence in our plan development, but to make sure that we are developing the best plan. We contextualised the use of the results by outlining that customer views would be taken on board alongside views of stakeholders and subject matter experts. Customers enjoyed taking part, but agreed that certain options involved technical elements and so an expert view is needed. We allow customers to give feedback like this in all our key research projects.

Figure 18: Customer feedback on being involved in the research project

Source: InSites Consulting on behalf of United Utilities, [WRMP & DWMP Immersive Options Testing](#), April 2021

Additionally, this research design was innovative and engaged with customers in a meaningful way in order to have impact. This led to United Utilities being chosen as a finalist for the AURA Impact Award 2021. AURA is the UK's biggest client side research networking and events organisation, connecting professionals who want to improve their expertise and research impact. The AURA Impact Award is their flagship award.

This research has enabled collaboration with customers. Customers were able to understand different option types and the benefits and drawbacks associated with these. Subsequently, this enabled customers to rank their priorities for solution types. By taking this approach, we have been able to develop our options hierarchy with customers' views and priorities in mind. The use of a hierarchy approach was supported by ICG and has directly informed the selection of preferred option blends.

For example, customers prioritised leakage, smart metering and promoting water efficiency as their top priorities for water resource management. Demand options which support these approaches were prioritised in our decision-making methods in the WRMP.

Following early engagement on the optioneering process for the WRMP and DWMP, these plans were co-created with customers, using bespoke research to understand in-depth views on different discretionary investments in the plan. This ended with bespoke acceptability testing²⁹³⁰³¹ with customers on draft and final plans. Here the proposed plan (which gave weight to the best value investment options based on previous research) was played back to customers. Using sliders, customers could amend each area of the plan and see what impact this would have on performance, service level and bills. At the end of this process, once they saw their final bespoke plan and bill impact, they were able to amend their choice once again before submitting their views. During this process, both the DWMP and WRMP garnered very strong customer support for the UUW proposed plan, despite the many different combinations of the plan that could be built.

²⁹ DJS Research on behalf of United Utilities, DWMP Draft Acceptability Testing, May 2023

³⁰ DJS Research on behalf of United Utilities, DWMP Final Acceptability Testing, May 2023

³¹ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

Figure 19: Customer and industry feedback on the research

“
I love the idea of partnership working and think everyone should play their role.
Sorting problems at their source is ideal.
It shares the cost and the burden, and also helps educate.
Its highly likely the other partners are UU customers and reside in the areas affected so they should want to get on board.”

AURA Award 2021

We were a finalist for the AURA award which is given to the best case study from a client and/or client-agency collaboration which demonstrates the Impact of Insight on their business through

- Bottom line improvements/successes; and/or
- Engaging difficult to reach stakeholders; and/or
- Informing the opinions of customers through effective and creative use of insight

AURA is the UK's biggest client side research networking and events organisation, connecting professionals who want to improve their expertise and impact

“
A huge part of it for me is educating people on what’s going to happen and instilling the right behaviour.”

Source: InSites Consulting on behalf of United Utilities, [WRMP & DWMP Immersive Options Testing](#), April 2021

Table 5: This case study demonstrates our approach is high quality

<p>Neutrally designed – materials were designed with the customer in mind, our independent research agency and ICG (YourVoice) challenged the materials and they were piloted and cognitively tested with customers ahead of fieldwork. The order of questions was carefully considered to prevent order bias/leading the customer. Participants were encouraged to give their open and honest perspectives. Reassurances were given throughout the research that United Utilities Water were open to hearing their honest views and experiences.</p>	<p>Continual – research was contextualised using a wide evidence base including multiple primary research and customer priorities projects, Water Resources West research³² and regulatory customer priorities research³³. The outputs for each research stage were fed into planning to co-create and validate changes made to the WRMP.</p>
<p>Useful and contextualised – the insight directly influenced decision making for optioneering of WRMP and DWMP. Demand options which support this were prioritised in our decision-making methods in the WRMP. Options which managed risks at source, ensuring sustainability and cost effectiveness, benefitting the region as a whole, and working in partnership were prioritised in the DWMP. Our immersive research was shortlisted for a market research industry AURA Impact Award 2021. Each research piece had a key objective in understanding views on crucial options for the WRMP plan, as well as the package and plan benefits and WTP as a whole.</p>	<p>Inclusive – the full suite of projects feeding into the strategy allowed for both online and offline methods of recruitment and participation. The sample was representative of the United Utilities Water household customer base. Extra accessibility support was provided to those who needed it. Non-household customers and future bill payers were consulted as part of the research with sub-groups analysed where relevant.</p>

³² DJS Research on behalf of United Utilities, WRMP , January 2022

³³ Ofwat/CCW, Customer Preferences, April 2022

<p>Fit for purpose – materials were created in an engaging way with a design agency Fuzzy Duck to promote interactivity and understanding of the content. The 3 week online community and multi method approach facilitated maximum engagement. Materials were piloted with customers and the ICG (YourVoice), the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis of different critical segments. Innovative customer engagement strategies were used to obtain meaningful feedback on the plan.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – the research was conducted by an independent research and insight consultancy and challenged by the ICG YourVoice.</p>

Ensuring research is engaging

3.4.5 This case study demonstrates our approach to ensuring research is fit for purposes and ensuring effective engagement, even where the subject matter can be technical.

 **Case study: Bioresources³⁵**

In order to ensure customers can meaningfully respond to research questions, we need to ensure information is presented in a neutral and engaging manner. We wanted to engage with customers on our bio resources long-term strategy. Following changes in regulation to how we can treat sludge and usage of this for agriculture, we wanted to engage with customers so they could have a meaningful influence on decisions we make to change the way we treat sludge.

However, bioresources is an area customers know very little about and can include complex processes which means it is challenging for customers to engage with. In order to combat this, we commissioned six interactive face to face workshop sessions with customers and set out to try to inform and engage them in the best way possible.

We developed pathway images to depict the different ways sludge could be treated with doors so that the pros and cons of each pathway could be hidden and revealed at the appropriate stages. These were displayed around the room for customers to interact with. Materials focussed on the customer impact of the pathways, rather than internal processes or infrastructure. We included interactive polling to gauge interest in each of the pathways along the way and see how and if, opinions changed before and after costs were revealed. Additionally, we introduced physical stimulus to help aid understanding, using top soil to depict the broken down cake, pet pellets to show the materials that could be created and concrete to demonstrate the incinerator ash that could be taken to landfill.

The impact of creating engaging materials was that we were able to meaningfully engage with customers on a complex topic. Members of the bioresources team were in attendance at each session to help answer any technical questions from customers which was a key factor in the research projects ability to provide meaningful responses from customers. YourVoice ICG members were in attendance at sessions to ensure the research was neutral and fit for purpose.

The research is a key input into our WINEP submission and Long Term Delivery Strategy. In the WINEP submission it has supported decision making for:

- (a) WINEP Action ID08UU100133: Customers preference for Advanced Anaerobic Digestion, and the movements to this being identified as low regrets in our scenario analysis means we are increasing AAD sludge treatment to reduce our overall operational carbon emissions.

³⁴ DJS Research on behalf of United Utilities, Bioresources Pathways, September 2022

- (b) WINEP Action ID 08UU100133: Customers were highly concerned about river water quality, environment and air quality which means we are planning to open up access to more landbank to enable optimisation of the timing of biosolids spreading and reduce any associated water quality risks. Creation of a high quality, enhanced biosolids product to reduce microbial contamination
- (c) WINEP Action ID08UU100131: Customers were concerned about microplastics which influenced our decision making on including enhanced sludge screening to reduce contamination from rag, grit, plastics and other foreign material being spread to land
- (d) WINEP Action ID08UU100130: Customers prioritised human health as their number one concern, which lead to us improving Biosolids quality sampling to better understand risks and inform future decisions over sludge recycling"
- (e) Our LTDS has been developed utilising feedback from customers over their preferred routes for biosolids recycling. The foundation of all our pathways on our LTDS, AAD and consolidation to hubs, was seen by customers as the favoured sludge treatment process when compared to AD. AD was viewed as a lesser technology due to its lower gas yield, higher carbon footprint and limited versatility as a product to agriculture. Most customers understood that AAD treatment was needed before any of the alternative pathways to be most efficient.
- (f) Customers were concerned about micro plastics. This influenced our decision making to include enhanced sludge screening to reduce contamination from rag, grit, microplastics and other foreign material within biosolids being spread to land in the short term and explore further options in the long term. See *UUW66 Bioresources Enhancement Claims* for more information on this.

Figure 20: Our bioresources focus group



Source: DJS Research on behalf of United Utilities, [Bioresources Pathways](#), September 2022

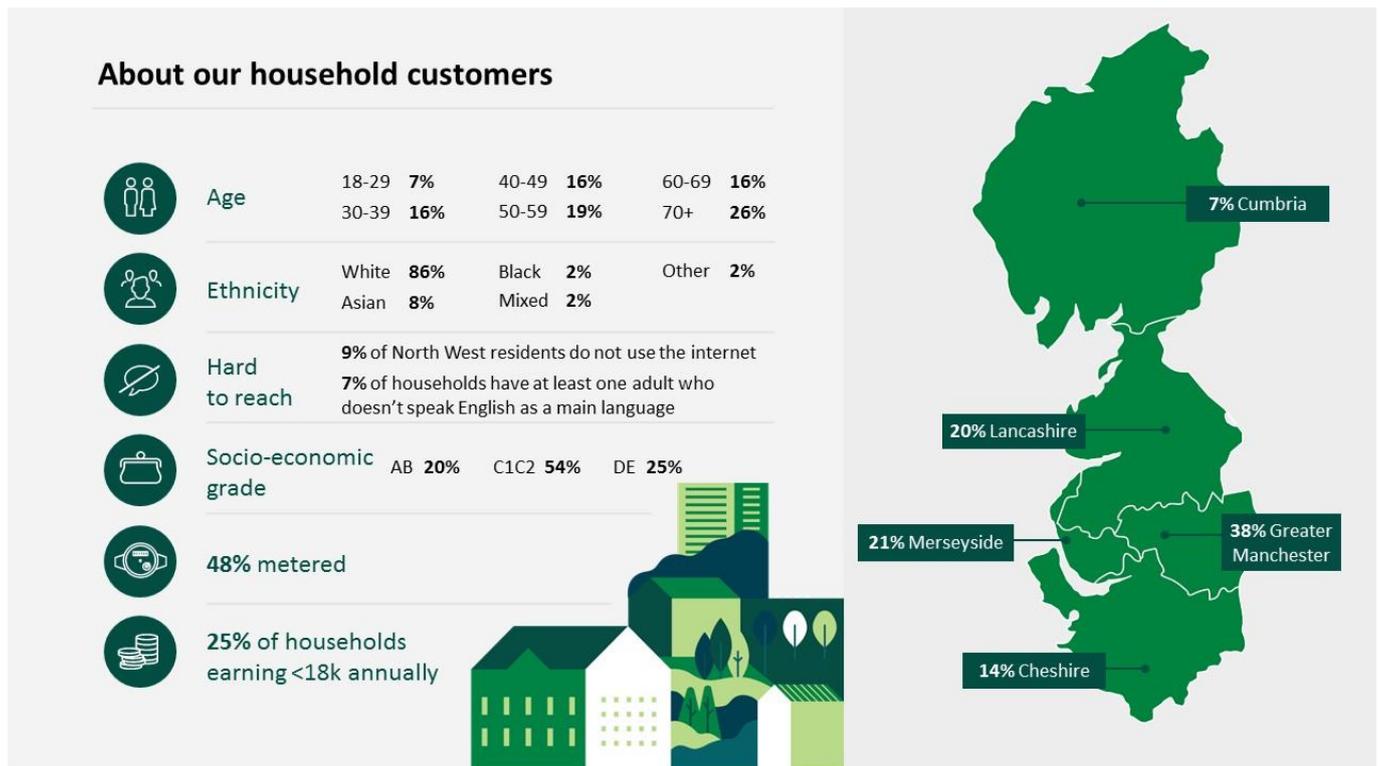
Table 6: This case study demonstrates our approach is high quality

<p>Neutrally designed – Every effort has been made to ensure that the research is neutral and free from bias. Where there is the potential for bias, this has been acknowledged in the report. Participants were encouraged to give their open and honest views and reassurances were given throughout the research that United Utilities were open to hearing their honest opinions and experiences. Our ICG provided challenge to ensure the research was neutrally designed.</p>	<p>Continual - The outputs of the research will feed into the Bioresources long term strategy, with the insight being used across multiple business plans in tandem with other wastewater research and customer priorities.</p>
<p>Useful and contextualised – This research was conducted in order to test United Utilities’ Bioresources potential adaptive pathways with customers and future bill payers. This research fed into long term planning and shapes future Bioresources strategy, with the preferences and priorities of customers considered in future investment decisions. Significant efforts were made to test and adapt stimulus to ensure it was useful and provided enough contextual information for customers.</p>	<p>Inclusive – The focus groups were face to face, ensuring that a variety of customers could attend, including those digitally vulnerable. The discussion and stimulus were designed to be accessible as possible, using visual aids and allowing enough time in the discussion guide to absorb the information and ask questions. Quotas were set based on the known profile of United Utilities’ customers.</p>
<p>Fit for purpose – This research was designed with accessibility and engagement front of mind, using deliberative discussions and visual stimulus to ensure customer understanding. Cognitive testing was undertaken during the design phase of this research to ensure the complex subject matter was presented in a way which was as understandable and engaging as possible for respondents. Due to the complicated nature of the subject matter, a United Utilities representative was available to answer questions at every session.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – Research was conducted by DJS, an independent market research agency. United Utilities collaborated with YourVoice, the Independent Challenge Group, who reviewed all research materials and provided a check and challenge approach on the method and findings</p>

3.5 Our research is inclusive

- 3.5.1 We undertake customer research which is representative of the United Utilities region. All sample sets strive for representation that mirrors the North West population, across our five key countries: Cumbria, Cheshire, Greater Manchester, Merseyside and Lancashire.

Figure 21: Demographic breakdown of our household customers



Source: North West census (ONS) and UYW customer data

- 3.5.2 Since PR19, our segmentation approach has improved and is more robust. We have identified our critical segments to ensure customers are included and targeted to ensure good coverage and meaningful sub-group analysis is completed on the data and findings. This robust approach has helped us understand similarities and differences in our critical segments and tailor or adapt our approach accordingly. Our critical segments include: sub-region, hard to reach customers, future bill payers, vulnerable customers, low-income customers and non-household customers.
- 3.5.3 The appropriate sample set of each research project is assessed at the scoping and design stage, but many key PR24 projects have representation of the below groups:
- Metered/ Unmetered
 - Age
 - County
 - Urban/ Rural/ Coastal
 - Future Bill Payers – defined as 18 – 29 year olds living in the North West but not currently paying their water bill.
 - Hard to reach customers –
 - Digitally excluded due to limited or no access to the internet, or not being tech proficient
 - Those who struggle to talk to us due to language or cultural factors (for example, English is not their first language).
 - Vulnerable customers –
 - Customers have a physical or mental disability
 - Customers of pensionable age
 - Customers on the priority services register
 - Low income customers – C2D2 SEG groups and those with a household income of less than £21k

- Ethnicity – we want to ensure research includes representation from minority groups
 - Non- household customers – we aim to get a spread according to size of business and usage of water (e.g. as a product or manufacturing use of their business or regular domestic use). During PR24 we are incorporating NHH more regularly and efficiently in research projects, rather than using standalone research to gain insight on their views.
- 3.5.4 Research samples aim to include a mix of demographics and will always undertake subgroup analysis where sample sizes are robust enough to do so. If sample sizes are not robust enough for sub-group analysis, indicative differences are reported on with the limitations of this made clear e.g. results are merely indicative.
- 3.5.5 Recruitment of research participants can vary depending on the audience. A mixture of online and offline methods are used to ensure inclusivity. As most PR24 research projects aim to get a representative sample of UUW customers, a mixture of customer lists, online panels, postal and face to face recruitment are used across the programme to ensure a diverse range of recruitment methods. This also protects against high dropout rates or repeat engagements, for example participants can disengage if targeting all research via one sampling list and cause research fatigue. This also ensures a wide variety of customer voices are being taken into account. When using online panels, UUW only engage with high quality panel suppliers who meet MRS and high quality standards of sampling, and those who run thorough data quality checks. Our panel providers recruit for UUW customers and ensure a good spread of demographics which align with customer segmentation, with data weighted to be representative of the customer base.
- 3.5.6 For certain audiences, such as vulnerable or hard to reach groups, we may adapt our methodology or recruitment methods to ensure good representation and inclusivity. For example, this could be through using UUW, local authority or census data to target these audiences, using the ICG and/or local community groups to recruit for these customers. Where possible, we have analysed customer views by county to support our five counties-led approach to ensure that we are able to communicate the aspects of our plans that address each community's local priorities. Evidence of this can be displayed in customer segmentation approach, community engagement and through the case studies presented in Chapter 3 sections 3.5-3.8 and Chapter 2.
- 3.5.7 We adapt materials to ensure they are as accessible and inclusive as possible. For example, in our bespoke ODI³⁵ and Affordability and Acceptability research³⁶, postal methods were used to try to engage hard to reach customers. Materials are piloted to ensure understanding, including, videos, voiceovers, different language options and BSL interpreters, where we feel this would be relevant for projects and the audience. For our surveys, we ensure survey platforms are compatible with online accessibility tools. One example is for research on our Affordability packages³⁷, we had members of the outreach team on site to help those customers in need or requiring more information about our affordability support for their individual case.

Example of ensuring inclusive research

- 3.5.8 This case study demonstrates our approach to ensuring research is inclusive and uses both online and offline methods, as well as targeted approaches to include customers of all types.

³⁵ Accent and PJM Economics on behalf of United Utilities, Bespoke ODI rates research, March 2023

³⁶ Accent and DJS Research on behalf of United Utilities, Affordability and Acceptability Testing, September 2023

³⁷ DJS Research on behalf of United Utilities, Affordability Package research, September 2023

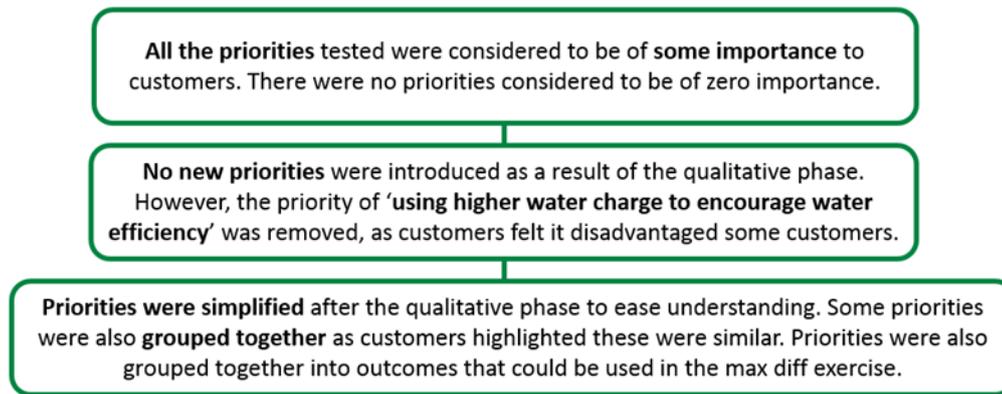


Case study: Customer Priorities³⁹

Customer priorities research was designed with inclusivity in mind. Qualitative focus groups and cognitive testing was undertaken ahead of the survey to ensure the priorities we tested were relevant, none were missing and there was good understanding of each of the priorities. Several improvements were made as a result of these tests to aid understanding and survey engagement.

Figure 22: Key feedback from our deliberative workshops

Key findings from the qualitative phase: All priorities are important



Source Impact Research on behalf of United Utilities, [Customer Priorities](#), December 2021

All priorities were tested in deliberative groups to ensure they were important to customers and could be understood. Further cognitive interviews were completed to test understanding of information, usability, ability to rate the priority areas and time taken to complete the exercise.

The cognitive tests highlighted some key issues which were addressed through improvements:

- Dates of the business planning period were not clear (2025 – 2030) – business planning period dates were made more clear and prominent in the research.
- The ranking and max diff exercise felt somewhat repetitive to some – extra instructions were added to reassure customers that they may see outcomes more than once.
- Business customers would start to think of their homes at times – extra reminders added for NHH to remind them to answer based on their business.
- Respondents completed the survey between 18 – 27 minutes – some areas were streamlined and numbering added on the max diff and ranking to communicate progress.

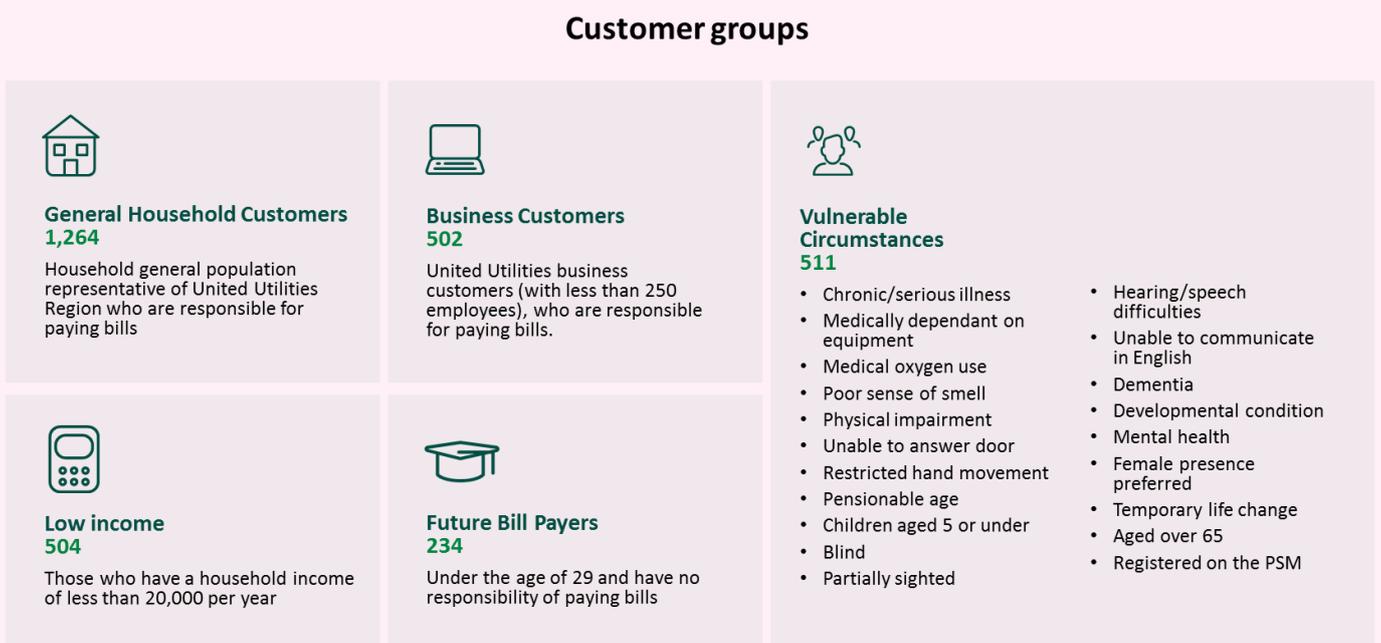
As part of the Customer Priorities Research (November 2021), a number of customer groups were represented:

3106 total participants:

- 1,264 Household general population
- 511 In vulnerable circumstances
- 504 Low income
- 234 Future Bill Payers
- 91 Digitally excluded (face to face interviews)
- 502 Business customers

³⁸ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

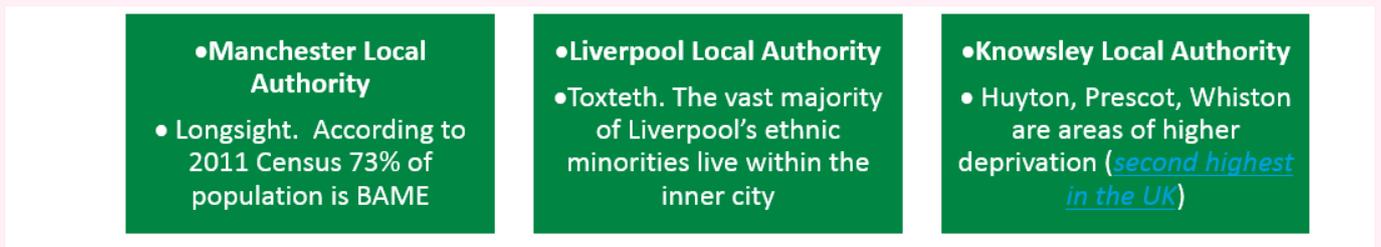
Figure 23: Customer representation from customer priorities research



Source: Impact Research on behalf of United Utilities, [Customer Priorities](#), December 2021

- 3.5.9 Online panels are a good and effective way to reach North West customers. However, they tend to be less representative of customers who do not have the digital skill or means to be online and, therefore, part of online panels. To overcome this issue we conducted face to face interviews in areas that have higher levels of customers that are digitally excluded and ensure inclusion of ethnically diverse populations.
- 3.5.10 We engaged with 24 customers that were digitally excluded due to lack of skills and 72 due to lack of access (device or the internet). Locations were targeted using local authority and census data (see Figure 24 below).

Figure 24: Local authorities targeted in our research to ensure it is inclusive of digitally excluded and diverse populations in terms of ethnicity.



- 3.5.11 The analysis and reporting showed an aggregated overall priorities list which called out key segment differences. Priority slides were displayed by the different customer segments and demographics to demonstrate how priorities differed by sub group.

Table 7: This case study demonstrates our approach is high quality

<p>Neutrally designed – materials were designed with the customer in mind, our independent research agency and ICG (YourVoice) challenged and piloted the materials and questions. The order of questions was carefully considered to prevent order bias/leading the customer.</p>	<p>Continual – research was contextualised using a wide evidence base including primary research, operational data, social media data, and regulatory customer priorities research. We continue to track customer priorities on a quarterly basis to feed into our business plan.</p>
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<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our investments for AMP8, bespoke ODI proposals and long-term planning. We took into account a wide evidence base including operational data and industry research. The research had a clear purpose</p>	<p>Inclusive – the full suite of projects feeding into the strategy allowed for both online and offline methods of recruitment and participation with telephone CATI methods for those digitally excluded. The sample was representative of the United Utilities Water household customer base. Extra accessibility support was provided to those who needed it.</p>
<p>Fit for purpose – materials were piloted with customers and the ICG (YourVoice), the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis of different critical segments</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – All research was conducted by an independent research and insight consultancy and challenged by the ICG YourVoice.</p>

3.6 Our research is continual

- 3.6.1 Our research programme looks to build upon multiple and continuous sources of insight. We have conducted 79 bespoke research projects from 2020 – 2023 and engaged with over 90,000 household customers (including future bill payers) and over 3,000 Non-household customers. See SUP14 data tables which evidence our engagement with customers. In addition to this, we have a wide variety of on-going mechanisms for customer insight which help to understand changes to customer sentiment over time and understand wider factors that are driving changes in customers' views and expectations.
- 3.6.2 We have undertaken a mix of one off strategic research and continuous research and engagement programmes. Strategic research has focused on specific longer term questions that we need to address as part of the PR24 planning process. Our ongoing continuous research explores areas that will improve ongoing service and provides insight into the changing views of customers in the North West.

Figure 24: Research completed across multiple business areas



Our continuous research throughout the year...



Source: UUW Research Programme

- **Customer contact data:** direct customer satisfaction feedback immediately after contacting us, including 'Rant and Rave' issue handling data. The WOW Awards provides insight into customer satisfaction, customers independently send thank you for our service to the WOW recognition scheme following an interaction with our colleagues. In April 2023, we became the first company to hit a record breaking 100,000 customer nominations, a tremendous accolade to recognise the efforts by our employees in delivering great customer service. In 2022, we received 3 times more WOW nominations than written complaints. The quality of our responses to all contacts is very important to us, and for complaints we are proud of a low repeat complaint rate at 3.54% for 2022/23 which is UQ performance compared to other WASCs with a range of 3.02% to 19.65%.
- **'In the Flow' research community:** 1,000 household customers who help to co-create and inform our service and provide a continuous and more informed understanding for our day-to-day service improvements across the organisation. The community makes research and engagement accessible throughout the business as it is an agile research tool.
- **State of the nation survey³⁹:** this is a quarterly survey looking to understand customer attitudes and behaviours covering themes such as affordability, environment and United Utilities Water's service.
- **Customer service trackers:** in addition to the regulatory survey, we commission replica customer satisfaction surveys for regular and continuous feedback on perception and performance.
- **Social media data (social listening):** understanding customer sentiment towards UUW and relevant water industry-related topics, as posted by customers on social media.
- **Brand pulse survey⁴⁰:** we undertake a survey to track customer awareness of our activities and perception and trust of the services we undertake (three times a year)
- **Customer services institute research:** we review research from the independent professional body for customer service to keep up to date with best practice learnings
- **Awareness tracking surveys:** tracking awareness of water efficiency and stop the block messages to provide measurement for the effectiveness of our behaviour change messaging.
- **External brand and service trackers:** we refer to external tracking of our services like the CCW water matters survey⁴¹ and the UKCSI⁴². We are proud to be ranked as the overall 5th utility company and 1st water company in 2023's UKCSI survey.

3.6.3 We use external sources of insight such as water industry research reports including those from CCW, MOSL, Ofwat and other organisations such as CIWEM and UKWIR. We use publicly available tracking data such as YouGov consumer behaviour and sentiment tracking, to help contextualise our thinking. We have been an active member in the Ofwat and CCW collaborative research sessions, helping inform and shape the design to ensure best practice, meaningful and comparable research results for the ODI rates research⁴³ and the Business Plan Acceptability Testing Research⁴⁴.

3.6.4 We have shown full commitment to using the products and outputs of the Ofwat/ CCW collaborative research as far as possible in our plan development. We have applied the guidance set out for Affordability and Acceptability Testing of our business plans. Additionally, we regularly use the research published by Ofwat and CCW to compare against our own research findings to identify similarities and differences. Further evidence of this is highlighted in the case studies in section 5 of this supplementary and in *Chapter 3- Customers and communities shaped our business plan*.

³⁹ Explain Research on behalf of United Utilities, State of the Nation, April 2023

⁴¹ CCW, Water Matters Survey, May 2023

⁴² Institute of Customer Service, UKCSI, July 2023

⁴³ Accent and PJM Economics on behalf of United Utilities, Bespoke ODI rates research, March 2023

⁴⁴ Accent and DJS Research on behalf of United Utilities, Affordability and Acceptability Testing, September 2023

3.6.5 Key research informing business plans look to co-create with customers over time to achieve a robust view of their views and opinions.

On-going learning is embedded in what we do

3.6.6 Our research is embedded in what we do, so development of strategies or partnerships are often taking place at the same time as research and insight to inform this. This allows for learnings to be directly applied at in a timely manner and ensures full visibility and engagement with the research findings to ensure they have impact.

3.6.7 Our research is iterative; across many streams of work, we operate a test and adapt approach to ensure our learnings are continuous, robust and iterative. We combine the use of multiple sources, such as operational insights, trials and continual tracking data to help inform customer research requirements.

3.6.8 The case study below demonstrates our approach to ensuring we are continually learning from research and using insights iteratively to test, develop and adapt our approach to complex problems



Case study: Northern Roots Oldham⁴⁵

United Utilities circulates regular communication campaigns to customers to build awareness of sewer safe and unsafe behaviour. Through doing this, it is hoped that households will change their behaviour and this will help to prevent blockages both within the home and wider sewer network, while protecting the environment.

United Utilities identified Glodwick, Oldham as a key area where sewer blockages are occurring and sewer litter is impacting the receiving environment. Concurrently, Northern Roots is planning the creation of the UK's largest urban farm and eco-park on 160 acres of green space in the heart of Oldham, Greater Manchester. This project is an example of us partnering with Northern Roots and the local community to have maximum impact. We co-created, tested, adapted and used an iterative approach to learning and employing our learnings along the way.

By the community, for the community

In an attempt to change behaviour and reduce the negative environmental impacts of sewer unsafe behaviour, United Utilities partnered with Northern Roots to identify areas for cooperation for mutual added benefit and impact. As part of this project, we are working with 4 community champions (residents) and a project manager from the local area who will help us to co-create communication and deliver hyper-localised messages.

United Utilities used operational data to identify Glodwick as a 'hotspot' area for poor flushing and pouring behaviours and understand what items were causing the blockages in this area. Northern Roots used local council and community data to help inform and explore the demographics of the area and identify community hubs.

The community consists of a majority 1st and 2nd generation Pakistani and Bangladeshi residents and lower socio-economic grade households. Many follow Islamic teachings and the local mosques were an important place of worship and community for residents. Using this knowledge, we set out to tailor the research and campaign to this audience as much as possible.

The research began with one-to-one interviews with a mix of 1st generation and 2nd generation residents. Residents had a choice of conducting the interviews in English, Bangladeshi or Urdu. These interviews shed light upon the underlying beliefs and behaviours which lead to sewer unsafe behaviour within the Glodwick area, before discussing ideas for communications and interventions and commissioning community focus groups to help achieve lasting behaviour change. For example, fats, oils and greases represented a large opportunity area for this group, as large scale cooking and disposing of these via the sink was so prevalent. This was accompanied by 150 face-to-face CAPI (computer assisted personal interview) in the Glodwick area to establish a baseline of attitudes and behaviour from which the impact of future campaigns in the area can be measured against. These were carried out in-person in the resident's first language to ensure that residents with limited English or digital access or skills were not excluded.

⁴⁵ DJS Research on behalf of United Utilities, Glodwick community trial: sewer behaviour research, October 2022

Throughout the project, the Glodwick Community Champions have been a valuable resource, providing a unique insight into their community and area, reviewing materials, contextualising findings and acting as a sounding board for ideas.

Following the first stage of research, a workshop was held with the community champions to review the ideas and insight generated in the research and come up with their own. We used the barriers and insights identified in the research to springboard idea generation and ensure any messaging or intervention suggested could be traced back to addressing barriers in the research findings.

Figure 25: Workshop and creation of materials for the community



Ideation session:
United Utilities (research and comms)
DJS (research agency partner)
Northern Roots
Glodwick community champions

Creation of the community posters

Please click here to [view the film](#) informed by the research and used in this communications campaign



Source: DJS Research on behalf of United Utilities, [Glodwick community trial: sewer behaviour research](#), October 2022

United Utilities, Northern Roots and the community champions worked together to generate a communications plan for the Glodwick area, utilising local knowledge, the research insights and local content creators to execute the design. We met fortnightly to discuss progress of the project and the ideas generated, the research team, marketing teams and community working hand in hand.

This culminated in a range of activity being mobilised to raise awareness to Glodwick residents and set out to change behaviour; the ‘keep the water flowing in Glodwick’ campaign was born. The activity included community skills workshops, leaflets and materials, school poster competitions, a social media campaign, a localised video which was made by and starred local residents, a community mosaic and a community fair and event.

The hyper-local nature of the campaign focussing on the local area and including local residents appears to have had the most impact upon those who recall seeing the communications. This suggests that communications which create a sense of community and familiarity are particularly salient. This has been used in stimulus with maps and local pictures for stop the block campaigns. A key finding was who delivered the messaging. In Glodwick the community champions in particular highlighted the approach should be multi-agency and that the messages shouldn’t just come from United Utilities alone. The council was perceived as a trusted body, whose messages are listened to within the community with the biggest example given on recycling. Going forward this approach and working with other agencies has been adopted throughout a number of campaigns in Wigan, Manchester and Knowsley, working with the environment and neighbourhoods teams from within these Councils to strengthen and amplify the delivery of the messages aligning with the campaign.

Stopping blockages is a collective issue and requires significant societal behaviour change. Therefore, UUW have set out to use partnerships and iterative insights to tackle this problem together. We have undertaken partnerships with other businesses to try to find innovative solutions and insights to create behaviour change. This is a project where we continue to identify learnings and iterate our approach to achieve better awareness of the impacts of flushing and pouring materials and promote behaviour change.

Our partnership with Keep Britain Tidy⁴⁶ allowed us to understand the scale and usage of wet wipes nationally and informed our Stop the Block campaign to highlight the real and imminent threat of blockages in local areas. This research directly influenced a communications research trial in the Wirral blockage hotspot area. The campaign tested the multi-channel and hyper local approach highlighted in the Keep Britain Tidy research and there was clear evidence of a reduction in poor flushing behaviour. This provided a blueprint for hotspot activity and multi-communication channels across the North West.

Our partnership with Wype⁴⁷ allowed us to trial a new and innovative way to change flushing behaviour through a moist toilet tissue alternative which originally came to our attention on an episode of the BBC TV programme, "Dragon's Den". We engaged with customers for three months to understand usage, needs and the role of a potential alternative product to promote behaviour change. Following the trial, all participants agreed they had greater understanding of the problems wet wipes can cause in the sewer system and had stopped flushing wipes designed for general cleaning. The project further highlighted the confusion around whether products labelled as bio-degradable, plant-based and plastic-free are safe to flush due to the messaging around this, which is often contradictory. United Utilities Water are sharing the research findings from this project with Water UK as part of a sector-wide review of the customer confusion surrounding the flushability of wet wipes.

Figure 26: “Stop the block” partnerships



⁴⁶ Keep Britain Tidy on behalf of United Utilities, Understanding Wet Wipe Disposal Behaviour, October 2021

⁴⁷ Verve on behalf of United Utilities, Wype Product Trial, September 2022

Table 8: This case study demonstrates our approach is high quality

<p>Neutrally designed – Every effort has been made to ensure that the research is neutral and free from bias. Participants were encouraged to give their open and honest views and reassurances were given throughout the research that United Utilities were open to hearing their honest opinions and experiences.</p>	<p>Continual - The outputs of the research are part on ongoing and regular stop the block research and learnings. The community trials take part over a year and work is ongoing. Please see the main chapter 3 for details on our wider stop the block learnings and the impact of our community trials. The partnership with Northern Roots Oldham allowed us to gain further information on the demographic of the area.</p>
<p>Useful and contextualised – This research was conducted in order impact behaviour change in the area and monitor customer awareness and impact. The research has influenced communications campaigns in the area and learnings have been used in other trials.</p>	<p>Inclusive – As demonstrated above, varied and targeted recruitment methods were used to ensure representation Glodwick community. Local language materials were created with options to engage with content online, offline and in person events.</p>
<p>Fit for purpose – Cognitive testing and piloting was undertaken during the design phase of this research to ensure research was fit for purpose. The community champions helped to provide local and cultural context to inform our approach. Local language and community specific materials were developed. The partnership with Northern Roots was used to help maximise impact and success.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – Research was conducted by DJS research, an independent market research agency and we partnered with Northern Roots Oldham on this research.</p>

Example of ensuring continual research



Case study: Driving improvements for those struggling to pay

UUW operates in a region where levels of deprivation and economic challenges mean that a higher proportion of customers struggle financially, compared with most other UK regions. For example, 47 per cent of the most deprived neighbourhoods are in the North West. Recognising the particular challenges of the North West, we have led the sector in targeting support to customers who need it with a high degree of success, resulting in reduced debt for customers.

However, there remains a significant minority of customers who do not engage with the support available and prove hard to reach and help. Moreover, ongoing cost-of-living challenges are worsening this situation for customers in our service area.

We examined evidence from a wide variety of insight sources to better understand why some customers are difficult to engage, including:

- Collection management analytics to understand the patterns of payment and segments of customers struggling to pay.
- External research and publications – e.g. Ofwat Cost-of-Living research⁴⁸, CCW vulnerability focus report⁴⁹, financial conduct authority, Cadent, and Ofcom vulnerable customer's reports⁵⁰.

⁴⁸ Ofwat, Cost of Living Research, May 2023

⁴⁹ CCW, Vulnerability Focus, February 2016

⁵⁰ Ofcom, Treating vulnerable people fairly, September 2022

- UUW specific research on affordability challenges and social tariffs⁵¹.

Key insights and operational response:

We identified that there is low awareness of the support available to customers from bill providers in general. According to a recent CCW and Ofwat report, just under half (45 per cent) of UK customers are aware that utilities providers offer financial support to those struggling to pay bills⁵². Despite the support options and proactive communications provided by UUW, we found low awareness of support in our research with those in 'disengaged' and 'at risk' groups. However, once made aware of the support UUW offers, reactions tend to be positive, in contrast to often negative experiences with other utility providers.

In response to these findings, we are:

- Furthering efforts to reach out to customers to raise awareness of the various support options. Frequent communication will increase salience as will utilising social media to promote the wide range of support available.
- Coordinating with and expanding partnerships with third sector organisations where there is higher awareness and a high level of trust around support provided.
- Established dedicated outreach roles to ensure we are working more collaboratively with third sector organisations.
- Trial video calls and pop-up hubs, which could help raise awareness of support to those who have busy lives, are a barrier to engaging with letter and email communications about support.

Customers, especially those currently in the 'at risk' category, often struggle to admit they need financial support, but will increasingly need it with prices rising. In light of this we have targeted early intervention email campaigns using Credit Reference Agency data, used social norms to nudge behaviour (e.g. emphasizing that many people are already receiving support) and used data share agreement with DWP for water poverty purposes to enable eligible customers to be proactively put onto affordability tariffs. This has supported over 30,000 customers.

We have continued to use our collections data and further research to adapt and refine our affordability packages, including research into social tariff cross subsidy⁵³ and the overall affordability package⁵⁴ for AMP8. There is strong support for our proposed affordability support package with 64 per cent of household customers who would qualify for social tariffs or are 'just about managing' believing that social tariff schemes offered are sufficient in supporting those in need, and 73 per cent believe that the additional support proposed beyond social tariffs would make water bills more affordable. Customers believe the enhanced affordability support offers are appropriately scaled, and extending customer cross subsidies further, attracts customer support. Please see chapter 4 for more details on how this has informed our affordability plans.

⁵¹ BritainThinks on behalf of United Utilities, 'In Debt', 'Engaged' and 'At Risk' Customer Research Project, December 2022

⁵² Ofwat/CCW, Customer spotlight: People's views and experiences of water, April 2022

⁵³ DJS Research on behalf of United Utilities, Social Tariff Research, September 2023

⁵⁴ DJS Research on behalf of United Utilities, Affordability Package research, September 2023

Table 9: This case study demonstrates our approach is high quality

<p>Neutrally designed – materials were designed with the customer in mind, our independent research agency and ICG (YourVoice) challenged and piloted the materials and questions. The order of questions was carefully considered to prevent order bias/leading the customer. Participants were encouraged to give their open and honest perspectives. Reassurances were given throughout the research that United Utilities Water were open to hearing their honest views and experiences.</p>	<p>Continual – research was contextualised using a wide evidence base including our brand tracker and state of the nation surveys, operational data and industry research and papers on affordability. The outputs from this research will feed into informing affordability business plans and long-term engagement strategies with customers struggling to pay.</p>
<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our affordability strategy. We took into account a wide evidence base including operational data and industry research. The research had a clear purpose of improving understanding of ‘in debt’ United Utilities Water customer experiences and informing United Utilities Water’ plans for engaging with them.</p>	<p>Inclusive – The sample for the research included a wide variety of United Utilities Water customers with experience of/likely to need contact about collections management. They were recruited from customer lists and during the scoping exercise the data allowed us to identify a third sub-group of ‘at risk’ customers to include in the research. Research materials, and the research itself, were designed to be inclusive and accessible for the sample, engaging with digitally excluded and hard-to-reach customers by providing a choice of online and telephone participation, as well as the option to be sent pre-tasks in the post.</p>
<p>Fit for purpose – materials were piloted with the ICG (YourVoice), which has many members with significant experience in the affordability space, the research, therefore, provided meaningful discussion. A qualitative approach, which engaged customers from a broad range of segments and situations, with one-on-one depth interviews allowing them to share their experiences in a way respectful of sensitivities.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – All research was conducted by an independent research and insight consultancy and challenged by the ICG YourVoice.</p>

3.7 Our research is independently assured

- 3.7.1 Our research projects are independently assured through the independent and reputable market research agencies that are commissioned to complete them and are compliant with third party best practice, such as the Market Research Society guidelines. In addition, our YourVoice ICG provide additional challenge and assurance on all price review related research. *Chapter 10- Assurance and track record* sets out our overall wider challenge and assurance structure that UUW has established
- 3.7.2 Where appropriate, we have commissioned additional independent assurance, for example our Bespoke ODI rates research⁵⁵ was peer reviewed by Dr Stephane Hess, who was involved in peer reviewing Ofwat/ CCW’s Collaborative ODI rates research⁵⁶ and our WRMP Water Resources West joint research⁵⁷ was peer reviewed by Dr Silvia Ferrini. These projects were selected for peer review due to their need to inform complex valuations and models and therefore, relevant experts were selected by UUW and our independent research agency to inform and improve the robustness and validity of these studies.
- 3.7.3 Finally, third line assurance has been completed by our assurance partners Turner & Townsend. The partners were selected based on their water and regulatory knowledge of the sector, as well as relevant

⁵⁵ Accent and PJM Economics on behalf of United Utilities, Bespoke ODI rates research, March 2023

⁵⁶ Ofwat/CCW, Collaborative ODI Rates Research, October 2022

⁵⁷ DJS Research on behalf of United Utilities, WRMP , January 2022

customer experience. Turner and Townsend have completed two pieces of work for customer research specifically:

- Affordability and Acceptability Testing Research (A&A)⁵⁸ – this has been independently assured to ensure all stages of this research follow the CCW and Ofwat guidance⁵⁹ as prescribed. The scope involved creation of a requirements traceability matrix and evidence reviewed for each requirement. Turner & Townsend reviewed our A&A quantitative pilot study⁶⁰ ahead of the full fieldwork and offered helpful feedback to ensure the full stage of research was completed optimally. This assurance activity received the top grade (A) from Turner & Townsend.
- High quality research programme – Turner & Townsend have reviewed the guidance on high quality research and impact as outlined in Ofwat’s Final Methodology⁶¹ and Ofwat/ CCW customer engagement positioning paper⁶², and are reviewing several projects to ensure the UUW research programme is high quality and being conducted according to best practice. This assurance activity received the top grade (A) from Turner & Townsend. The scope of this work include:
 - (a) Review of how key sources are selected and triangulated
 - (b) Review of key strategic projects against the high quality methodology
 - (c) Review of key strategic projects in terms of their usefulness and impact and how this has been used to shape the business plan.

3.7.4 Our assurance is in line with the Ofwat customer engagement policy paper which sets out standards for assurance need to be:

- Independent – our research is undertaken by independent and reputable market research agencies that are commissioned to complete them and are compliant with third party best practice guidelines, such as the Market research society. In addition, our ICG, YourVoice provide additional challenge and assurance. Additional assurance projects are commissioned where appropriate, and will be independent of UUW, with no restrictions on reporting.
- Transparent – UUW shares all relevant customer engagement and research evidence with assurance providers so they can reach a fully informed, independent view. Our research is published on our corporate website⁶³ for full transparency of findings.
- Expert – Independent assurers commissioned by UUW will always have relevant customer and regulatory experience to complete the assurance exercise
- Comprehensive – assurance will assess if the customer research meets the standards for high-quality research and any other best practice.
- Board Ownership – UUW have provided evidence of the board’s involvement and oversight of customer research to the assurance providers and in our board statement. Please see *Chapter 10* for more information.

3.7.5 For more information on our assurance approach and the conclusions from this, please see *Chapter 10*.

3.8 Our research is shared in full with others

3.8.1 We share our research widely with stakeholders and customers to promote collaboration, transparency and innovation. United Utilities were the first water company to publish all research projects including

⁵⁸ Accent and DJS Research on behalf of United Utilities, Affordability and Acceptability Testing, September 2023

⁵⁹ Ofwat/CCW, Guidance for water companies: AAT, March 2023

⁶⁰ Accent on behalf of United Utilities, Affordability and Acceptability Testing, May 2023

⁶¹ Ofwat, Final methodology for PR24, December 2023

⁶² Ofwat, PR24 and beyond: Customer engagement policy – a position paper, February 2023

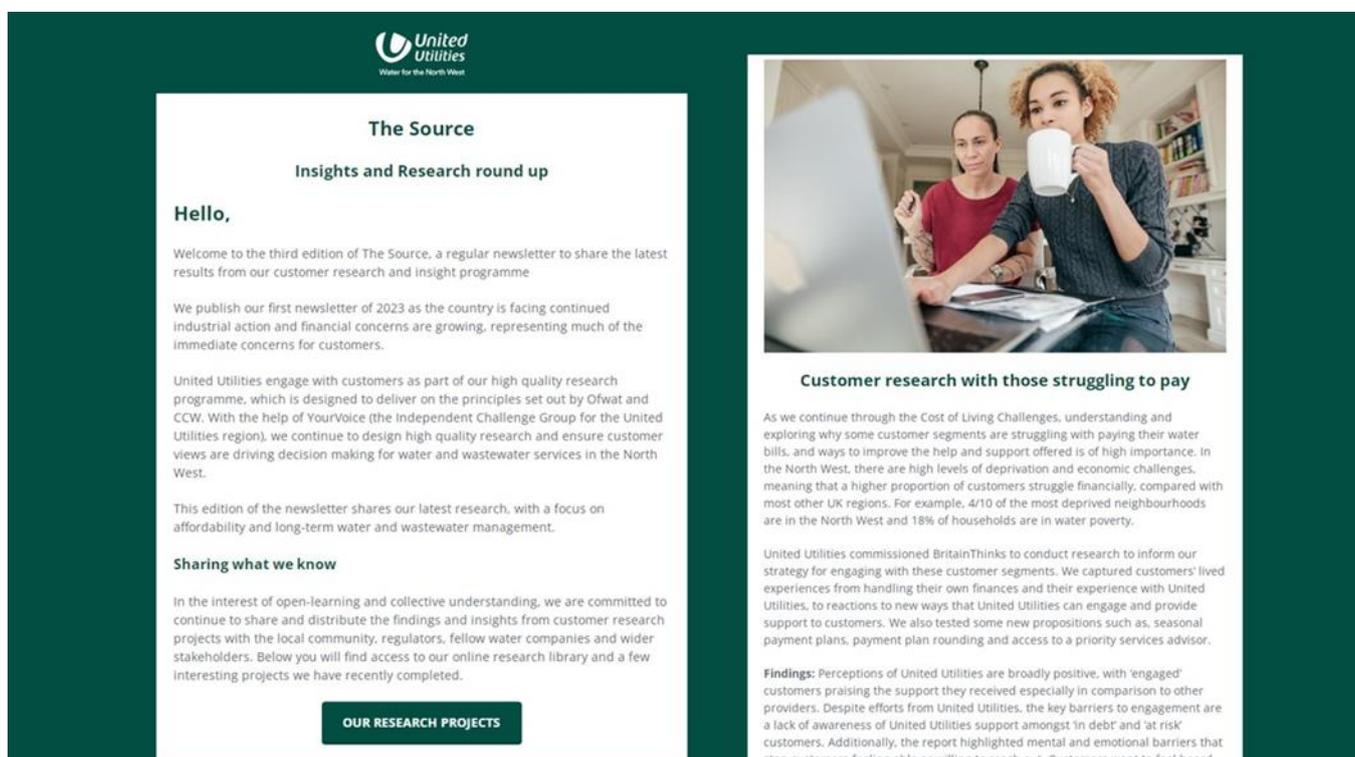
⁶³ United Utilities’ customer insight and research library webpage

full reports, methodology, screeners, stimulus, questionnaires and research guides on a dedicated area of the United Utilities corporate website which can be viewed⁶⁴. This has all been published shortly following the completion of the project.

3.8.2 Beyond this, we share our research reports and knowledge through a number of methods:

- (a) Industry research groups – research has been shared with other water companies and regulators through a number of working groups. These include, Water Resources West, Customer Insight Support Groups and more.
- (b) Stakeholder newsletter – we have created a quarterly newsletter ('The Source') which is sent to interested parties (e.g. regulators, key stakeholders and other water companies) and aims to increase the visibility of our research and share our understanding of customers.
- (c) Internal sharing – within United Utilities, we have a dedicated research library which is available to all internal stakeholders. There is a monthly research round-up to increase awareness of recently completed research and the customer insight team regularly present at various steering groups, strategy sessions and the programme board to ensure research and insight are fully disseminated and informing the direction of our plans.

Figure 27: The Source, customer insight and research industry newsletter



Source: UUU customer research newsletter

⁶⁴ United Utilities' customer insight and research library webpage

Figure 28: Our published customer research library

Welcome to the United Utilities' customer insight and research library

The following library provides an overview of the research and insight projects we have delivered within AMP 7 (currently in progress from 2020 – 25). We've provided links to the detailed reports so you can see the objectives, the methodology used, key findings, any key messages from the research and action taken.

WRMP Acceptability **Water Acceptability** **State of the Nation**

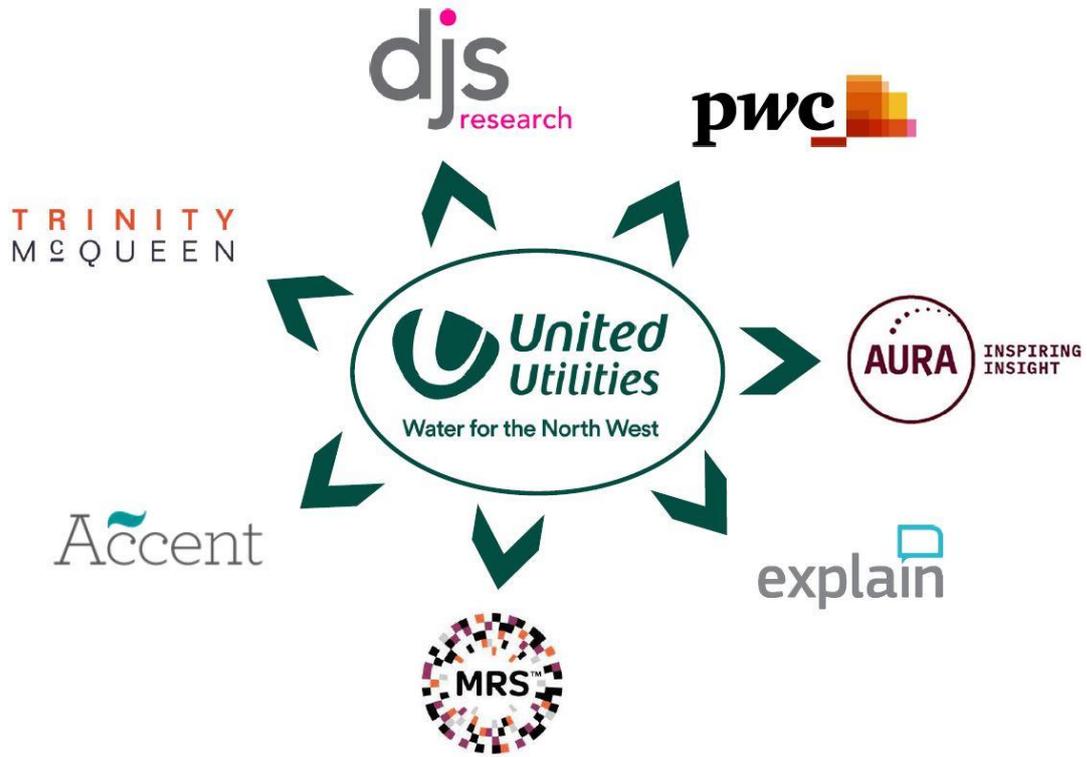
Source: <https://www.unitedutilities.com/corporate/about-us/our-future-plans/listening-to-our-customers/insight-and-research-library/>

3.9 Our research is ethical

- 3.9.1 Our partner research agencies and internal insight team are members of the Market Research Society (MRS) and follow the rules and guidelines of best practice. United Utilities is a member of AURA is the UK's biggest client side research networking and events organisation.
- 3.9.2 The United Utilities customer insight team attend training and events held by both the MRS and AURA to keep abreast of the latest best practice and innovation within the research field. We regularly share our research externally through these organisations. We recently presented a case study at the MRS CX | UX | MR Summit which was linked to our multi-method website research and improving the customer experience. Our DWMP & WRMP Immersive Research⁶⁵ was nominated as a finalist for an AURA Impact Award.

⁶⁵ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

Figure 29: Some of our key research partners



Source: UUW Research Partners

4. Our research is subject to scrutiny and challenge from outside the company

- 4.1.1 This section outlines our approach to customer challenge of research. Our process of customer challenge is:
- (a) **Independence** – The ICG, YourVoice, is independent of Uuw and offers critique of customer research and business plans. We are transparent with the ICG and members are given access to all key research documents including the briefing document, research proposal, research guides, stimulus and final outputs and analysis for review and comment.
 - (b) **Board accountability** – We have in place dedicated updates to the Uuw Board such as those for Affordability and Acceptability Testing results. The Uuw Board have visibility of business plans and how research has informed these. Where appropriate, the Uuw Board are invited to view live focus group sessions, for example the Customer Listening research⁶⁶ focusing on our Better Rivers, Better North West programme.
 - (c) **Ongoing challenge** – Customer challenge is ongoing through the ICG, customer and stakeholder activity. We meet with groups quarterly to ensure continual and ongoing challenge. We engage on a day-to-day basis as new projects and requirements are identified. Please see the live challenge tracker on the ICG website for more information on challenge from ICG. yourvoiceicg.co.uk/yv-panel/challenge-and-issues-log/
 - (d) **Informed** – All relevant operational and industry data is shared with the ICG, information is provided freely when requested and we seek to give ICG members a minimum of one week to feedback at any given time.
 - (e) **Transparent** – United Utilities Water is transparent as to the reasons for research and the challenges faced by us. All briefing documents are shared with the ICG and if for any reason a challenge is not taken on board, we always look to provide a detailed explanation. The ICG publishes minutes of its meeting with the company on its website, as this example illustrates: yourvoiceicg.co.uk/environment/agenda-and-minutes-environment/.
 - (f) **Representative** – Challenge comes from multiple sources: the ICG, customers, local and national stakeholders, regulators and internal stakeholders. The ICG group is made up of a diverse group of independent members with varying expertise. For more information about them here: unitedutilities.com/corporate/about-us/performance/yourvoice/yourvoice-panel/.
 - (g) **Comprehensive** – We invite customers, stakeholders and ICG to challenge on the full programme of research, including projects focused on water and wastewater services, customer services, investments, performance levels and bill impacts.
 - (h) **Timely** – We invite challenge at a timely point in planning where we are able to provide enough information to ascertain a meaningful response from challenge groups and yet still have time to make changes and use the feedback to inform decision making.

4.2 YourVoice (ICG)

How YourVoice challenges and shapes our research

- 4.2.1 In 2022, the independent challenge group for the North West, YourVoice See: <https://yourvoiceicg.co.uk/>, strengthened its approach to oversight and scrutiny of our performance and planning by creating four specific stakeholder sub groups - Customer Research and Engagement;

⁶⁶ Boxclever on behalf of United Utilities, Customer Listening, May 2022

- Affordability and Vulnerability; Stakeholder Engagement; and Environmental and Social Capital - which all feed into the overall panel.
- 4.2.2 These groups bring more voices from different North West communities around its table. For example, representatives of young people through Youth Focus see <https://www.youthfocusnw.org.uk/> and the developer community have joined. The creation of these groups provide us with further access to regional stakeholder perspectives.
- 4.2.3 Our Independent Customer Challenge Group (ICG), YourVoice, provides challenge and shapes decision making across many of our business activities.
- 4.2.4 We regularly meet with our Independent Customer Challenger Group (ICG) YourVoice to discuss customer research. One such YourVoice sub group is specifically designed for scrutiny of the quality, design and reach of customer participation to make sure that customer research is high-quality and the business plan consistently reflects customers' views and priorities. YourVoice has been fully engaged across our research programme covering design, executions, analysis and application. They are regularly invited to view live research focus groups and live dissemination events.
- 4.2.5 Research briefs, proposals, discussion guides and stimulus are shared with YourVoice for comment and feedback ahead of the research taking place. YourVoice is invited to pilot groups to help further development and inform improvements. We engage with YourVoice through regular email updates and quarterly customer sub-group sessions. Every feedback and critique of our projects are recorded in a tracker with a response on why we have or have not addressed the feedback for YourVoice. This tracker is published on the YourVoice website: yourvoiceicg.co.uk/yv-panel/challenge-and-issues-log/.
- 4.2.6 By using existing data sources, regularly monitoring research and learning from specific events, can in turn inform improvements that we can make to our services and the value customers place on such improvements. This means that our plans are built on a broad range of customer engagement methods for retail, water and wastewater services.
- 4.2.7 For example, YourVoice challenged the reporting from a research agency of our Asset Health research which was completed in 2020 as they felt the analysis did not go far enough to depict the views of certain subgroups in the customer sessions they had observed. In light of this, the agency were asked to review the analysis and provide an amended version of the report for dissemination.
- 4.2.8 YourVoice were vital for challenge in our Affordability and Acceptability Testing Research⁶⁷. They were engaged through several sub-group meetings and materials were reviewed and commented on in advance of the sessions. The ICG heard the cognitive feedback of materials first hand as they were received, and they challenged around presentation of materials and in particular how yearly bills were displayed. Their feedback on this was one example of changes made to improve the materials produced for Affordability and Acceptability Testing.



Case study: YourVoice is closely involved in our research and engagement

As mentioned in the sections above, YourVoice works closely with UUW to challenge our engagement and encourage high quality research. They have been involved in the programme every step of the way, and Table 10 below shows their involvement in our key research sources for PR24. We strive to invite opportunity for comment and review on as many of our research projects as possible, bearing in mind limitations of the groups' time and commitments.

⁶⁷ Accent and DJS Research on behalf of United Utilities, Affordability and Acceptability Testing, September 2023

Table 10: How YourVoice have been involved and shaped our key research sources⁶⁸

Project	Proposal / research objectives	Discussion Guide /			Focus group	Debrief
		Questionnaire	Stimulus	Report		
P104 Water Acceptability	✓	✓	✓	✓	N/A - Quant	✓
P124 Climate Change & Resilience	✓	✓	✓	✓	✓	✓
P125 DWMP Website	✓	✓	✓	✓	N/A - Quant	✓
P126 Shadow Metering Research	✓			✓		
ODI Tracker FY 2020 - 2023 (4 years - 15 dips (x4 dips for FY))	Continual tracker					
P130 DWMP WRMP Immersive Options Testing	✓	✓	✓	✓	✓	✓
P132 Sewer Overflows Research	✓	✓	✓	✓	✓	✓
P139 Northern Roots Oldham				✓	N/A - depths in local language	
P143 Customer Priorities 2021	✓	✓	✓	✓	✓	✓
P147 Price Perceptions	✓			✓		
P148 Social Tariff £5 Extension	✓	✓	✓	✓	N/A - Quant	✓
P151 Rainfall Management Research	✓	✓	✓	✓	✓	✓
Brand Tracking 2020 - 2023 (4 years, 12 waves)	Continual tracker					
P154 Expectations of Service Response	✓	✓	✓	✓	N/A - Primarily quant	✓
P158 WRMP Research	Reviewed by Water Resources West					
P159 Water Acceptability Hall tests 2021	✓	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>
P162 Sewer Flooding Valuation	✓	✓	✓	✓	N/A - Quant	✓
P165. In Debt and Rehabilitated Customer Research	✓	✓	✓	✓	N/A - Sensitive depth	✓
P165. Smart Metering (both quant and qual phases 2022)	✓	✓	✓	✓	✓	✓
P166. WRMP Plan Acceptability Testing (2022/23)	✓	✓	✓	✓	N/A - Quant	✓
P167. Customer Listening Groups	✓			✓		✓
P171. Wype Research	✓			✓		
P174. Bioresources - Sludge Research	✓	✓	✓	✓	✓	✓
P176. NHH Water Efficiency Visits (2022/23)	✓	✓	✓	✓	N/A - Quant	

⁶⁸ United Utilities' customer insight and research library webpage

Project	Proposal / research objectives	Discussion Guide /				Focus group	Debrief
		Questionnaire	Stimulus	Report			
P178. DWMP Acceptability Testing (2022/23)	✓	✓	✓	✓	N/A - Quant	✓	
P181. Bespoke ODI rates research (2022/23)	✓	✓	✓	✓	N/A - Quant	✓	
P183. Water visualisation research	✓			✓			
P185. 6 Capitals Research	✓	✓	✓	✓	✓	✓	
P187. Social Return on Investment Study	✓	✓	✓	✓	N/A - Quant	N/A	
P188. LTDS Ambitions Testing	✓	✓	✓	✓	✓	✓	
P190. DWMP Final Acceptability Testing (2023/24)	✓	✓	✓	✓	N/A - Quant	N/A	
P191. Affordability & Acceptability Testing Research Phase 1	✓	✓	✓	✓	✓	✓	
P191. Affordability & Acceptability Testing Research Phase 2	✓	✓	✓	✓	✓	✓	
P196. Affordability Package Research	✓	✓	✓	✓	✓	✓	
P197. Social Tariff Research	✓	✓	✓	✓	N/A - Quant	✓	
P200. Bespoke PC Testing	✓	✓	✓	✓	✓	✓	
P201. Bioresources Enhanced Screening	✓	✓	✓	✓	N/A - Quant	✓	

Source: UUW Research Programme – YourVoice engagement

4.2.9 The record of YourVoice challenge and involvement can be found on the YourVoice website: yourvoiceicg.co.uk/yv-panel/challenge-and-issues-log/. However, below are some specific examples of how they have challenged UUW to improve research design:

Neutrally Designed – 6 Capitals Decision Making research⁶⁹

- YV Challenge: In the stimulus, YourVoice noted that we had featured photos of the rainfall management solutions in the construction stage. They requested adding additional photos of the finished project so customers can see what it will look like in the long term.
- UUW Response: We added additional photos and labelled these as during and post construction, so customers are able to make an informed decision and not be biased by the aesthetics of the temporary phase.

Fit for Purpose: Affordability and Acceptability Testing⁷⁰

- YV Challenge: Following feedback from the cognitive testing for the first stage of qualitative testing, YourVoice encouraged deviating slightly from the guidance to add a combined bill amount to the graph to aid customer understanding.
- UUW Response: We agreed with this amendment and the change was made and reflected in all phases of Affordability and Acceptability testing.

Useful and contextualised: Bioresources Pathways research⁷¹

- YV Challenge: YourVoice noted that it was hard to explain the subject in one 3 hour workshop, in a way that enables participants to make informed decisions on complicated solutions going forward. They suggested reducing the material and number of activities to enable more reflection and discussion.
- UUW Response: In light of this feedback, the stimulus pack was reduced considerably to allow more time for discussion. Additionally, a pre-task reading activity was added to facilitate less content needing to be covered in the focus group itself. The outcome was that the focus groups ran to time and customers were able to stay engaged and offer valuable insight. YourVoice were present at some of the sessions.

4.3 Customer informed incentive rates for the North West

4.3.1 As part of the process for establishing Performance Commitment incentive rates we have sought to understand customer willingness to pay for service improvement in a number of areas. Supplementary document *UUW30 – Performance Commitments Technical document* sets out our proposed PCs for common and bespoke Performance Commitments in AMP8.

Approach to determining willingness to pay, triangulation and determining incentive rates

4.3.2 Ofwat/CCW have engaged collaboratively with water companies to design collaborative ODI customer research for PR24. UUW has been an active member of the industry collaborative steering group to determine the design and roll out of this methodology and recognises the benefits of having broadly comparative results across the industry with customer-led incentive rates. As such, we have had due regard to the Ofwat/CCW Collaborative ODI research⁷² results as far as possible in our approach to research triangulation.

⁶⁹ DJS Research on behalf of United Utilities, 6 Capitals, February 2023

⁷⁰ Accent and DJS Research on behalf of United Utilities, Affordability and Acceptability Testing, September 2023

⁷¹ DJS Research on behalf of United Utilities, Bioresources Pathways, September 2022

⁷² Ofwat/CCW, Collaborative ODI Rates Research, October 2022

- 4.3.3 Where it has not been possible to use this research – for example, where bespoke PCs need evidence of alternative valuations that are not provided in the collaborative ODI rates research or do not hold relevance – we have used additional research, insight and analysis to support.
- 4.3.4 To determine proposed incentive rates, UUW has developed a triangulation methodology with independent consultancy Frontier Economics. The approach to triangulation has been developed in line with CCW/SIA best practice recommendations⁷³, please see *UUW31* for our approach to triangulation. Our approach to determine proposed incentive rates has been challenged by our ICG, YourVoice, and independently assured by Turner & Townsend
- 4.3.5 For more information on how research has shaped our bespoke ODI proposals, please see the case study in section 5.7, *Chapter 3, section 3.8* and *Chapter 5, section 5.10*.
- 4.3.6 In addition to our triangulation for proposed ODI rates, we have applied the Frontier Economics framework to our triangulation of customer evidence to inform our business plan. Using the basis of the framework scoring system which is in line with CCW/ SIA best practice, we have scored all customer research projects to determine the key sources for business planning. These sources have then been used to inform different strategy areas as depicted in Figure 8. Our ICG, YourVoice, have incrementally heard how insight has been impacting plans and have reviewed our triangulation framework and application of this. The triangulation process has been independently reviewed as part of assurance by Turner & Townsend. Please see *UUW31* for our approach to triangulation.

4.4 Affordability and Acceptability Testing

- 4.4.1 As a central part of developing our PR24 business plan proposals we have engaged customers on their views around the affordability and acceptability of our plans.
- 4.4.2 In conducting this research, we have paid due regard to required joint Ofwat and CCW guidance⁷⁴. We have conducted both qualitative and quantitative research across a representative sample of both household and non-household customer groups, with sample proportions in line with guidance. We have engaged with, and received substantial contributions from, YourVoice (ICG) around the design and execution of research to ensure it remained neutral, representative and adhered to high-quality research best practice. Adherence to guidance has been independently assured by Turner and Townsend.
- 4.4.3 In May of 2023, qualitative research⁷⁵ was undertaken followed by statistically robust quantitative research in July/August⁷⁶. In addition to the prescribed phases of research, we undertook a quantitative pilot phase⁷⁷ in April/May 2023 with 500 customers and 100 non-household customers. This allowed us to understand early learnings from the quantitative research to shape our plan and share our learnings on the design of the research with Ofwat/ CCW and other water companies. Turner and Townsend reviewed materials to help us refine our approach ahead of the full quantitative testing.
- 4.4.4 In order to create materials, UUW was required to follow Ofwat/ CCW guidance on determining the proposed and least cost or 'must do' plan to test. In order to do this, we reviewed the programme build and determined areas that were driven by statutory regulation or requirements. Included in our 'least cost/ must do' plan are best value investments to achieve statutory requirements and to deliver mandatory service offerings. This approach is consistent with those submitted in our data tables CW13,CW14,CWW13 and CWW14.The key distinctions of the least cost plan (shown in Table 11) include:

⁷³ SIA partners on behalf of CCW, PR19 Triangulation Review, May 2021

⁷⁴ Ofwat/CCW, Guidance for water companies: AAT, March 2023

⁷⁵ DJS Research on behalf of United Utilities, Affordability and Acceptability Testing Qualitative Research, May 2023

⁷⁶ Accent on behalf of United Utilities, Affordability and Acceptability Quantitative Research, August 2023

⁷⁷ Accent on behalf of United Utilities, Affordability and Acceptability Quantitative Research pilot, May 2023

Table 11: Least cost plan components for Affordability and Acceptability Testing

Area	Commentary
Base expenditure	Base expenditure to maintain existing levels of service – aligned to UUW proposed plan
DWMP	Investments to maintain existing service levels such as investment to address climate change and population growth driven supply/demand pressures
WRMP	Leakage and water efficiency spend to comply with government planning targets. Investment for smart metering and improved water supply resilience was excluded from the least cost plan
DWI	Investments to maintain water quality and statutory requirements such as SEMD and NIS-D and Vyrnwy re-lining. Investment for lead removal was excluded from the least cost plan
EA	Statutory driven bio resources investment and compliance
Other	Previously approved spend such as HARP and requirements to delivery minimum acceptable core service

Source: Least cost plan components for Affordability and Acceptability testing

Key enhancement areas that were highlighted to customers as being within UUW’s proposed plan, but not included within a least cost plan included smart metering investment, affordability support, improved water supply demand resilience and carbon net zero improvements.

- 4.4.2 As defined by the guidance, companies should assess whether there are material changes to the business plan following the qualitative testing that may warrant re-testing. UUW agreed with the ICG that the materiality test threshold would be a more than 5% reduction in benefit of service to customers or more than 5% increase in bills. This materiality test aligns with that evoked by Ofwat when assessing material changes to charges.
- 4.4.3 To address uncertainties stemming from evolving requirements and their potential impact on the final bill, UUW opted to examine two variations of customer bill impacts. The higher variation necessitated a second round of qualitative research in August 2023⁷⁸. While still adhering to guidelines, this second round employed slightly reduced sample sizes, as agreed upon with the ICG due to time constraints.

Table 12: Second round of qualitative research sample sizes

Audience	Ofwat/ CCW guidelines	Approach and sample	Commentary
Household customers	Deliberative sessions (3 hours) – 48 respondents	2 x deliberative sessions (3 hours and 16 respondents) – 30 respondents Locations: Liverpool and Lancaster	There has not been adequate time to hold 3-4 deliberative sessions to consult 48 customers. It was agreed with UU and YourVoice that 30 was a robust enough sample.
Non-household customers (micro)	1 x deliberative session (3 hours) – 16 respondents	1 x deliberative session (3 hours) – 15 respondents: Trafford	The session was held in Trafford to allow transport links to other parts of the region. There was participation from micro NHH customers from Greater Manchester, Cheshire and Cumbria
Non-household customers (small to large)	Minimum 8 depth interviews	8 online depth interviews conducted across the region	CCW and Ofwat guidelines for sampling were met
Future bill payers	1 x deliberative session (3 hours) – 8 respondents	1 x deliberative session (3 hours) – 10 respondents: Central Manchester	CCW and Ofwat guidelines for sampling were met

⁷⁸ DJS Research on behalf of UUW, Affordability & Acceptability Qualitative Research – alternative bill, August 2023

Audience	Ofwat/ CCW guidelines	Approach and sample	Commentary
Vulnerable customers	8 x depth interviews with financially vulnerable customers 8 x depth interviews with health vulnerable customers	4 x face-to-face depth interviews with financially vulnerable customers 4 x face-to-face depth interviews with health vulnerable customers Across the region.	In the first round, we had a high dropout rate amongst this audience. The decision was made to reduce the number of interviews to allow for drop outs so we could meet timelines. This audience has been analysed at a total level i.e. 8 instead of sub-group level.

Source: DJS Research on behalf of UUW, [Affordability & Acceptability Qualitative Research – alternative bill, August 2023](#) (see UUW22 – Affordability and Acceptability Testing Reports)

- 4.4.4 The mechanism in which we used to create a 'higher bill' version was to increase the cost of capital. This was to provide a mechanistic way to increase bills for customers and allow for any uncertainty for future possible increases between testing and submission of the business plan. Our quantitative research encompassed two surveys aligned with guidelines and proposed best practice sample sizes, each presenting distinct bill impacts. Randomization ensured that participants encountered only one version of the bill impact. Further details about the implications of a higher cost of capital for customers can be found in *Chapter 9- Risk, return and responsible behaviour*.
- 4.4.5 The results of our Affordability and Acceptability testing research are summarised in Chapter 3, section 3.6. The table below shows the results for all versions of the plan tested, the columns highlighted show the stages that reflect the final business plan and final AMP8 bills which have been reported on in SUP14 and *Chapter 3*. These stages of the research are fully compliant with Ofwat/CCW guidance.

Table 13: UUW affordability and acceptability research results for key customer segments

	A&A Qualitative Phase 1	A&A Qualitative (alternative higher bill)	A&A Quantitative	A&A Quantitative (alternative higher bill)
Bill tested (£)	£512*	£546	£520	£546
Bill tested + inflation (£)	£643*	£685	£653	£685
Acceptability (very/fairly)				
All customers	77%	65%	74%*	75%*
Household customers	78%	67%	70%	70%
Future bill payers	88%	60%	N/A	N/A
Non-household customers	75%	57%	85%	86%
Vulnerable	69%	88%	69%	73%
Financially struggling HH	N/A**	N/A**	59%	62%
Affordability (easy to afford)				
All customers	48%	33%	22%	19%
Household customers	50%	47%	15%	14%
Non-household customers	61%	14%	39%	33%

* Please note, the change in bills from the qualitative to the quantitative phase was deemed immaterial due to it being below the 5% threshold. SUP14 includes quantitative results only. The difference between quantitative acceptability in the two bill versions tested is 0.61% and not significant.

** Due to small sample size, financially vulnerable results are included within the vulnerable segment for the qualitative phase

	A&A Qualitative Phase 1	A&A Qualitative (alternative higher bill)	A&A Quantitative	A&A Quantitative (alternative higher bill)
Vulnerable	25%	38%	13%	12%
Financially struggling HH	N/A**	N/A**	2%	3%
Affordability (difficult to afford)				
All customers	19%	28%	43%	46%
Household customers	20%	13%	48%	50%
Non-household customers	13%	48%	30%	34%
Vulnerable	25%	25%	53%	55%
Financially struggling HH	N/A**	N/A**	87%	86%
Preference for the proposed plan				
All customers	66%	70%	N/A	N/A
Household customers	64%	73%	N/A	N/A
Future bill payers	88%	70%	N/A	N/A
Non-household customers	58%	70%	N/A	N/A
Vulnerable	75%	63%	N/A	N/A

Source: Affordability and acceptability testing (see UUW22 – Affordability and Acceptability Testing Reports)

4.4.6 It is important to note that the guidance prescribed inflationary assumptions for testing, which meant that bills shown to customers were presented in a different real terms pricebase from the inflation assumptions and pricebase used in our plan, however they remain the same in nominal terms. UUW used a Nov-Nov inflation in customer testing, in line with the charges scheme and Ofwat guidance see Table 14. This ensured that bills presented to customers were more reflective of how customers will actually be charged, whereas the final bills reflected in the plan are using financial year averages (FYA). For detailed AMP8 proposed plan bills, refer to *Chapter 4 and 9*. The final customer bills fell under the amount tested, as research tested bills at £520 before inflation in real terms, and on a comparable basis, using the same inflation assumptions and pricebase, the final AMP8 bill is £519. Please see Table 14 for detail on how bills tested are converted into final bills reported in RR14.

Table 14: Bill conversion table

Commentary	2029/30 Bill Impact
Real 2022/23 FYA (as reported in RR14)	£556
Inflation	£114
Nominal bills	£670
Deflate nominal bills to Nov-Nov pricebase, and adjust for UUW vs Ofwat inflation assumptions	-£151
Final proposed bill on a comparable bases to A&A test	£519
Actual 'real' bill tested in A&A test	£520

Source: Affordability and acceptability testing (see UUW22 – Affordability and Acceptability Testing Reports) and Table RR14

4.4.7 For the conclusions from our Affordability and Acceptability testing, please see *Chapter 3, section 3.6*.

5. Appendix –Customer Research Case Studies

5.1.1 This Appendix contains the customer research case studies referred to in this supplementary and Chapter 3.



Case study: Customer research on expectations of service when things go wrong⁸⁰ – Driving improvement in our reponse to service failures

5.1.2 We set out to conduct customer research to understand customers' expectations of service when things go wrong and use this to inform our service strategy and target timelines to restore service. This research directly informed changes in the operational response UUW now applies to customer service issues directly affecting customers.

5.1.3 We have examined evidence from a wide variety of insight sources as shown in Figure 30:

Figure 30: Sources of insight for customer expectations of service



Source: UUW key research sources

5.1.4 The customer research and data analysis has provided us with several key insights to inform our strategy:

- (a) Wastewater incidents such as internal sewer flooding are seen as the most impactful and important to prevent by customers, with repeat events rated as much worse than one-off instances of flooding.
- (b) Customer contact centre response times are in line with customer expectations, and this confirmed our thinking that a robust contact centre offering is needed to support customers' needs for reassurance when in distress.
- (c) As well as the reassurance that incidents have been logged, customers want to feel more control in these situations. There is, therefore, an important role for advice from phone agents in terms of steps customers can take themselves to help the situation and mitigate damage, while they wait for UUW teams to arrive.
- (d) Customers' expectations are driven by how much of an emergency they perceive the situation to be and the likelihood of damage to their/neighbouring property. As a general rule, sewage flooding incidents, large leaks and unplanned loss of water are considered an 'emergency' – other situations are generally more likely to be considered an 'inconvenience'.
- (e) Customers prioritise having a first responder on site as soon as possible – even if this team cannot always resolve the issue. This is particularly the case with sewer flooding as customers do not feel qualified to assess the situation.

5.1.5 In light of the customer research and insight, we identified our previous service wastewater flooding recovery offering required improvement and we have adopted a three-point strategy to improve:

⁷⁹ InSites Consulting on behalf of United Utilities, Expectations of Service, October 2021

- (a) **Stop the problem** – our sewer flooding strategy invests in works to reduce the risk of repeat hydraulic flooding and invests circa £100 million in Dynamic Network Management to proactively detect areas and assets at risk of flooding.
- (b) **Make it easy** – our service strategy focuses on promoting empathy when communicating with those affected by service failures. As customers prioritise our time to respond, we have changed our service models to increase the speed of response and ‘containment’ times in line with customer expectations. We have implemented video calling to help reassure customers of the situation and provide a more accurate diagnosis tool.
- (c) **Do the right thing** – we have streamlined the process to provide compensation to customers affected by service failures, so customers receive compensation more quickly and easily. For each case there will be a single point of contact for resolution with enhanced engagement and focus on recovering customer service. We ensure our compensation approach exceeds the GSS requirements with an additional £100 discretionary payment for inconvenience and where a customer doesn’t have insurance, we empower our teams to cover uninsured losses up to £2000. However, we see financial hardship cases where insurance has not been obtained or declined and for these customers we are establishing a recovery fund which will be independently run alongside our affordability trust fund, where customers can seek additional financial support.

5.1.6 *UUW55- Retail business plan*, section 8 sets out our future plans to improve household customer services and to deliver against C-MeX objectives.

Table 15: This case study demonstrates our approach is high quality

<p>Neutrally designed – materials were designed with the customer in mind, our independent research agency and ICG (YourVoice) challenged and piloted the materials and questions. The order of questions was carefully considered to prevent order bias/ leading the customer. Participants were encouraged to give their open and honest perspectives. Reassurances were given throughout the research that United Utilities Water were open to hearing their honest views and experiences.</p>	<p>Continual – research was contextualised using a wide evidence base including operational data and industry research (e.g. CCW sewer flooding expectations research). The outputs from this collection of research continually feeds into the service interruptions strategy.</p>
<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our service interruptions strategy. We took into account a wide evidence base including operational data and industry research. The research had a clear purpose of understanding expectations and emotions of customers in the event of service failures. Talking to customers who both had and hadn’t experienced a service failure in the past to get a mixture of views.</p>	<p>Inclusive – the full suite of projects feeding into the strategy allowed for both online and offline methods of recruitment and participation. The sample was representative of the United Utilities Water household customer base. Extra accessibility support was provided to those who needed it. There was a robust sample size for sub-group analysis for those who had experienced certain service failures in the past versus those that hadn’t.</p>
<p>Fit for purpose – materials were piloted with customers and the ICG (YourVoice), the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis and understand differences of those who had and had not experienced service interruptions before. A mix method qualitative and quantitative approach was used to gain breadth and depth of views.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – All research was conducted by an independent research and insight consultancy and challenged by the ICG YourVoice.</p>

5.2 Partnership research driving behaviour change

- 5.2.1 Every year, UUW deals with around 20,000 blockages on the region's sewer network. Stopping blockages is a collective issue and requires significant societal behaviour change. Therefore, UUW have set out to use partnerships and iterative insights to tackle this problem together.
- 5.2.2 Our partnership with Keep Britain Tidy⁸⁰ allowed us to understand the scale and usage of wet wipes nationally and informed our Stop the Block campaign to highlight the real and imminent threat of blockages in local areas. This research directly influenced a communications research trial in the Wirral blockage hotspot area. The campaign tested the multi-channel and hyper local approach highlighted in the Keep Britain Tidy research and there was clear evidence of a reduction in poor flushing behaviour. This provided a blueprint for hotspot activity and multi-communication channels across the North West.
- 5.2.3 Our partnership with Northern Roots Oldham⁸¹ was informed by a mutual need to prevent environmental harm in a blockage hotspot in Oldham, Manchester, where Northern Roots are building an eco-park. The local community in this area is predominantly South Asian. To help to boost engagement we took an innovative approach, as research and messages were co-created with local community champions, and they were invaluable in helping to explain the cultural and generational differences at play. Local language communications and workshops were developed to give back to a community, while promoting behaviour change. Going forward, this multi-agency approach has been adopted throughout a number of campaigns in Wigan, Manchester and Knowsley, working with the environment and neighbourhood teams from within these councils to strengthen and amplify the delivery of the messages aligning with the campaign.
- 5.2.4 Our partnership with Wype⁸², allowed us to trial a new and innovative way to change flushing behaviour through a moist toilet tissue alternative. We engaged with customers for three months to understand usage, needs and the role of a potential alternative product to promote behaviour change. Following the trial, all participants agreed they had greater understanding of the problems wet wipes can cause in the sewer system and had stopped flushing wipes designed for general cleaning. The project further highlighted the confusion around whether products labelled as bio-degradable, plant-based and plastic-free are safe to flush due to the messaging around this, which is often contradictory. United Utilities Water are sharing the research findings from this project with Water UK as part of a sector-wide review of the customer confusion surrounding the flushability of wet wipes.

Table 16: This case study demonstrates our approach is high quality

<p>Neutrally designed – materials were designed with the customer in mind, and where appropriate, materials and questions were piloted. The order of questions was carefully considered to prevent order bias/leading the customer.</p>	<p>Continual – research was contextualised using a wide evidence base including operational data and local authority data, and data from the companies we partnered with on these projects.</p>
<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our behavioural change strategy. We took into account a wide evidence base including operational data and industry research (e.g. WaterUK Bin in the wipe campaign research, CCW flushing research like 'sink sense' series)</p>	<p>Inclusive – the full suite of projects feeding into the strategy allowed for both online and offline methods of recruitment and participation. The sample was representative of the communities targeted, or nationally as was the case for the Keep Britain Tidy study. Extra accessibility support was provided to those who needed it.</p>
<p>Fit for purpose – materials were piloted with communities, where appropriate, to ensure the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>

⁸⁰ Keep Britain Tidy on behalf of United Utilities, Understanding Wet Wipe Disposal Behaviour, October 2021

⁸¹ DJS Research on behalf of United Utilities, Glodwick community trial: sewer behaviour research, October 2022

⁸² Verve on behalf of United Utilities, Wype Product Trial, September 2022

Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.

Independently assured and challenged – through the independent research agency and independent assurance risk assessments.



Case study: Customer priorities – early customer engagement of our AMP8 plan

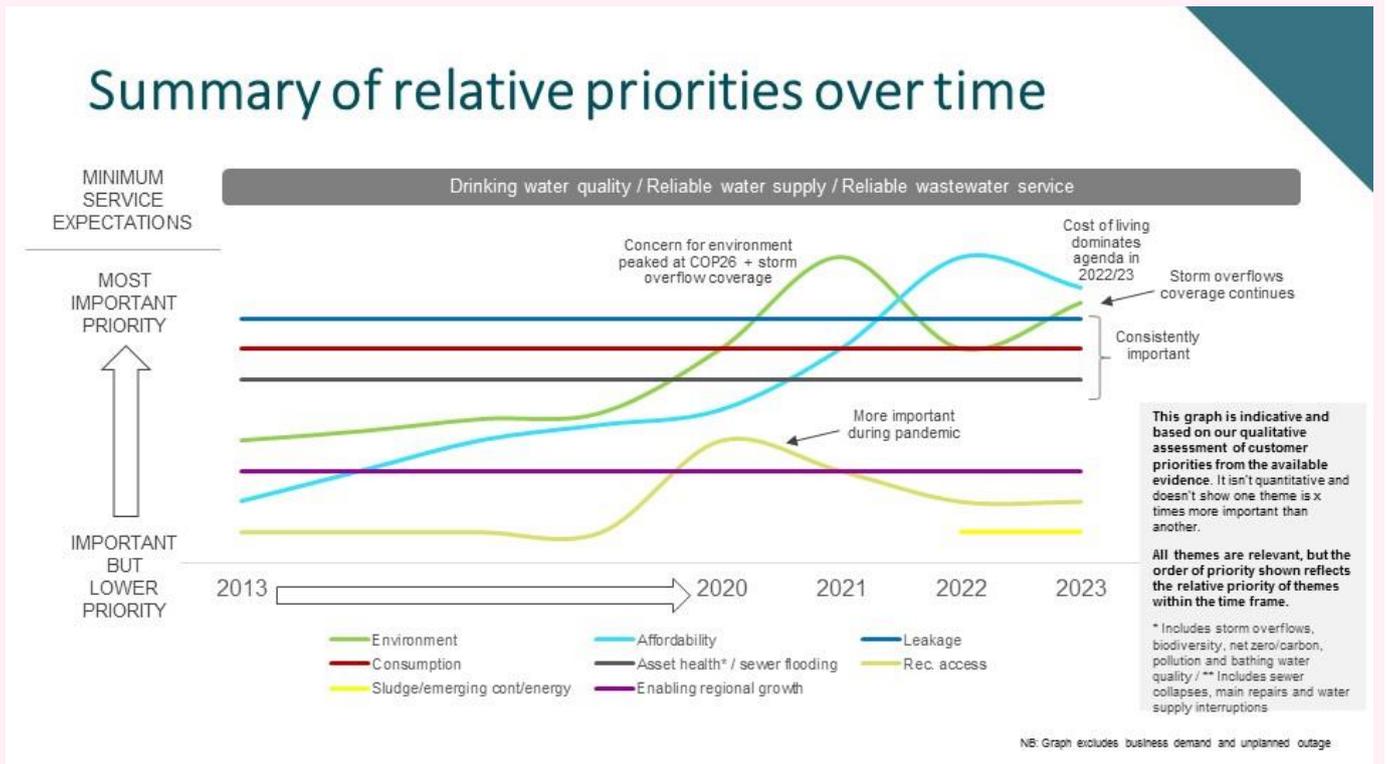
- 5.2.5 Customer priorities research⁸³ was completed in November 2021. The research allowed us to understand customers' priorities early on to determine the focus for AMP8. We wanted to engage with customers to ensure investment and delivery reflects customers' priorities.
- 5.2.6 Our research included 3,106 customers, which involved wide ranging coverage of our key customer groups including: household, business, vulnerable, low income, future and digitally excluded customers.
- 5.2.7 Our methodology included qualitative deliberative events and cognitive testing to help us inform and refine the priorities we tested in the quantitative research. Our quantitative research was robust and used a max diff methodology to give insight into what customers' priorities are when comparing all outcomes together.
- 5.2.8 Customer priorities research directly shaped our thinking when it comes to business planning and bespoke ODI development. The research provided an early view of the minimum service expectations of customers, as well as the growing priorities for environmental improvement, and affordability. We noted sub-group differences in the findings, such as:
- Business customers valuing smart metering more than household customers;
 - Low-income customers placing a higher importance on 'supporting customers on low incomes or in vulnerable circumstances';
 - Vulnerable customers placing a higher importance on 'providing a reliable supply now and in the future'; and
 - Future bill payers placing more importance on 'protecting the environment' 'meeting future challenges' and 'supporting customers on low income or in vulnerable circumstances'.
- 5.2.9 We have continued to track customer priorities over time using a combination of bespoke customer priorities research projects (like the above), research from the industry and our regulators on customers' priorities and our state of the nation surveys and revealed preference operational data. This allows us to understand how priorities have evolved over time and have continually fed into investment prioritisation.
- 5.2.10 We used an external independent consultancy to triangulate all this insight using the CCW/SIA triangulation best practice approach⁸⁴. This enabled us to track customer priorities over time. Figure 31 highlights how customer's priorities have evolved. These priorities are important to customers across the North West, however, we do observe some differences by sub-groups:
- (a) Low-income customers find affordability more important;
 - (b) Rural areas and Cumbria in particular regard drinking water quality and river water quality as more important due to a greater connection with the environment and waterways;
 - (c) Urban areas are more concerned about leakage as the disruption from fixing leaks is more visible, as well as general asset health, resilience and sustainability;
 - (d) Urban areas and those that have experienced taste, smell and appearance issues, tend to value this as a priority more; and

⁸³ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

⁸⁴ SHED Research Consulting on behalf of United Utilities, LTDS: Customer Insight Synthesis, February 2023

(e) Coastal areas are more concerned about bathing water quality.

Figure 31: How customer priorities have evolved over time



Source: SHED Research Consulting on behalf of United Utilities, [LTDS: Customer Insight Synthesis](#), February 2023

- 5.2.11 These findings have allowed us to prioritise investment in areas that matter most to customers, particularly in ensuring a reliable supply of water and wastewater (including the health of our assets), focusing on enhancement schemes, which improve resilience, environmental benefits and affordability. These are demonstrated in the key service improvements in our PR24 business plan, DWMP, WRMP, WINEP and Long-term Delivery Strategy.
- 5.2.12 We have used continual customer priorities tracking to directly inform key performance measures for management *UUW72- Executive Pay* discussing LTIPs, for example in setting long-term incentive awards granted in November 2020 and June 2021. The ‘customer basket’ component of the awards was directly informed by customer priorities research and focused on areas customers had identified as being most important to them as well as those performance commitments agreed with Ofwat. In 2020, this included affordability, priority services, sewer flooding, pollution, water quality contacts, leakage, treatment works compliance, compliance risk index, C-MeX and EPA rating. In 2022, these measures were then expanded to include carbon measures given environmental impact was observed to have become more important to customers.

Table 17: This case study demonstrates our approach is high quality

<p>Neutrally designed – materials were designed with the customer in mind, our independent research agency and ICG (YourVoice) challenged and piloted the materials and questions. The order of questions was carefully considered to prevent order bias/leading the customer.</p>	<p>Continual – research was contextualised using a wide evidence base including primary research, operational data, social media data, and regulatory customer priorities research. We continue to track customer priorities on a quarterly basis to feed into our business plan.</p>
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<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our investments for AMP8, bespoke ODI proposals and long-term planning. We took into account a wide evidence base including operational data and industry research. The research had a clear purpose</p>	<p>Inclusive – the full suite of projects feeding into the strategy allowed for both online and offline methods of recruitment and participation with telephone CATI methods for those digitally excluded. The sample was representative of the United Utilities Water household customer base. Extra accessibility support was provided to those who needed it.</p>
<p>Fit for purpose – materials were piloted with customers and the ICG (YourVoice), the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis of different critical segments</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – All research was conducted by an independent research and insight consultancy and challenged by the ICG YourVoice.</p>



Case study: Driving improvements for those struggling to pay – customer research with those struggling to pay

- 5.2.13 UUW operates in a region where levels of deprivation and economic challenges mean that a higher proportion of customers struggle financially, compared with most other UK regions. For example, 47 per cent of the most deprived neighbourhoods are in the North West. Recognising the particular challenges of the North West, we have led the sector in targeting support to customers who need it with a high degree of success, resulting in reduced debt for customers.
- 5.2.14 However, there remains a significant minority of customers who do not engage with the support available and prove hard to reach and help. Moreover, ongoing cost-of-living challenges are worsening this situation for customers in our service area.
- 5.2.15 We examined evidence from a wide variety of insight sources to better understand why some customers are difficult to engage, including:
- Collection management analytics to understand the patterns of payment and segments of customers struggling to pay.
 - External research and publications – e.g. Ofwat Cost-of-Living research⁸⁵, CCW vulnerability focus report⁸⁶, financial conduct authority, Cadent, and Ofcom vulnerable customer’s reports.
 - UUW specific research on affordability challenges and social tariffs⁸⁷.

Key insights and operational response:

- 5.2.16 We identified that there is low awareness of the support available to customers from bill providers in general. According to a recent CCW and Ofwat report, just under half (45 per cent) of UK customers are aware that utilities providers offer financial support to those struggling to pay bills. Despite the support options and proactive communications provided by UUW, we found low awareness of support in our research with those in ‘disengaged’ and ‘at risk’ groups. However, once made aware of the support UUW offers, reactions tend to be positive, in contrast to often negative experiences with other utility providers.
- 5.2.17 In response to these findings, we are:

⁸⁵ Ofwat, Cost of Living Research, May 2023

⁸⁶ CCW, Vulnerability Focus, February 2016

⁸⁷ BritainThinks on behalf of United Utilities, ‘In Debt’, ‘Engaged’ and ‘At Risk’ Customer Research Project, December 2022

- Furthering efforts to reach out to customers to raise awareness of the various support options. Frequent communication will increase salience as will utilising social media to promote the wide range of support available.
- Coordinating with and expanding partnerships with third sector organisations where there is higher awareness and a high level of trust around support provided.
- Established dedicated outreach roles to ensure we are working more collaboratively with third sector organisations.
- Trial video calls and pop-up hubs, which could help raise awareness of support to those who have busy lives, are a barrier to engaging with letter and email communications about support.

5.2.18 Customers, especially those currently in the 'at risk' category, often struggle to admit they need financial support, but will increasingly need it with prices rising. In light of this we have targeted early intervention email campaigns using Credit Reference Agency data, used social norms to nudge behaviour (e.g. emphasizing that many people are already receiving support) and used data share agreement with DWP for water poverty purposes to enable eligible customers to be proactively put onto affordability tariffs. This has supported over 30,000 customers.

Table 18: This case study demonstrates our approach is high quality

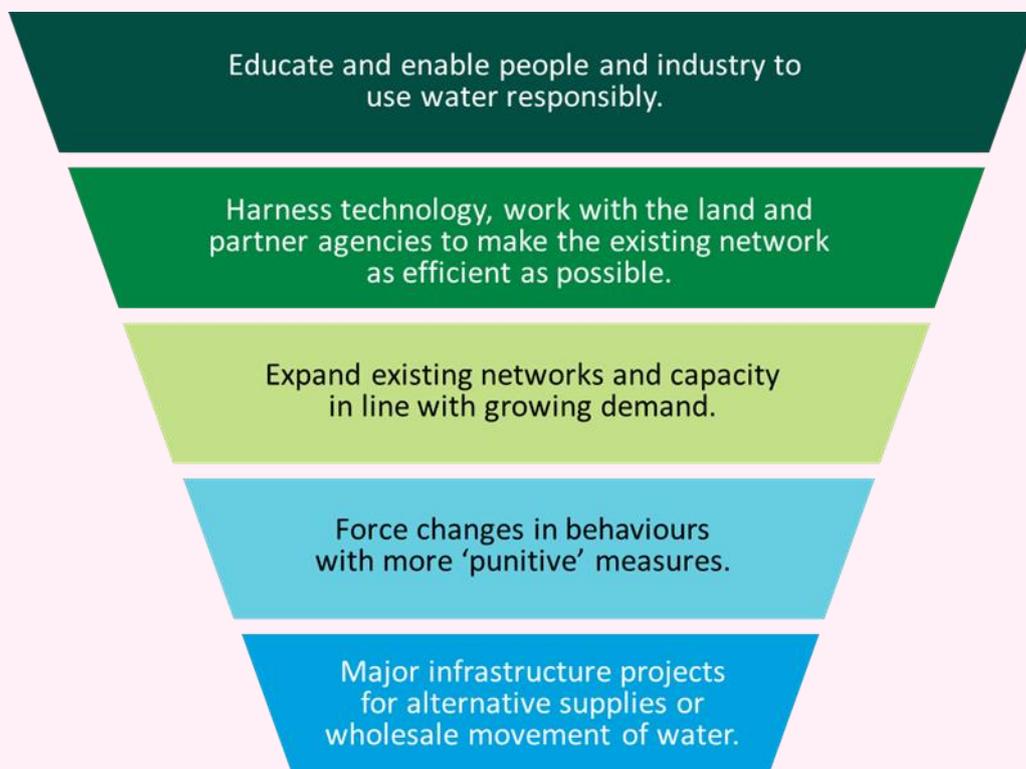
<p>Neutrally designed – materials were designed with the customer in mind, our independent research agency and ICG (YourVoice) challenged and piloted the materials and questions. The order of questions was carefully considered to prevent order bias/leading the customer. Participants were encouraged to give their open and honest perspectives. Reassurances were given throughout the research that United Utilities Water were open to hearing their honest views and experiences.</p>	<p>Continual – research was contextualised using a wide evidence base including our brand tracker and state of the nation surveys, operational data and industry research and papers on affordability. The outputs from this research will feed into informing affordability business plans and long-term engagement strategies with customers struggling to pay.</p>
<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our affordability strategy. We took into account a wide evidence base including operational data and industry research. The research had a clear purpose of improving understanding of 'in debt' United Utilities Water customer experiences and informing United Utilities Water' plans for engaging with them.</p>	<p>Inclusive – The sample for the research included a wide variety of United Utilities Water customers with experience of/likely to need contact about collections management. They were recruited from customer lists and during the scoping exercise the data allowed us to identify a third sub-group of 'at risk' customers to include in the research. Research materials, and the research itself, were designed to be inclusive and accessible for the sample, engaging with digitally excluded and hard-to-reach customers by providing a choice of online and telephone participation, as well as the option to be sent pre-tasks in the post.</p>
<p>Fit for purpose – materials were piloted with the ICG (YourVoice), which has many members with significant experience in the affordability space, the research, therefore, provided meaningful discussion. A qualitative approach, which engaged customers from a broad range of segments and situations, with one-on-one depth interviews allowing them to share their experiences in a way respectful of sensitivities.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – All research was conducted by an independent research and insight consultancy and challenged by the ICG YourVoice.</p>



Case study: WRMP and DWMP immersive options testing

- 5.2.19 Our DWMP, WRMP Immersive Research⁸⁸ took a novel approach to options appraisal. A key part of the options development approach was accounting for customer preferences. We conducted a joint bespoke piece of research that could be used to inform the development of our options hierarchy.
- 5.2.20 A three week 'pop-up' community made up of 153 customers, 18 business users and 17 future bill payers was established. The customers involved were representative of customer base across socio-economic grade (SEG), vulnerability and a mix of environmental engagement.
- 5.2.21 Due to the longitudinal community approach, the research gave us incredible detail of how customers view the future of water and wastewater management in the North West. From across both the DWMP and WRMP elements, there was a similar pattern for customers' preferences for meeting long-term challenges. There is appetite for more education, innovation and smart ways of working before the more traditional grey measures.

Figure 32: Customers presented a hierarchy for how solutions for long-term planning should be approached

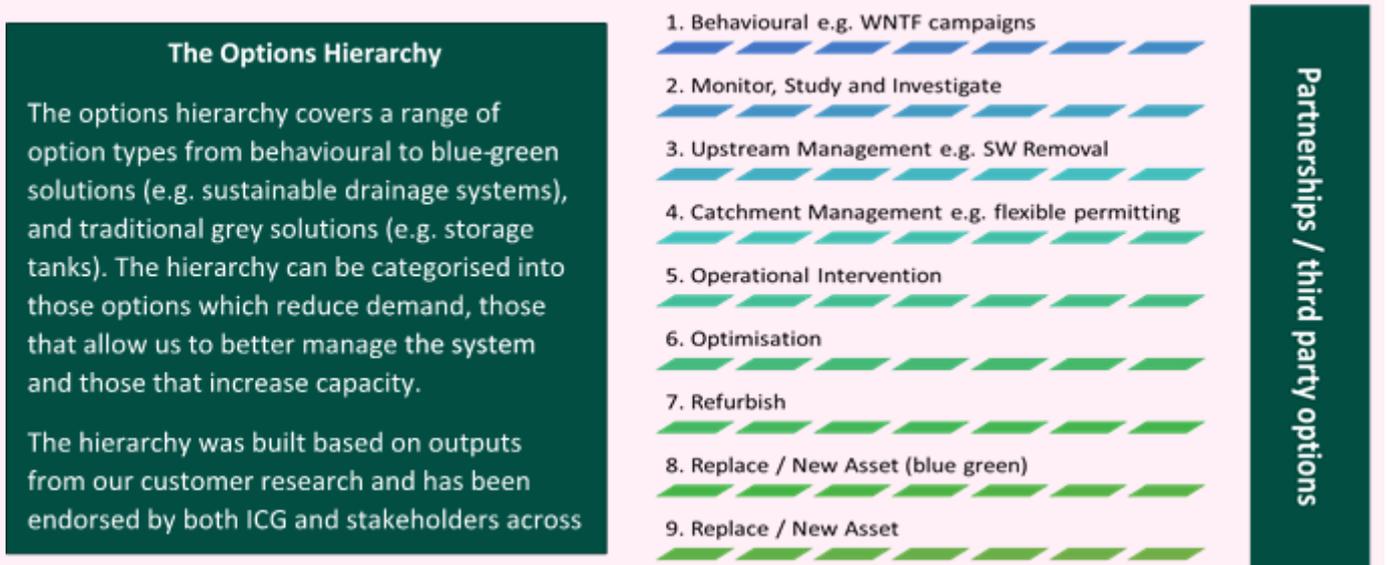


Source: InSites Consulting on behalf of United Utilities, [WRMP & DWMP Immersive Options Testing](#), April 2021

- 5.2.22 Overall, for WRMP, emphasis is on individual behaviour, UUW's responsibility to minimise leakage, and working with 'what we've got'. With DWMP there is a similar strong emphasis on individual responsibility, harnessing technology and partnership working.
- 5.2.23 This research has enabled collaboration with customers. Customers were able to understand different option types and the benefits and drawbacks associated with these. Subsequently, this enabled customers to rank their priorities for solution types. By taking this approach, we have been able to develop our options hierarchy with customers' views and priorities in mind. The use of a hierarchy approach was supported by ICG and has directly informed the selection of preferred option blends.

⁸⁸ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

Figure 33: The options hierarchy



Source: U UW Water Resources Management Plan

5.2.24 Following early engagement on the optioneering process for the WRMP and DWMP, these plans were co-created with customers, using bespoke research to understand in-depth views on different discretionary investments in the plan. This ended with bespoke acceptability testing⁸⁹⁹⁰⁹¹ with customers on draft and final plans. Here the proposed plan (which gave weight to the best value investment options based on previous research) was played back to customers. Using sliders, customers could amend each area of the plan and see what impact this would have on performance, service level and bills. At the end of this process, once they saw their final bespoke plan and bill impact, they were able to amend their choice once again before submitting their views. During this process, both the DWMP and WRMP garnered very strong customer support for the U UW proposed plan, despite the many different combinations of the plan that could be built.

Insight to action – Driving our WRMP and DWMP

5.2.25 We need to ensure customers have a reliable supply of water now and in the future, taking into account the impacts of climate change and population growth. We need to ensure customers experience reliable management of drainage and wastewater services now and in the future. We wanted to co-create both of these plans with customers and their priorities in mind.

5.2.26 In order to do this, we used an iterative research approach to design and feed into decision making at each stage of development. A wide range of different research projects have been developed to explore different aspects of customers’ views and provide opportunity for customers to engage and co-design long-term solutions to the challenges we face. This holistic package of research has directly resulted in U UW action when developing our long-term plans.

Table 19: Water Resources Research drives impact

Research packages	Key findings	Actions
	Customers prioritised leakage, smart metering and promoting water efficiency as their top priorities for water resource management.	Demand options, which support this were prioritised in our decision-making methods in the WRMP.

⁸⁹ DJS Research on behalf of United Utilities, Drainage Wastewater Management Plan Draft acceptability testing, December

⁹⁰ DJS Research on behalf of United Utilities, Drainage Wastewater Management Plan Final acceptability testing, May 2023

⁹¹ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

Research packages	Key findings	Actions
WRMP and DWMP Immersive Research ⁹² Customer Priorities Research ⁹³ Water Resources West Customer Research Synthesis ⁹⁴	Customers expressed a desire for us to harness technology and use progressive thinking and innovative approaches to tackle problems. They see climate change as a high priority and feel a proactive approach to tackling it is needed.	We have considered over 300 different options in our unconstrained list. This has provided the maximum opportunity to include innovative approaches to tackle problems. Our process for options screening can be found in our WRMP Draft Technical Report – Options Identification. We have incorporated the need for a proactive approach to climate change in our supply forecast.
Joint research with Water Resources West on valuations and willingness to pay for temporary usage bans ⁹⁵	A majority of customers state that they would like to see the frequency of temporary use bans reduced, from 1 in 20 years (five per cent annual chance) to 1 in 40 years on average (2.5 per cent annual chance), even if this requires an increase in bills.	We have incorporated this preference in our ‘Best Value Plan’ (<i>section 9 WRMP Main report</i>).
	Customers attached greatest value to ‘Carbon’ followed by ‘Ecosystem resilience’; ‘Flood risk’; and ‘Human and social wellbeing’. Customers placed lower value on ‘PWS drought supply resilience’ and ‘PWS customer supply resilience’.	Customer weightings for our best value plan. The weightings generated in this exercise were used in our decision-making process, as described in <i>section 2.2.3 of our WRMP</i> and our <i>WRMP Draft Technical Report – Customer and stakeholder engagement</i> .
WRMP Draft Plan acceptability testing ⁹⁶	In acceptability testing, customers showed a strong preference for our preferred plan after having a range of options to increase or reduce investment in each discretionary area. Their willingness to pay exceeds the cost of the preferred plan, demonstrating that it represents good value for money. For leakage, 39 per cent wanted us to do more, however, the majority of customers still selected the level of reduction in our preferred plan. Overall average willingness to pay was £23.05.	This confirms that our preferred plan contains the right selection of strategic choices and is aligned to customers’ preferences. Due to iterative engagement with customers throughout the plan development process and the high level of support for our preferred plan we have not made any alterations. By shaping our plan to the outcomes of previous engagement we have built a plan for customers that has gained a high level of support at 63 per cent for HH, 68% for NHH and 81% FBP.

Source: UUW Water Resources Management Plan – key research sources

⁹² InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

⁹³ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

⁹⁴ SHED Research Consulting on behalf of United Utilities, Water Resources West Customer Research Synthesis, May 2022

⁹⁵ DJS Research on behalf of United Utilities, WRMP, January 2022

⁹⁶ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

Table 20: Drainage and Wastewater Management Research drives impact

Research packages	Key findings	Actions
Customer Priorities Research ⁹⁷	Protecting the environment and tackling future climate challenges were ranked highly. Specifically for wastewater, preventing sewer collapses and failures, protecting against sewer flooding and preventing pollution incidents were most important.	<p>This directly informed the DWMP planning objectives around reducing environmental impact, sustainably reducing the risk of sewer flooding and protecting and improving the natural environment in the North West.</p> <p>The research allowed us to understand what customers may be willing to pay for improvements and feed this into our assessment.</p>
DWMP/WRMP Immersive Research ⁹⁸	<p>There is appetite for more education on customer awareness, innovation and smart ways of working before the more traditional grey measures.</p> <p>Working in partnership and using technology to upgrade and monitor sewers were popular.</p>	<p>We used this as a base that was further developed and supplemented with the views and priorities of customers to develop our options hierarchy.</p> <p>When asked to prioritise the various initiatives, it was clear that customers value managing risks at source, ensuring sustainability and cost effectiveness, benefitting the region as a whole, and working in partnership. We added three categories, reduce service demand, better systems management and create additional capacity, as this meant more to them than the specific option types.</p>
Storm Overflows Research ⁹⁹	Customers would like to see investment in the North West and for there to be zero storm overflow spills but are reluctant to see an increase in their bill.	To ensure that the importance of this topic was captured in the DWMP, we have a planning objective relating to improving storm sewer overflow performance. We openly support customers' views on eliminating spills alongside their concerns regarding willingness to pay. In our final DWMP, we have carried out further optimisation of our preferred plan to ensure that the policy requirement from the government's Storm Overflows Discharge Reduction Plan has been considered alongside our other planning objectives.

⁹⁷ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

⁹⁸ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

⁹⁹ Verve Research on behalf of United Utilities, Sewer Overflows, October 2021

Research packages	Key findings	Actions
Six Capitals Research ¹⁰⁰	Customers support UUW's move to the six capitals framework for decision making and particularly considering the community impact and environment when making decisions. Customers recognise that different factors can have more or less weighting, depending on the decision and options at hand.	This gives us confidence in the decision made to develop our best value plan using the six capitals approach. Moving forwards towards the next investment cycle (2025–2030), our approach to assessing value will continue to improve and further embed our approach to drive value-based decisions We are aligned with other strategic programmes of work such as the Water Resources Management Plan (WRMP) and the WINEP to ensure consistency in our understanding of the value a scheme delivers.
DWMP Website and Portal testing ¹⁰¹	People's motivation for looking at DWMP fall into four areas: <ul style="list-style-type: none"> •They are actively engaged in local environmental causes and want to know more about the impact DWMP has on this; •They are actively engaged in their local community and want to ensure there are measures in place to protect this; •They are looking to make a purchase or invest in the area and want to know about the likelihood of flooding; and •They are immediately concerned about where they live (e.g. overflowing drains, bad smells etc.). 	Building on feedback on the Tier 3 customer portal it was decided that there should be a company-wide ambition to develop one central customer portal for UUW customer information. Further development of the customer portal is an ongoing activity, which we will continue to improve and build upon.
DWMP Draft Plan Acceptability Testing ¹⁰²	There was majority acceptance of our proposed plan levels in all areas including: customer awareness, sewer separation, sewer upgrades, storage tanks and SuDs. At a total level there was 73 per cent acceptance for household customers, 67 per cent for future bill payers and 73 per cent for non-household). Overall average willingness to pay was £13.18.	Customers showed the greatest support for separation of sewers and SuDs. As a result, our final preferred plan will implement more blue/green solutions such as sustainable drainage solutions and customer awareness and less grey solutions such as storage tanks in line with what customers wanted to see from the acceptability testing.
DWMP Final Plan Acceptability Testing ¹⁰³	There was majority support for the final proposed plan levels. There was 67 per cent household acceptance of the proposed plan, 51 per cent for future bill payers and 54 per cent for non-household customers.	Using the findings from the draft DWMP plan testing and presenting customers with a refined plan view, has given us confidence that customers support the UUW Final DWMP Plan.

Source: UUW Drainage and Wastewater Management Plan – key research sources

¹⁰⁰ DJS Research on behalf of United Utilities, 6 Capitals, February 2023

¹⁰¹ Verve Research on behalf of United Utilities, DWMP Portal Usability, June 2022

¹⁰² DJS Research on behalf of United Utilities, DWMP Draft acceptability testing, December 2022

¹⁰³ DJS Research on behalf of United Utilities, DWMP Final acceptability testing, May 2023

Table 21: This case study demonstrates our approach is high quality

<p>Neutrally designed – materials were designed with the customer in mind, our independent research agency and ICG (YourVoice) challenged the materials and they were piloted and cognitively tested with customers ahead of fieldwork. The order of questions was carefully considered to prevent order bias/leading the customer. Participants were encouraged to give their open and honest perspectives. Reassurances were given throughout the research that United Utilities Water were open to hearing their honest views and experiences.</p>	<p>Continual – research was contextualised using a wide evidence base including multiple primary research and customer priorities projects, Water Resources West research and regulatory customer priorities research. The outputs for each research stage were fed into planning to co-create and validate changes made to the WRMP.</p>
<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our investments for the WRMP and DWMP. Our immersive research was shortlisted for a market research industry AURA Impact Award 2021. Each research piece had a key objective in understanding views on crucial options for the WRMP plan, as well as the package and plan benefits and WTP as a whole.</p>	<p>Inclusive – the full suite of projects feeding into the strategy allowed for both online and offline methods of recruitment and participation, with telephone CATI methods for those digitally excluded. The sample was representative of the United Utilities Water household customer base. Extra accessibility support was provided to those who needed it. Non-household customers and future bill payers were consulted as part of the research with sub-groups analysed where relevant.</p>
<p>Fit for purpose – materials were piloted with customers and the ICG (YourVoice), the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis of different critical segments. A mixture of quantitative and qualitative research was carried out in order to gain robustness and depth. Innovative customer engagement strategies were used to obtain meaningful feedback on the plan.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – All research was conducted by an independent research and insight consultancy and challenged by the ICG YourVoice.</p>



Case study: Immersive long-term futures customer research – Customers have driven our Long-term Delivery Strategy

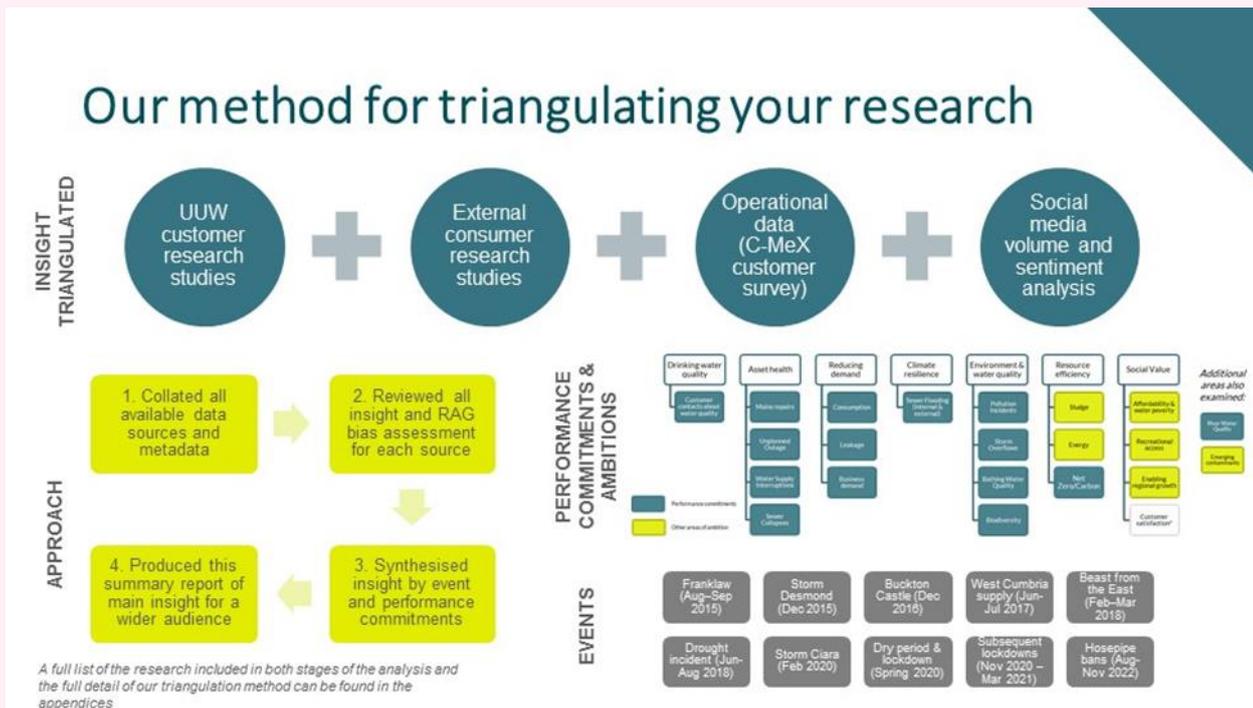
- 5.2.27 Identifying customers' views on the long-term future is more difficult to achieve than eliciting views on the here and now. While current customers are able to articulate their current needs, wants and concerns it is often difficult for individuals to forecast how their own lives may change in the future. In addition, the mix of the UUW customer base will change over time, with today's young people becoming future bill payers.
- 5.2.28 However, while understanding how customers may view their water and wastewater services in the future is difficult, it is vitally important that our long-term plans consider these views. Therefore, we have developed a three-pronged approach to forecasting how customers' views may change overtime, and feeding those projections into long-term business planning.

Figure 34: Our three-pronged approach to co-creating our long-term delivery strategy**Phase 1: Research Synthesis¹⁰⁴**

- 5.2.29 Water companies are required to set out their five-year business plans in the context of a 25-year Long-term Delivery Strategy (LTDS) *UUW12 - Long term delivery strategy*.
- 5.2.30 We required customer insight and research to directly inform our LTDS – a plan for the years until 2050. It covers ambitions and performance commitments, such as water supply, customer experience, affordability, biodiversity, and carbon/net zero ambitions.
- 5.2.31 Continuous research and engagement programmes allow us to track customer priorities over time and compare this with revealed preference data. We recognised this data is invaluable in feeding into our long-term planning and we set out to synthesise and triangulate data from various sources to:
- Identify how customer priorities have changed over time and what lessons can be learnt from this.
 - Understand how macro events and interruptions impact customers' priorities and what this tells us about similar events happening in the future.
 - Map industry climate scenarios against this insight to understand how priorities might change in the future.
- 5.2.32 We used an independent consultancy, to synthesise the insight and followed the principles laid out in the CCW/SIA report on best practice for triangulating customer evidence.
- 5.2.33 The figure below shows the varied and continuous sources of insight we used to inform our synthesis.

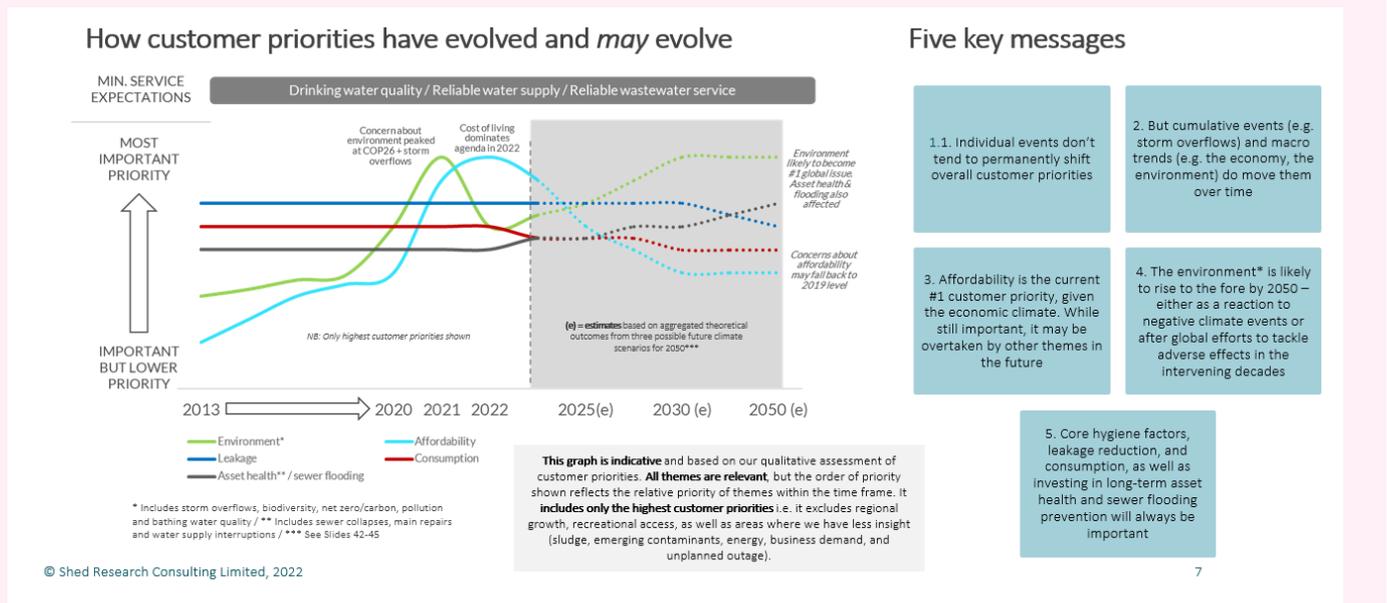
¹⁰⁴ SHED Research Consulting on behalf of United Utilities, *LTDS: Customer Insight Synthesis*, February 2023

Figure 35: Varied sources of insight used to triangulate customer priorities



Source: SHED Research Consulting on behalf of United Utilities, [LTDS: Customer Insight Synthesis](#), February 2023

- 5.2.34 The analysis allowed us to understand that individual events do not tend to permanently shift overall customer priorities, but cumulative events (e.g. storm overflows) and macro trends (e.g. cost-of-living challenges and environmental focus) do move them over time. Affordability is the current number one driver given cost-of-living challenges, but the independent synthesis allows us to indicatively predict which priorities are likely to remain priorities in the future, based on their performance in the past.
- 5.2.35 For example, environmental issues are likely to rise to the fore by 2050, either as a reaction to negative climate events or after global efforts to tackle adverse effects in the intervening decades. Specifically, biodiversity, storm overflows, carbon and bathing/river water quality will likely grow in priority due to cumulative events and macro trends. Our priorities tracking over time shows us that minimum service expectations, leakage reduction, and consumption, as well as investing in long-term asset health and sewer flooding prevention will always be important.
- 5.2.36 These findings support the improvements in resilience and asset health, pollution, leakage and environmental protection in our AMP8 plan and enables us to prioritise these areas in both the short and long term. Our AMP8 plan is the first step on our journey to achieving long-term improvements. This research supports our prioritisation of environmental investment including nature-based solutions, rainwater management, and hybrid and partnership working.
- 5.2.37 After understanding which priorities are likely to continue to grow or remain priorities in the future, we were able to use this insight to create ambitions for our long-term delivery strategy, which were to be tested in Phase 2 of our research.

Figure 36: How climate scenarios may impact customer priorities in the future

Source: SHED Research Consulting on behalf of United Utilities, [LTDS: Customer Insight Synthesis](#), February 2023

Phase 2: Immersive Ambitions Testing¹⁰⁵

- 5.2.38 In section 2.2 'PR19 to PR24: How our approach has evolved' of the Customer Research Methodology Supplementary document, we discussed the shift from driving innovative methodologies and using a variety of methods in PR19, to ensuring our focus is on using the most effective methods of research in PR24. The primary purpose is to ensure research is meaningful and has impact on our decision making.
- 5.2.39 Focusing on quality and ensuring our research is useful and contextualised, leads to innovation in the design and impact of our research. One such example is in our long-term ambitions research, which was used to feed into our Long-term Delivery Strategy.
- 5.2.40 We commissioned an innovative immersive research project, which used AI to immerse customers in the possible variances in the futures that U UW should plan for, including "green guardianship" and "climate chaos". Projective techniques were used to encourage customers to think of changes to the world in the last 25 years and then using AI, project them into possible futures. This enabled them to consider our ambitions with the short and long-term context in mind, and enabled us to meaningfully understand what customers want us to strive for and whether this is deemed good enough within the context of variable futures.
- 5.2.41 Additionally, in order to get a greater depth of insight into intergenerational fairness, the independent research agency probed at multiple points in the research to understand views on this and how, if at all, opinions change after the long-term AI futures were introduced. A post-task was conducted to get participants to talk to a family or friend of a different generation who had not been part of the research, and discuss their views. This led to rich follow-up interviews and nuanced conversation around intergenerational fairness, leading to us having confidence in this approach and the results.

¹⁰⁵ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

Figure 37: AI generated scenarios for the future

The scenarios: A journey through time

Using AI technology, a series of innovative, virtual scenarios were produced to engage and aid consideration of priorities for the long term future of water. Previous research has shown customers can struggle to consider long-term implications of water investment¹, these scenarios helped customers consider how water usage has changed over time and reflect on how United Utilities future ambitions might apply in two, extreme future scenarios. Alongside the scenarios, music was also used to help transport respondents to different time periods and to help visualise a different way of life:

The Past (1998)	The Present	Green Guardianship Future	Climate Inaction/Chaos Future
<p>🎵 Oasis: Wonderwall</p>	<p>🎵 Harry Styles: As It Was</p>	<p>🎵 Nature Sounds</p>	<p>🎵 Traffic Noise</p>
<p>A house from 25 years ago encouraged consideration of how water usage and life has changed and how different challenges and ambitions would have been in 1998</p>	<p>Present day house reminded participants how life has moved on since 1998 and the challenges these differences has created</p>	<p>Two extreme scenarios 25 years in the future - 'Green Guardianship' and 'Climate Inaction/Chaos' future - to encourage thoughts about how the world might change, and how this could impact what United Utilities need to deliver on. E.g. Climate Inaction/Chaos future highlighted potential water disruption due to climate change, using imagery of emergency bottled water in the kitchen</p>	

“”
 Having to think back to 1998... Obviously, I was a younger girl whose parents dealt with the water bill. And then now, I've got my water bill, and I've got my kids. As a mother, I would like to ensure that going forward, that they're going to experience the same sort of quality that I've had all my life and that they're not going to suffer.
 General Public, Over 40, Greater Manchester, Suburban

"I was wondering with my Grandma if she would have a different opinion being significantly older, but actually she also said it's better to pay more now rather than leave it till later."
 General Public, Under 40, Cheshire, Suburban

"My Dad took more of an avid interest in the environmental side, which kind of surprised me, because I expected [net zero] to be targeted towards my generation and opposed to the elder generation."
 Future Bill Payer, 18-22, Greater Manchester, Suburban

Source: PwC on behalf of United Utilities, [Long Term Delivery Strategy Ambition Testing](#), April 2023

Phase 3: Synthesis and triangulation

5.2.42 These learnings were fed back to the long-term delivery strategy team and triangulated alongside other relevant research insights, taking into account deliverability, cost, risk etc.

Table 22: Long-term delivery strategy research informs impact

Research packages	Key findings	Impact
<p>Customer Priorities Research¹⁰⁶ & Long-term synthesis¹⁰⁷</p> <p>Ofwat/ CCW Customer preferences research¹⁰⁸</p>	<p>Ofwat/CCW customer preferences research aligned with our own UUW customer’s priorities research, where minimum service expectations like safe and reliable drinking water are key, followed by environmental and affordability priorities. Our triangulation of customer priorities and tracking over time found that individual events do not tend to permanently shift overall customer priorities, but cumulative events (e.g. storm overflows) and macro trends (e.g. cost-of-living challenges and environmental focus) do move them over time. Affordability is the current number one driver given cost-of-living challenges, but the independent synthesis allows us to indicatively predict which priorities are likely to remain priorities in the future, based on their performance in the past.</p> <p>For example, environmental issues are likely to rise to the fore by 2050, either as a reaction to negative climate events or after global efforts to tackle adverse effects in the intervening decades. Specifically, biodiversity, storm overflows, carbon and bathing/river water quality will likely grow in priority due to cumulative events and macro trends. Our priorities tracking over time shows us that minimum service expectations, leakage reduction, and consumption, as well as investing in long-term asset health and sewer flooding prevention will always be important.</p>	<p>These findings support the improvements in resilience and asset health, pollution, leakage and environmental protection in our AMP8 plan and enables us to prioritise these areas in both the short and long term. Our AMP8 plan is the first step on our journey to achieving long-term improvements. This research supports our prioritisation of environmental investment including, nature-based solutions, rainwater management, and hybrid and partnership working.</p> <p>After understanding which priorities are likely to continue to grow or remain priorities in the future, we were able to use this insight to create ambitions for our long-term delivery strategy, which were to be tested in the long-term ambitions research of our research and informed our final ambitions set.</p>

¹⁰⁶ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹⁰⁷ SHED Research Consulting on behalf of United Utilities, LTDS: Customer Insight Synthesis, February 2023

¹⁰⁸ Ofwat/CCW, Customer Preferences, April 2022

Research packages	Key findings	Impact
<p>Long-term research immersive ambitions testing¹⁰⁹</p>	<p>Customers expressed their preferences for the levels of service and speed of achieving that service for each ambition area.</p> <p>Some of the ambitions saw differences in priority and no clear consensus. Differences were often due to customer's socio-economic background and, therefore, views were explored by segment. Experience of the issues being discussed was a key factor in support for more stretching ambitions.</p> <p>The majority of customers believe action should be taking now to improve things for the future, particularly with core service aspects such as maintaining pipes and pumps.</p>	<p>This has directly impacted our targets chosen for key ambition areas:</p> <ul style="list-style-type: none"> • Drinking water quality – reduce complaints to 4 in 10,000 by 2050. • Customers want lead pipe removal as soon as possible – our plan looks at options to accelerate removal. • Maintaining pipes and pumps – UUW agree with customers that asset health is important to invest in and short-term fixes are not solving everything. See Chapter 7 for more detail on asset health plans. • We are aligned with customers' second preference of reducing leakage by 50 per cent by 2050, balancing affordability and deliverability. • Customers want to go faster than the Environment Act targets on consumption, our long-term adaptive plan for water explores opportunities in technology and labelling, which could support acceleration. • Customers agree with targets around sewer flooding only being experienced once in 30 years. • Customers support social value creation, but do not want to pay for it. Therefore, ambitions should focus on steady growth in employment and affordability support and partnership working. The majority of customers are comfortable with the current carbon net zero government targets by 2050 and feel this is ambitious enough.
		<p>Customer views are to explore investment beyond 'no regret' approach, taking more of a proactive approach. This supports our investment and enhancement areas including rainfall management assessment of tank volume prior to build, dynamic network management and lead removal.</p>

¹⁰⁹ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

<p>Bioresources¹¹⁰</p>	<p>Customers were concerned about river water quality, environment and air quality and microplastics. They preferred advanced anaerobic digestion and believe we should be investing in established technologies and exploring new technologies simultaneously to keep one eye on the future. Advance Anaerobic Digestion (AAD) with heat source was their most preferred treatment option for United Utilities to invest in.</p>	<p>Customers preference for Advanced Anaerobic Digestion, and the movements to this being identified as low regrets in our scenario analysis means we are increasing AAD sludge treatment to reduce our overall operational carbon emissions.</p> <p>Our LTDS has been developed utilising feedback from customers over their preferred routes for biosolids recycling. The foundation of all our pathways on our LTDS, AAD and consolidation to hubs, was seen by customers as the favoured sludge treatment process when compared to AD. AD was viewed as a lesser technology due to its lower gas yield, higher carbon footprint and limited versatility as a product to agriculture. Most customers understood that AAD treatment was needed before any of the alternative pathways to be most efficient.</p> <p>Customers were highly concerned about river water quality, environment and air quality. AAD treatment will create a high-quality, enhanced biosolids product with low microbial contamination. This action has multiple benefits. It directly addresses microbial concerns of customers and facilitates plans to open up access to more landbanks and enables optimisation of the timing of biosolids spreading through the summer to reduce any associated water quality risks caused by run off.</p> <p>Customers were concerned about micro plastics, which influenced our decision making to include enhanced sludge screening to reduce contamination from rag, grit, microplastics and other foreign material within biosolids being spread to land in the short term and explore further options in the long term.</p> <p>Customers prioritised human health as their number one concern, which led to us improving biosolids quality sampling to better understand risks and inform future decisions over sludge recycling</p> <p>Customers</p>
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Research packages	Key findings	Impact
		<p>prioritised human health as their number one concern, which lead to us improving bio solids quality sampling to better understand risks and inform future decisions over sludge recycling.</p>
<p>WRMP & DWMP Research packages¹¹¹¹¹²¹¹³</p>	<p>When it comes to specific initiatives for wastewater service delivery, there was strong endorsement of measures that encourage more responsible behaviour at a household level. The highest ranked initiatives were customer engagement, water efficiency, and using technology to control sewers and monitor for problems.</p> <p>For solutions that help us provide water services to customers, prioritised initiatives included leakage, promoting water efficiency and reusing waters.</p> <p>Across the breadth of water and wastewater potential solutions, none were rejected outright but customers have reservations about the large-scale movement of water and wastewater around the region and the fairness of fees/charges in tariff options.</p> <p>Preference scores for our proposed plan was strong across all the household, non-household and future bill payer segments (at least 63%). The acceptability testing research found limited scope to improve the preference score through modifications to the plan, meaning that our long-term plan is already highly optimised in terms of maximising customer (and future bill payers) preferences</p>	<p>We used this insight to select the key investments in our long-term plans. These are reflected in the adaptive pathways in our LTDS where we have used options preferred by customers wherever possible. Where less preferred options are required to deliver our ambition, we have sequenced our solutions to focus on options customers prioritised in the shorter term. This gives us time to explore alternative solutions and new technologies before committing to future schemes.</p>

Source: Long Term Delivery Strategy – key research sources

¹¹⁰ DJS Research on behalf of United Utilities, Bioresources Pathways, September 2022

¹¹¹ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

¹¹² DJS Research on behalf of United Utilities, DWMP Draft acceptability testing, December 2022

¹¹³ DJS Research on behalf of United Utilities, DWMP Final acceptability testing, May 2023

Table 23: This case study demonstrates our approach is high quality

<p>Neutrally designed – every effort has been made to ensure that the research is neutral and free from bias. Participants were encouraged to give their open and honest views and reassurances were given throughout the research that United Utilities were open to hearing their honest opinions and experiences. Materials were piloted and challenged by our ICG, YourVoice.</p>	<p>Continual – research was contextualised using a wide evidence base including primary research, operational data, social media data, and regulatory customer priorities research. Each phase of research fed into iterations of the long-term delivery strategy to build on the continual learnings.</p>
<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making in our long-term delivery strategy. The research captured representation from United Utilities’ range of customer types, regions, as well as vulnerable audiences and future bill payers. A review of existing research was conducted ahead of commissioning.</p>	<p>Inclusive – a mix of online and telephone interviews were conducted to ensure that digitally excluded, vulnerable and hard-to-reach customers were included in the research. Quotas were set based on the known profile of United Utilities’ customers, including age, gender, ethnicity and social grade. Future bill payers and non-household customers were consulted.</p>
<p>Fit for purpose – materials were piloted with customers and the ICG (YourVoice), the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis of different critical segments. Innovative, AI visuals of different future-based scenarios were created in order to engage and transport customers into a longer-term mind-set. A mural was designed to create interactive tasks to encourage engagement and present ambition summaries in more digestible formats. Cognitive testing was carried out during the design phase to ensure the complex subject matter was presented in a way that was as understandable and engaging as possible.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – All research was conducted by PwC, an independent market research agency. United Utilities collaborated with the ICG, YourVoice, who reviewed all research materials and provided a check and challenge approach on the method and findings.</p>



Case study: Bespoke ODI Customer Research

- 5.2.43 As set out in *Chapter 5- Delivering great service*, UUW is proposing three bespoke PCs and customer and stakeholder feedback has been key in developing these. The three bespoke PCs proposed are:
- Improving water bill affordability for socially important non-household customers
 - Wonderful Windermere – leading partnership to improve river water quality at Lake Windermere
 - Embedded greenhouse gases – reducing carbon emissions created as a result of building and construction on United Utilities’ sites
- 5.2.44 We have used customer and community insights over time to co-create and iterate our plans and proposals for bespoke PCs. Starting with customer priorities research in 2021¹¹⁴, we have identified gaps between customer’s priorities and the common PCs, alongside what is important or different about the North West region as a whole. The table 24 below outlines how insight has shaped our bespoke PC proposals, for more on this please see *Chapter 5*.
- 5.2.45 Our dedicated bespoke PC proposals research report demonstrates that customers in the North West support our bespoke PC proposals and believe they are welcome investments for the region¹¹⁵.

¹¹⁴ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹¹⁵ Trinity McQueen on behalf of United Utilities, Bespoke PC Proposals research, September 2023

5.2.46 YourVoice has been key voices in the journey to developing our proposed bespoke PCs. They have challenged and reviewed our approach to developing PCs from the insight gathered, triangulating research and incentive rates. All research projects included in the triangulation of ODIs have been reviewed and challenged by YourVoice and all materials, such as proposals, research guides, stimulus, live research sessions and reports have been provided and reviewed by YourVoice.

Table 24: How customer research has shaped our bespoke ODI proposals

Research project or engagement	Key findings	Actions to develop bespoke ODI's
Customer Priorities Research ¹¹⁶ (Nov 22)	Beyond minimum service expectations, affordability and environmental priorities top the list and see significant rise from PR19 customer priorities research. Tackling climate change, pollution and carbon footprint were amongst these environmental priorities.	These priorities that rated highly were fed into the decision making framework and when comparing to list of potential common PCs Ofwat may propose, we highlighted a gap of affordability which is blended with our regionally specific needs due to the North West area having higher levels of income deprivation. This provided a starting point to develop PCs to address affordability (NHH affordability)
Ofwat/ CCW Customer Preferences Research (Apr 22) ¹¹⁷	Excluding areas which are likely to appear as common performance commitments, affordability and fairness are a high priority for customers. Biodiversity is a key factor.	Affordability and biodiversity further feed into customer priorities we may wish to address in bespoke PC proposals.
ODI Collaborative Rates Research ¹¹⁸	The collaborative survey provided further evidence of customer impact of several service issues and willingness to pay to prevent service failures. River water quality and biodiversity and amongst the medium impact rankings.	River water quality and biodiversity are amongst the medium impact rankings from the research and so this was considered when creating our 'Wonderful Windermere' PC.
Customer priorities over time tracking	Affordability, environment and pollution priorities continue to grow over time into 2023.	Customer evidence led us to exploring PCs around water bodies, biodiversity and pollution.
Stakeholder engagement (Love Windermere)	Lake Windermere is an important lake to the North West and there is growing concern amongst stakeholders and residents of its water quality and environmental status.	This concern could be directly addressed with partnership working and UUW taking a lead to improve river water quality for the Wonderful Windermere PC.
NHH water efficiency research ¹¹⁹	This research highlighted certain sectors and small businesses struggling with affordability and wanting further support from UUW to reduce usage and bills	This directly fed into our NHH affordability bespoke PC proposals as further evidence that more help was needed for small business and communities.

¹¹⁶ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹¹⁷ Ofwat/CCW, Customer Preferences, April 2022

¹¹⁸ Ofwat/CCW, Collaborative ODI Rates Research, October 2022

¹¹⁹ Trinity McQueen on behalf of United Utilities, NHH Water Efficiency Visits, April 2023

Research project or engagement	Key findings	Actions to develop bespoke ODI's
Long-term delivery strategy ¹²⁰	Customers were highly supportive of proposals to provide help for customers struggling and make our way towards carbon net zero by 2050.	Further action is needed now to meet these targets in the future, thus feeding into our PC proposals for Embedded Greenhouse gases and NHH affordability.
Bespoke PC proposals research ¹²¹	Customers felt we should progress bespoke PCs for NHH affordability, embodied carbon and improving Windermere. Other supported PCs are now covered elsewhere in the plan.	Customers shared suggested improvements to the proposals which have been taken into account in our design. See <i>UUW30 – Performance commitments technical document</i>
Affordability & Acceptability Testing Research ¹²²	Customers wanted us to go further with our plans for addressing pollution and requested area specific interventions to tackle local issues. Carbon targets of 42% improvement (from a 2019/20 baseline) by 2030 were widely supported and valued.	The Wonderful Windermere PC allows us to go further in addressing pollution and protecting against climate change, as well as tackling both a local priority for Cumbria, and national visitors. The support for carbon reduction provides evidence for targeting embedded greenhouse gases in AMP8.

Source: Key customer research sources for bespoke PC proposals (see *UUW31 – Customer Research Triangulation*)

Table 25: This case study demonstrates our approach is high quality

<p>Neutrally designed – every effort has been made to ensure that the research is neutral and free from bias. Participants were encouraged to give their open and honest views and reassurances were given throughout the research that United Utilities were open to hearing their honest opinions and experiences. Materials were piloted and challenged by our ICG, YourVoice.</p>	<p>Continual – research was contextualised using a wide evidence base and the key sources are listed in table 18 above.</p>
<p>Useful and contextualised – as evidenced in the previous case study, the insight directly influenced decision making for our proposed bespoke PCs. The research captured representation from United Utilities’ range of customer types, regions, as well as vulnerable audiences and future bill payers. A review of existing research was conducted ahead of commissioning any new projects.</p>	<p>Inclusive – a mix of online, telephone and face to face methods were conducted to ensure that digitally excluded, vulnerable and hard-to-reach customers were included in the research. Quotas were set based on the known profile of United Utilities’ customers, including age, gender, county and social grade.</p>
<p>Fit for purpose – materials were piloted and/ or cognitively tested with customers and the ICG (YourVoice), the research provided meaningful discussion. The sample was carefully considered to ensure sub-group analysis of different critical segments.</p>	<p>Shared in full with others – research is published and shared on our website and through our industry customer insight newsletter, The Source.</p>
<p>Ethical – all research is conducted in line with ethical standards, including the Market Research Society guidelines.</p>	<p>Independently assured and challenged – All research was conducted an independent market research agency. United Utilities collaborated with the ICG, YourVoice, who reviewed all research materials and provided a check and challenge approach on the method and findings. The proposed ODI rates have been independently assured by Turner & Townsend.</p>

¹²⁰ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

¹²¹ Trinity McQueen on behalf of United Utilities, Bespoke PC Testing, September 2023

¹²² Accent and DJIS on behalf of United Utilities, Affordability and Acceptability Testing, September 2023



Case study: Customers support our AMP8 discretionary investment plans

In addition to understanding customer priorities, we have commissioned several pieces of research to inform areas of discretionary investment and option selection. Research has been commissioned in areas of discretionary spend, where customers can provide a meaningful view and influence the direction of our plans. The below table outlines the research and evidence used to inform our elective enhancement areas. The rows highlighted in grey are statutory driven enhancement areas and, therefore, may have less dedicated research to support the enhancement as service improvement is mandated by regulation or law.

Table 26: Customers have informed the direction for enhancement spend

Enhancement area	Research projects	Drivers of impact
Wastewater WINEP (incl CSOs)	Sewer overflows Research ¹²³ Customer Listening Research ¹²⁴ CCW Priorities Research ¹²⁵	Customer research demonstrates support for minimising the number and impact of sewer overflows to protect river water quality.
Water WINEP	Customer Priorities ¹²⁶ WRMP Immersive ¹²⁷ WRMP Acceptability ¹²⁸ LTDS ¹²⁹ Water Acceptability Research ¹³⁰	Customer research has demonstrated customer's value drinking water quality highly and support proactive investment against the impacts of climate change to safeguard high-quality drinking water.
Bioresources WINEP	Bio-resources Research ¹³¹	Customer research has shaped decision making to reduce overall operational carbon emissions, water quality risks and contamination. Customers would like UUW to explore new innovations, while maintaining capacity in tried and tested technologies currently in place.
Vyrnwy re-lining in AMP8	Customer Priorities ¹³² Water Acceptability Research ¹³³ WRMP Immersive ¹³⁴ WRMP Acceptability ¹³⁵ Ofwat/CCW Collaborative ODI Rates ¹³⁶	Customer research has demonstrated customer's value drinking water quality highly and support investment to improve supply resilience. The Ofwat/CCW Collaborative ODI Rates research shows that customers value resilience of supply.
Raw water quality deterioration	Customer Priorities ¹³⁷	Customer research has demonstrated customer's value drinking water quality highly and support proactive investment against the impacts of climate change to safeguard high-quality drinking water.

¹²³ Verve Research on behalf of United Utilities, Sewer Overflows, October 2021

¹²⁴ Boxclever on behalf of United Utilities, Customer Listening Groups, May 2022

¹²⁵ Ofwat/CCW, Customer Preferences, April 2022

¹²⁶ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹²⁷ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

¹²⁸ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

¹²⁹ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

¹³⁰ DJS Research on behalf of United Utilities, Water Transfer – Customer Acceptability, December 2020

¹³¹ DJS Research on behalf of United Utilities, Bioresources Pathways, September 2022

¹³² Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹³³ DJS Research on behalf of United Utilities, Water Transfer – Customer Acceptability, December 2020

¹³⁴ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

¹³⁵ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

¹³⁶ Ofwat/CCW, Collaborative ODI Rates Research, October 2022

¹³⁷ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

Enhancement area	Research projects	Drivers of impact
	Water Acceptability Research ¹³⁸ WRMP Immersive ¹³⁹ WRMP Acceptability ¹⁴⁰ LTDS ¹⁴¹ Water Acceptability Research ¹⁴²	
SEMD (new requirements) NIS-D (new requirements)	Customer Priorities ¹⁴³ WRMP/ DWMP Immersive ¹⁴⁴	Customer priorities demonstrate that customers value health and safety and security of supply.
First time sewerage	Customer Priorities research ¹⁴⁵ Rainfall Management ¹⁴⁶ Sewer Overflows Research ¹⁴⁷	Customer research evidences concern for customers around new development and connections to the sewers due to issues around demand and capacity.
Rainwater management	Rainfall Management Research ¹⁴⁸ DWMP Draft Acceptability Testing ¹⁴⁹ DWMP Final Acceptability Testing ¹⁵⁰ Six Capitals Research ¹⁵¹	98 per cent of customers believe UUW has a role in managing rainwater and that collective action is needed. The majority support sustainable drainage solutions but believe combined green and concrete solutions are needed to maximise effectiveness. Customers support solutions with multiple benefits for service and social value. Both household and non-household customers need greater awareness to be able to act on their property.
Sewer flooding enhancement	Rainfall Management Research ¹⁵² Sewer flooding valuation ¹⁵³ DWMP Draft Acceptability Testing ¹⁵⁴ DWMP Final Acceptability Testing ¹⁵⁵ Customer Priorities ¹⁵⁶	Customers rank internal and external sewer flooding as the highest priority service failure to mitigate against in the ODI collaborative research. Customers believe a combination of green and concrete solutions are needed to maximise effectiveness

¹³⁸ DJS Research on behalf of United Utilities, Water Transfer – Customer Acceptability, December 2020

¹³⁹ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

¹⁴⁰ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

¹⁴¹ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

¹⁴² DJS Research on behalf of United Utilities, Water Transfer – Customer Acceptability, December 2020

¹⁴³ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹⁴⁴ Sites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

¹⁴⁵ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹⁴⁶ DJS Research on behalf of United Utilities, Rainfall Management, August 2022

¹⁴⁷ Verve Research on behalf of United Utilities, Sewer Overflows, October 2021

¹⁴⁸ DJS Research on behalf of United Utilities, Rainfall Management, August 2022

¹⁴⁹ DJS Research on behalf of United Utilities, DWMP Draft acceptability testing, December 2022

¹⁵⁰ DJS Research on behalf of United Utilities, DWMP Final acceptability testing, May 2023

¹⁵¹ DJS Research on behalf of United Utilities, 6 Capitals, February 2023

¹⁵² DJS Research on behalf of United Utilities, Rainfall Management, August 2022

¹⁵³ Verve on behalf of United Utilities, Sewer flooding valuation, November 2022

¹⁵⁴ DJS Research on behalf of United Utilities, DWMP Draft acceptability testing, December 2022

¹⁵⁵ DJS Research on behalf of United Utilities, DWMP Final acceptability testing, May 2023

¹⁵⁶ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

Enhancement area	Research projects	Drivers of impact
	Ofwat/CCW ODI Collaborative Research ¹⁵⁷	
Coastal and river erosion	Collaborative ODI Research ¹⁵⁸ Customer Priorities ¹⁵⁹ Six Capital ¹⁶⁰ DWMP/WRMP ¹⁶¹ WRMP ¹⁶²¹⁶³ Climate Change ¹⁶⁴ Bioresources ¹⁶⁵	Environmental protection and pollution prevention are important overall priorities for customers. The collaborative ODI rates research demonstrates how much customers value prevention of pollution incidents and water supply interruptions. 77% of customers feel lakes, rivers and reservoirs should be protected.
Smart Metering – household and non-household	Customer Priorities ¹⁶⁶ Smart Metering Research ¹⁶⁷ WRMP WRW ¹⁶⁸ WRMP Acceptability Testing ¹⁶⁹	58 per cent of HH customers support the roll out of smart meters, with significantly higher support from metered household customers (72 per cent), NHH (71 per cent) and future bill payers (71 per cent). Research emphasised the need to communicate benefits to the customer effectively and ensure maximum usage and control over their usage There was no preference for internal or external installation.
Leakage (Mains replacement)	WRMP WRW ¹⁷⁰ WRMP Acceptability Testing ¹⁷¹ Customer Priorities ¹⁷²	Leakage and reduction of water wastage is a clear priority across the customer base to make the network more efficient and reduce environmental impact. Our leakage level of reduction is supported in our WRMP acceptability testing research.
Water efficiency – household and non-household)	Customer Priorities ¹⁷³ and CCW Customer Preferences ¹⁷⁴ DWMP/WRMP ¹⁷⁵ Smart metering ¹⁷⁶ NHH customer audits ¹⁷⁷ rainfall management ¹⁷⁸ LTDS ¹⁷⁹	Customers support reliability of supply, environmental protection through reduction of usage and wastage and increases in customer education on the issue. Interventions such as water efficiency visits, rainfall management and re-use and smart metering have received support from customers.

¹⁵⁷ Ofwat/CCW, Collaborative ODI Rates Research, October 2022

¹⁵⁸ Ofwat/CCW, Collaborative ODI Rates Research, October 2022

¹⁵⁹ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹⁶⁰ DJS Research on behalf of United Utilities, 6 Capitals, February 2023

¹⁶¹ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

¹⁶² DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

¹⁶³ DJS Research on behalf of United Utilities, WRMP, January 2022

¹⁶⁴ DJS Research on behalf of United Utilities, Climate Change and Resilience, January 2021

¹⁶⁵ DJS Research on behalf of United Utilities, Bioresources Pathways, September 2022

¹⁶⁶ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹⁶⁷ Verve Research on behalf of United Utilities, Smart Metering Research, November 2022

¹⁶⁸ DJS Research on behalf of United Utilities, WRMP, January 2022

¹⁶⁹ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

¹⁷⁰ DJS Research on behalf of United Utilities, WRMP, January 2022

¹⁷¹ DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

¹⁷² Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹⁷³ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹⁷⁴ CCW/ Ofwat, Understanding customer preferences for performance commitments, April 2022

¹⁷⁵ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

¹⁷⁶ Verve Research on behalf of United Utilities, Smart Metering Research, November 2022

¹⁷⁷ Trinity McQueen on behalf of United Utilities, NHH Water Efficiency Visits, April 2023

¹⁷⁸ DJS Research on behalf of United Utilities, Rainfall Management, August 2022

¹⁷⁹ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

Enhancement area	Research projects	Drivers of impact
Water trading enabling works and temporary usage ban resilience	Hall Tests/Water Acceptability ¹⁸⁰ WRMP WRW ¹⁸¹ WRMP Acceptability Testing ¹⁸²	Customer research has directly informed the strategy to support water trading and change from 1 in 20 to 1 in 40 temporary usage bans (TuBs), with 71% of HH customers supporting this change. Customers noted that for water trading, communication of changes are key and drinking water should be kept within a range of two hardness levels to protect against quality. This has directly informed our engineering options.
Lead replacement	Customer Priorities ¹⁸³ LTDS ¹⁸⁴ Ofwat/ CCW Customer Preferences research ¹⁸⁵	Health and safety is seen as a minimum service expectation of customers and when testing ambitions through our long-term delivery strategy, customers preferred to see an accelerated level of lead removal than the government guideline of 2070.
HARP DPC management costs	DWMP/WRMP ¹⁸⁶ Asset Health ¹⁸⁷ Six Caps ¹⁸⁸ Ofwat/CCW ODI Collaborative Research ¹⁸⁹	Customers highly value resilience of supply, protecting asset health so this enhancement is supported by the impacts customers tell us are important to prevent.
Power resilience	Climate Change Research ¹⁹⁰ Collaborative ODI Research ¹⁹¹ Bespoke ODI Research ¹⁹²	Customers highly value a reliable supply of water and wastewater service as the minimum service standard. Power resilience supports the need to invest against future supply issues and extreme weather. 68 per cent of household customers and businesses were concerned about the impact of power cuts on supply and customers support the need to upgrade power resilience through generating more renewable energy, improving the robustness of the network and availability of generators.
Enhanced bio resources screening	Bioresources ¹⁹³ LTDS ¹⁹⁴ DWMP ^{195,196}	81 per cent of customers support UUW adopting enhanced sludge screening and 72 per cent of customers are willing to pay the bill impact of £1.66 on their annual bill.
Wastewater Supply Demand	Customer Listening ¹⁹⁷ Customer Priorities ¹⁹⁸	Customers support the option of increasing capacity to protect the supply/demand balance in our WRMP/DWMP Research and Climate Change Research. There is support for river quality protection and

¹⁸⁰ DJS Research on behalf of United Utilities, Water Acceptability, January 2022

¹⁸¹ DJS Research on behalf of United Utilities, WRMP, January 2022

¹⁸² DJS Research on behalf of United Utilities, Water Resources Management Plan acceptability testing, August 2022

¹⁸³ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

¹⁸⁴ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

¹⁸⁵ Ofwat/CCW, Customer Preferences, April 2022

¹⁸⁶ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

¹⁸⁷ Verve Research on behalf of United Utilities, Asset Health, April 2021

¹⁸⁸ DJS Research on behalf of United Utilities, 6 Capitals, February 2023

¹⁸⁹ Ofwat/CCW, Collaborative ODI Rates Research, October 2022

¹⁹⁰ DJS Research on behalf of United Utilities, Climate Change and Resilience, January 2021

¹⁹¹ Ofwat/CCW, Collaborative ODI Rates Research, October 2022

¹⁹² Accent and PJM Economics on behalf of United Utilities, Bespoke ODI rates research, March 2023

¹⁹³ DJS Research on behalf of United Utilities, Bioresources Enhanced Screening, September 2023

¹⁹⁴ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

¹⁹⁵ DJS Research on behalf of United Utilities, DWMP Draft acceptability testing, December 2022

¹⁹⁶ DJS Research on behalf of United Utilities, DWMP Final acceptability testing, May 2023

¹⁹⁷ Boxclever on behalf of United Utilities, Customer Listening, May 2022

¹⁹⁸ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

Enhancement area	Research projects	Drivers of impact
	Social Value ¹⁹⁹ Climate Change ²⁰⁰ Rainfall Management ²⁰¹ Sewer overflows ²⁰² DWMP Acceptability Testing ²⁰³²⁰⁴ DWMP/WRMP ²⁰⁵	better rainfall management to prevent issues such as sewer flooding and overflows.
Wastewater reservoirs	Customer Priorities ²⁰⁶ Bioresources ²⁰⁷ Six Capitals ²⁰⁸ DWMP/WRMP ²⁰⁹	Reliable water and wastewater services are minimum service expectations for customers. Our DWMP and WRMP research demonstrates that customers care about supply and demand issues and want proactive investment to prevent future issues. Removing wastewater in a way that protects the environment and reducing pollution is a key wastewater priority from our bioresources and customer priorities research.
Net zero/carbon	Bioresources ²¹⁰ LTDS ²¹¹ WRMP WRW ²¹² Social value ²¹³	Although not always the top priority, once customers are engaged and put in a mind-set to think long term, customers agree that carbon reduction and net-zero is important to protect against climate change and that we must act now. Customers support widespread woodland plantation and the research supports the value of carbon reduction and wider benefits it provides for customers and society.

Source: Enhancement cases – key research sources

¹⁹⁹ SHED Research Consulting on behalf of United Utilities, Social Value Synthesis, February 2022

²⁰⁰ DJS Research on behalf of United Utilities, Climate Change and Resilience, January 2021

²⁰¹ DJS Research on behalf of United Utilities, Rainfall Management, August 2022

²⁰² Verve Research on behalf of United Utilities, Sewer Overflows, October 2021

²⁰³ DJS Research on behalf of United Utilities, DWMP Draft acceptability testing, December 2022

²⁰⁴ DJS Research on behalf of United Utilities, DWMP Final acceptability testing, May 2023

²⁰⁵ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

²⁰⁶ Impact Research on behalf of United Utilities, Customer Priorities, December 2021

²⁰⁷ DJS Research on behalf of United Utilities, Bioresources Pathways, September 2022

²⁰⁸ DJS Research on behalf of United Utilities, 6 Capitals, February 2023

²⁰⁹ InSites Consulting on behalf of United Utilities, WRMP & DWMP Immersive Options Testing, April 2021

²¹⁰ DJS Research on behalf of United Utilities, Bioresources Pathways, September 2022

²¹¹ PwC on behalf of United Utilities, Long Term Delivery Strategy Ambition Testing, April 2023

²¹² DJS Research on behalf of United Utilities, WRMP, January 2022

²¹³ SHED Research Consulting on behalf of United Utilities, Social Value Synthesis, February 2022

Appendix A Customer Research Catalogue

5.2.47 Table 27 consists of a customer research catalogue of our key research sources used to inform our business plan. Research referred to in Chapter 3 have an associated reference number which can be found in the table below. Research projects have a link in the title to our online customer research library with published data and reports on our corporate website.

Table 27: Research catalogue of key sources

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
Affordability & Acceptability Testing Research Qualitative Phase 1 (Ref 10) June 2023	Undertaking a qualitative stage of research to understand customer affordability of proposed bills and acceptability of the proposed service improvements of the AMP8 business plan, following Ofwat/ CCW prescribed guidance	Qualitative face to face focus groups with North West customers recruited from UUW customer lists, across the whole region	98	66	8	24
Affordability & Acceptability Testing Research Quantitative Pilot (Ref 11) August 2023	This was an initial pilot survey of the quantitative stage of Affordability and Acceptability research. The findings and learnings from this first phase were then applied to the full phase 2.	Representative quantitative online survey with North West customers, recruited from UUW customer lists. CATI option available for those digitally excluded.	700	597	0	103
Affordability & Acceptability Testing Research Qualitative Phase 2 (Ref 12) (alternative higher bill scenario) June 2023	Undertaking a qualitative stage of research to understand customer affordability of a higher bill alternative and acceptability of the proposed service improvements of the AMP8 business plan, following Ofwat/ CCW prescribed guidance.	Qualitative face to face focus groups with North West customers recruited through UUW customer lists, across the whole region	71	38	10	23
Affordability & Acceptability Testing Research Quantitative Phase 2 (Ref 13) August 2023	Undertaking the final quantitative stage of research to understand customer affordability of a proposed AMP8 bills and acceptability of the proposed service improvements of the AMP8	Representative quantitative online survey with North West customers, recruited from	2,578	2,114	0	464

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
	business plan, following Ofwat/ CCW prescribed guidance. Due to uncertainties regarding final bills, two versions of the bill were tested in two fully compliant surveys.	UUW customer lists. CATI option available for those digitally excluded.				
		Version 1	1,296	1,061	0	235
		Version 2 Alternative higher bill scenario	1,282	1,053	0	229
Affordability Package Research (Ref 14) August 2023	Understanding customers views on UUW's AMP8 affordability package.	Qualitative hall tests undertaken across the whole North West region, with customers recruited face to face in the local area.	235	235	0	0
Bespoke ODI rates research (Ref 15) December 2022	Gathering UUW-specific evidence on customer valuations to address gaps in the collaborative research evidence base with respect to bespoke ODIs. Obtaining this evidence by means of a robust stated preference research study with United Utilities customers.	Quantitative online survey, closely mirroring the Ofwat Collaborative ODI research study. North West customers recruited through panel and PAF, with a paper version for those digitally excluded.	2,330	2,129	0	201
Bespoke Performance Commitment (PC) Testing (Ref 16) August 2023	Understanding customer support for United Utilities bespoke performance commitments for 2025-30. Evaluating whether customers support our shortlist of Bespoke Performance Commitments and how we have come to propose them.	Qualitative online focus groups with North West customers, with supporting CAPI for those digitally excluded.	42	36	0	6

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
Bioresources Enhanced Screening (Ref 17) September 2023	Exploring customer preferences and willingness to pay regarding the enhanced screening of Biosolids and understanding the customer priorities for the treatment of Biosolids in the future.	Quantitative online survey with North West customers, with supporting CAPI for those digitally excluded.	1,507	1,404	103	0
Bioresources - Sludge Research (Ref 18) September 2022	Exploring customer preferences regarding the future of Bioresources, including the trade-offs customers are willing to make in regards to treatment and use of bio solids. Understanding the priorities customers have regarding the different future digestion technologies, including environmental / climate factors and bill implications.	Qualitative face to face focus groups across the North West region.	72	60	12	0
Brand Tracking 2020 - 2023 (Ref 19) (Three surveys per year)	Brand Tracking measures United Utilities brand-building efforts, such as brand awareness and perception, to understand how customers think and feel about United Utilities.	Quantitative survey with North West customers recruited through panel. Online survey due to continuous tracking.	12,000	12,000	0	0
	The survey takes place 3 times throughout the year and engages with a representative sample of customers from across the North-West Region.					
Collaborative ODI Segmentation Analysis (Ref 20) September 2023	Undertaking of segmentation analysis of the Ofwat Collaborative ODI research UuW data. Testing across customer segments for significant differences in SP1 Impact scores, and SP2 Median required compensation levels, using data on United Utilities customers from the national Collaborative ODI research study.	Ofwat led quantitative online survey, sample of North West customers recruited through panel and PAF, with a paper version for those digitally excluded.	2,305	2,028	0	277

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
Climate Change & Resilience (Ref 21) November 2020	<p>Understanding general customer views in regards to climate change, and customer expectations of United Utilities in the effort to protect the environment and mitigate against the risks of climate change.</p>	<p>Primary quantitative online survey with North West customers recruited through a panel, with supporting qualitative online focus groups with North West customers</p>	1,192	945	147	100
Customer Listening Groups (Ref 22) June 2022	<p>Understanding customer priorities for environmental focus throughout the North West region and specifically local communities. Understanding the priorities for improvement within United Utilities' responsibilities, and what customers feel UUW need to protect or improve in the future.</p>	<p>Qualitative face to face focus groups undertaken across the North West.</p>	42	35	7	0
Customer Priorities 2021 (Ref 23) December 2021	<p>Capturing customer views and opinions on how UUW could respond to challenges it faces in the future. Exploring what customers believe the strategic priorities of United Utilities should be, the expected standards (non-negotiable) and those which require higher levels of service or investment. Understanding how, if at all, customer priorities differ from the last major research findings in 2016 and more recent reviews and research (e.g. other customer priorities work, climate change, DWMP/ WRMP).</p>	<p>Primary quantitative online survey with North West customers recruited through a panel, with supporting qualitative online focus groups with North West customers. Face to face interview option for those digitally excluded.</p>	3,106	2,370	234	502
Drainage Water Management Plan (DWMP) Acceptability Testing (Ref 24)	<p>Understanding customer acceptability of the draft DWMP, including service levels and bill amounts.</p>	<p>Primary quantitative online survey with North West</p>	1,127	803	102	222

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
November 2022		customers recruited through a panel, with supporting qualitative in depth interviews. Face to face survey and interview option for those digitally excluded				
Drainage Water Management Plan (DWMP) Final Acceptability Testing (Ref 25)	Understanding customer acceptability of the final DWMP, including service levels and bill amounts.	Primary quantitative online survey with North West customers recruited through a panel, with supporting qualitative in depth interviews. Face to face survey and interview option for those digitally excluded	800	550	100	150
April 2023						
Drainage Water Management Plan (DWMP)/ Water Resources Management Plan (WRMP) Immersive Options Testing (Ref 26)	Exploring customers' preferences for water supply, drainage & wastewater levels of service. Assessing the potential options and plans to address any changes to levels in service or to address a supply-demand deficit, enabling UUW to understand how to weight future options for the plan.	Quantitative online community with North West customers, with supporting CATI for those digitally excluded.	188	153	17	18
January 2021						
Expectations of Service Response (Ref 27)	Understanding customer expectations of our service where there is an unplanned issue. Testing scenarios such as billing, water and wastewater issues.	Quantitative online survey with North West customers, with supporting	1,336	1,336	0	0
October 2021						

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
		CATI for those digitally excluded.				
In Debt and Rehabilitated Customer Research (Ref 28)	Exploring the lived experiences of customers who are struggling to pay their water bill, including those In Debt, Engaged and At Risk. Understanding their perceptions and experiences of United Utilities, and barriers to engaging. Testing new propositions to improve the service that UUW provides.	Qualitative online and CATI in depth interviews with North West customers recruited through UUW customer lists.	50	50	0	0
November 2022						
Long Term Delivery Strategy (LTDS) Ambitions Testing (Ref 29)	Understanding customer views of the UUW long term delivery strategy, by immersing in future scenarios and exploring each ambition and whether they stretch far enough. Exploring the concept of intergenerational fairness and phasing of investment through journalism tasks.	Qualitative online focus groups with North West customers, with supporting CATI for those digitally excluded.	80	60	10	10
March 2023						
Long Term Delivery Strategy (LTDS) Synthesis (Ref 30)	Triangulating existing research and insight including C-Mex, social media listening and bespoke research projects to understand how customer priorities have changed over time and what this tells us about how priorities might change in the future.	Research Synthesis of existing insight from North West customers, including social media listening and C-Mex data.	0	0	0	0
February 2023						
NHH Water Efficiency Visits (Ref 31)	Understanding the views and appetite for business water efficiency visits with certain business sectors e.g. manufacturing, education, retail etc. Exploring how important water sustainability is to different businesses, and what they are currently doing to save water. Exploring ways to optimise the proposition and identify any barriers.	Qualitative online and CATI in depth interviews with North West customers recruited through UUW customer lists.	327	0	0	327
March 2023						
Northern Roots Partnership	Measuring the effectiveness of a communications	Primary quantitative	194	194	0	0

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
Research (Ref 32) November 2022 November 2021	campaign as part of a community trial in the target area of Glodwick, Greater Manchester. Working in partnership with Northern Roots community organisation, and community champions to measure the impact of communications specific to stopping sewer blockages.	online survey in a targeted region on the North West, supporting qualitative face to face focus groups and in depth interviews for those digitally excluded.				
Rainfall Management Research (Ref 34) August 2022	Exploring with customers how United Utilities can manage rainfall better by using sustainable drainage solutions (SuDS) on both their own properties and beyond. Understanding how willing household customers and small businesses are to act personally.	Qualitative online community with North West customers recruited through a panel. Telephone in depth interviews option for those digitally excluded.	66	45	9	12
Sewer Flooding Valuation (Ref 35) March 2022	Understanding how customers value United Utilities investing in different sewer flooding scenarios depending on the location, frequency and cause.	Quantitative survey of North West customers recruited from both UW customer lists and panel. Online methodology due to choice-based conjoint experiment needed to undertake robust analysis.	4,494	4,366	128	0
Sewer Overflows Research (Ref 36) October 2022	Exploring how customers value the prevention of different consequences of sewer flooding, and whether the valuation differs when considering the prevention of single incidents compared with repeated incidents.	Immersing customers in a range of sewer overflow scenarios, to understand customer views of the causes and impacts, and what solutions should be prioritised by UUW.	117	117	0	0

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
		methodology due to need to build knowledge across time period and allow interaction.				
Six Capitals Research (Ref 37) February 2023	Understanding whether customers support United Utilities' shift towards a more value-based decision-making approach. Understanding what value means to customers and whether customers agree that United Utilities should consider the broader impacts, such as on the environment and society.	Qualitative online focus groups with North West customers, with CATI depth interviews for those digitally excluded	39	34	5	0
Smart Metering Research (Ref 38) November 2022	Exploring the smart meter proposition with household and non-household customers. Understanding customer perceptions of smart meters and willingness to uptake and any barriers preventing customers from having smart meters installed. Evaluating propositions, initiatives and communications to encourage customers to install smart meters.	Primary quantitative online survey with North West customers recruited via UUW customer lists and panel, with supporting qualitative online community with North West customers. CATI option for those digitally excluded.	3,594	3,174	205	215
Social Return on Investment Study (Ref 39) January 2023	Evaluating the value of United Utilities affordability assistance schemes: Help To Pay Tariff, Back on Track Tariff, WaterSure Tariff, Payment Matching Scheme, through researching customers who are currently receiving this support.	Quantitative online survey with North West customers recruited from UUW customer lists. CATI option for those digitally excluded.	572	572	0	0

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
Social Tariff £5 Extension (Ref 40) September 2021	<p>Determining customer acceptance or rejection of continuing with an extra £5 per year cross subsidy bill increase, which was introduced in 2020 as part of our Back on Track social tariff to support 70,000 low income customers.</p>	<p>Quantitative survey with customers from the North West recruited from UUW customer lists. Online methodology chosen due to Covid-19 restrictions.</p>	3,135	3,135	0	0
Social Tariff Research (Ref 41) August 2023	<p>Testing customers' willingness to pay for an increase in the cross subsidy bill payment to fund the social tariff and to understand how much more, if at all, customers are willing to contribute.</p>	<p>Primary quantitative online survey with North West customers, with supporting qualitative in depth interviews. CATI option for those digitally excluded.</p>	1,022	1,022	0	0
Social Value Synthesis (Ref 42)	<p>Triangulating existing research and insight around 14 themes, which included climate change, biodiversity, health and wellbeing, vulnerability and affordability etc.</p> <p>To understand customers' position on United Utilities social value i.e. the wider environmental and societal role beyond core services.</p>	<p>Research Synthesis of existing insight from North West customers</p>	0	0	0	0
State of the Nation (2020 – 2023) (Ref 43) (Two surveys per year April & Sept)	<p>Continuously tracking the attitudes and behaviours of customers, specific to the North West on a range of topical issues.</p>	<p>Quantitative survey with North West customers recruited through panel. Online survey due to continuous tracking.</p>	6,691	6,691	0	0
	<p>Undertaking twice a year, six months apart engaging with 1,000 customers each wave. The first survey took place at</p>					

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
	the start of the covid-19 pandemic.					
Water Acceptability 2021 (Ref 44) January 2022	Exploring customer reactions to the proposition that occasionally, the water quality (hardness) that they experience may deviate from their usual blend, tested through hall tests and focus groups. Provided insight on customers' attitudes to changes in drinking water quality and water trading.	Qualitative focus groups and hall tests across the North West region, with customers recruited face to face in the local area.	593	593	0	0
Water Acceptability Survey (Ref 45) January 2021	Understanding customer acceptability of the changes to water supply and the impact on taste, smell and appearance, as a result of water trading through an online survey.	Quantitative online survey with North West customers recruited through UUW customer lists.	1,057	1,057	0	0
Water Communications Trials (Ref 46) July 2020	Testing the effectiveness of two different communications approaches; assessing the impact of a community based approach to water efficiency in Blackburn, versus a direct individual communications approach in Stockport.	Quantitative online survey with targeted regions of North West customers, with CATI option for those digitally excluded.	1,078	1,078	0	0
Water Efficiency ODI Tracker FY 2020 - 2023 (Ref 47) (Four surveys per year)	The bespoke online survey tracker measures water efficiency communications awareness and water quality communications awareness, amongst customers.	Quantitative survey with North West customers recruited through panel. Online survey due to continuous tracking.	13,285	13,285	0	0
Water Resources Management Plan (WRMP) Plan Acceptability Testing (Ref 48)	A representative survey of the North West region and customer base. Survey is undertaken four times across the year engaging with 1,000 customers each time.	Primary quantitative online survey with North West customers	1,302	1,002	100	200

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
August 2022		recruited through a panel, with supporting qualitative in depth interviews. Face to face survey and interview option for those digitally excluded				
Water Resources Management Plan (WRMP) Research (Ref 49)	Assessing willingness to pay values to inform decision-making for WRMP24. Understanding what is required across a range of key metrics, in order to ensure the final WRMP and Water resources west plan is reflective of customer opinion and the option selections are justified.	Quantitative online survey with North West customers recruited from a panel, with CATI option those digitally excluded.	855	671	0	184
November 2022						
Water Resources West (WRW) Synthesis (Ref 50)	Triangulating existing quantitative and qualitative research to understand customer and stakeholder views across WRW companies, as well as trends and similarities and differences between the companies.	Research Synthesis of existing insight from North West customers, as well as WRW region.	0	0	0	0
May 2022						
Wype Research (Ref 51)	Evaluating, in partnership with Wype*, customers' flushing knowledge and behaviours, and the barriers to the reduction of the number of wipes / moist toilet tissue that are put down the toilet.	Qualitative online community of North West customers. Online method chosen due to need for continuous interactions with customers across 3 months and audience chosen due to online availability of product.	31	31	0	0
July 2022						

Research name and link to publication	Objectives	Method	Study Population			
			Total	Household customers (HH)	Future bill payers (FBP)	Non-Household (NHH)
Water visualisation research (Ref 52) <u>April 2023</u>	Understanding what customers know about their water usage, and using co-creation to understand how customers like to see their water usage data through visualisations, comparison to other households or setting own personal goals and targets.	Qualitative online focus groups with supporting quantitative online survey with North West customers from the UW customer panel 'In the Flow'	486	486	0	0

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Water for the North West