APPENDIX F
Customer research

This appendix presents the two customer research reports produced for Water Resources West from customer research undertaken by water companies in 2021 and 2022.

Contents

F.1. Updated Regional Plan Customer Research (2022)

To inform the draft regional plan, we conducted a fresh round of customer research, building on previous research undertaken at company level for WRMP19. All the research done has been collated and analysed to identify common themes and areas of divergence. This allowed us to compare between our new research insights and previously acquired data, to paint a regional picture of customer's views on a range of topics. It also allowed us to highlight any differences between customer views in different areas of the region, to better understand the nuances in our data. The resulting outputs constitute a robust evidence base for customers' preferences and views on options (supply and demand), resilience, environment and transfers across the region, both pre and post COVID-19 conditions.

WATER RESOURCES REGIONAL PLAN CUSTOMER RESEARCH

MAY 2022 UPDATE

Report by Dan Young (Shed Research Consulting)

Amended 22 Sep 2022

SHED RESEARCH CONSULTING

Water Resources West

Contents

1. Objectives and approach

Water Resources West is developing its regional plan

A strategic regional plan

Water Resources West (WRW) has been set up to provide strategic oversight and co-ordinate water resources planning across the west of England and Wales region, combining five water companies. The companies wish to work together between 2020 and 2023 to develop a long-term strategic regional plan, in line with regulatory thinking.

South Staffs Water

Dŵr Cymru Welsh Water

United Utilities
Water for the North West

SEVERN TRENT

HAFREN DYFRDWY
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With up-to-date input from customers

Customer input will be vital to a successful regional plan.

In March 2021, Shed conducted a thematic triangulation of all customer research from WRW companies, mainly from PR19 and WRMP19 research. This gave you robust insight into customers' views at this time.

However, a lot has changed in the past two years. There's been a global pandemic, COP26, negative media coverage of sewage overflows, and a cost-of-living crisis.

To make sure the customer input into your regional plan is up-to-date, you need to include the latest knowledge. This means conducting another triangulation of your most recent customer and stakeholder research.

Our method for triangulating your research

INSIGHT TRIANGULATED

March 2021

57 pieces of research, mainly PR19 and WRMP19, involving over 40,000 customers across the region

Steady-state, pre-COVID view

+

May 2022

38 pieces of research, mainly WRMP24 as well as external published reports involving almost 20,000 customers across the region

Up-to-date view**

REPRESENTATIVENESS

All studies included in this triangulation used different methods. However, the majority of quantitative studies were representative of the demographic profile of each companies' customers. Qualitative studies tended to bet set of quotas to guarantee a range of views were captured

*** This summary is based on a point in time. Research completed since May 2022 has not been included*

OUR APPROACH

1. Collated all available data sources and metadata
2. Reviewed all research and completed RAG bias assessment for each
3. Visualised insight using an interactive "mind map" including any trends, similarities/differences, and gaps
4. Produced this report of the main insight suitable for sharing with a wider audience

THEMATIC FRAMEWORK

Context

- Water salience
- Water companies
- Resilience
- Quality and aesthetics
- Environment

Demand

- Water efficiency
- Metering
- Smart meters
- Leakage
- Interruptions

Supply

- Source preference
- Water trading and transfers

A full list of the research included in both stages of the analysis and the full detail of our triangulation method can be found in the appendices.

This report brings together both pieces of triangulation across all WRW companies

- In this report, we synthesise the main themes emerging from our two pieces of triangulation
- We give an aggregated view for the region. We don't aim to replicate individual company research
- For each theme, we take the original slide content from 2021 and supplement it with up-to-date insight from 2022
- Throughout the report, we:

Label 2021 insight

Label 2022 insight

Quote household (HH) and non-household (NHH) customers as well as stakeholders to illustrate points

If available, show differences by region or customer type*

Highlight insight around messaging

Show COVID-19-related insight

- We use abbreviations for each company: HD** = Hafren Dyfrdwy; SSW = South Staffs Water; ST = Severn Trent; UU = United Utilities; and DCWW = Dwr Cymru Welsh Water
- **Insights in this report apply to all water companies, regions, or customer types unless stated otherwise.**
- It's not always possible to highlight differences by company, customer type or region. Lack of insight on a particular theme should not be read as confirmation it doesn't exist. Just, that it wasn't investigated and/or identified in the available research.

* Where no differences are mentioned, this is because either (1) there is no difference or (2) no differences were reported in the individual reports so we can assume no differences existed
** HD's research was included in the March 2021 synthesis while it was still an associate member of WRW. We included one small piece of WRMP customer research from HD in the May 2022 update

2. Summary

Summary of all WRW customer research

Context

- The vast majority of customers don't think about water very often
- Few worry about water resilience
- But they do expect their water companies to plan for it and largely trust them to deliver it
- Customers want their water companies to prioritise safe, clean, reliable, affordable water
- Cost of living/affordability has become customers' number one issue in 2022, but this isn't yet focused on water bills
- The environment has risen in importance in recent years. But it has been pushed to a long-term issue, with the cost of living dominating short-term thinking

Demand

- Leaks are highly emotive and customers' favoured demand solution
- When fully-considering all the options in detail, customers tend to want metering prioritised. And there's growing acceptance of this being both smart and compulsory metering
- Few engage with water efficiency, but most want education and help
- Customers are largely relaxed about the current levels of restrictions, with few having experienced any
- For leaks, metering and restrictions, customers and stakeholders ideally want water companies to push beyond existing targets. There are some signs that (when presented with the actual costs involved) customers are willing to pay (WTP) for this*

Supply

- Customers and stakeholders prefer demand management to investing in the supply-side
- When pressed, they favour expanding existing infrastructure rather than new infrastructure or 'hard engineering' projects
- Customers assess supply solutions based on whether they encourage responsible water use, provide value for money, are long-term solutions, and protect the environment
- This means reservoir storage and water transfers (as long as not travelling excessive distances or to the detriment of the donor) tend to be customers' preferred options
- River abstraction and desalination are generally least favoured

* The research here was looking at WTP in isolation, not the full range of additional costs combined

3. Customer context in 2021

Customers don't often think about water, but they largely trust their water company

Water is low salience

- Most customers don't think about water day-to-day*
- Water's importance and the impact it has on people's lives, only comes to the fore when supply is interrupted in some way

You just always expect that it's going to be there, and so we just don't think about it.
HH customer

It's only when you lose water service that you realise how much of a big deal it is, and how much we rely on it.
HH customer

Water companies are trusted

- Customers generally have limited knowledge of all water company activities
- However, they largely **trust them to get on with what customers see as their most important job – providing a clean, safe, reliable water supply**
- This is based on their personal experience i.e. having enjoyed years of reliable water supply

They've always been there the moment that we needed them.
NHH customer

Well, I've been drinking the water that comes out of the tap for 37 years!
HH customer

* Non-household (NHH) customers running water-intense businesses are the exception – they're very conscious of reliability and are very engaged with water/their water company

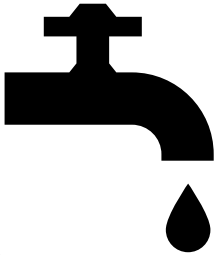
Sources: UU5, ST7, ST9, HD4, HD13

This trust extends to building long-term water resilience

It's good that WRW is in place, with a coordinated plan in place. Hopefully, with this level of cooperation, it will be resource efficient, avoid duplication and lead to great VFM bills whilst making sure we are kept supplied in the future!
HH customer

Customers are reassured that WRMPs (and WRW, if made aware of it in research) exist to create a resilient water supply for the future

Customers have limited understanding of water cycle and water supply/demand challenges



There's little concern about water scarcity – it appears abundant in the region, especially rainfall in Wales – and a reliable service doesn't suggest an issue

Customers assume water co's are thinking about long-term supply e.g. investing in infrastructure, planning for population growth*

Messaging: Customers call for more information about challenges to the water supply and reassurance about the steps taken to guarantee a reliable supply

We just don't think we have a water problem.
Vulnerable HH customer

* Population growth can be a salient issue in specific areas where people feel local infrastructure is under pressure from significant development e.g. Haverfordwest

Sources: SS4, SS5, ST1, ST5, UU5, DC2

2021 insight

Appearance gives reassurance and seems more important than taste, smell or hardness

- Customers are particularly sensitive to changes in appearance (given the vast majority drink tap water)
- Customers aren't willing to accept any discolouration - it signals to them water may be unsafe to drink or use (expect for flushing toilet)
- However, a change for a few hours is acceptable. Most issues resolve themselves within this timescale

APPEARANCE

- Customers appear to be less sensitive to changes in taste and smell (and are less likely to contact water companies about such changes)
- And there's little appetite to pay more to resolve taste/smell issues
- However, taste and smell may build longer-term negative perceptions and is a particular issue when customers move supply regions

TASTE / SMELL

- Hard water is raised spontaneously by a vocal minority, but doesn't seem to be a widespread issue in the region
- Where it exists, it can cause dissatisfaction e.g. there's empirical evidence of complaints around limescale in kettles
- Although there are signs hardness doesn't affect overall customer satisfaction scores

HARDNESS

I'm sick to death of replacing kettles, washing machine, because of the super super hard water.
HH customer

Sources: HD8, SS2, SS4, SS6, SS8, ST2, ST9, UU6-8, UU14, DC1

NB: The vast majority of HH and NHH seem to go back to using water as before after water quality or aesthetic incidents

Messaging: It's important to inform customers (HH and NHH) directly about variations in water quality immediately (text and email). They want to know the cause, actions taken and likely duration. A banner on a water company website is also welcome. Indirect communication via local news is less useful

The environment isn't a top concern - but it's growing and customers want it addressed

Interest in the environment and climate change rose markedly between PR14 and PR19 (Blue Planet effect), and more recent research suggests it's a growing concern.

It's just not something I would ever think about. HH customer

In rural settings, maintaining land and managing the pollution of water courses is a key priority

However, it still isn't top-of-mind:

1. It's too large an issue to contemplate
2. It's too hard to predict
3. There's no clear link between water co' actions and the environment

Customers do however want water co's to be planning for the impact of climate change and building a long-term, sustainable supply. And when fully-considering the issue, customers feel they have some part to play in this.

COVID-19: During the pandemic, 16-34s were more likely to use extra water, especially for recreation. This challenges the normal assumption younger customers care more about the environment and again, suggests the link between water and the environment/climate change isn't clear in customers' minds

My gut reaction is for the next generation we should be doing everything we can. NHH customer

In Wales, especially in areas of high biodiversity, customers place a high value on Wales' natural assets and want to see this local resource cherished

Sources: HD2, HD13, SS4, ST1, ST9, ST17, UU1, DC2, DC4

2021 insight

Customers' main priority in 2021 was safe, clean, reliable, and affordable water

COVID-19: With increased time at home, it's even more important water co's "steady the ship" with continuous supply

More important if experienced service failure

More important for vulnerable / lower income

COVID-19: Water bills felt good VFM vs other bills but metered customers could worry about impact of increased consumption on next bill

Primary	Safe, clean drinking water	Reliable supply	Keeping bills affordable
Secondary	Environmental impact/climate change	Reduce leakage	Promote metering and water efficiency education
Tertiary	Corporate social responsibility	Investing for the future e.g. infrastructure and new water efficiency tech	Customer services inc. communication and accurate billing

Greater priority when customers are exposed to all supply/demand challenges and options

COVID-19: Rising concern. But some evidence it was de-prioritised during lockdown in favour of recreation

COVID-19: Pandemic brought vulnerable communities to the fore. Need to consider support for them

Sources: HD10, SS1, SS6, ST2, ST4, ST6, UU1, UU2, UU3, UU12, UU16, DC3

NB: Each WRW water company used a different qualitative research methodology to establish the priorities of their HH and NHH customers. This chart gives an aggregate view of priorities for the whole region.

4. Customer context in 2022

2022 insight

In 2022, little has changed around how people think about water or water companies

Water salience

- Customers still pay little attention to water
- Awareness of water scarcity is low
- No fundamental differences in how Welsh and English customers see water or water companies

People are less likely to agree water is plentiful in water-stressed areas

Sources: 8, 9, 11, 15, 20, 22, 24, 25, 29, 30, 36

Water resilience

- As in 2021, perceived plentiful water in the landscape, rainfall, and limited interruptions, mean few worry about long-term supply
- Some drops in consumer confidence about the long-term water supply but few are *statistically significant*

NHH and vulnerable customers are more concerned about water supply in the future (because it's more critical for them)

Appearance, taste, smell, hardness

- Not major issues
- UU taste tests suggest around two-thirds are satisfied with the taste of their current supply
- SSW research suggests hardness, taste and smell tend to be weaker drivers of value for money (compared to affordability)
- However, SSW and ST get some reports of limescale being an issue but this isn't widespread

Views of water companies

- Customers (HH and NHH) continue to be satisfied and any movement in scores is minor
- Negative media coverage of sewer overflows in Q4 2021 doesn't seem to have *significantly* impacted perceptions
- Overall, water companies are still trusted

I thought how disgusting [raw sewage overflows are] but then when they explained why it happened, even though it's wrong it kind of made a little bit of sense. I can't really remember the full story that I read or saw, I think it was on the news I saw it.
ST HH (digitally excluded)

However, in early 2022, people became much more concerned about affordability

- Worries about the wider economic situation, inflation and the cost of fuel, energy and food in particular, have fuelled a growing concern about affordability
- **This is now the number one concern for consumers***:

Affordability is a bigger concern for lower income / vulnerable HHs

But **it's a concern across regions and demographics**

e.g. Poverty/cost of living is #1 concern among ST customers* (Mar-22)

e.g. UU cust. saw a +30%pt increase in concern about HH finances (Sep-21 to Mar-22)

- This concern about the cost of living crisis is mirrored by stakeholders
- NHHs too are finding this economic uncertainty alarming and they are becoming more short-term in their focus as a result
- While water bill anxiety is growing, **customers are much more focused on energy prices and food than on water bills** (perhaps unsurprising given the relative cost of each)

My gas bill has gone up £150 a month. My council tax has gone up as well £30 and just basically trying to get some quality of life [from] what I earn and what has to go out.
SSW HH (ABC1)

To be honest my water bill is not the thing that's most important right now – I've got so much stress on an everyday basis running a million-pound turnover business.
SSW NHH

Electricity costs are spiking at the moment and many families are already struggling with the cost of living as is.
Stakeholder (Charity)

Sources: 3, 6, 8, 10, 15, 17, 19, 22, 23, 25
* This include all societal issues, not just water-related topics

The environment rose up the agenda in 2021 but has since been pushed to a long-term issue

A rising concern

- Continuing the trend seen in our 2021 synthesis, **the environment continues to be a big concern** for all audiences, especially Future Bill Payers
- Nationally, concern peaked during coverage of COP26, which coincided with coverage of sewage overflows
- There's a general feeling than climate change is happening now and the **impacts are already being felt in the UK** i.e. more extreme weather, mixing seasons

Still a concern but a longer-term one

- In the first months of 2022, concerns about the environment became **dwarfed by short-term personal economic concerns**
- The environment is still taken very seriously and is a significant concern but it has been **pushed to a longer-term issue**

Younger consumers care more about the environment but older consumers are more likely to take practical actions to limit their impact

Customers expect water companies to do no harm

- Consumers see climate change as the Government's responsibility, and then water companies, and finally consumers in that order
- When it comes to water companies' activities, consumers and stakeholders are focused on preventing pollution and avoiding loss of habitats more than carbon emissions

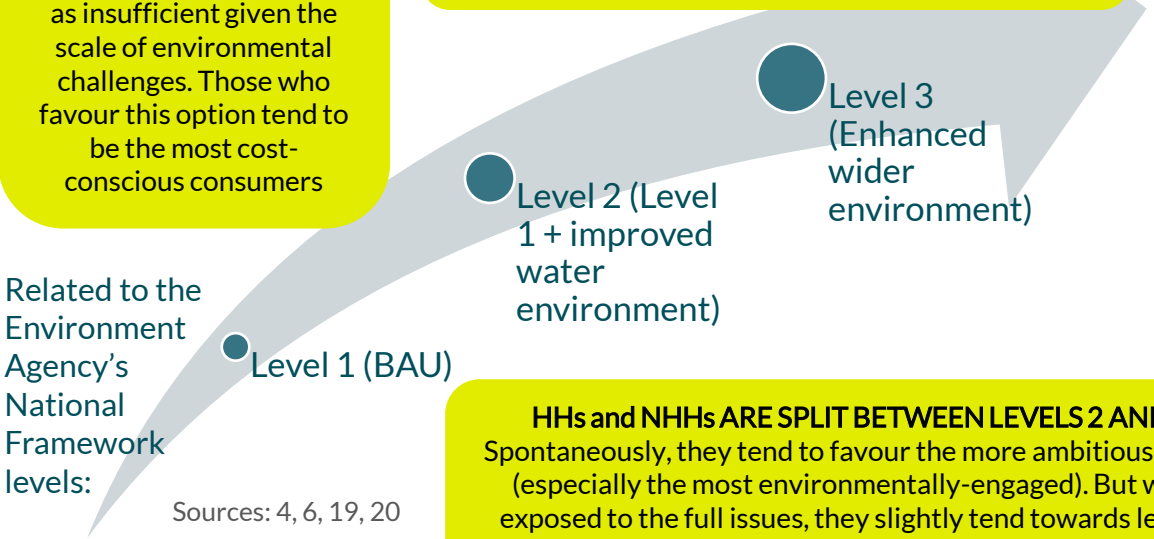
I think the environment is such a big part of who we are and what we think is important, and companies that focus on that and advertise that, are a lot more attractive in that sense. It makes you feel better about paying those bills; it makes you feel that you're doing something good.
UU Future Bill Payer

Sources: 1, 3, 4, 6, 8, 9, 11, 13, 17, 19, 23, 24, 25, 31

Audiences seem to favour an enhanced environmental destination and *may* be WTP for it

LEVEL 1 (BAU) FAVOURED BY FEW
Most customers and stakeholders reject BAU as insufficient given the scale of environmental challenges. Those who favour this option tend to be the most cost-conscious consumers

STAKEHOLDERS FAVOUR LEVEL 3 (ENHANCED)
They want WRW to enact this enhanced environmental ambition (79% opt for Level 3). In particular, they want focus on water quality/pollution



Sources: 4, 6, 19, 20

A note on the research:
- Environmental destinations will have a different impact on different companies. As such, this slide is based on research from SSW and ST customers (and stakeholders for all companies).
- We have no research among UU or DCWW customers as there will be little or no impact on them
- Preferences were given **based on theoretical cost levels rather than actual values**
- Other research suggests customers favour more "expensive" options when they see actual value of water bill increases i.e. increases are not as great as customers fear

HHs and NHHs ARE SPLIT BETWEEN LEVELS 2 AND 3
Spontaneously, they tend to favour the more ambitious level 3 (especially the most environmentally-engaged). But when exposed to the full issues, they slightly tend towards level 2, mainly because of its more balanced approach to cost

I think we must strive to have the best environmental standards and look after our waterways and the surrounding environment. This will cost more but our water bills are relatively low and I for one would be prepared to pay more for these improvements.
ST HH

5. Demand in 2021

Leakage is highly emotive – reducing it is customers' favoured demand solution

Leakage reduction is a "no brainer" and a "non-negotiable":

- It's seen as "careless", "wasteful", "shocking", and "immoral"
- It has a positive environmental impact
- (To those who've witnessed it) it's very visible
- (To NHH) it suggests water co's are inefficiently-run businesses

Reducing leakage is also a **pre-requisite for building authority to talk about water efficiency** (WE). Customers expect there will be a combination of repairing pipes (reactive) and replacing infrastructure (proactive)

We cannot afford to lose water. Thousands of gallons can be lost. We are all encouraged to use less so if leaks are not repaired it is all to no avail.
HH customer

As such, customers like the idea of ODI and incentives related to leakage reduction. But **customers would like water companies to go even further** than current commitments

They perform well against that, but it's a terrible target isn't it. I'm shocked at the amount of water that gets wasted each day.
HH customer

COVID-19: Recent research shows customers still want companies to go further, with 20% reduction in leakage seen as ideal

Sources: HD10, SS1, SS4, SS%, ST1, ST7, ST8, DC2, DC4 , UU12

Few customers engage with WE

- Most customers **use water freely with little thought,** but agree they could do more to use less
- Most **aren't actively taking steps to reduce their consumption** but neither are they deliberately wasteful

When you use water you need to wash your clothes and you need to have a bath and you need to brush your teeth. You never just leave the tap on and walk off and forget about it on purpose. Whereas you might leave the light on and just think, "I can't be bothered."
HH customer

MOTIVATORS

- **Saving money** is the main motivation (however this only applies to metered customers)
- The environment is only motivating for those already environmentally-engaged

BARRIERS

- There's **little evidence customers appreciate why they need to save water**
- There's **no financial incentive for unmetered** and a perception that "water is cheap"
- Customers would rather water companies reduced leakage than they change behaviours

The only way people are going to use less water is if their bills get bigger
HH customer

COVID-19: Customers became more conscious of consumption over the summer. But behaviours and attitudes to WE didn't fundamentally change

Messaging: Green messages can work for families but need wider support from ambassadors and should adopt the language of plastics e.g. "single use". Use terms that customers understand (e.g. "bathtubs") not abstract (e.g. "mega litres")

Sources: HD1, SS1, SS2, SS3, ST7, ST11, ST13, ST16, UU1, UU5

2021 insight

Customers want WE devices and education but research suggests this may not be enough

They're not really promoting that you need to save the water. They've not really gone out there and touched the public about the whole issue. HH customer

Messaging: Customers want proactive comms about how to save water (especially low effort/maximum impact actions)

Education

- Limited knowledge of need to save water
- **Customers want to know more about how to save water**
- Want water co's to take a lead
- School visits are viewed very positively as a way to engage the young

Devices

- Limited awareness of free WE devices
- Favour "fit and forget"
- However, a field trial shows **devices and audits have limited impact on consumption** (short-lived and confined to those already using less water i.e. older customers)

COVID-19: Under 35s were the highest users over the summer, especially for recreation, and least likely to say "I do all I can to save water"

Pre-family = hard to convince	High consumption, little incentive to save water i.e. unmetered. Env. messaging and highlighting consumption could have most impact

Families = engage through children	Highest consumption and tend to prioritise own needs. Do engage in recycling so mirroring language might work

Empty nesters = most receptive	Like idea of minimizing "waste", but already lowest consumption. Interested in innovative ways to "save or preserve"

Sources: HD1, HD6, SS2, SS4, SS5, SS7, ST4, ST1, ST12, ST16, UU1, UU4, UU5, DC2, DC4

Customers prioritise metering more when they understand the whole picture

Metering isn't a spontaneous priority

Customers install them primarily to save money, but also to monitor their usage. Environmental concerns or spotting leaks are less motivating.

Highest interest in metering among more affluent households

Low interest among future/shared bill payers (who like predictable bills for easy splitting)

There are several barriers to metering:

1. FEAR OF INCREASED COST
Suspicion meters are a way to increase bills, especially if compulsory

2. UNCERTAINTY
Most HHs have never had a meter so taking one would be a leap into the unknown

3. LACK OF KNOWLEDGE
Little awareness of two-year reversions or bill guarantees in place

However, when fully evaluating all supply and demand options, metering comes out on top

Mainly because it's a long-term solution, it saves money, is environmentally-friendly, and it encourages personal responsibility.

I think they should promote meters. You see a lot of waste at home because I'm not on a meter and I think if I was…I would think twice about what I was using. But I'm not sure if it's just the tariff going up for not being on a water meters at home that I'm seeing a price difference compared to the business.
NHH customer (Café)

COVID-19: The most recent research shows a growing interest in smart meters – framed by the energy market. Potential to track usage more closely is most appealing to younger customers.

Sources: SS2, SS3, SS4, SS5, ST1, ST7, ST8, DC2, DC4, UU5, UU16

Customers assess whether interruptions are acceptable by several criteria

1. TYPE OF INTERRUPTION

Low pressure is more acceptable and not considered a major issue (especially when rebates are available) compared to no water at all

2. CAUSE

Interruption arising from natural events are more acceptable than failure because of ageing assets or poor maintenance

3. FREQUENCY

Shorter, more frequent interruptions (12hrs every 2 months) are more acceptable than longer, less frequent (3 months every 10 years)

4. DURATION

An interruption of 3-6hrs is manageable but 8-12hrs has a bigger impact, and over 24hrs is unacceptable

5. SIZE

Willingness to pay for fewer HHs affected is higher than to reduce average resolution time

6. CRITICALITY

Even short-term water deprivation can have huge implications for high water dependent NHHs or vulnerable HHs

Messaging: Multi-channel communication during interruptions is vital. As with aesthetic incidents, messages should reassure customers around cause, resolution, and available support. This should be direct comms to all customers and website banners (younger customers would initially search online).

Sources: HD9, HD13, ST2, ST8, UU11, UU15, UU16, DC1

COVID-19: The pandemic made no difference to how customers want to be communicated with in the event of an interruption

Customers are largely relaxed about current levels of restrictions

People may get the hump, because they won't be able to use things how they want to, but I don't think it would have hardly any impact.
HH customer (commenting on TUB)

There's **little willingness to pay (WTP) more to reduce** these levels further

Many have **little direct experience of restrictions** e.g. last severe restrictions (standpipes) in Wales were 1976

It seems far away, it's quite an unlikely scenario really.
HH customer (commenting on emergency drought order)

NHH and vulnerable customers who are very dependent on water are less relaxed about restrictions

If we didn't have water for certain parts of the day we'd have to close.
NHH customer (Hotel)

Perceived **abundance of water in the region** means customers seldom worry

Customers are **broadly happy with current service levels** (no matter what levels were tested qualitatively*)

Acceptable levels	TUBs	NEUBs	Drought order
UU	Once a year	1 in 10 years	1 in 20 years
SS	1 in 40 years	1 in 80 years	Not covered
DC	1 in 20 years	Not tested but relaxed about restrictions given lack of direct experience and heavy rainfall	
ST	1 in 33 years	1 in 33 years	1 in 200 years

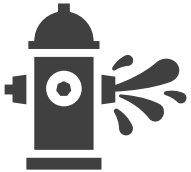
* This suggests further research may be needed to assess customers' true tolerance for different service levels

Sources: SS2, ST1, UU15, UU16, DC1, DC2

6. Demand in 2022

2022 insight

Views on leaks are consistent with 2021 and there's still appetite for going beyond targets

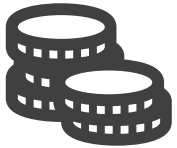


Overall views haven't changed

- Reducing leaks is still consistently customers' most favoured demand/supply solution
- It's seen as wasteful and a highly emotive topic
- Customers and stakeholders feel action on leaks is needed before any meaningful conversation with customers about WE

There's broad support for 50% reduction by 2050

- When not aware of the issues, customers want leaks to be "as close to zero as possible"
- When informed, they accept it's impossible to irradicate all leaks
- In high-level quantitative research, support for the existing leak reduction target is strong



But in-depth studies suggest targets don't go far enough

- In more detailed qualitative research (by ST and SSW), there's an appetite to go further i.e. 15% reduction by 2025 and 50% by 2050 is seen as not fast enough
- These studies also suggest customers are WTP for this, given it should mean lower future bills

Why wait when it will eventually have to be done regardless? Although disruptive and expensive, long term a solution will have to be found…. Surely, long term, fixing these problems sooner would benefit HD and allow them to produce a significant amount less, bringing costs down long term.
HD Financially vulnerable HH

Sources: 1, 4, 7, 10, 17, 19, 22, 25, 29, 39

2022 insight

Customers' views on WE are also consistent and they want targets expedited here too

	Consistent with 2021	New insight in 2022
Behaviours	• Few act to reduce their consumption and most feel their consumption is average • Little awareness of current consumption (HHs or NHHs) • Young families continue to be heaviest users	• In-depth, national observational studies in kitchens and gardens show a weak connection between reported and actual behaviours (suggesting future studies on *reported* behaviour are unreliable)
Attitudes	• Few know how to reduce consumption , why it's important or see it as an environmentally-friendly activity • But, when informed, WE is seen as the most important WRMP priority (alongside leak reduction) • Stakeholders want more Government intervention here • Customers want help from water co's (raising awareness, knowledge and providing tools) and feel water companies could do more to communicate the need for WE (especially as metering is rolled out)	• There's support for subsidised water savings products among stakeholders • Feedback from stakeholders* and the majority of SSW customers suggests current target for 110L PCC by 2040 should be brought forward, with the focus being on expediting targets rather than increasing them e.g. 80L

I think it's a joint effort – us doing our bit but Welsh Water educating us, too.
DCWW HH customer

I would like to see this achieved more quickly, if possible by 2040, as we could save a huge amount of water between 2040 and 2050 allowing for population growth.
SSW HH customer

Sources: 1, 3, 6, 7, 8, 9, 10, 12, 19, 22, 25, 27, 33, 34, 35, 37
* Especially those experienced in water-related matters

New research also shows how to communicate WE to change behaviour

Following the COM-B model of behaviour change, consumers have the **capability** to reduce consumption (i.e. they are able to). But they don't have the **opportunity** (i.e. low awareness of the need and low understanding of the required behaviours) or the **motivation** (i.e. few perceived benefits). This suggests that **communication is the main challenge here.**

Challenge	Consumers don't always connect WE and the environment	Need to build understanding of the scale of use in HHs	Consumers aren't clear on the steps to take towards WE	Habits are deep-rooted and often subconscious
Solution	Anchor water use to wider climate change narrative and highlight reality of situation	Bring to life how much water everyday activities use	Provide achievable targets to show 'what good looks like' and challenge myths	Target consumers at key moments
Example	e.g. "If we don't reduce the amount of water we use then X will happen"	e.g. "Each toilet flush uses X glasses of water"	e.g. "Don't rinse plates before putting them in the dishwasher"	e.g. Focused messaging when move to a new house

Sources: 34, 35, 37

There's growing acceptance of the inevitability of smart and mandatory metering

Metering is still supported

- Seen as the fairest way to pay for water and reduce demand
- Again, after deliberating over the full range of options, metering is the favoured solution to address future challenges

Over 50% of SSW customers say they would pay more to roll out universal metering

The same barriers exist

- Same perceived barriers exist – unpredictable bills, irreversibility and hassle
- These tend to be stronger among unmetered customers. But they are open to these being challenged
- Stakeholders and customers alike worry about the impact on vulnerable customers (as do vulnerable customers themselves) i.e. price hikes or unpredictably of bills

Smart metering is seen as the direction of travel

- Stakeholders strongly support proactive smart metering
- There's lower support from heavy-using NHHs e.g. farmers
- But there's national acceptance smart tech is the "new normal"
- Energy smart meters frame this view and customers expect the same service e.g. IHDs and real-time usage data
- And SSW research suggests there is some WTP for smart metering (£4.20/yr for AMI)

Mandatory metering also seems inevitable

- Stakeholders in particular welcome compulsion
- At a headline level, there is some resistance among customers e.g. 83% of DCWW customers support it being not compulsory*
- However, in-depth qualitative research** shows that, when exposed to the full range of supply/demand options, customers are supportive of the idea, even those originally against it

I'd like to see real time readings to see how much my shower, washing machine, hose use. All to an app. I've got smart meters for everything else."
UU HH customer

Sources: 2, 4, 5, 6, 7, 12, 19, 21, 22, 24, 32
* Single question from a headline survey
** SSW, UU and ST all undertook detailed, deliberative studies here

There are signs customers *may* be willing to pay for improved TUBs & NEUBs service levels

While there's the same overall view around restrictions (i.e. little direct experience, few concerns and contentment with the status quo), some newer UU research suggests customers *may* be willing to pay for improved service levels, given the actual increase in cost which would be involved.

SSW

- Customers support the need for TUBs and NEUBs – they are the most popular way to reduce demand during the summer months (e.g. versus higher charges for the highest consumers)
- Most customers expect more frequent restrictions than the existing TUB and NEUB service levels

UU

- HHs favour improving TUB service levels to 1 in 40*
- 60% of HH customers would be WTP £4.75 to achieve this**
- WTP for improvements in TUBs increases with age

ST

- Few experienced interruptions
- Customers accept existing service levels i.e. NEUBs and TUBs at 1 in 33
- Limited appetite for paying more to reduce these occurrences from HH and NHH *(NB: this was un-costed and customers assumed costs would be prohibitive)*

NB: No additional insight from DCWW or stakeholders here

Sources: 1, 4, 10, 20, 23

* From WRMP24 research conducted by DJS Research in April 2022 (report 10 – see appendix)
** Only UU directly addressed willingness to pay (WTP) for improving restriction levels. It used real values and we've seen in other studies, theoretical WTP question elicit a more negative reaction than research with actual figures, we can be confident there is some appetite for this. However, more WTP research may be needed

Customers also want drought resilience targets brought forward and *may* be willing to pay

SSW

- Current restrictions and EA targets seen as acceptable
- When informed of issues, around half (HH and NHH customers) support reducing risk to 1 in 500 years by 2040
- Three in ten would like this even sooner than 2040

UU

- Preference for improving extreme event service levels (only 14% prefer the status quo)
- HH have a stronger preference for improving levels than NHH
- Average WTP to improve from 1 in 500 by 2039 to as soon as possible was £4.56*

ST

- High acceptability among HH and NHH for existing emergency service levels (1 in 200)
- Customers are split on whether to bring forward emergency measures targets *(NB: this was un-costed and customers assumed costs would be prohibitive)*

DCWW

- Accept current restrictions are necessary
- And taking all demand-side solutions together, DCWW customers are WTP a limited amount here**

Stakeholders

- Majority support bringing forward drought resilience standards to 1 in 500 years by 2025 (from 2050)

Sources: 1, 4, 10, 19, 20, 22, 23, 26

* Again, only UU directly addressed willingness to pay (WTP) for restriction levels. It used actual figures so we can be confident there is some appetite for this. However, more WTP research may be needed

** DCWW questions covered WTP for all demand-side options together rather than individually (66% support paying £4/yr)

7. Supply in 2021

Customers evaluate supply-side options by cost, sustainability, and the environment

When actively involved in the decisions, customers evaluate source options by four questions (*in no particular order*):

Does it encourage responsible use of water?

They favour options which **encourage customers *and* water co's to use water responsibly**

Is it long-term and sustainable?

They want to **avoid short-term fixes**

They favour **lower risk** i.e. several smaller sources rather than one larger one

Does it offer good value for money?

They favour **value over lowest cost**

They favour **the middle ground** – investing for the future, but not too much that might not be needed

Does it harm the environment?

They favour minimising damage to the environment if it can be avoided

Sources: SS1, ST1, ST5, UU1, UU17, UU18, DC2, DC4

For supply solutions, customers favour reservoirs or water trading/transfers

MOST FAVOURED → LEAST FAVOURED

Reservoir storage	Water transfers/trading	Groundwater abstraction	Wastewater recycling	River abstraction	Desalination
•Popular for reliability, low environmental impact (if using existing) and cost •But reopening old reservoirs seen as expensive and high env impact	•Sensible to share resources as long as donor region doesn't suffer •Inexpensive •Less-favoured when travelling longer distances (environmental damage, cost, and greater reluctance to share)	•Comfortable if using existing bore holes •And surprisingly cost-effective •But seen as environmentally-damaging to build new	•Assumed already done •Some taste concerns but trust water co's on safety •Less support if called "effluent re-use" and when consider chemicals used	•Very expensive, hard to deliver, env impact •But seen as good investment in future sustainable supply	•Very unpopular option once costs and environmental impact are considered

Why don't you just pump it into the existing reservoirs? You don't have to open up other disused reservoirs… Surely that would be the cheapest option .
NHH customer

Welsh customers favour sharing water WITHIN Wales (making the most of a natural asset) but are less positive about sharing further afield

Very unpopular in ST region – seen as a short-term fix and putting pressure on stressed rivers

I notice when the reservoirs are low, and the rivers, and I think what a shame. It stops your environment and nature, the beauty. It's upsetting and you want to do something about it.
HH customer

Sources: HD12 SS1, SS7, ST1, UU15, UU16, UU17, DC1, DC2, DC4

NB: Each water co. used a different methodology and compared different sources to establish preferences. While not possible to give a quantitative aggregated view, we are able to pick out a general pattern of views across the qualitative research.

8. Supply in 2022

Beyond what we heard in 2021, there's a strong preference for improving supply-side efficiency before any 'hard engineering'

Stakeholders show little appetite for 'hard engineering' solutions (e.g. new reservoirs). They feel demand management should take priority

Customers (whether HH or NHH) agree. They favour demand-side options (e.g. reducing leaks, behaviour change, restrictions, or recycling more water at home/business) before looking at supply-side options

And when looking at the supply-side only, **customers across the region favour improving the efficiency of existing supply-side options rather than building new.** Largely, because it's common sense, cost-effective and environmentally-sound

As much as I would love to have more supply of water, I know that the impact to the environment is mostly negative and if there is more water supply the consumption will increase and we will still be in the same position. However, I feel like our way of life requires more water maybe because we have taken things for granted
SSW Future Bill Payer

It makes sense to maximise productivity of existing treatment works which should be more cost effective
ST HH

More efficient use of water allows existing supplies to go further
UU HH

Sources: 1, 3, 6, 10, 19, 22, 23, 25, 26

Supply and demand options were prioritised together, but views seem consistent with 2021

WRW companies looked at a different set of options, combining different supply and demand options*. Hence, direct comparisons aren't possible in 2022. The following table summarises the hierarchy expressed by each company's customers.

	Most favoured									Least favoured
	Reduce leakage	Reduce water use (education and advice)	Recycle water at home / business	Recycle waste water indirectly	Increase size of existing reservoirs	Universal metering	Ground water abstraction	Water transfers	Restrictions	River abstraction
	Reduce leakage	Improve WE	Recycle water indirectly	Manage land to improve water quality	Install water meters	Increase capacity at treatment works	Increase size of existing reservoirs	Ground water abstraction	Water transfers	River / lake abstraction
SEVERN TRENT WATER	Recycle water indirectly	Increase size of reservoirs	Maximise output of treatment works	Increase capacity at treatment works	Increase connectivi-ty of supply system	New water treatment works for river water	Water transfers	Additional surface storage	Ground water abstraction	NB: ST mandated demand solutions so not something to be chosen by customers
	Reduce leakage	Make homes more water efficient	Raise awareness of how to reduce use	Water transfers	Expanding existing reservoirs	De-salination	Increase metering	Re-using wastewater	Restrictions	Ground water abstraction

Supply

Demand

NB: For SSW, UU and ST, the **views of HH and NHH match ****

Sources: 3, 10, 23, 26 / **Care should be taken when comparing companies. SSW, UU and ST ran detailed prioritisation and ranking exercises. DCWW preferences were derived from combining on top-two-box favourability in two separate questions* / ** DCWW did not cover NHHs

Views on transfers remain the same but UU research suggests water quality is more important than origin

Consistent with 2021	New in 2022
• Water transfers are broadly supported – it feels like the right moral thing to do • Customers have several questions about transfers i.e. who pays, environmental impact, and the reliability of their own supply. They need reassurance around these • Water-rich areas (e.g. Wales and Cumbria) have more reservations around transfers than potential beneficiaries (e.g. SVT), but even then the majority support the idea	• Stakeholders too feel it's sensible to share water but they accept it may be "politically-divisive" i.e. sharing resources with the South and therefore losing out on development opportunities • UU-focused research on transfers shows customers are more concerned about the appearance/quality of their water than where it is sourced from* • Transfers in Wales are less popular with social tariff customers

NB: this additional slide focuses specifically on transfers as these are a key priority in the regional plan. Other supply-side feedback hasn't significantly changed since 2021

Done properly, I think it is a good idea. I wouldn't want to stand by and watch people go without necessary water, while we have too much and vice versa.
HD NHH customer

Sources: 2, 6, 14, 15, 19, 39 / * That said, the majority of UU customers are unable to clearly distinguish between the quality of different Tworts - especially when it comes to taste

9. Gaps in your insight

There are some gaps in your insight you may want to consider addressing

You have a significant amount of insight across the region so gaps in your insight are limited. However, there are some gaps which you may wish to consider in future research:

Gaps to consider addressing	Other areas which may not be necessary to address
•WTP SPECIFIC VALUES: You have some WTP insight using true monetary values (e.g. DCWW for combined supply and demand options). A significant gap is WTP in real terms for an enhanced level of leakage reduction, metering or environmental destination. Research suggests using real values will garner more support than using a more conceptual WTP* •DCWW NHH: Currently no research among Welsh business customers	•WATER QUALITY, AESTHETICS, TASTE, SMELL: We have a detailed UU hall test, SSW qualitative feedback around hardness, and some low priority mentions in ST research. However, in all these pieces of research, these are not major customer issues (as they weren't in 2021) so there's little to be gained by exploring them further** •DCWW AFFORDABILITY: We lack detailed feedback on affordability/cost of living being an issue for DCWW customers. However, national polling shows it's an issue which cuts across demography and geography so we can assume it applies to Welsh customers too

* Additional research is planned by each WRW company over the coming months to address WTP in detail. This will look at the full PR24 cost implications rather than just water resources. You may also feel this gap is addressed by the WRW MCDA ValueStream tool however this doesn't include e.g. leak reduction or compulsory metering / ** Please note there is additional research around water quality (e.g. from ST) which wasn't used as part of this project

Appendix A: Research sources

Sources used in March 2021

HAFREN DYFRDWY

HD1: Customer needs deliberative research, Oct-Dec 2017
HD2: Customer needs co-creation, Nov 2017
HD3: PR19 Stakeholder research, Dec 2017
HD4: Customer priorities research, Aug-Sep 2016
HD5: Acquisition of Dee Valley: customers' reactions and views, Apr-May 2017
HD6: Customer satisfaction tracking research (Dee Valley), Sep 2016-Mar 2017
HD7: Customer satisfaction tracking research (Mid and North Wales), Jan-Feb 2018
HD8: Valuation research – willingness to pay, Oct 2017-Jan2018
HD9: Asset health and resilience research, Apr 2018
HD10: Performance commitments, investment choices and incentives research, Apr-May 2018
HD11: Acceptability research (wave 1 and 2), June 2018
HD12: Water Trading report, July 2018
HD13: Customer Needs – Wales Pen Portraits, Jan 2017

SEVERN TRENT

ST1: Strategic Challenges - Supply and Demand, Oct 2017
ST2: Strategic Challenges – Resilience, Oct 2017
ST3: Water Trading report, July 2018 (same as HD12 and UU18)
ST4: Tap Chat – water efficiency campaign, June 2018
ST5: Real Options approach – deliberative research, July 2018
ST6: Real Options approach – quant research, June 2018
ST7: Customer needs research and co-creation – Oct-Dec 2017
ST8: Customer needs – future customers and shared/non-direct bill-payers, Oct 2017
ST9: What Matter to You (Tap Chat discussion), Mar-May 2018
ST10: In house consultation with 100 ST stakeholders, Dec 2017
ST11: Marketing plan focus groups, Feb 2017
ST12: Customer satisfaction tracker survey, Jan-Mar 2018
ST13: Needs of large developers, May 2018
ST14: Choices research – depths with large NHH customers, June 2018
ST15: Best in class customer service and experience, Oct-Dec 2017

SOUTH STAFFS / CAMBRIDGE WATER

SS1: WRMP19 main research report – qual and quant, Oct 2017
SS2: WRMP customer engagement paper - customer research findings summary
SS3: Metering research, July 2017
SS4: PR19 Foundation Research (customer priorities, 2017)
SS5: H2Online HH customer community feedback
SS6: PR24 Customer Priorities Tracking (qual), Oct 2020
SS7: Segmentation study, April 2018
SS8: Water Quality Review, March 2021

DWR CYMRU

DC1: Willingness to Pay qual
DC2: WRMP Qual
DC3: WRMP Qual and Quant
DC4: WRMP full final report
DC5: WRMP cog testing (quant qre) report

UNITED UTILITIES

UU1: YourChoice customer priorities , June 2016
UU2: YourChoice customer priorities, June 2016
UU3: Service valuation for PR19 WtP, June 2017
UU4: Water Efficiency research, Feb 2018
UU5: Synthesis of water efficiency research, Nov 2020
UU6: Customer research into the impact of Lancashire water quality incident, October 2015
UU7: Customer research into the impact of Lancashire water quality incident, Jan 2016
UU8: Tameside water quality incident, Jan 2016
UU9: Manchester and Pennine resilience study, Dec 2017
UU10: Household long term supply interruptions – immersive research, July 2017
UU11: Non-household long term supply interruptions – immersive research, Oct 2017
UU12: Leakage reduction (WtP), June 2017
UU13: Safe, clean drinking water, Aug 2017
UU14: Drinking water taste, smell and appearance, July 2017
UU15: Short term interruptions to water supply, Sept 2017
UU16: WRMP qual – stage 1, Aug-Sep 2016
UU17: Water Abstraction research, Jan-Feb 2018
UU18: Water trading research, July 2018 (same as HD12 and ST3)

Sources used in May 2022

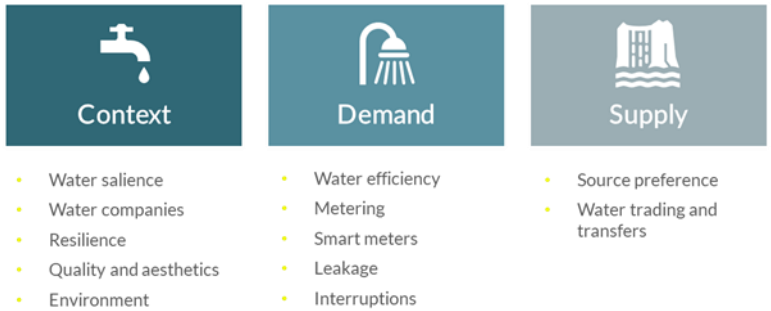
Ref.	Co.	Data source	Date
1	SSW	SSC WRMP24 WRAP customer research – Community Research	Jul-21
2	SSW	SSC WRMP24 WRAP customer research – Community Research	Oct-21
3	SSW	SSC WRMP24 customer research – Accent	Jan/Feb-22
4	SSW	SSC WRMP24 customer research – Accent	Feb/Mar-22
5	SSW	SSC WRMP24 WRAP customer research – Community Research	Feb 2022
6	SSW	SSC stakeholder roundtables	Oct-21
7	SSW	SSC – H2Online Customer Communities	On-going
8	SSW	SSC – customer priorities tracker	On-going
9	SSW	SSC – customer promises tracker	On-going
10	UU	WRW club research project – WRMP24	Jan/Feb-22
11	UU	Customer Priorities Research – Impact MR	Nov-21
12	UU	WRMP & DWMP Immersive Research – Insights Consulting	Apr-21
13	UU	Climate Change & Resilience Research	Dec-20 to Jan-21
14	UU	Water Quality Research – DJS	Dec-20
15	UU	Hall tests – DJS	Jan-22
16	UU	State of the Nation Research - Sep 2021	Sep-21
17	UU	State of the Nation Research - Mar 2022	Mar-22
18	UU	Smart metering forum topic	May-21
19	All	WRW Emerging Plan Stakeholder Workshops	Jan/Feb-22

Ref.	Co.	Data source	Date
20	ST	Strategic priorities research – Community research	Nov-21
21	ST	Proactive metering – DJS research	May-21
22	ST	WRMP options and water resilience – Britain Thinks	Apr-22
23	ST	WRW club research project – WRMP24 (DJS)	Jan/Feb-22
24a-d	ST	Tap Chat research	Dec-21 on
25a-c	ST	Social barometer	Oct-21, Dec-21, Mar-22
26	DCWW	DCWW- WRMP PR24 research	Nov-21
27	DCWW	DCWW- WRMP PR24 research	Oct-21
28	DCWW	DCWW- Investigating WTP	Feb-22
29	External	CCW - Water Voice Views of current customers on water resources	Apr-21
30	External	CCW - public views on the water environment	Feb-21
31	External	Blue Marble studies	Summer 2021
32	External	Arquiva / Waterwise / Frontier	2021
33	External	RWG water efficiency end user customer survey	Summer 2021
34	External	Understanding water usage in the garden – Blue Marble	Aug/Sep-21
35	External	Sink Sense - Kitchen sink habits caught on camera	Jan/Mar-21
36	External	CCW Water Matters Tracker	Jun-21
37	External	CCW Water Awareness	May-22
38	ST	Environmental Destinations Research	May-22
39	HD	WRMP Customer Research Debrief	Apr/May-22

Appendix B: Triangulation method

Triangulation method (1)

- This piece of research synthesis triangulated 38 different pieces of qualitative and quantitative customer and stakeholder research
- It provides an **up-to-date summary of customer and stakeholder views across WRW companies** using the following thematic framework:

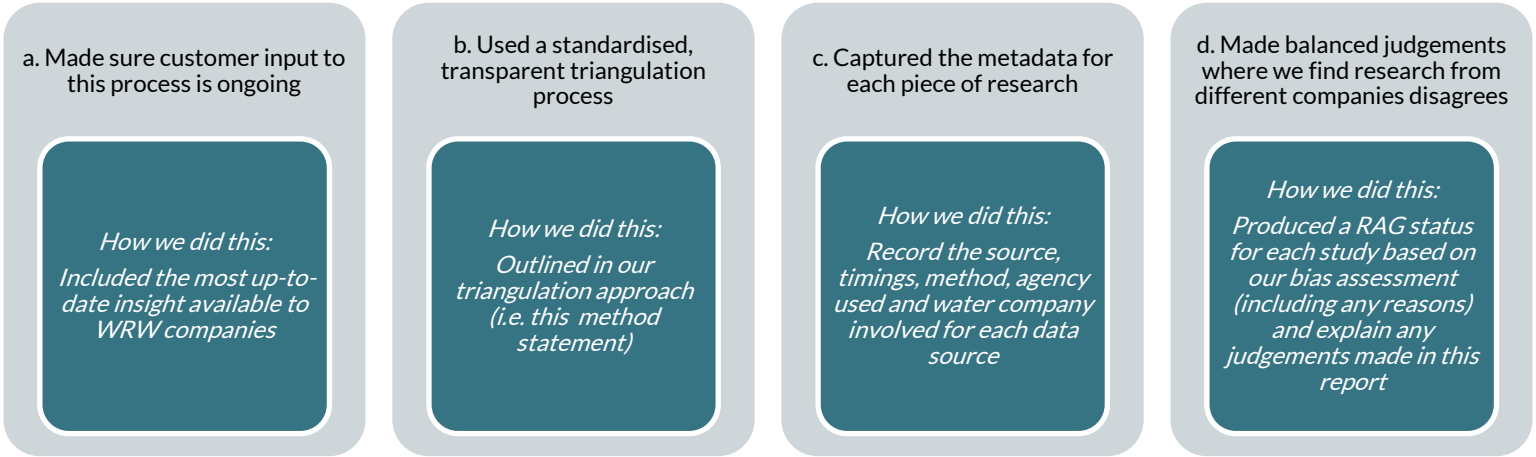


- It builds on a previous piece of synthesis conducted in Q1 2021 which triangulated 57 pieces of mainly PR19 and WRMP19 research. It examines:

1. TRENDS: What's changed since the start of 2021 compared to the insight from PR19/WRMP19 research? And what has driven any changes e.g. the pandemic, cost of living, or Brexit?
2. SIMILARITIES & DIFFERENCES: How these changes differ (or not) across the four water companies? Any differences by customers or stakeholder? And what has driven any differences e.g. research method, timing of the research, demographics?
3. GAPS: What gaps there are in the research undertaken?

Triangulation method (2)

- We have followed the principles laid out in the CCW/SIA report on best practice for triangulating customer evidence. This means we have:



- We employ the same approach for quantitative and qualitative research i.e. we focus on what each is telling us (the insight), consider the method used and timing of the research (the metadata), and how these individual insights create a coherent story around particular themes (the triangulation)

Triangulation method (3)

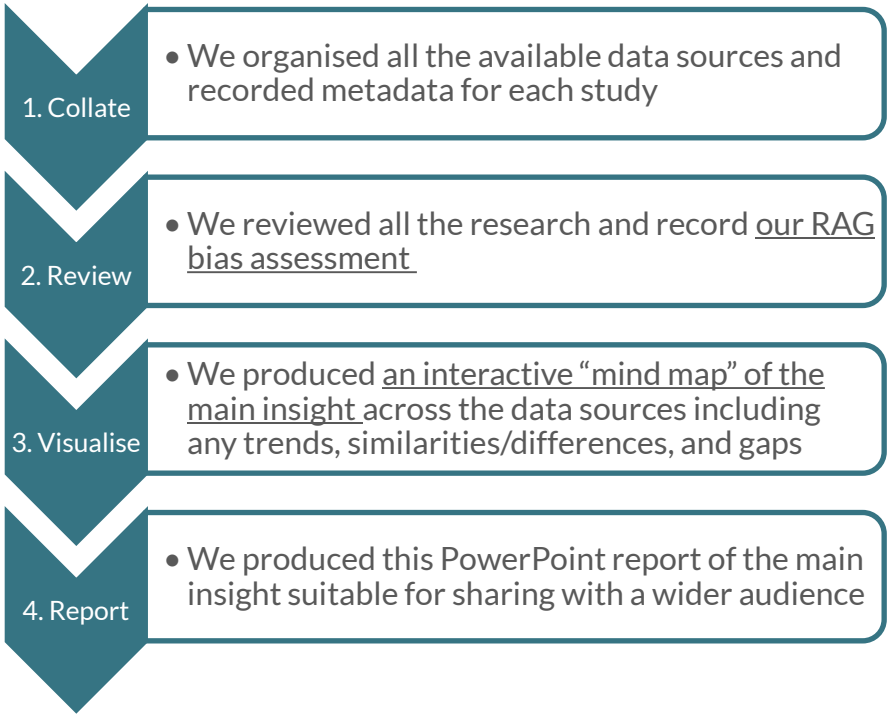
Our approach converged three main types of triangulation:

a) Data source triangulation – taking multiple different perspectives from different water companies' customers, we used both inductive (drawing findings from the data sources) and deductive (using the data to test the insight developed from the Q1 2021 synthesis)

b) Theory triangulation – used the thematic framework developed from the previous synthesis (see section 2) to compare and contrast with the most recent research

c) Between or across method triangulation – used both qualitative and quantitative methods

We followed four discreet stages:



F.2. Regional plan customer research (2021)

In order to support the development of our emerging regional plan, we analysed customer views, building on previous research and engagement undertaken at company level for WRMp19. This exercise aimed to highlight new aspects and reinterpret previously acquired data through the regional planning lens. This allowed us to paint a regional picture of customer views to inform our emerging plan published in January 2022.

REGIONAL PLAN CUSTOMER RESEARCH

24 MARCH 2021

Report by Dan Young (Shed Research Consulting) and Frank Grimshaw (Fasttrack Squared)

SHED RESEARCH CONSULTING

FASTTRACK²

Water Resources West

Contents

1. Objectives and approach

Water Resources West needs to develop its regional plan

A regional plan

Water Resources West (WRW) has been set up to provide strategic oversight and co-ordinate water resources planning across the west of England and Wales region, combining four water companies*. The companies wish to work together between 2020 and 2023 to develop a long-term strategic regional plan, in line with regulatory thinking.

South Staffs Water

Dŵr Cymru Welsh Water

United Utilities Water for the North West

SEVERN TRENT

HAFREN DYFRDWY severn dee

With input from customers

Customer input will be vital to a successful regional plan.

We have amalgamated, re-analysed and re-purposed the wealth of existing research from all companies. This gives us a robust evidence base for customers' preferences about water resources across the region. This also gives us a steady-state view, in pre-COVID-19 conditions, which is more suitable for long-term planning.

However, the current pandemic has undoubtedly changed perceptions across society. Wherever possible, we draw from companies' latest 2020 research and address how customers' views *may* have changed.

* Hafren Dyfrdwy's research has been included as an associate member of WRW and to bolster our evidence base

Our approach to re-analysing WRW research

Combining willingness to pay (WTP) data from all companies, including PR19 and WRMP customer research, around for aesthetics, source preference, service levels, and interruptions

FASTTRACK²

Thematic analysis of 57 pieces of research, mainly from PR19 and WRMP customer research, including water efficiency, metering, interruptions, source preferences, and transfers

SHED RESEARCH CONSULTING

a. A standard calculation for customers' WTP with a combined regional value

b. An aggregated qualitative view of customer insight on water resources in the region, plus regional or customer differences

NB: A full list of the research included in the quantitative and qualitative analysis can be found in the appendix

2. Customers' views on water (qualitative)

This section synthesises the qualitative research from all WRW companies

- In this section, we synthesise the main themes emerging from all WRW companies' research. We give an aggregated view for the region. We don't aim to replicate individual company research from PR19 or individual WRMPs
- Throughout the report, we:

Use verbatim comments from household (HH) and non-household (NHH) customers to illustrate points

If available, show differences by region or customer type

Highlight insight around messaging

Show recent COVID-19 insight

- We use abbreviations for each company: HD = Hafren Dyfrdwy; SS = South Staffs Water; ST = Severn Trent; UU = United Utilities; and DC = Dwr Cymru
- We draw from research with different methodologies. As such, it's not always possible to highlight differences or specific insight for every topic. Lack of insight on a particular difference should not be read as confirmation it doesn't exist.

Insight from all WRW companies' qualitative customer research falls into three categories

Context

- Water salience
- Water companies
- Resilience
- Quality and aesthetics
- Environment

Demand

- Water efficiency
- Metering
- Smart meters
- Leakage
- Interruptions

Supply

- Source preference
- Water trading and transfers

Summary of WRW qualitative insight

Context

- The vast majority of customers don't think about water very often
- Few worry about water resilience
- But they do expect their water companies to plan for it and largely trust them to deliver it
- Customers want their water companies to prioritise safe, clean, reliable, affordable water
- Beyond these core services, the environment isn't a top priority for most customers, but it is a growing concern

Demand

- Leaks are highly emotive and customers' favoured demand solution
- When fully-considering all the options in detail, customers tend to want increased metering prioritised
- Few engage with water efficiency, but most want more education and devices
- Customers are largely relaxed about the current levels of restrictions and they have little appetite to pay more to reduce them

Supply

- Customers evaluate supply solutions by whether they encourage responsible water use, provide value for money, are long-term solutions, and protect the environment
- This means reservoir storage and water transfers (as long as not travelling excessive distances or to the detriment of the donor) tend to be customers' preferred options
- River abstraction and desalination are least favoured

NB: This slide gives an overall customer view of water in the region. Of course, the picture is more complex and there are segments who do not match these statements.

Customers don't often think about water, but they largely trust their water company

Water is low salience

- Most customers don't think about water day-to-day*
- Water's importance and the impact it has on people's lives, only comes to the fore when supply is interrupted in some way

You just always expect that it's going to be there, and so we just don't think about it.
HH customer

It's only when you lose water service that you realise how much of a big deal it is, and how much we rely on it.
HH customer

* Non-household (NHH) customers running water-intense businesses are the exception – they're very conscious of reliability and are very engaged with water/their water company

Water companies are trusted

- Customers generally have limited knowledge of all water company activities
- However, they largely **trust them to get on with what customers see as their most important job – providing a clean, safe, reliable water supply**
- This is based on their personal experience i.e. having enjoyed years of reliable water supply

They've always been there the moment that we needed them.
NHH customer

Well, I've been drinking the water that comes out of the tap for 37 years!
HH customer

Sources: UU5, ST7, ST9, HD4, HD13

This trust extends to building long-term water resilience

It's good that WRW is in place, with a coordinated plan in place. Hopefully, with this level of cooperation, it will be resource efficient, avoid duplication and lead to great VFM bills whilst making sure we are kept supplied in the future!
HH customer

Customers are reassured that WRMPs (and WRW, if made aware of it in research) exist to create a resilient water supply for the future

Customers have limited understanding of water cycle and water supply/demand challenges

There's little concern about water scarcity – it appears abundant in the region, especially rainfall in Wales – and a reliable service doesn't suggest an issue

Customers assume water co's are thinking about long-term supply e.g. investing in infrastructure, planning for population growth*

* Population growth can be a salient issue in specific areas where people feel local infrastructure is under pressure from significant development e.g. Haverfordwest

Messaging: Customers call for more information about challenges to the water supply and reassurance about the steps taken to guarantee a reliable supply

We just don't think we have a water problem.
Vulnerable HH customer

Sources: SS4, SS5, ST1, ST5, UU5, DC2

Customers' main priority for the region is safe, clean, reliable, and affordable water

COVID-19: With increased time at home, it's even more important water co's "steady the ship" with continuous supply

More important if experienced service failure

More important for vulnerable / lower income

COVID-19: Water bills felt good VFM vs other bills but metered customers could worry about impact of increased consumption on next bill

Primary	Safe, clean drinking water	Reliable supply	Keeping bills affordable
Secondary	Environmental impact/climate change	Reduce leakage	Promote metering and water efficiency education
Tertiary	Corporate social responsibility	Investing for the future e.g. infrastructure and new water efficiency tech	Customer services inc. communication and accurate billing

Greater priority when customers are exposed to all supply/demand challenges and options

COVID-19: Rising concern. But some evidence it was de-prioritised during lockdown in favour of recreation

COVID-19: Pandemic brought vulnerable communities to the fore. Need to consider support for them

Sources: HD10, SS1, SS6, ST2, ST4, ST6, UU1, UU2, UU3, UU12, UU16, DC3

NB: Each WRW water company used a different qualitative research methodology to establish the priorities of their HH and NHH customers. This chart gives an aggregate view of priorities for the whole region.

The environment isn't a top concern - but it's growing and customers want it addressed

Interest in the environment and climate change rose markedly between PR14 and PR19 (Blue Planet effect), and more recent research suggests it's a growing concern.

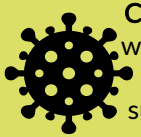
It's just not something I would ever think about. HH customer

In rural settings, maintaining land and managing the pollution of water courses is a key priority

However, it still isn't top-of-mind:

1. It's too large an issue to contemplate
2. It's too hard to predict
3. There's no clear link between water co' actions and the environment

Customers do however want water co's to be planning for the impact of climate change and building a long-term, sustainable supply. And when fully-considering the issue, customers feel they have some part to play in this.



COVID-19: During the pandemic, 16-34s were more likely to use extra water, especially for recreation. This challenges the normal assumption younger customers care more about the environment and again, suggests the link between water and the environment/climate change isn't clear in customers' minds

My gut reaction is for the next generation we should be doing everything we can. NHH customer

In Wales, especially in areas of high biodiversity, customers place a high value on Wales' natural assets and want to see this local resource cherished

Sources: HD2, HD13, SS4, ST1, ST9, ST17, UU1, DC2, DC4

Appearance gives reassurance and seems more important than taste, smell or hardness

- Customers are particularly sensitive to changes in appearance (given the vast majority drink tap water)
- Customers aren't willing to accept any discolouration - it signals to them water may be unsafe to drink or use (expect for flushing toilet)
- However, a change for a few hours is acceptable. Most issues resolve themselves within this timescale

APPEARANCE

- Customers appear to be less sensitive to changes in taste and smell (and are less likely to contact water companies about such changes)
- And there's little appetite to pay more to resolve taste/smell issues
- However, taste and smell may build longer-term negative perceptions and is a particular issue when customers move supply regions

TASTE / SMELL

- Hard water is raised spontaneously by a vocal minority, but doesn't seem to be a widespread issue in the region
- Where it exists, it can cause dissatisfaction e.g. there's empirical evidence of complaints around limescale in kettles
- Although there are signs hardness doesn't affect overall customer satisfaction scores

HARDNESS

I'm sick to death of replacing kettles, washing machine, because of the super super hard water.
HH customer

Sources: HD8, SS2, SS4, SS6, SS8, ST2, ST9, UU6-8, UU14, DC1

NB: The vast majority of HH and NHH seem to go back to using water as before after water quality or aesthetic incidents

Messaging: It's important to inform customers (HH and NHH) directly about variations in water quality immediately (text and email). They want to know the cause, actions taken and likely duration. A banner on a water company website is also welcome. Indirect communication via local news is less useful

Leakage is highly emotive – reducing it is customers' favoured demand solution

Leakage reduction is a "no brainer" and a "non-negotiable":

- It's seen as "careless", "wasteful", "shocking", and "immoral"
- It has a positive environmental impact
- (To those who've witnessed it) it's very visible
- (To NHH) it suggests water co's are inefficiently-run businesses

Reducing leakage is also a **pre-requisite for building authority to talk about water efficiency** (WE). Customers expect there will be a combination of repairing pipes (reactive) and replacing infrastructure (proactive)

We cannot afford to lose water. Thousands of gallons can be lost. We are all encouraged to use less so if leaks are not repaired it is all to no avail.
HH customer

As such, customers like the idea of ODI and incentives related to leakage reduction. But **customers would like water companies to go even further** than current commitments

They perform well against that, but it's a terrible target isn't it. I'm shocked at the amount of water that gets wasted each day.
HH customer

COVID-19: Recent research shows customers still want companies to go further, with 20% reduction in leakage seen as ideal

Sources: HD10, SS1, SS4, SS%, ST1, ST7, ST8, DC2, DC4 , UU12

Few customers engage with WE

- Most customers **use water freely with little thought,** but agree they could do more to use less
- Most **aren't actively taking steps to reduce their consumption** but neither are they deliberately wasteful

When you use water you need to wash your clothes and you need to have a bath and you need to brush your teeth. You never just leave the tap on and walk off and forget about it on purpose. Whereas you might leave the light on and just think, "I can't be bothered."
HH customer

MOTIVATORS

- **Saving money** is the main motivation (however this only applies to metered customers)
- The environment is only motivating for those already environmentally-engaged

BARRIERS

- There's **little evidence customers appreciate why they need to save water**
- There's **no financial incentive for unmetered** and a perception that "water is cheap"
- Customers would rather water companies reduced leakage than they change behaviours

The only way people are going to use less water is if their bills get bigger
HH customer

COVID-19: Customers became more conscious of consumption over the summer. But behaviours and attitudes to WE didn't fundamentally change

Messaging: Green messages can work for families but need wider support from ambassadors and should adopt the language of plastics e.g. "single use". Use terms that customers understand (e.g. "bathtubs") not abstract (e.g. "mega litres")

Sources: HD1, SS1, SS2, SS3, ST7, ST11, ST13, ST16, UU1, UU5

Customers want WE devices and education but research suggests this may not be enough

They're not really promoting that you need to save the water. They've not really gone out there and touched the public about the whole issue.
HH customer

Messaging: Customers want proactive comms about how to save water (especially low effort/maximum impact actions)

Education

- Limited knowledge of need to save water
- **Customers want to know more about how to save water**
- Want water co's to take a lead
- School visits are viewed very positively as a way to engage the young

Devices

- Limited awareness of free WE devices
- Favour "fit and forget"
- However, a field trial shows **devices and audits have limited impact on consumption** (short-lived and confined to those already using less water i.e. older customers)

COVID-19: Under 35s were the highest users over the summer, especially for recreation, and least likely to say "I do all I can to save water"

Pre-family = hard to convince	High consumption, little incentive to save water i.e. unmetered. Env. messaging and highlighting consumption could have most impact

Families = engage through children	Highest consumption and tend to prioritise own needs. Do engage in recycling so mirroring language might work

Empty nesters = most receptive	Like idea of minimizing "waste", but already lowest consumption. Interested in innovative ways to "save or preserve"

Sources: HD1, HD6, SS2, SS4, SS5, SS7, ST4, ST1, ST12, ST16, UU1, UU4, UU5, DC2, DC4

Customers prioritise metering more when they understand the whole picture

Metering isn't a spontaneous priority

Customers install them primarily to save money, but also to monitor their usage. Environmental concerns or spotting leaks are less motivating.

Highest interest in metering among more affluent households

Low interest among future/shared bill payers (who like predictable bills for easy splitting)

There are several barriers to metering:

1. FEAR OF INCREASED COST
Suspicion meters are a way to increase bills, especially if compulsory

2. UNCERTAINTY
Most HHs have never had a meter so taking one would be a leap into the unknown

3. LACK OF KNOWLEDGE
Little awareness of two-year reversions or bill guarantees in place

However, when fully evaluating all supply and demand options, metering comes out on top

Mainly because it's a long-term solution, it saves money, is environmentally-friendly, and it encourages personal responsibility.

I think they should promote meters. You see a lot of waste at home because I'm not on a meter and I think if I was…I would think twice about what I was using. But I'm not sure if it's just the tariff going up for not being on a water meters at home that I'm seeing a price difference compared to the business.
NHH customer (Café)

COVID-19: The most recent research shows a growing interest in smart meters – framed by the energy market. Potential to track usage more closely is most appealing to younger customers.

Sources: SS2, SS3, SS4, SS5, ST1, ST7, ST8, DC2, DC4, UU5, UU16

Customers assess whether interruptions are acceptable by several criteria

1. TYPE OF INTERRUPTION

Low pressure is more acceptable and not considered a major issue (especially when rebates are available) compared to no water at all

2. CAUSE

Interruption arising from natural events are more acceptable than failure because of ageing assets or poor maintenance

3. FREQUENCY

Shorter, more frequent interruptions (12hrs every 2 months) are more acceptable than longer, less frequent (3 months every 10 years)

4. DURATION

An interruption of 3-6hrs is manageable but 8-12hrs has a bigger impact, and over 24hrs is unacceptable

5. SIZE

Willingness to pay for fewer HHs affected is higher than to reduce average resolution time

6. CRITICALITY

Even short-term water deprivation can have huge implications for high water dependent NHHs or vulnerable HHs

Messaging: Multi-channel communication during interruptions is vital. As with aesthetic incidents, messages should reassure customers around cause, resolution, and available support. This should be direct comms to all customers and website banners (younger customers would initially search online).

Sources: HD9, HD13, ST2, ST8, UU11, UU15, UU16, DC1

COVID-19: The pandemic made no difference to how customers want to be communicated with in the event of an interruption

Customers are largely relaxed about current levels of restrictions

People may get the hump, because they won't be able to use things how they want to, but I don't think it would have hardly any impact.
HH customer (commenting on TUB)

There's **little willingness to pay more to reduce** these levels further

Many have **little direct experience of restrictions** e.g. last severe restrictions (standpipes) in Wales were 1976

It seems far away, it's quite an unlikely scenario really.
HH customer (commenting on emergency drought order)

NHH and vulnerable customers who are very dependent on water are less relaxed about restrictions

If we didn't have water for certain parts of the day we'd have to close.
NHH customer (Hotel)

Perceived **abundance of water in the region** means customers seldom worry

Customers are **broadly happy with current service levels** (no matter what levels were tested qualitatively*)

Acceptable levels	TUBs	NEUBs	Drought order
UU	Once a year	1 in 10 years	1 in 20 years
SS	1 in 40 years	1 in 80 years	Not covered
DC	1 in 20 years	Not tested but relaxed about restrictions given lack of direct experience and heavy rainfall	
ST	1 in 33 years	1 in 33 years	1 in 200 years

* This suggests further research may be needed to assess customers' true tolerance for different service levels

Sources: SS2, ST1, UU15, UU16, DC1, DC2

Supply

Customers evaluate supply-side options by cost, sustainability, and the environment

When actively involved in the decisions, customers evaluate source options by four questions (*in no particular order*):

Does it encourage responsible use of water?

They favour options which **encourage customers *and* water co's to use water responsibly**

Is it long-term and sustainable?

They want to **avoid short-term fixes**

They favour **lower risk** i.e. several smaller sources rather than one larger one

Does it offer good value for money?

They favour **value over lowest cost**

They favour **the middle ground** – investing for the future, but not too much that might not be needed

Does it harm the environment?

They favour minimising damage to the environment if it can be avoided

Sources: SS1, ST1, ST5, UU1, UU17, UU18, DC2, DC4

For supply solutions, customers favour reservoirs or water trading/transfers

MOST FAVOURED → LEAST FAVOURED

Reservoir storage	Water transfers/trading	Groundwater abstraction	Wastewater recycling	River abstraction	Desalination
•Popular for reliability, low environmental impact (if using existing) and cost •But reopening old reservoirs seen as expensive and high env impact	•Sensible to share resources as long as donor region doesn't suffer •Inexpensive •Less-favoured when travelling longer distances (environmental damage, cost, and greater reluctance to share)	•Comfortable if using existing bore holes •And surprisingly cost-effective •But seen as environmentally-damaging to build new	•Assumed already done •Some taste concerns but trust water co's on safety •Less support if called "effluent re-use" and when consider chemicals used	•Very expensive, hard to deliver, env impact •But seen as good investment in future sustainable supply	•Very unpopular option once costs and environmental impact are considered

Why don't you just pump it into the existing reservoirs? You don't have to open up other disused reservoirs… Surely that would be the cheapest option .
NHH customer

Welsh customers favour sharing water WITHIN Wales (making the most of a natural asset) but are less positive about sharing further afield

Very unpopular in ST region – seen as a short-term fix and putting pressure on stressed rivers

I notice when the reservoirs are low, and the rivers, and I think what a shame. It stops your environment and nature, the beauty. It's upsetting and you want to do something about it.
HH customer

Sources: HD12 SS1, SS7, ST1, UU15, UU16, UU17, DC1, DC2, DC4

NB: Each water co. used a different methodology and compared different sources to establish preferences. While not possible to give a quantitative aggregated view, we are able to pick out a general pattern of views across the qualitative research.

3. Customers' willingness to pay (quantitative)

Willingness to pay: quantitative analysis

- The quantitative analysis uses the Business Plan and Water Resource Management Plan customer research from the five companies to produce an overall value for interruptions, taste and smell / discolouration, and restrictions on use.
- These results can be used to assess future projects / programmes for water resources.
- The results are consistent with the qualitative analysis:
    - High value on water aesthetics compared with short-term interruptions.
    - Low value on reducing hosepipe ban frequency
    - High value on restrictions linked to extreme drought e.g. standpipes.
- The full report also considers whether to attribute different values to different water source types. It recommends that no value be attributed as this would overlap with other valuations for water supply reliability and aesthetics, and impact on the environment.

Impact on service	Central estimate
Interruptions to supply – per 6-hour interruption	£337
Taste and smell / discolouration – per contact	£1,614
Restrictions on use – value per 1% change in risk per customer	
Temporary Use Bans (hosepipe bans)	£2.41
Non-essential use bans	£2.41
Drought permits	£2.96
Extreme drought measures	£47.94

Appendix

Sources used in our qualitative analysis

HAFREN DYFRDWY

HD1: Customer needs deliberative research, Oct-Dec 2017

HD2: Customer needs co-creation, Nov 2017

HD3: PR19 Stakeholder research, Dec 2017

HD4: Customer priorities research, Aug-Sep 2016

HD5: Acquisition of Dee Valley: customers' reactions and views, Apr-May 2017

HD6: Customer satisfaction tracking research (Dee Valley), Sep 2016-Mar 2017

HD7: Customer satisfaction tracking research (Mid and North Wales), Jan-Feb 2018

HD8: Valuation research – willingness to pay, Oct 2017-Jan2018

HD9: Asset health and resilience research, Apr 2018

HD10: Performance commitments, investment choices and incentives research, Apr-May 2018

HD11: Acceptability research (wave 1 and 2), June 2018

HD12: Water Trading report, July 2018

HD13: Customer Needs – Wales Pen Portraits, Jan 2017

SEVERN TRENT

ST1: Strategic Challenges - Supply and Demand, Oct 2017

ST2: Strategic Challenges – Resilience, Oct 2017

ST3: Water Trading report, July 2018 (same as HD12 and UU18)

ST4: Tap Chat – water efficiency campaign, June 2018

ST5: Real Options approach – deliberative research, July 2018

ST6: Real Options approach – quant research, June 2018

ST7: Customer needs research and co-creation – Oct-Dec 2017

ST8: Customer needs – future customers and shared/non-direct bill-payers, Oct 2017

ST9: What Matter to You (Tap Chat discussion), Mar-May 2018

ST10: In house consultation with 100 ST stakeholders, Dec 2017

ST11: Marketing plan focus groups, Feb 2017

ST12: Customer satisfaction tracker survey, Jan-Mar 2018

ST13: Needs of large developers, May 2018

ST14: Choices research – depths with large NHH customers, June 2018

ST15: Best in class customer service and experience, Oct-Dec 2017

SOUTH STAFFS / CAMBRIDGE WATER

SS1: WRMP19 main research report – qual and quant, Oct 2017

SS2: WRMP customer engagement paper - customer research findings summary

SS3: Metering research, July 2017

SS4: PR19 Foundation Research (customer priorities, 2017)

SS5: H2Online HH customer community feedback

SS6: PR24 Customer Priorities Tracking (qual), Oct 2020

SS7: Segmentation study, April 2018

SS8: Water Quality Review, March 2021

DWR CYMRU

DC1: Willingness to Pay qual

DC2: WRMP Qual

DC3: WRMP Qual and Quant

DC4: WRMP full final report

DC5: WRMP cog testing (quant qre) report

UNITED UTILITIES

UU1: YourChoice customer priorities , June 2016

UU2: YourChoice customer priorities, June 2016

UU3: Service valuation for PR19 WtP, June 2017

UU4: Water Efficiency research, Feb 2018

UU5: Synthesis of water efficiency research, Nov 2020

UU6: Customer research into the impact of Lancashire water quality incident, October 2015

UU7: Customer research into the impact of Lancashire water quality incident, Jan 2016

UU8: Tameside water quality incident, Jan 2016

UU9: Manchester and Pennine resilience study, Dec 2017

UU10: Household long term supply interruptions – immersive research, July 2017

UU11: Non-household long term supply interruptions – immersive research, Oct 2017

UU12: Leakage reduction (WtP), June 2017

UU13: Safe, clean drinking water, Aug 2017

UU14: Drinking water taste, smell and appearance, July 2017

UU15: Short term interruptions to water supply, Sept 2017

UU16: WRMP qual – stage 1, Aug-Sep 2016

UU17: Water Abstraction research, Jan-Feb 2018

UU18: Water trading research, July 2018 (same as HD12 and ST3)

Quantitative studies or those with quantitative elements are labelled in red