CONSUMER COUNCIL FOR Water

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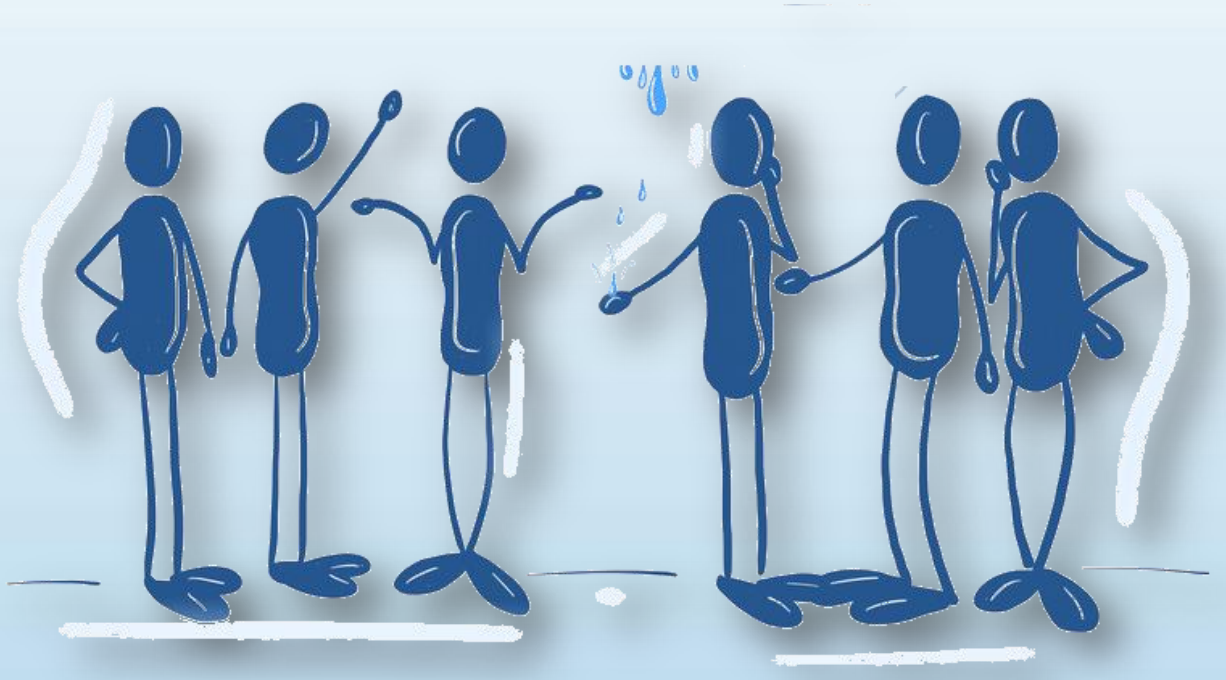
Water saving:

Helping customers to see the bigger picture



community research

On behalf of CCWater

October 2017

1. Foreword

Water companies, along with numerous other organisations including CCWater, have been promoting water efficiency for many years. We all tend to focus on the simple "top tips" for using less water in our consumer messaging but have struggled at times to make the messages stick and have a lasting impact. Indeed, we still have comparatively high per capita consumption of water even in some of the areas already experiencing serious water stress.

Work commissioned by Water UK last year highlighted the huge challenges facing the water sector when it comes to future water resources. In particular, the ability to maintain reliable water supplies that consumers generally take for granted when faced with significant impacts from climate change and population growth. It also brought into sharp focus the urgency and therefore need for action to be taken now to address these future challenges.

The vast majority of consumers are completely unaware of this situation. Indeed there is a widely held view that we get plenty of rain and are surrounded by water, leaving many presuming that there isn't a problem or at least not one that can't be fixed by "those in charge". Few people, even amongst those that profess to care about the environment, have little understanding of the link between the natural environment and the water they use in and around their home. Only those on a water meter who want to save money seem to have any clear stated purpose for saving water, for others it's simply not something they believe they need to think about.

This research explores ways that might help us to change people's perceptions and in doing so make them more receptive to water efficiency messaging and thereby more likely to adopt water efficient habits and behaviours. First and foremost consumers need to understand the big picture. By explaining the future challenges and their implications, what the sector is doing, and what we as consumers can do to help, we can set a framework and the context for a more persuasive conversation about why our water use matters.

This research does not fully explore the detailed messaging or the channels of communication that should be used but suggests some broad themes and topics. It's clear that setting out the big picture before diving into the detail increases the effectiveness of water efficiency messages. This research gives us the confidence to believe that it is possible to engage meaningfully with the public on these issues with a combination of factual, targeted information and a compelling call to action.

It also supports the call in the Water UK report, and from others, for a more consistent approach to water efficiency communications for the sector which

could support local initiatives and campaigns. We have done this with some success during times of drought but the long-term nature of the challenges means that water efficiency should be a priority at all times. We will be talking with our key stakeholders over the coming months to look for opportunities to work together to deliver more effective customer communications and engagement on these issues in the coming years.

Dr Mike Keil
Head of Policy and Research
Consumer Council for Water

2. Executive summary

In June 2017 Community Research, on behalf of The Consumer Council for Water (CCWater), conducted four day-long deliberative workshops in London, York, Neath and Norwich with 93 water customers to explore attitudes towards the future supply of water. Participants were shown information about a wide range of issues affecting water supplies now and in the future in a variety of formats and their views on these and the impact of different messages was explored.

The degree to which people profess to care about water and the environment does not always align with their water use. Given the huge range of factors contributing to people's attitudes and behaviour in relation to water, this is perhaps not surprising. Concern over cost (for those with a water meter) and attitudes to waste more generally, appear to have a greater impact on current behaviour than environmental concerns about water resources.

The future of water supplies is not an issue that is top of mind for most water customers and consumers. Their views on the long term supply of water are largely shaped by their lived experience. Although they hear about issues such as climate change and population growth, they rarely connect these with water supply. The fact that they don't currently experience issues with their water supply; they think of the UK in general and their own local area in particular (wherever they live) as getting plenty of rain; and they see evidence of water being wasted by water companies via leaks, leads them to assume that any issues (if they are aware of them at all) cannot be that serious. Many are therefore shocked to understand the scale of the potential challenges the water sector faces.

Of all the different messages and information that were shared during the workshops, a few stood out as particularly impactful in terms of getting people to start thinking about the longer term availability of water supplies:

- The fact that unless things change, by 2050 demand for water could outstrip the amount of water available by up to 22%[1].
    - The scale and timescales were alarming to many – even the few people who had known there might be issues with water supply in the future were surprised at how quickly they might be affected.
- The fact that more frequent and heavier rainfall events would not necessarily result in increased water supply.
    - Learning that rainwater could not always be captured and stored made many people rethink their existing views (that we get so much rain there

[1] http://www.water.org.uk/water-resources-long-term-planning-framework

can't be a problem), but it also led them to question why solutions had not yet been found.

- The rate of population growth.
  - Although people were aware of increasing population, they were shocked to realise how quickly this was happening. They made the link to the likely increased demand for water and the current forecasts for available water supply, and so this information really hit home.
- The amount of water lost to leakage.
  - The perception that water companies were losing large amounts of water at the same time as asking customers to use less was galling for many.
- The amount of water used for household needs: particularly toilet flushing.
  - People consistently underestimated overall household use and were shocked by the amount used for daily, frequent uses such as toilet flushing (30% of overall household consumption) and felt people should be more aware of these figures.

People have an expectation that water companies (and government) will do what is necessary to 'solve' the issue of future water shortages for them and in this research were broadly accepting of the need to pay for the investment this requires. They also in general accepted the need to have their behaviour 'nudged', for example via water meters. However, it was seen as important that water companies informed their customers of why this was necessary and were transparent and open about their investments and the progress made.

A focus on messages that raise awareness of the bigger picture (i.e. on what the problem is and why it matters) rather than simply suggesting ways of changing individual water use behaviours may help to get better engagement from water customers and consumers. Getting the bigger picture message across is a vital starting point. As it stands, people who are saving water often do not have a clear understanding of why they are doing so unless it's to save money - they just know that they are 'supposed' to. Additionally, most people have not previously thought about the impact of water shortages beyond their own daily use.

Messaging around *why* their behaviour matters, could help to make messaging around *how* to change their behaviour resonate more effectively. This is needed to help people understand the problem and the implications, and to understand why they are being asked to consider their water use. At the very least, if people have a better understanding of why they are asked to reduce their water consumption, they may be more receptive to such messages. Perhaps more importantly, they may also be more open to (or indeed even expectant of) their water companies (and other actors) investing in solutions to these issues, and the bill impact that may come with this.

Rather than focussing on individual messages about the bigger picture, it will be important to present the key impactful information all together in an engaging, coherent and structured way so that people can join the dots between population growth, extreme weather and the potential availability of future water supplies. Together this supports the over-arching big picture message which is about a potential shortfall of water by the year 2050. This over-arching message, concentrating on the scale and immediacy of the problem will help to make it seem more real to people. Ultimately, this 'real-ness' is what is most likely to be engaging for water consumers, creating a more open frame of mind towards water saving messages.

3. Background and objectives

The long-term resilience[2] of water resources and water supplies in England and Wales is currently one of The Department for the Environment, Food and Rural Affairs (Defra)'s focuses.[3] To help inform Defra and the National Infrastructure Commission, in September 2016 Water UK published the "Water resources long-term planning framework" study to look at the picture for public water supply in England and Wales in the context of climate change, population growth and the need to reduce water abstractions to protect the environment. It took a longer term (50 years) perspective than current water company Water Resource Management Plans (25 years).

Amongst the Water UK key findings are:

- A significant and growing risk of severe drought impacts arising from climate change, population growth and environmental drivers in the South and East of England;
- Even water companies whose Water Resource Management Plans anticipate no deficit or surplus against planning standards, and being resilient to the worst historic drought on record, still run a 12% chance of seeing a drought event over a 25-year planning period.

The Consumer Council for Water (CCWater) wished to build on this research. They sought to look at how communication with customers and consumers around water resources issues, the pressures on available water supplies and strategies for addressing these, including the need for water saving, should be framed in the present and longer term resilience context. They aimed to identify how attitudes to water resources, water supplies and water use could potentially change in response to different approaches used to explain the resilience context, and how messaging (including the language used) and information campaigns might achieve greater customer awareness and understanding.

The overall purpose of the research was to develop a robust evidence base for CCWater to develop its messaging and communications to customers on water saving and resilience, and to help CCWater in its role as the consumer expert to provide good practice and lessons learned to water companies, and other potential partners/stakeholders.

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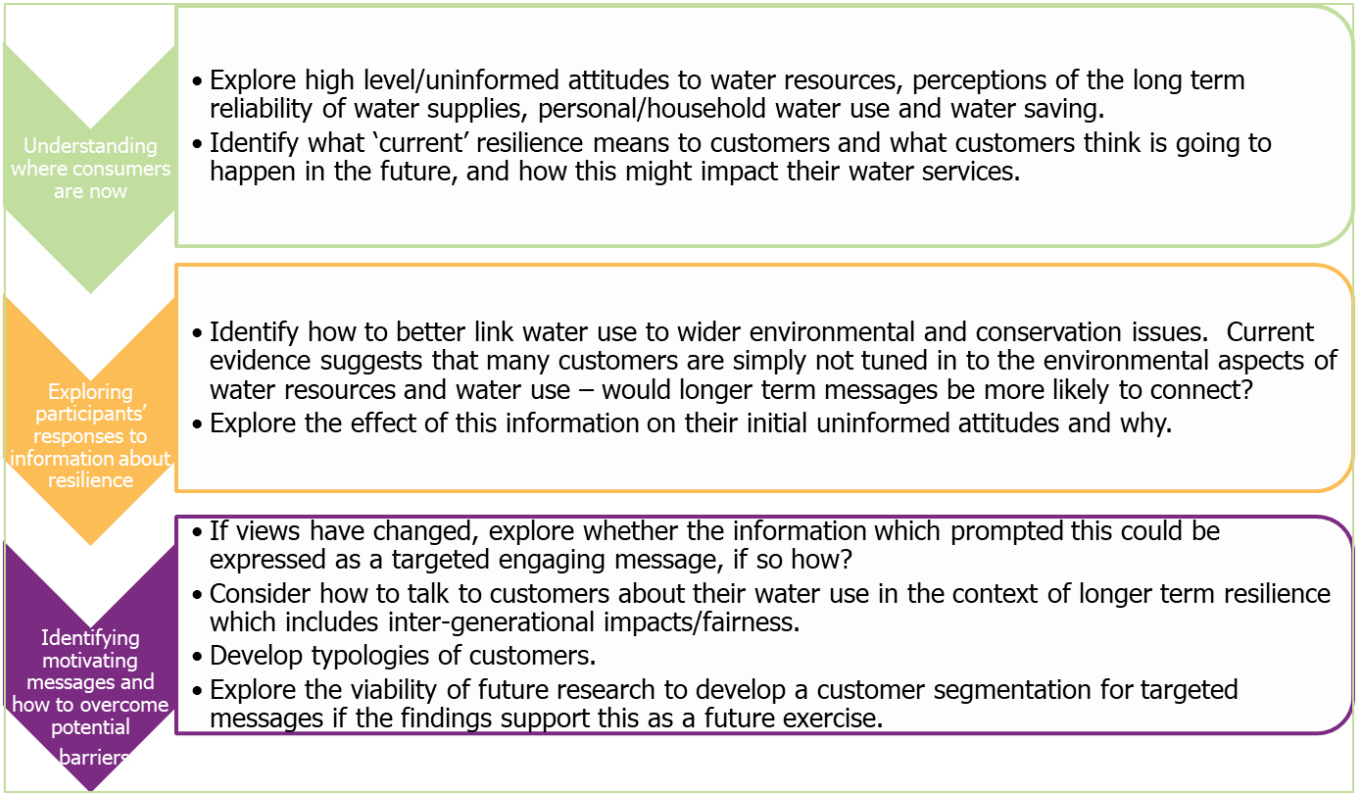
[2] Throughout this report, where the term 'resilience' is used, this is short-hand to refer to resilience of water supplies.

[3] See: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/504681/resilience-water-sector.pdf

The full set of research objectives are outlined below:



4. Methodology

Community Research, an independent research consultancy, was commissioned to conduct a two-phase piece of research:

1) **Secondary research** in the form of a rapid literature review.
2) **Primary research** in the form of deliberative research with water customers.

Literature review

In March 2017 Andrew Darnton conducted a focussed piece of desk research, reviewing 37 reports that looked at existing research insight on customer engagement with water, water saving behaviours, and water resilience. The purpose of this exercise was to inform the primary research in terms of sample design and stimulus development.

The summary report can be found in Appendix 1.

Deliberative research

The bulk of the research consisted of face-to-face deliberative workshops. This format was chosen as most appropriate for delivering complex information on a subject matter that generally has low engagement and low awareness amongst the general public. Community Research conducted four day-long workshops with household water customers across four locations in June 2017. Each workshop consisted of 22-25 people (93 in total) mixed by demographics and whether they were from a household with a water meter or not.

Locations

The four locations were chosen to represent some of the larger water companies (and a wider geography), to cover both water stressedand non-water stressed areas, and to ensure some location specific issues were explored:

Location	Water company	Water stressed	Location specific points of difference
London	Thames Water	Yes	Universal metering in parts
York	Yorkshire Water	No	Area hit by flooding
Neath	Welsh Water	No	Not for profit water company
Norwich	Anglian Water	Yes	Agricultural area

Sample

Participants were recruited to ensure representation from a range of different types of water customers (including some non-bill-payers[4]), including age, gender, life-stage, socio-economic background, as well as a mix of metered and unmetered customers. Please see Appendix 2 for further details of the achieved sample make-up.

On recruitment, participants were asked how much they agreed with a number of statements that related to their attitudes and beliefs about water and the environment. The intention of this was to split participants according to their attitudes (i.e. group like-minded people together) to see how and if there were any differences in views. However, at the first workshop in London it became apparent that this exercise did not work – participants' attitudes did not seem to match their (claimed) environmental and water related behaviours or indeed their overall views about the future of water supplies. We therefore split participants at random at the remaining three workshops, but attempted to identify typologies from discussions (see section 5.1.3).

The recruitment materials can be found in Appendix 3.

Approach

Each workshop consisted of a mix of small group discussions at tables (of around 8 participants) facilitated by a moderator and information provided from the front via quizzes and animations. They each followed the same format, although some of the information provided was tailored to be region specific. Broadly, the discussions covered:

- Responses to a range of past messaging on environmental related issues e.g. recycling, energy and water use.
- Spontaneous discussions during which current attitudes and behaviours in relation to water and the future supply of water were explored.
- Five short sessions consisting of information provision followed by participant responses to:
  - The water cycle and the impact of water shortages.
  - The impact of extreme weather conditions.
  - The impact of population growth.
  - The impact of household consumption.
  - Water company actions.
- Individual questionnaires and small group exercises where participants developed messages for others

The full agenda and stimulus materials can be found in Appendix 4.

[4] We have referred to participants as water customers throughout as they were all using the water service even though some were not directly paying for it.

Participants' views were captured in the following ways:

- Audio recordings of table discussions and note taking.
- Pro formas completed by participants.
- Live graphic capture by a graphic note-taker at two events (York and Neath.) Illustrations captured are used throughout this report to amplify and visualise our findings, with the first example below:

Context

During the fieldwork period, some events and / or media stories took place which may have impacted on participants' views:

- All workshops were conducted during an extended heatwave with temperatures much higher than usual.
    - In Norwich there were also some bursts of heavy rain (these took place at almost exactly the same time as the discussions about extreme weather conditions!)
- Thames Water's fine for missing its leakage target was announced after the London workshop had already taken place, but prior to the three other sessions.
- There were forest fires in Portugal during the second week of fieldwork (in Neath and Norwich.)

5. Attitudes, behaviours and reactions to information

5.1 Existing attitudes and behaviours

This section details participants' spontaneous views on water and water supplies before they were provided with additional information.

5.1.1 Attitudes to water

There were a number of factors affecting how people felt about water; while we have separated these out, many of these overlapped to reinforce views:

- Cost
  - Many (but by no means all) of those who were on water meters felt differently about water and their water use because of the direct impact this had on their bills. They tended to think more about how they used water and were more likely to have made an effort to conserve water.

    "With a meter I feel like I'm watching all the time. My son likes a bath, he now has a shallow bath. I can't fill paddling pools." Neath
  - However, even amongst those on water meters, compared to other utilities, water bills tended to be relatively affordable, so this was not always a strong driver of attitudes.

    "Water is not constantly there, not consciously there [in your mind], like gas and electricity. It's the lowest bill and you're not comparing prices." York
- Attitudes to waste
  - A sizeable number of participants, whether or not they were on a water meter and regardless of whether they had concerns about the future supply of water, had a 'waste not want not' attitude to water. Because they disliked waste in general, they were careful not to use water 'recklessly'.
  - By contrast, there were some participants who were of the view that, because they were not on a meter and so their consumption levels had no impact on their bills, or in some cases because they were on a meter and therefore they could choose to spend their money how they liked, they could use as much water as they wanted to.

    "I'm reckless with it and feel it's mine to be reckless with." Neath

- Attitudes to the environment
  - In all workshops there were some participants who were concerned about water consumption in relation to the environment. They were aware that they were 'supposed' to use it carefully for environmental reasons and / or because there might not be enough water to go around for future generations; although many did not have a clear understanding of the reasons for this.

    "We all know that we're supposed to save water." Norwich

  - However, there were others who, although they said that they were careful with their energy consumption and tried to behave in an environmentally friendly way in other spheres (e.g. recycling), did not necessarily see water consumption as being on a par with other environmental causes, often because

they did not make the connection (and sometimes also because there was no added incentive to make environmentally friendly choices – see below).

These people often felt that water simply could not run out because it was cyclical (a 'water cycle') and therefore never-ending.

"It's all going back into the system." York

"If we run out of energy, the lights will go out. This won't happen with water. It will always be there because it falls out of the sky." York

Even some of those who were concerned about climate change felt that this was not relevant when it came to water.

"With the ice caps melting, there might be more water, not less." York

- Water as a necessity in life
  - Some participants strongly felt that because water was a necessity in life, it shouldn't be rationed. Whereas it was possible to live without gas or electricity, the same could not be said for water and therefore they felt it should not be considered in the same way as other utilities.
- Health / hygiene
  - Participants often associated their water use with levels of cleanliness and healthiness and were concerned that reducing their water consumption might negatively impact on this.

"You're told to use bath water again, but that's disgusting." London

When it came to how people felt about water use or conserving water, it became clear that unlike energy saving or recycling, both of which were widespread behaviours across the workshops, reducing water consumption was not an established social norm. Participants acknowledged that while they were happy to behave in ways that benefitted the environment, their behaviours were also linked to other factors. For example, reducing energy consumption was strongly driven by cost savings, whilst recycling had often only become a habit when local councils made it harder not to do it (for instance, not providing enough bins or collections thereby 'forcing' them to recycle). Using water carefully was simply not top of mind for most people as the triggers for engagement and behaviour change were not as strong as for things like energy and recycling.

Image by thinkingvisually ● @thinkingv

5.1.2 Water behaviour

Attitudes to water did not always match people's claimed behaviour when it came to how they said they used it. Again, there was a range of overlapping factors which impacted on people's water related behaviour:

- Habit
  - Most participants acknowledged that their water use was rarely conscious and that because so many of the activities that use water were engrained habits, they simply did what they had always done without thinking about it.
  - However, some of them had consciously made some small differences, often prompted by wanting to cut their water use or energy bills or by the children in the household bringing home information from school. For example, not leaving the tap running when brushing their teeth or only filling the kettle with as much water as needed, and had managed to make these habits stick.

    ""I saw something on TV about how much water you lose brushing your teeth. So I stopped that. I just use a little bit and turn it off." Neath

- Convenience
  - Related to habit, people admitted that they just wanted to do whatever was easiest, and didn't want to have to make an effort to reduce their water consumption. For example, letting a hose run to water their garden, rather than filling a watering can from a water butt.

- Knowledge
  - There was some confusion about which behaviours were the 'right' behaviours when it came to using water carefully, for example, whether it was better to use a dishwasher or wash up by hand, or what setting on the washing machine used less water. Related to this, some participants were not aware of the ways in which they could reduce their water consumption or did not realise when they were using an excessive amount of water, having lengthy power showers because they thought they were doing the right thing in not having baths.

- Pleasure
  - People sometimes used water as an indulgence, for example, by having deep baths or long showers, or letting their children play with sprinklers or in paddling pools. While they recognised that these activities could use a lot of water, they were thought of as simple pleasures that they were reluctant to give up.

    "I love a deep bath and watering the garden twice a day." Neath

- Other members of the household
  - Some participants felt that while their own water consumption was reasonable, other people brought the overall household consumption levels up, for example teenage children having lengthy showers, spouses watering their gardens etc.

    "I won't get a meter while my daughter is still at home [because of her long showers]!" Norwich

- Health / hygiene
  - People's feelings about water being tied up with cleanliness and healthiness did align with their behaviours, for example, people often had multiple showers in a day or washed clothing that did not necessarily need it, because they did not want to be seen as or feel dirty.

    "There's all these gadgets now, and personal hygiene. We used to wash once a week now everyone's having two showers a day." Neath

    "I'm a two shower a day person. One to wake me up in the morning, one to wind me down at night." Norwich

5.1.3 Water typologies based on attitudes to water

As was observed through the mismatch between participants' attitudes and their (claimed) environmental and water related behaviours during recruitment of the first workshop; attitudes to water don't always align with water related behaviours. This cognitive dissonance is by no means unique to water. Recent DECC sponsored research[5] found that those who say they are concerned about

[5] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/326075/Electricity_Survey_2_-_Savings_beliefs_demographics_150514.pdf

the prospect of climate change, actually consume more energy than those who say it is "too far into the future to worry about".

Nevertheless, we have been able to develop some different 'types'[6] – i.e. groups of customers, based on how much people (claimed to) care about water and how carefully they used it. We found these different types of people amongst participants from all different demographics in terms of age, gender, social background etc.

Typologies are most effectively used in communications campaigns i.e. for targeting tailored messages to the different segments of the population who attitudinally are most likely to engage and respond to the message specifics. They are less useful when very general or broad brush information or messages are needed to create a level of awareness from a very low baseline. These typologies could therefore be effective for targeting specifically designed water use messages tailored for different types of water users / attitudes as and when these consumers are open to such messaging.

The eight types of water customers (see Figure 1) we identified can be arranged across a simple grid, in which attitudes to using water are set against reported levels of water saving (or wasting). This conceptual arrangement – of attitudes versus behaviours – somewhat goes against the segmentation models and typologies gathered together in our rapid literature review (see Appendix 1). In that existing literature, there tends to be an assumption that water behaviours align with water attitudes, which in turn flow from broader environmental attitudes – see e.g. Creative for Ofwat 2011.

By contrast, our field research found that behaviours did not neatly align with attitudes, a finding closer to e.g. Artesia for UKWIR 2016[7], which found that behaviours could not be predicted by attitudes, but a far wider basket of environmental and contextual factors was also in play. Our research suggests that water using behaviours – even self-reported behaviour – cannot be neatly predicted by attitudinal factors, or indeed by socio-demographics, or even daily patterns of water using (as in Artesia 2016's classification by day-part: 'early risers' etc.).

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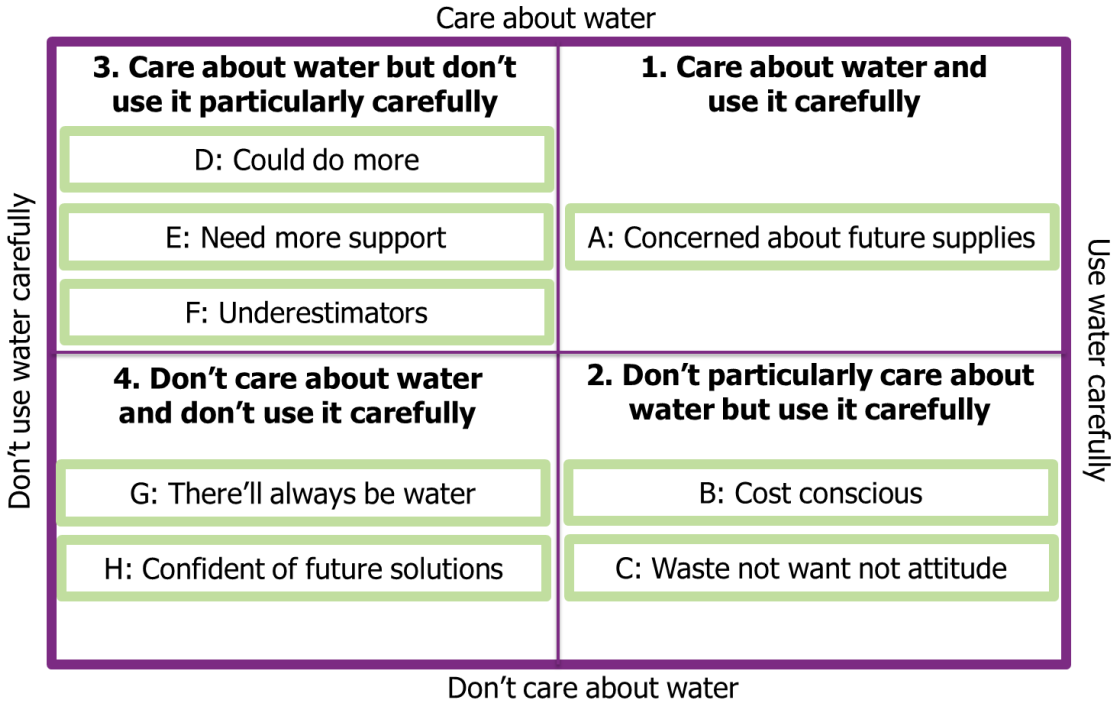
[6] For the purposes of this report, we are distinguishing these 'types' from a robust segmentation. Segmentation is a quantified approach for defining and measuring subsets within a given population. A typology is much looser and as it is based on qualitative exploration and observation, does not provide clear measures or proportions of the population

[7] Artesia (2016). Integration of behavioural change into demand forecasting and water efficiency practices; Report and Appendices. Artesia for UKWIR.

To an extent these findings are not surprising and can be explained in part by our study's methodology. Put simply, it is rarely the case that segmenting respondents in qualitative research throws up clear differences between subgroups. First, the sample sizes are too small (segmentation was originally developed to subdivide large populations, using broad characteristics). Second, qualitative research tends to build a detailed, and nuanced, picture of individual respondents, and it then can seem implausible when those individuals are allocated to a relatively sketchy or simplified 'type' or segment.

What our study has in common with the existing typologies is that there is consensus that it is hard to predict water using behaviour, across a wide range of behaviours, and the whole population. If a model is required which can show clear variation in behaviour by segment, we would recommend that it focuses on one specific (or at most a few, similar) water using behaviours. However, if the model is required to start a social conversation about water supply and conservation, then attitudes may prove more useful in predicting what messages will play well with which group. If the latter, more attitudinally based approach is taken, and that is certainly in line with our recommendations as set out below - a further dimension to be accounted for is geographic location. As our workshops demonstrated, messages about water supply and scarcity need to have face validity in a given place – usually based on people's experience of the weather in a place, but also based on the perceived performance of the water company in their area, and pricing and metering arrangements. These geographic characteristics will be important if and when any segmentation on water using is put into action.

Figure 1 - Typologies.



As this was a qualitative exercise, it is not possible to quantify exactly how large these different groups are. However, the eight different typologies were present across all workshops. It should also be noted that there is overlap between these groups, with some people falling into more than one group (e.g. being both cost conscious and disliking waste), or others switching typology depending on the water behaviour (for example, being careful about water-use for some activities but not others because of a lack of awareness or restrictions due to circumstances).

Quadrant 1: Care about water and use it carefully

Type A: Concerned about future supplies

The people who fell into this type tended to be those who had concerns about the impact of their water use on the environment or because they were concerned about water running out / there not being enough water for future generations. As a result, they tried not to waste it. Although some people had a solid understanding of why future water supplies might be an issue, others had only a vague sense that they were supposed to use it carefully but were not always clear as to what the bigger picture issues were (e.g. climate change, population growth).

> *"I am extremely careful about water. We just take it for granted don't we… I feel guilty if I leave it running. It's a waste." York*

Quadrant 2: Do not particularly care about water, but do use it carefully

Within this quadrant, there were two different groups whose careful use of water was driven by different factors (N.B. there were some people who fell into both groups).

Type B: Cost conscious (in the home)

Cost was the main driver of careful water usage for these people – they were mostly on a water meter and so tried to use water sparingly in order to keep costs down (there were also some people in this group who were not on water meters but used it carefully when it was linked to their energy consumption e.g. showers, washing machines etc.).

> *"I'm on a meter and I think about it all the time." Neath*

It is worth noting that some of these people did not necessarily use water as carefully outside of their own homes, for example they might take full advantage of 'free' water elsewhere (for example, gyms, hotels etc.)

> *"When I'm in my own home I'm in and out the shower in a minute. I was staying in a hotel down in London at the weekend for a wedding. I must have stood in that shower for fifteen minutes." York*

Type C: Waste not want not attitude

These people did not like to be inefficient with resources at a general level, and this applies to water as well. They did things like have cloth washes rather than showers if they weren't feeling particularly dirty, and made the most of grey water and water butts in their gardens. They did not necessarily do this out of concern about water supplies, but simply because they dislike waste. These types of people aligned closely with Defra's Waste Watcher segment (see Defra's Framework for Pro-Environmental Behaviours, 2011).

> *"I turn the shower on to get wet – I turn it off to soap and turn it on to rinse. I have a game where I let the water that's collected in the base of the shower run out before I put the shower back on." London*

Quadrant 3: Care about water but do not use it particularly carefully

People in this quadrant tended to have some sense that there were challenges facing water resources (although this was often not fully formed), but this did not translate to reduced water consumption. Again, there was often overlap between these groups depending on the behaviour.

Note that some of these types only became apparent through the deliberative process; for most, we suspect that (as with the majority of customers) water use is a low engagement issue. However, through the course of the research they were given information which they found interesting, and which prompted them to reflect on their behaviour. We can conclude from this that the types in this

quadrant are the most likely to change their attitudes and behaviours in response to communications and messaging about water scarcity, conservation (see also our Recommendations below).

Type D: Could do more

This group were (sometimes only vaguely) aware that they ought to be more careful with their water consumption, but for various reasons were not, or felt that they could not. Time pressures, small children and a general lack of motivation meant that they just didn't feel able to prioritise this in their lives. They sometimes admitted to feeling some guilt about this, but it was not an overriding concern.

> *"I have lots of things to worry about so don't want to worry about this so much." Neath*

Type E: Need more support

Despite being concerned about water, some people were not using it as carefully as they could as they were not always sure what to do. For example, they were washing up by hand rather than using the dishwasher or having a power shower and not realising it could use more water than a bath.

> *"It's hard to know if you're saving water or not." Norwich*

Type F: Under-estimators

The final group in this quadrant comprised people who thought they were using water carefully (particularly when they compared themselves with others) but from discussions it became clear that this was not always the case. For example, they would initially say that they couldn't reduce their water consumption any more, for it to emerge via discussion that they showered multiple times a day or ran numerous loads of laundry. This illustrates the highly personal nature of water use, and the different tolerances which people have around what is essential for them.

Quadrant 4: Do not particularly care about water and do not use it particularly carefully

The people in this quadrant were not particularly concerned about the future supply of water and so did not use it carefully.

Type G: There'll always be water

Across all workshops there were people who did not believe that there was any danger of water shortages in the future. They felt that because the water system was cyclical, there would always be enough water and so there was no reason to conserve water. People who were sceptical that climate change was happening often (but not always) fell into this type.

> *"There is no such thing as waste because water always goes back into rain." Norwich*

Type H: Confident of future solutions

These people may have believed that issues such as climate change and population growth were having an effect on water supplies, but they were confident that such issues would be solved before things got too bad – technology or those in charge of the water industry would find better ways to capture or store water, and therefore there was no real need to conserve water now.

> *"Shortages aren't here yet. And who knows when it will happen. Water won't run out, they'll put things in place." Neath*

5.1.4 Views around future water supplies

When participants were initially asked whether they thought there would be more or less water available in the future it was clear that this was not something that most people had given much thought to before. Responses are summarised in Figure 2. When considering this question, they tended to base their response on both their own lived experiences as well as what they had heard in the media. As a result, they were often conflicted as these two perspectives did not always tally:

Lived experience – 'what I know'

Overall, people's own experiences led them to feel that there was unlikely to be a major issue with future water supplies given the current situation:

- They rarely if at all experienced any issues with their own water supplies.
- Furthermore, they had little awareness or memory of any recent hosepipe bans
- They considered water to be relatively cheap (especially in comparison to gas and electricity.)
- Many were aware of water leaks having not been fixed by water companies which made them think that there could not be much of an issue or water companies would not be wasting water this way.
- Finally, they lived in the UK – where it was always raining and was surrounded by sea i.e. there was an abundance of water all around.

> *"We are an island, we have mountains, streams, rivers... it rains a lot." London*

However, a few people who lived near rivers or reservoirs did have a sense that water levels were lower than in previous years, and this experience did make them question future water supplies when prompted.

Media – 'what I've heard'

By contrast many participants were aware of climate change and population growth and assumed that these issues may have a negative impact on the future of water supplies.

Figure 2 - Views around future water supplies

As a result of this conflict between what people experienced in their daily lives and what they heard in the media, most people were not sure what was likely to happen to water supplies in the future.

> *"They say it will get hotter, and reduce the rainfall. But I don't think about that so much, it just pours here all the time." Neath*

Even amongst those who could identify reasons why the amount of water available might reduce, there was a general assumption that technological advances (for example, desalination) and better water management (reducing leaks, water metering) would ensure that any issues would be sorted out and water would ultimately continue to be plentiful.

> *"We get so much rainfall, they just need to manage their water better." London*

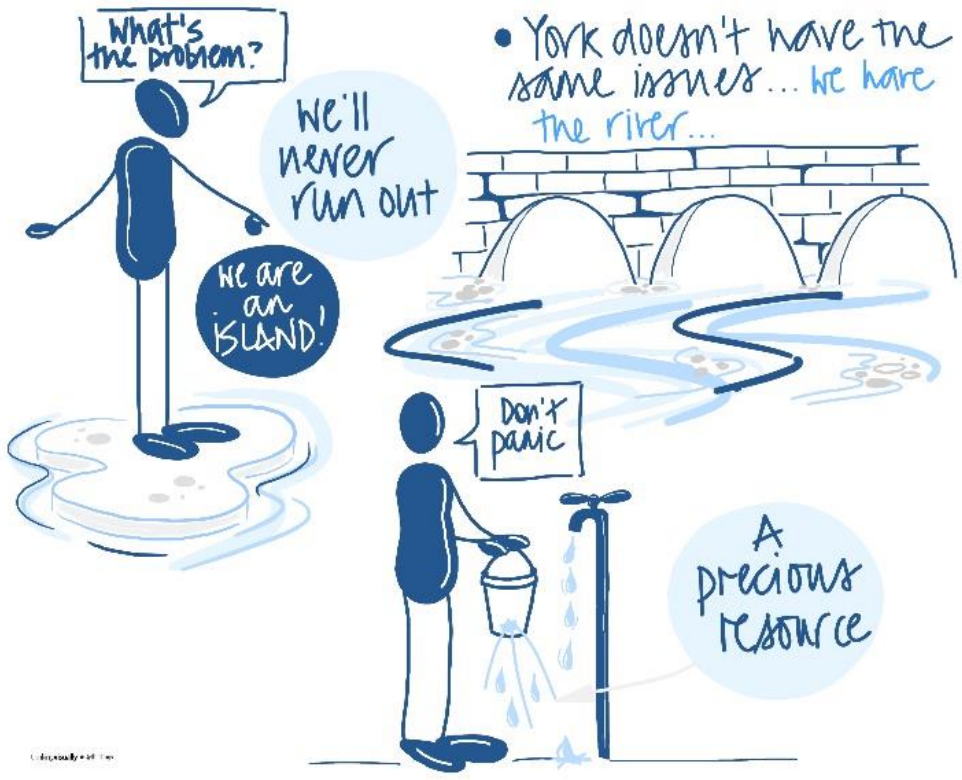


Image by thinkingvisually ● @thinkingv

5.1.5 Resilience of water supplies

Participants were asked what they understood the word 'resilience' to mean in the context of water supply. This was not a term that most people felt related to water – they defined it as being to do with strength, toughness, flexibility, endurance, bouncing back etc. (and a minority did not understand the word at all).

They were then provided with the following definition of resilience in relation to water supply:
"Making sure there is enough water to go around for society, the environment and the economy in the longer term future."

It was also explained that 'resilience' was about water companies planning for and being able to recover from a range of things that could affect customers' water supply over coming years.

When the definition of resilience was provided after the initial discussion of the word, alternatives such as 'safeguarding water', 'water management',

'contingency planning', 'future planning' and 'water preservation' seemed more appropriate.

The concept of resilience was not explored in depth and only top of mind views were gathered based on a brief definition, rather than detailed feedback on the overall concept.

While the word 'resilience' itself did not resonate in this context, the stated definition made sense to most people and many were struck that they had not previously considered the scale of the problem, particularly the possible economic impact of water shortages in the future.

> *"It's fabulous water here: soft and clean in this area. It's difficult for us to imagine that in Cambridge you can't water your crops. When you don't see something you are oblivious to it." Neath*

Some participants said that dealing with the issue of water resilience was a large responsibility on the shoulders of water companies, something that they weren't fully trusting of, in part because they are private companies, driven by profit rather than social concern.

The definition also served to underscore the impact of water shortages on future generations:

> *"I have a young son: it is him and his generation that might have a problem." Neath*

5.2 Response to information

This section details participants' response to the messages and information they were provided with about the pressures on future water supplies.

5.2.1 Overview

Overall, the information provided in the workshops was 'new news' to most participants. Even those who had been aware that there may be issues with future water supplies were shocked to learn the scale and urgency of the problem. Many were surprised that they did not already know this information and questioned the perceived lack of media coverage.

> *"[Water] is a far scarcer resource than first thought. (I was already aware that it was, but not to that extent). It is a major issue for the future that needs to be dealt with urgently." London*

> *"There's nothing on TV to say that water's running out. There's all these ads for energy suppliers, but nothing about water." Neath*

"We feel very safe in England and in this part of the country. But learning about the rising population and climate change makes me feel quite scared, thinking about the future for children." Norwich

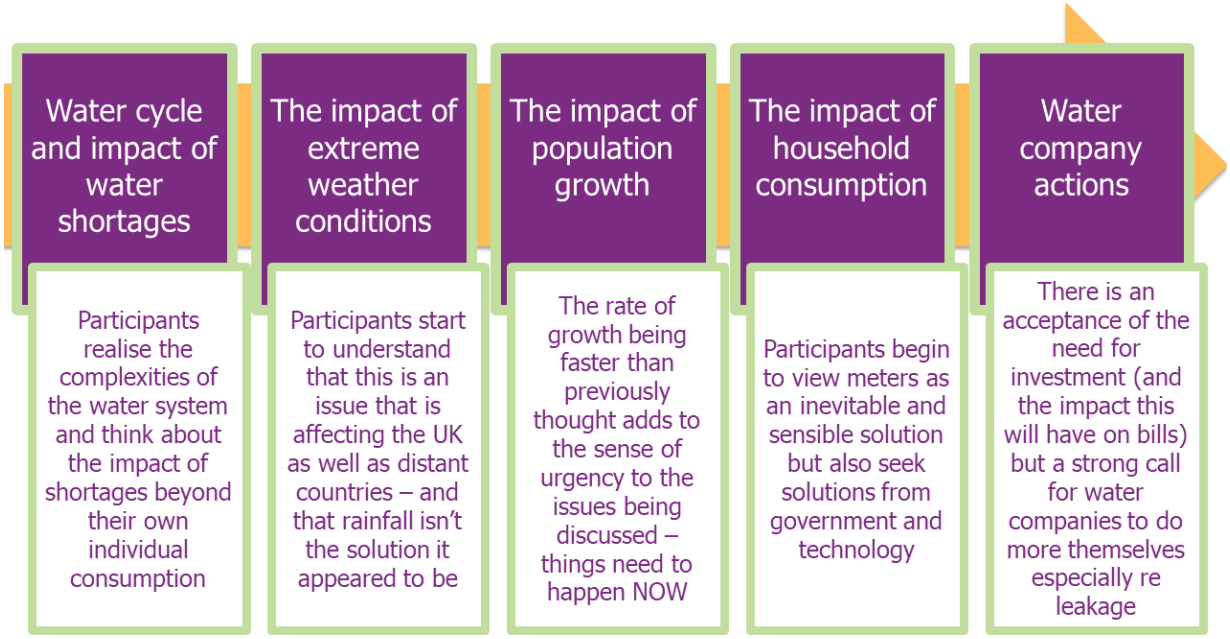
There were four stand-out messages that people found most surprising from the workshops:

1) The fact that unless things change, by 2050 demand for water could outstrip the amount of water available by up to 22%.
2) The rate of population growth.
3) The difficulty of capturing and storing water from floods or heavy rainfall.
4) The amount of water lost to leakage.

However, when asked which messages they had found most surprising or what they'd tell others, many people said 'all of it' – the cumulative effect of the information provided was to convince (most) people of the fact that there was an issue and that it needed to be solved.

Over the course of the information provision sessions, participants often followed a similar trajectory in terms of their shift in views, this is summarised in Figure 3:

Figure 3: How views shifted over time



Further detail on the response to each information giving session in turn, is as follows:

Water cycle and the impact of water shortages

In this first session, being given information about the water cycle (both the natural water cycle and the processes water companies apply) helped participants understand the complexities of the system. Learning about the impact of water shortages made participants think about consequences that they hadn't considered spontaneously e.g. water reliant businesses, agriculture etc. It also made some think twice about how wasteful they were of a resource that has been subject to such a complex process:

> *"It's an elaborate process to come out the tap and I still run the tap twice before filling the glass." York*

The impact of extreme weather conditions

While climate change had come up in earlier discussions, it was at this point that participants started connecting it more with their own local areas. It was also news to many that increased rainfall did not cancel out increased temperatures, and so at this stage participants started to fully understand why and how future weather patterns might affect water supply.

The impact of population growth

Again, this was something that had already been identified as a factor spontaneously; however, the rate of growth was a surprise to most. The facts presented reinforced the sense of urgency that had started to emerge, especially having already discussed the impact of climate change.

The impact of household consumption

At this stage participants recognised that their behaviour as water consumers needed to change – but they also started to question what water companies were doing, as well as the role of other players such as government and house builders.

> *"We should have taps or showers with sensors or that turn off automatically." Norwich*

Water company actions

By this point in the day, participants were broadly in agreement that investment in solutions to the issues was necessary and that there would be a resulting impact on their water bills. However, they also expressed a strong 'I will if you will' attitude, expecting water companies – and also government – to do more as well.

> *"We're doing our bit but the authorities need to do theirs." Norwich*

5.2.2 Stand out messages

Although there was a cumulative effect overall, certain messages or pieces of information did have a greater impact than others in reinforcing the overall view

that this was a problem that needed to be addressed and / or that change was necessary. The messages that elicited the strongest reactions or were the most surprising for participants are detailed below.

London is one of the driest capitals: drier than Rome, Milan and Paris
Participants were really surprised to discover this fact, and it started to bring home the message that potential water shortages could be an issue in their own country and not just abroad. Although it was not deemed as relevant in York and Neath as in London (and to a certain extent, Norwich), it was still their capital city and therefore it mattered to them.

Flooding is linked to climate change; it is difficult to capture and store excess water from floods or heavy rainfall
It was a major realisation for many that increased rainfall did not necessarily equate to increased water supplies and this information directly challenged their prior assumption that there was unlikely to be a problem given the perceived high amount of rain in this country. They recognised that this was likely to be a huge barrier to other people understanding the links between climate change and water shortages and admitted that despite understanding the explanation provided, they still found it hard to reconcile the information with their lived experience.

> *"I just hadn't appreciated that the water couldn't be used." York*

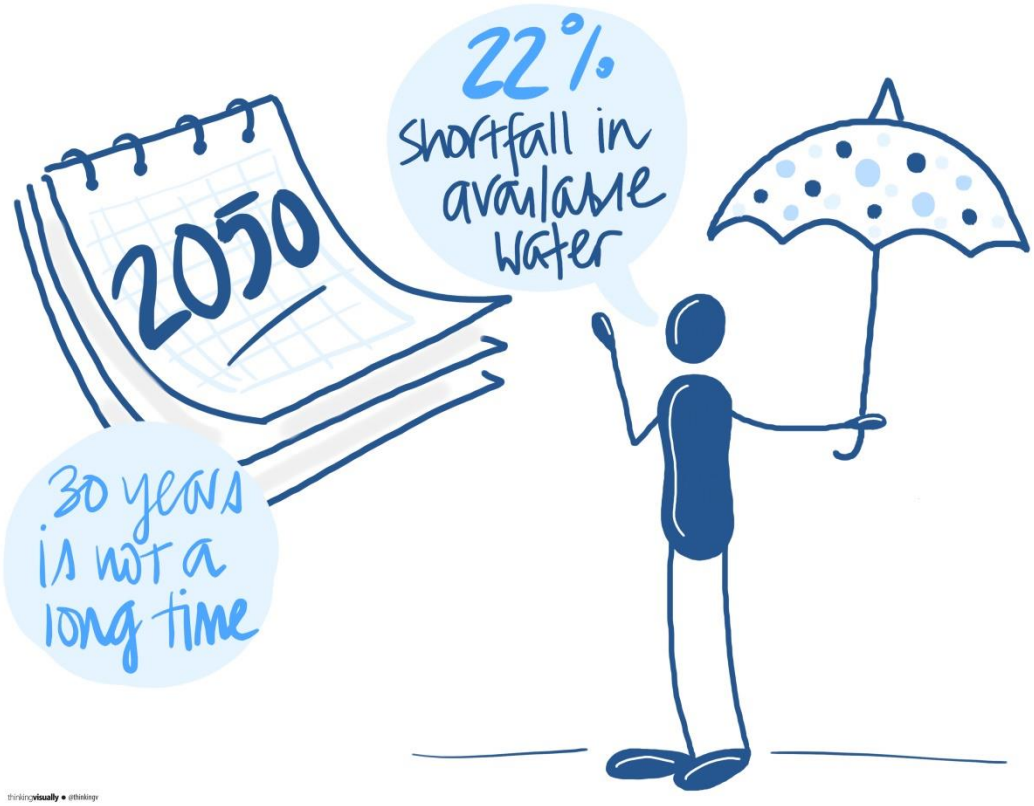
However, this realisation did not necessarily lead to an increased willingness to change behaviour. Instead for some the reaction was often one of incredulity that it was not possible to find a solution to more effectively capture and store all water from floods or extreme rainfall. These participants felt strongly that some kind of solution should have been found for this issue.

> *"They [water companies] need to be forced to capture the rain… It is a cop out to say they can't." York*

By 2050 demand for water could outstrip the amount of water available by up to 22%
This was one of the key messages for many. Even amongst those who were already aware of potential problems with the future supply of water, both the scale and the timing came as a real shock to many, and gave the issue a far greater sense of urgency.

> *"Shocking and frightening for future generations… We've got to be more careful." Norwich*

> *"22% is "absolutely frightening… Even 5% would be scary… 30 years isn't a lot of time to put things in place." York*



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Population growth

Although people had been aware that the population was growing, they had not tended to realise the scale and timescales involved. They were particularly shocked by local figures, especially in Norwich and London. Although a minority questioned the figures as projections, this information simply confirmed what they had already known, and it made intuitive sense to them that this would have an impact of water supplies.

> *"I knew it was increasing but not by how much." York*

> *"Things are already against us [with 22% predicted shortfall]. Then add in more people…" York*

However, while they could see the connection between population growth and water scarcity, population growth was seen as a much bigger issue, and as such it was something that they thought should already be being planned for. There was also a sense amongst some participants that water companies ought to be able to pay for any solutions needed without increasing bills, because of the increased number of customers they would have paying bills.

"The water companies [should be managing the increase in population]. They are the ones getting the profits – they should be sorting it out." York

Lower average water consumption in metered households

This sparked many discussions and left a number of people claiming that they would investigate getting a meter themselves. Hearing the relative consumption figures of metered and unmetered households, led many people to see universal metering as an obvious and inevitable course of action. While most were either supportive of (or at least resigned to) the idea of increased metering, a small minority strongly opposed the idea. For some this was out of concern about the impact this would have on their bills, but others objected to having meters 'imposed' on them on principle. When more metering was introduced as one of the potential solutions available to water companies, most saw this as a fair and simple solution.

"If you're not on a meter you don't think about it as much as you should. If I was on one, I'd be stricter." Neath

"Meters will make water efficiency like recycling – it will become the norm." York

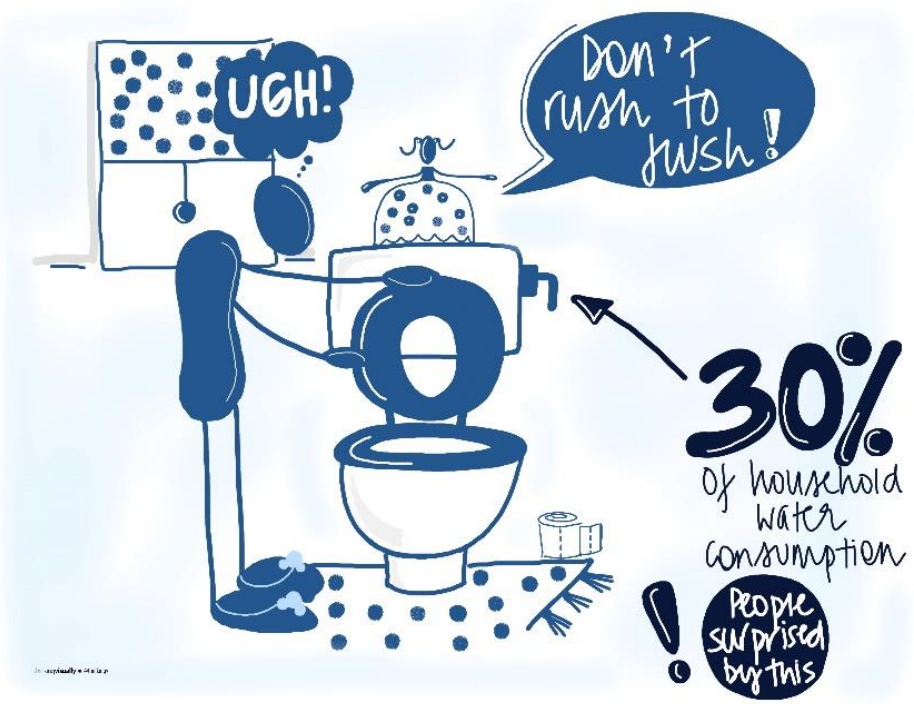
Image by thinkingvisually ● @thinkingv

However a few were suspicious that metering would lead to price increases and be used as a profit making exercise. They often didn't believe that they would be

able to change their minds if they had a meter installed and later decided that they no longer wanted it.

Toilets use 30% of household water consumption

The amount of water flushed down the toilet prompted a great deal of discussion. Some found it demotivating as they considered their wider efforts to reduce water usage insignificant by comparison, but others saw an opportunity for water companies and industry to make toilets more efficient and support people in doing so. Differing attitudes to hygiene in relation to water usage were apparent at this juncture, with a split between the minority who supported a 'if it's yellow, let it mellow' approach to toilet flushing and others horrified by that idea. Participants started to question the need to provide treated water for toilet flushing and called for better use of recycled water.



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Leakage is at 121 litres per property per day

This figure was shocking to many. Leakage was an issue that came up spontaneously throughout the day and people found the level of leakage galling. For many, their own individual behaviour seemed irrelevant by comparison and there was a strong sense that water companies needed to be doing more to tackle this issue if they were expecting water customers to reduce their consumption.

"I was surprised at the amount of water lost through leaks." Norwich

There was also push back from some people who simply did not believe that water companies could not reduce their leakage levels down to zero.

> *"Companies say there is nothing they can do about certain water pipe leakages. This is unacceptable. On an individual basis we are doing our bit to conserve water but it makes no difference if we just accept that huge amounts are lost through leaks because we "can't fix them"." York*

5.2.3 Other messages and information

The following topics generated less discussion and / or were less impactful for participants – and some provoked a more negative response:

Environmental messages:

April was one of the driest months on record

Participants did not feel that showing data from a single month was sufficient to show a pattern, and some questioned whether it was deliberately leading.

The impact of severe droughts

For some the idea of school closures, food shortages or forest fires was deeply shocking.

> *"We take water for granted. But the consequences of severe drought would be shocking." Neath*

However, others questioned the likelihood of such things ever happening, particularly in areas with more rainfall. They felt that it was unhelpful and scare mongering to talk about such extreme events.

UK temperature increase

These figures helped participants to think about the impact of extreme weather conditions as being relevant to the UK, not just something that happened in other countries.

99% of scientists agree that climate change is real

Many were surprised to learn that there was this level of consensus; however, there was a vocal minority who felt that climate change was either cyclical or simply untrue / exaggerated.

Water company messages:

Flood water requires more treatment

This was not something that people had previously considered, and it added to their overall understanding of the negative impact of heavy rainfall i.e. that heavy rain is not a straightforward solution to water shortages. At this point some people questioned the need for all water to be treated – and whether better use could be made of untreated water.

No reservoirs have been built in the last 10 years
This came as a surprise to most people and there was general consensus that more should be built. There was little, if any, opposition to the idea of more reservoirs in general, although of course this was in the absence of detail on where they might be located.

> *"We know there is a water shortage: but none have been built and the same number have sustained us for years. It seems daft." Neath*

The cost of desalination
Desalination had been mentioned in earlier sessions as an obvious potential solution to future water shortages. Learning that Thames Water's desalination plant was often sitting idle generated discussion and irritation – people questioned why it hadn't been made more energy efficient and were critical that a solution had not been found.

> *"If we can open a phone with our eyes surely you can create a sustainable water system. It must be possible for technology to create a more efficient desalination process." Neath*

Water reuse
This was viewed as an obvious solution and people questioned why clean treated water was currently used for activities that didn't require it, particularly toilet flushing. There was a call for homes to be designed to use untreated water.

A third of leakage is from the supply pipe the customer is responsible for
This was news to many and people expected their water companies to be offering support to tackle these leaks. (Participants were not provided with information about what support different water companies offered). Some were further encouraged to have water meters fitted so that these leaks could be picked up.

Consumer behaviour messages:
Average water consumption per person is higher in smaller households
This information had a big impact on those who understood this fact. However a significant minority either did not understand this information or did not find it credible.

Single person households will make up 41% of households by 2033
This served to help people realise the likely scale of the increase in demand, but only if they had understood the average 'per household' figures. Furthermore some people did not believe this projection (for example, because of having heard that grown up children were not leaving home or because of immigration).

Power showers can use more water than baths
This prompted many discussions about water use and the impact of modern day living. Many people had already 'known' that showers were better than baths but had not thought beyond this. However, for some this may have had the unintended consequence of encouraging people to switch to baths over showers! There was a lot of confusion about the water use of different types of showers and where they are relative to the use of an average bath.

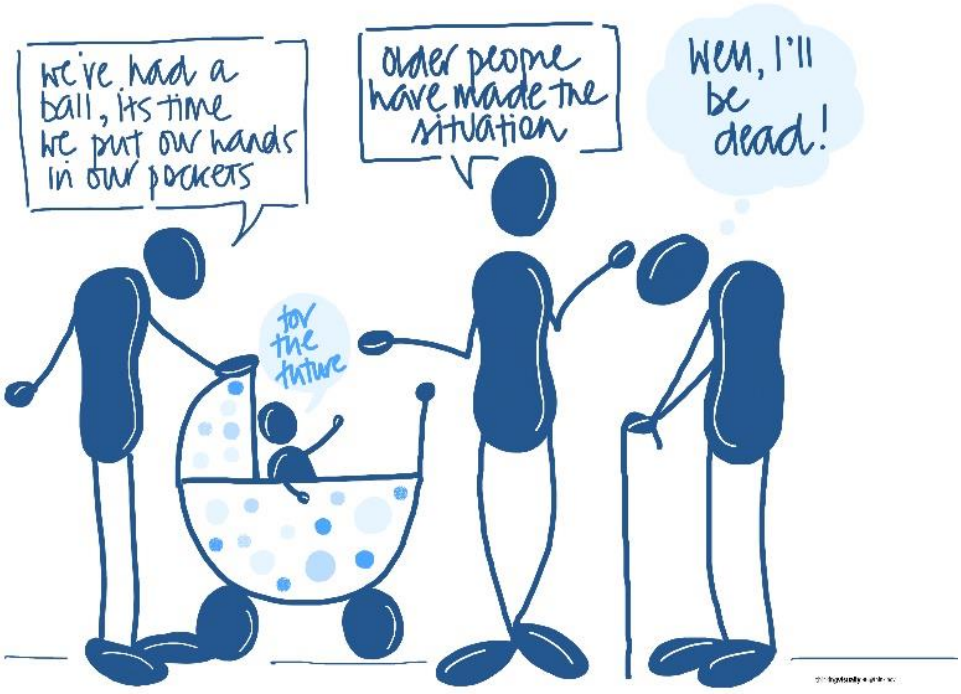
Daily water consumption compared to the 1930s
This figure was less likely to resonate – either because people found the figure relatively low (they were surprised there was not more of a difference) or because they found the comparison unhelpful (they had no desire to return to the less 'hygienic' 1930s).

Consumption comparisons with other countries
People were interested to discover that other European countries had lower per capita water consumption than in the UK and eager to know what they were doing differently. There was a sense that we should be able to do as well as our neighbours and therefore should be learning from them. People also wanted to know how leakage levels compared.

> *"Finding it hard to believe that we are using much more water than other European countries. Why is this country always at the bottom of the pile?" Norwich*

Intergenerational fairness / who pays?
The concept of people paying for solutions now that they may not benefit from was seen as a 'no-brainer'. People were used to investing for the benefit of future generations and considered this to be the way of the world. In addition, because water was seen as relatively inexpensive (compared to gas and electricity), people did not expect there to be a big impact on their finances.

> *"When you are young you are bringing up children and more obstacles coming in our way. Older people have had the high life. We've had a ball. We caused most of this damage, time we put our hands in our pockets for our kids." Neath*



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5.2.4 What resonates

When looking at which messages had the greatest impact on participants' views around future water supplies, a number of themes emerged:

- The importance of finding a **balance** between conveying the severity of the situation and turning people off
  - People were shocked – and as a result quite spurred on – by the scale and timescales of the issues; however, they found this information credible as it built on their existing knowledge (for example, they understood that the population was growing, just not how quickly). When provided with information that they felt was too 'extreme', this was sometimes dismissed as 'scare mongering', for example, when talking about forest fires or schools closing, and as such, it was sometimes rejected.
- Grounding **projections** on actual trends
  - While most participants were accepting of projected figures, some were sceptical of any information they deemed to be 'guesswork'. Ensuring that projections are clearly based on existing data can help overcome this.
- Careful use of **comparisons**
  - Comparisons with the distant past were not deemed helpful when it came to water consumption – people felt that it was not relevant to compare behaviours now to a very different way of life. However, other comparisons proved galvanizing, for example, learning how our water consumption compared to that of other European countries
- **Building** on what people already know

  - People were more likely to buy into information when it corresponded to what they already knew or had already experienced and so made intuitive sense to them. For example, people had given some thought to the different amounts of water that different household activities would consume, but when given a breakdown of all typical household uses, this gave people concrete information that they could act on e.g. not flushing as often and using the washing machine with full loads.
- **Local** information is considered more relevant
  - Participants responded well to information focused on the UK rather than at a global level. Although regional information was even more well-received, participants still felt that UK and London information was relevant wherever the workshop was held.
- Careful use of the phrase **climate change**
  - Talking about 'extreme weather conditions' as opposed to 'climate change and the impact of the weather rather than the causes of the weather itself, was helpful in ensuring that the small number of climate change sceptics did not reject the information provided.

5.2.5 Regional variations

Overall, there was a great deal of consistency across the four workshops, with different attitudes and views present in all locations. Regardless of whether participants lived in a water stressed area or not, there was a general consensus that the issues applied to everyone in the country.

> *"It's everyone's responsibility to try to save water – not just those with more obvious shortages." Neath*

The few regional differences identified have been pulled out below.

London

Although the workshop took place before the news about Thames Water having missed their leakage targets, participants in this workshop were still surprisingly unconcerned about leakage. Unlike in the other workshops, there was very little push back about the amount lost, even though comparative figures for the different water companies were provided. Participants acknowledged the difficulty of fixing leaks in a built up city with Victorian pipes and were broadly accepting of this information. Because people were already used to the idea of compulsory metering and felt that messages from water companies about saving water hadn't had a huge impact, there was also more acceptance of meters in London than in other areas.

York

Flooding was less of a salient issue than had been anticipated, although participants did place a greater emphasis on the need for investment in finding solutions for capturing and storing this water.

Neath

Participants in this workshop often considered their area as being the water provider for the UK – they were content with this as long as the bills of customers in the water areas they provided did not have lower bills than them. The fact that Welsh Water was a not-for-profit company meant that participants were less sceptical of their motivations than in some of the other workshop areas.

Norwich

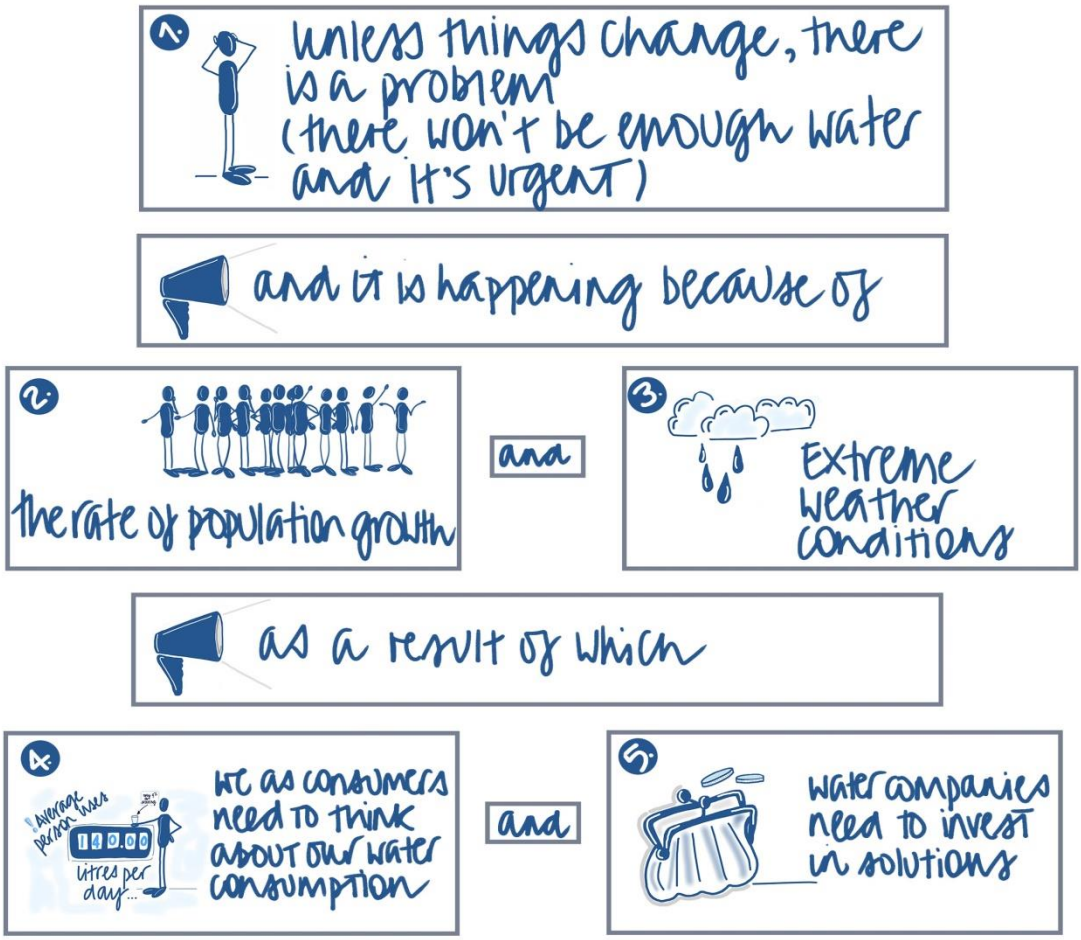
The rate of population growth in the area was particularly shocking for participants in Norwich. Agriculture was also discussed more in this area, with people being more aware of the water required to maintain this industry.

6. Identifying engaging messaging

This section identifies which messages or information appear most likely to encourage attitudinal shifts or behaviour change.

6.1 Key messages about the big picture

There are five key messages that may help to shift water consumers' views and behaviour. These are not new messages at an individual level; rather the research showed that taken together, they helped customers to join the dots between their water use and the big picture. These combined messages are greater than the sum of their parts – if presented together in a coherent and structured way to create an information journey (similar to the one that participants went on in this research), they have the potential to drive attitudinal and ultimately behavioural change by making consumers more receptive to specific water efficiency messaging.



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What's the issue?

1) There is a problem (there potentially won't be enough water and it's urgent.)

Given that this came as a surprise to most people (and even those who had some prior awareness had not realised the severity of the situation), getting the fundamental issue across is a key starting point. As it stands, people who are saving water often do not have a clear understanding of why they are doing so unless it's to save money - they just know that they are 'supposed' to. In the research, information that brought home the scale of the problem and a timescale that people could relate to (namely a 22% shortfall within their own lifetimes) was particularly effective at making the issue feel 'real'. Additionally, most people have not previously thought about the impact of water shortages beyond their own daily use. Messaging around *why* their behaviour matters could help to make messaging around *how* to change their behaviour resonate more effectively.

Why is it happening?

2) The rate of population growth

It makes intuitive sense to people that more people, equals more development and greater demand for water. Furthermore, as they are already aware that the population is growing, it is not a leap to accept messaging around the rate of that population growth and what that means for water supplies. This messaging around *why* there is an issue easily builds on existing knowledge to emphasise the timescales involved.

3) Experiencing extreme weather conditions more frequently

Again, most people are aware that weather patterns are changing; however, there is still the misconception that any hot or dry weather causing water shortages will be cancelled out by increased heavy rainfall. Messaging explaining *why* this is not the case could go some way to helping people understand the scale of the issues.

Having got water consumers to a place where they have a more solid understanding of what the issue is (and how very relevant it is and will be to their own lives) and why it is happening; they may be more open to hearing messages about what needs to happen as a result.

What needs to happen?

4) We as consumers need to think about our water consumption

When people have a firmer understanding of the big picture issues, they may be more receptive to messages about their own water use. Different typologies can then be used to help define different messages, for example, those who are cost conscious will be most motivated to learn about ways in which they can reduce their water bills, while waste watchers might be more inclined to consider a

cistern hippo or a dual flush toilet if they knew about how much water was lost down the toilet. Simple tips and messages around *what* water customers can do, will be most appealing.

5) Water companies need to invest in solutions
Similarly, when people have a firmer understanding of the issues, they may be more receptive to bill increases due to the investment required for solutions. It will be even more important that people feel that water companies are visible and transparent about this – to demonstrate to customers that they are taking the issues seriously, both in terms of investing in 'new' solutions and by tackling leakage. They should also be actively supporting customers and consumers (in a way that they can recognise) to reduce their water consumption via education campaigns and practical help. Knowing *what* water companies are doing will help to reassure customers that everyone is doing their bit.

6.2 Impact of messages

Participants generally left the workshops claiming that they would do *something* as a result of what they had learnt. These claimed future behaviours tended to fall into four different categories:

- Talk to others
  - Most people thought that they would talk to friends or family about either the issues that were discussed (and the very fact that there might be water shortages) or about ways in which their friends or family could reduce their water consumption (or both). Those who didn't feel that they themselves could do anything more to reduce their own water consumption were particularly likely to say that they would talk to others.

    "I'll try to educate my children to use less water." Norwich

- Monitor their water use
  - People often left the sessions with a heightened awareness of how they use water and were keen to keep a closer eye on this in the future – potentially looking for ways in which they might be able to further cut down (but making no promises).

    "I will be more aware of not using more water than is necessary." York

- Investigate getting a water meter
  - Having discussed water meters with those who already had them at the workshops, a number of participants were keen to look into getting one themselves. Most people hoped that they would save money by doing so, although a few did also like the idea of installing one if it helped them to use less water.

    "Getting a water meter seems like the most sensible solution to a lot of what's been discussed today. Saves the individual customer money and make the individual responsible and accountable for their water usage." London

- Specific (small) changes
  - People picked up a number of tips about ways in which they might make water savings that they were keen to try out, for example having shorter showers, not filling the kettle or only washing full loads.

    "I am not going to flush urine." Neath

    "I will conserve drinking water in a fridge rather than waiting for it to cool down at the tap." York

Perhaps more importantly, regardless of what they claimed they would *do*, by the end of the day, most people's attitudes had shifted (or been further convinced) and they left with a strong sense of the scale and urgency of the issues. As a result they were more open to:

- Having their behaviour 'nudged'
  - Drawing on their own experiences with recycling and energy consumption, many people recognised that they were unlikely to change inbuilt habits without being helped. They knew that they were most likely to think about their water consumption if they had to pay for what they used, and as a result saw the sense in compulsory water meters. They also welcomed support from water companies and other actors to help them make better choices, for example by providing water efficient appliances or other forms of help and information.

    "Water butts should be provided by the council like recycling bins." Norwich

    "People who recycled used to be thought of as odd balls. Hopefully using water carefully will go the same way as recycling and become the norm." York

- Accepting the bill impact of investment in solutions
  - Participants generally understood that the solutions to these issues would come with a cost, and they were broadly happy for this to be reflected in their bills (as long as the water companies were seen to be doing their bit too – see below). There is an understanding that some solutions such as reservoirs and new pipes take time to plan and build and that we can't leave things too long, for fear of children and grandchildren inheriting shortages that could have been prevented if planned for now.

The journey that participants went on is what the water industry would hope to see in the wider population – by raising awareness and knowledge of the issues and the reasons for them, as well as emphasising the relevance to their own lives because of the timescales involved and potential severity of impact, participants left more receptive to specific messaging.

However, there remained some barriers to overcome:

- Despite hearing messages around issues with the future supply of water, because people's lived experiences still strongly influenced their attitudes, they were unlikely

to radically change their views or behaviour unless the issues became more 'real' e.g. through hosepipe bans or worse.

> *"The only time things [householders] will change is when you have to walk to a pipe in the street to get water." Neath*

- There is only so much that communications can do to counter this, but the media can play a part in better highlighting the issues and explaining some of the misconceptions e.g. that increased heavy rainfall does not cancel out drought.

- People were reluctant to change their own behaviour while they thought that water companies were not demonstrating that they took the issues seriously. This was predominately related to how they tackled leakage, but also a perceived lack of visibility more generally.
  - As well as reassuring customers that they were doing all they could to reduce their leakage levels, water companies could also highlight the work they were doing to support customers to reduce water consumption as well as the progress that had been made in tackling some of these issues.

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- We also noted participants' repeated emphasis that an unspecified 'they' should be addressing this problem, over and above whatever 'we' as customers might do. Most participants came into the deliberative exercise with a sense that water was plentiful, and part of an endless natural cycle. However, as the complexities of the water system were revealed to them, they began to appreciate that their simple cyclical view was only part of the story. It is quite common for people in customer research, when faced with the fact that things are the result of a complex system, to feel it is

too complicated for them to deal with, and to fall back on saying that 'they' (the experts) should sort it out. We found exactly that dynamic in our research - and people's recognition of the complexities of the water system was coupled with a kind of denial that they would share any responsibility for fixing it.

> *"The water company hasn't done its job. We shouldn't be short of water. So if there is a problem, it shouldn't be our responsibility." York*

7. Conclusions and recommendations

Attitudes and behaviour in relation to water are complex, contradictory and varied, and the way a person uses water does not always align with what they say they feel about water or the environment. This makes it very challenging to develop an effective typology for people's attitudes and behaviours to water use and the water use environment. Although this report presents a typology based on the participants in this research, the limitations of this are acknowledged, as it seems that at present typologies for water use may have limited practical application because of the complexity of water use behaviours. These typologies will be most effectively used once there is a better awareness of the bigger picture issues, although we have started to identify some messages that may work better with particular groups below.

For most people, the future supply of water is not an issue that is top of mind, and there is very little sense of urgency, not least because anything they have heard about potential problems is often cancelled out by their lived experience of water supplies (and rainfall) being plentiful.

Therefore, rather than focussing on individual water use behaviours, messaging focussing on the wider context and bigger picture is a gap that needs to be filled to address the 'why should I?' question. This is needed to help people understand the problem and the implications, and to understand why they are being asked to consider their water use. At the very least, if people have a better understanding of why they are asked to reduce their water consumption, they may be more receptive to such messages. Perhaps more importantly, they may also be more open to (or indeed even expectant of) their water companies (and other actors) investing in solutions to these issues, and the bill impact that may come with this. These wider messages will not require targeting for different sub groups or types of consumers in the way that messages about personal water use would. For now, this bigger picture needs to be communicated to the public as a whole in an engaging, coherent and persuasive way; after this has been achieved, targeted messages can follow.

Most people saw the job of tackling future water shortages as a shared responsibility between water companies and consumers, with both having a role to play. However there was a repeated emphasis that an unspecified 'they' should take a lead in addressing this problem, over and above whatever 'we' as customers might do. Participants strongly felt that this was currently a hidden issue that deserved much greater awareness-raising. They want water companies, the Government and other actors to play their part, taking clear and decisive action. In turn, consumers will respond in their behaviours when the relevant triggers present themselves and based on their understanding of why they need to.

The evidence from this research suggests that messaging should be targeted in two areas:

1) Generally building the profile of the issue with consumers to heighten awareness with engaging and coherent information about the big picture, for example:

- The severity of issue – the scale and timings (without creating panic).
- The wider impact of future water shortages e.g. on businesses, wildlife etc.
- Why more intense rainfall events don't cancel out a long dry spell.
- Myth busting in relation to common misconceptions (for example, whether it is more water efficient to wash dishes by hand or in a dishwasher, that a long power shower can use more water than a bath etc.)
- What the sector needs to do to address this issue and the implications for customers in terms of investment/bills and their water services.

2) Specific messages to consumers that might positively impact their behaviour where typologies would be helpful to target messages, for example:

- What is "good behaviour" when it comes to water use; for example, using water efficient settings – moving away from basic behavioural tips to address confusion about different types of water use.
- Facts/data that capture attention, for example, amount lost to toilet flushing, average UK household usage compared to other countries, and give context to calls for water efficiency.
- The fact that in most water company areas, you can install a water meter and then change your mind and go back to a fixed property based charge within a set period of time.

Based on participants' responses to the initial environmental messages in the workshop, and where there is more awareness of the bigger picture we also recommend considering the following approaches:

- Top tips style messages – giving people clear instructions of quick and easy things to do. Addressing head-on the common areas of confusion (e.g. dishwasher vs. washing up) and addressing potential barriers related to perceived inconvenience and health and hygiene issues.
    - Such messages could appeal to those in quadrant 3 (people who care about water but don't currently use it carefully.)

  Many water companies have previously developed campaigns to encourage water conservation, but there is a perception that these messages have not significantly changed behaviour. Against the backdrop of a clear understanding of the 'bigger picture' – providing the reason why behaviours need to change – the reception may be different, and engagement with simple top tips may improve.

- Factual 'nuggets' and data that captures attention for metered customers, and information adapted for unmetered e.g. you can save X amount of water by doing X – giving people clear information about how much water is used for different activities (particularly toilet flushing).

  - This kind of information could appeal to those in quadrant 2 (people who are cost conscious at home and/or have a waste not want not attitude.)

- Pro-environmental messages – better demonstrating the link between people's behaviour and the environmental impact of high water consumption.
  - These types of messages could work across all typologies bar perhaps those who think there will never be water shortages.

- Think of future generations – highlighting the impact of future water shortages on people's children or grandchildren and the need to act now.
  - Again, these types of messages are likely to appeal across the board.

The fundamental need to increase understanding of the bigger picture is clear. Further research may be required to understand and refine how best to communicate the issues as effectively as possible, including:

- who the messages should come from to be most credible;
- the best channels to use;
- the most effective timing for key messages e.g. around extreme weather events;
- locations or situations where consumers may be most receptive and;
- how best to maximise the validity of messages in different locations, based on people's experience of the weather, but also based on the perceived performance of the water company in their area, and pricing and metering arrangements.

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