NWT-G02-009-001

This document has been written in line with the requirements of the RAPID Gate 2 Guidance and to comply with the regulatory process pursuant to United Utilities' statutory duties. The information presented relates to material or data which is still in the course of completion. Should the solution presented in this document be taken forward, United Utilities will be subject to the statutory duties pursuant to the necessary consenting process, including environmental assessment and consultation as required. This document should be read with those duties in mind.







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Methodology, sample & key take-outs



Methodology

An online approach was adopted to survey household customers using customer sample. The 'core sample' represents customers across the UU region. A 'boosted' sample which represents areas of the region that may be most impacted has been analysed separately.

	Core	Boost
Male	52%	60%
Female	46%	39%
18-24	1%	0%
25-34	2%	5%
35-44	16%	7%
45-54	16%	14%
55-64	23%	21%
65+	30%	48%
Metered	57%	70%
Unmetered	39%	25%
Not sure	4%	5%

	Core	Boost
Cumbria	7%	0%
Merseyside	20%	0%
Greater Manc	34%	0%
Lancashire	22%	0%
Cheshire	16%	100%
North Derbyshire	1%	0%
IMD 1-2	28%	-
IMD 3-4	20%	-
IMD 4-5	15%	-
IMD 6-7	17%	-
IMD 8-10	26%	-

Core sample:

970

Boost sample:

87

Fieldwork was carried out from $1^{st} - 22^{nd}$ December 2020

This survey is part of a larger programme of research to be carried out by DJS Research when face-to-face methodologies can resume. Hall tests and focus groups involving tasting water of different hardness ratings has been put on hold due to the COVID-19 pandemic.

Note on sample

'Core' sample

- The core sample represents customers from across the UU region
- Minor weighting has been applied on CACI segment and area to make the sample representative of the region

'Boost' sample

- Represents a sample of customers located in Chester and Runcorn
- Identified as areas of significant impact to water quality changes
- Data is unweighted



Key take-outs

It is evident from this research that water quality is something that many customers hold strong views on. Customers are open to a change in supply but want to be notified, and most crucially informed on the reasons behind it.

Two thirds of customers care about whether they are supplied with hard or soft water (see slide 16)

The level of concern is exacerbated by the potential duration of any change in supply (see slide 19).

Even when notified, there are still concerns over the impact on water quality (see slide 19/20)

When prompted, there is a high level of acceptability for a change in supply across a number of events / circumstances (see slide 22/23).

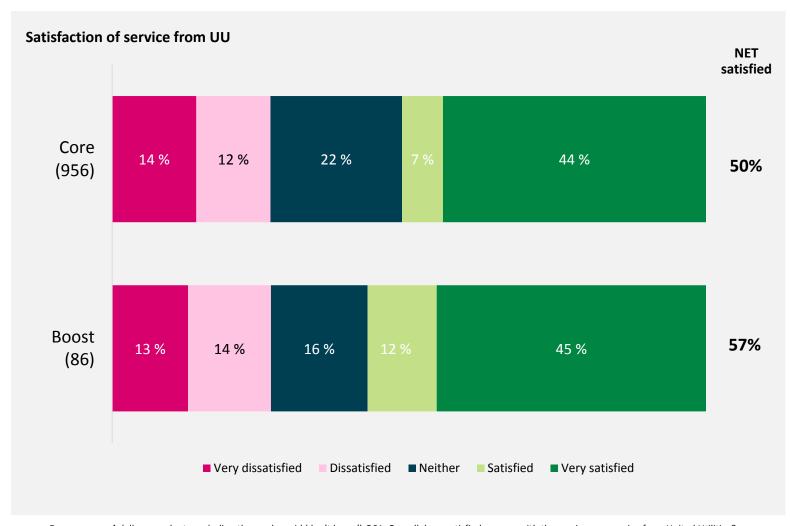
Ensuring appropriate information is provided to customers around these questions will be crucial.

85% of customers would find a change in supply acceptable if it was due to having to transfer water outside of the North West to areas in need (see slide 22).

Current perceptions of water quality



At an overall level, customers are reasonably satisfied with the service they receive from United Utilities



This data is intended to provide context on the current impression of United Utilities as a service provider.

Females are significantly more likely to be satisfied than males (57% c.f. 45%).

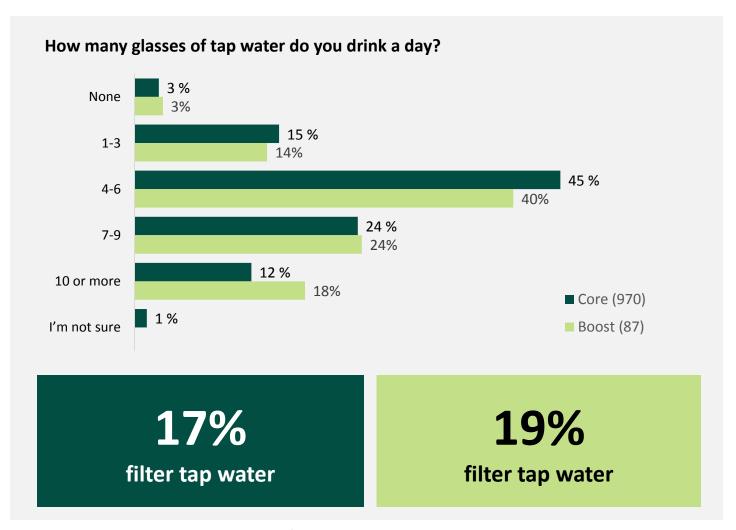
Similarly those who have not had to contact United Utilities in the past are significantly more likely to be satisfied that those who have had to contact UU (52% c.f. 32%).

Base: see graph (all respondents excluding those who said 'don't know') Q01. Overall, how satisfied are you with the service you receive from United Utilities?

The majority of customers drink their tap water, with 1 in 5 filtering it beforehand

There are not notable variations in the volume of tap water consumed across key demographics

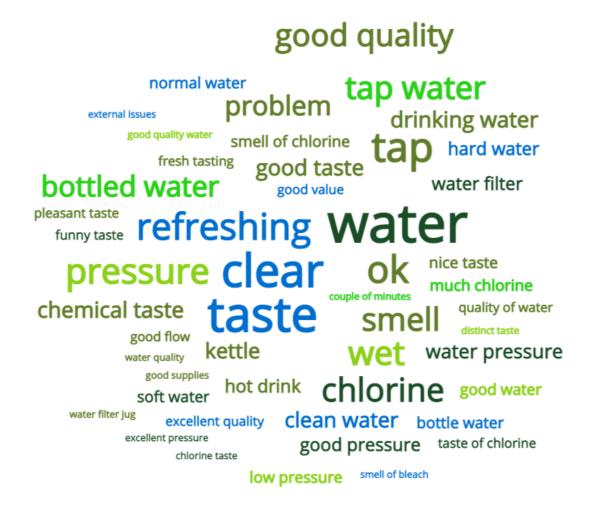
Customer who describe their water as 'hard' are significantly more likely to filter their water than those who describe it as soft (25% c.f. 15%)



9

Base: see graph (All respondents) Q02. In a typical day, how many glasses/mugs would you say you personally drink using the tap water supplied to your home? / Base: (All respondents who drink tap water) Q03. Do you filter your tap water before you drink it?

On the whole, attitudes towards water quality are positive



Whilst the majority of comments are positive, there are some isolated examples of customers having issues with taste.

Specific examples refer to customers being aware of a change in area of supply:

"Until they stop taking water from Ennerdale top notch, first class, excellent. Once they started mixing it with bore hole water not so good.."

Male, 65+, Cumbria

"Quite pleasant in this area most of the time, though sometimes it tastes and smells strongly of bleach/chlorine.."

Female, 55-64, Merseyside

10

Base: 798 (All respondents answering question) Q04. When thinking of the tap water supplied to your home, what words or phrases would you use to describe it?

At a total level, there is a good understanding of the key differences between 'hard' and 'soft' water

Customers provided a relatively accurate interpretation over the differences between 'hard' and 'soft' water

In the majority of cases, customers are first to establish the difference in taste. 'Hard' water is often described as 'chalky' and difficult/impossible to drink pure out of the tap. Whereas 'soft' water is much more drinkable and has a 'smoother' taste.

Other differences noted are:

- The appearance
- Mineral content
- 'North/south divide'

"Taste and way it lathers when bathing, soft water great to lather up. Hard water is not drinkable out of tap."

Male, 45-54, Lancashire

"Hard water contains more minerals and can cause problems in some appliances."

Male, 45-54, Lancashire

"Soft water gives a better lather and is kinder to appliances, meaning reduced issues with scaling/residue."

> Female, 55-64, Greater Manchester

"Soft water is northern and tastes awesome. Hard water is for southerners and tastes like bubbly calcium!"

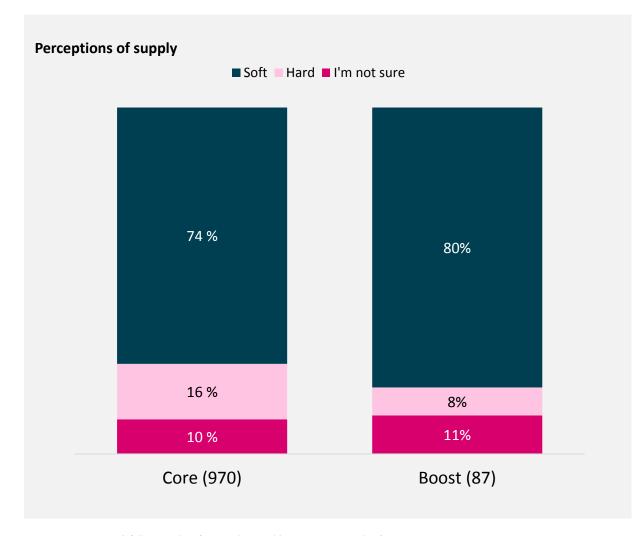
> Male, 35-44, Greater Manchester

> > 11

"The main difference between hard and soft water is the mineral content. Minerals commonly found in hard water are chalk, lime, calcium, and magnesium. Rain water is naturally soft but picks up these minerals as it runs through the ground."

Male, 18-24, Cumbria

The overwhelming majority consider their water to be 'soft'



Whilst the majority feel they are supplied with 'soft' water, there are some differences in opinion across region:

Customers in Greater Manchester are significantly more likely to rate their water as soft than other regions (see below). Customers in Cheshire and Cumbria are the least likely to describe their water as 'soft'.

	Cheshire (191)	Cumbria (47)	Greater Manchester (349)	Lancashire (263)	Liverpool (117)
Soft	65 %	66 %	84 %	73 %	68 %
Hard	23 %	22 %	7 %	18 %	23 %
Not sure	13 %	12 %	9 %	9 %	9 %

Base: see graph (all respondents) Q06. What would you say your supply is?

Significantly higher

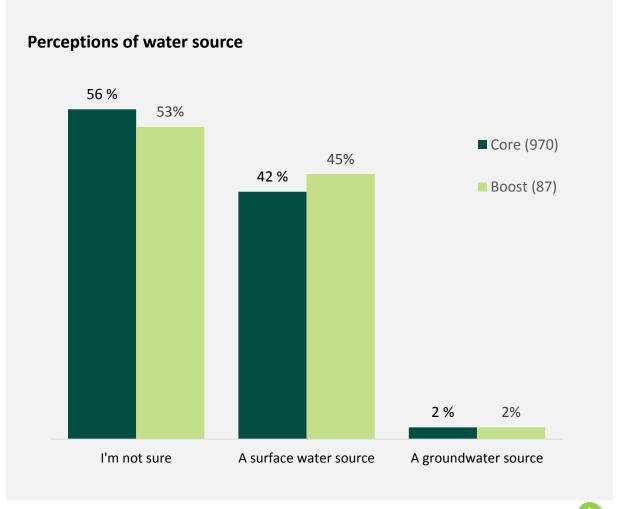
Despite having a good impression of the 'hardness' of their water, customers are more unsure about the source

Despite the majority at a total level not being sure, there are some differences amongst demographic subgroups

A significantly higher proportion of customers in Cumbria believe their water is supplied by a groundwater source versus other regions (see below). Females are more likely to be unsure than males, as are those in younger age groups (18-34).

Of those who believe their water is 'soft', 48% think their water is supplied from a surface water source, compared to 27% of those who think their water is 'hard'.

	Cheshire (191)	Cumbria (47)	Greater Manchester (349)	Lancashire (263)	Liverpool (117)
I'm not sure	60 %	44 %	56 %	56 %	54 %
Surface water	37 %	40 %	43 %	44 %	43 %
Ground water	2 %	16 % 🕦	2 %	0 %	3 %



Base: see graph (all respondents) Q012. Do you know where the water supplied to your home is sourced from?

Significantly higher

The overall satisfaction with water quality is 'high'

Customers in Greater Manchester are more likely to be satisfied with all aspects relating to water quality.

Despite relatively high scores, customers in Cumbria are the least likely to be satisfied.

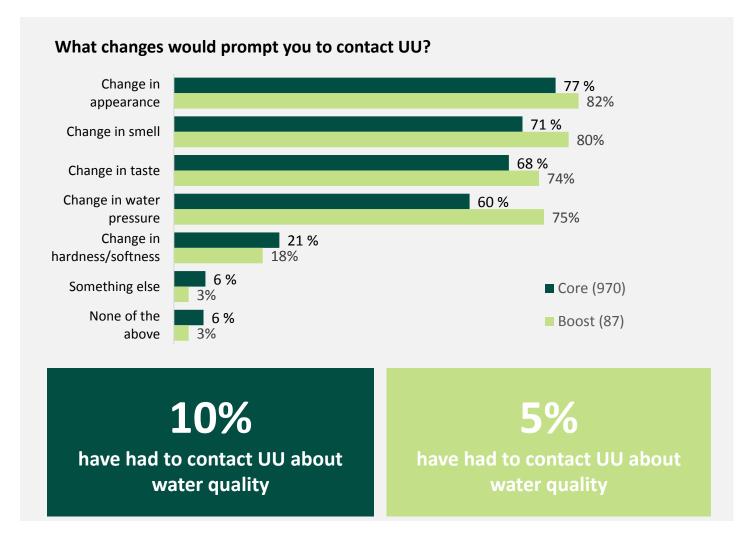
Unsurprisingly there are high levels of satisfaction amongst those who believe they are supplied with 'soft' water. For example, 80% of those stating 'they have soft water are satisfied with the taste, versus only 42% who feel they have 'hard' water.

Satisfaction with water quality	Core total (NET: satisfied %)	Cheshire	Cumbria	Greater Manchester	Lancashire	Liverpool
Appearance / colour	82%	76 %	72 %	85 %	82 %	83 %
Lather	80%	73 %	72 %	85 %	78 %	79 %
Smell	74%	67 %	62 %	82 %	73 %	69 %
Taste	73%	67 %	64 %	80 %	72 %	66 %
Overall quality	79%	75 %	74 %	84 %	82 %	69 %

Boost	
92%	
84%	
81%	
76%	
89%	



Changes in appearance, smell, taste and water pressure would all prompt customers to contact UU



Over there quarters of customers (77%) would contact UU if there was a change in appearance of their water.

Generally scores are consistent across subgroups including region.

1 in 10 of the core sample have had to contact UU before over water quality issues, however there is no pattern in the data to suggest which subgroups are more likely to have contacted UU.

Base: see graph (All respondents) Q09. Have you ever had to contact United Utilities about the quality of your tap water? / Q010. Which of the following changes to your water supply would prompt you to contact United Utilities?

At a total level, customers are more concerned about the appearance of their water than where it is sourced from or whether it is 'soft' or 'hard'

Satisfaction with water quality	Core total (NET: agree %)	Cheshire	Cumbria	Greater Lai Manchester	ncashire	Liverpool
I would call my water company if my water was cloudy	82%	83 %	80 %	80 %	83 %	83 %
I care about whether my home is supplied with hard or soft water	66%	56 %	70 %	73 %	63 %	63 %
It's important I know where my water is sourced from	61%	53 %	76 %	63 %	59 %	65 %

4 in 5 (82%) would call UU if their water was cloudy, and 3 in 5 (61%) feel it's important to know where their water is sourced from. **Boost** Customers in Cumbria are most concerned about where their water is sourced from (76%) over other regions, almost equally to that of the

> appearance of the water (80%). Similarly, customers in Cumbria and Manchester

> are most concerned about the 'softness' of their water (70% and 73% respectively) than other regions.

Base: (all respondents exc Don't know) Q011. To what extent do you agree or disagree with the following statements

Significantly highe

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85%

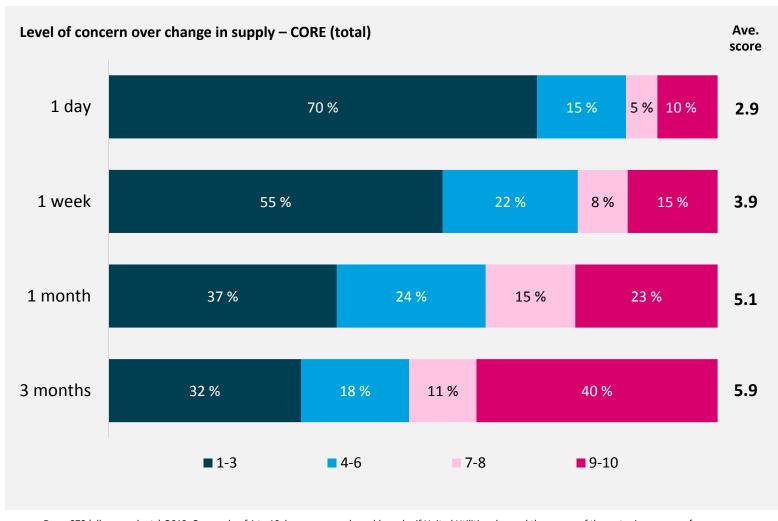
59%

56%

Reactions to a change in supply



As the duration of the change in supply increases, so does the level of concern



A change in supply of up to a week would be acceptable by the majority, with 77% having a low to moderate level of concern (1-6 rating).

However, as the duration increases so does the level of concern. If there was a change in supply for a month, 38% would have a high level of concern (7-10). This increases to 51% if the change lasted for up to 3 months.

Base: 970 (all respondents) Q013. On a scale of 1 to 10, how concerned would you be if United Utilities changed the source of the water in your area for:

Customers in Cumbria and Liverpool have the highest level of concern

The level of concern does vary somewhat by subgroups.

Those who have had to contact UU in the past regarding water quality are perhaps unsurprisingly more likely to be concerned at all durations, over those who have not had to contact UU.

Customer who perceive their water to be 'soft' are also significantly more likely to be concerned across all durations.

Concern over change in supply (ave. score 1-10)	Cheshire (191)	Cumbria (47)	Greater Manchester (349)	Lancashire (263)	Liverpool (117)	Boost (87)
1 day	3.0	2.7	2.8	3.1	3.0	3.0
1 week	3.9	4.1	3.8	3.9	4.3	4.2
1 month	4.9	5.4	5.1	5.1	5.7	5.5
3 months	5.6	6.4	5.9	5.9	6.5	6.5

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Base: see graph (all respondents) Q013. On a scale of 1 to 10, how concerned would you be if United Utilities changed the source of the water in your area for

Customers are mainly concerned over the potential change in quality of the water

"I would suspect it is motivated by profit seeking."

Male, 55-64, Cheshire

"Short term would be no problem but long term if it was for hard water then it would affect water heater elements so I would have to fit a water softener on the incoming main."

Male, 55-64, Cheshire

"I feel that living in the Lake District we should not be receiving inferior supply whilst our preferred supply is able to be piped elsewhere."

Female, 55-64, Cumbria

"Would I be notified? Would I need to change the products I use, i.e. soaps, detergents, shampoo etc.?."

Female, 65+, Lancashire

"A day doesn't matter, a few days is not very important as this could be due to maintenance issues. If it got to a few weeks I would want to know the reason why. If it was to improve the service I could accept it. Changing for change sake would not be acceptable. My concerns would only be if the change caused me issues i.e. moving from soft water to hard water and if this resulted in a change in taste, especially when boiled for hot drinks."

Male, 55-64, Greater Manchester

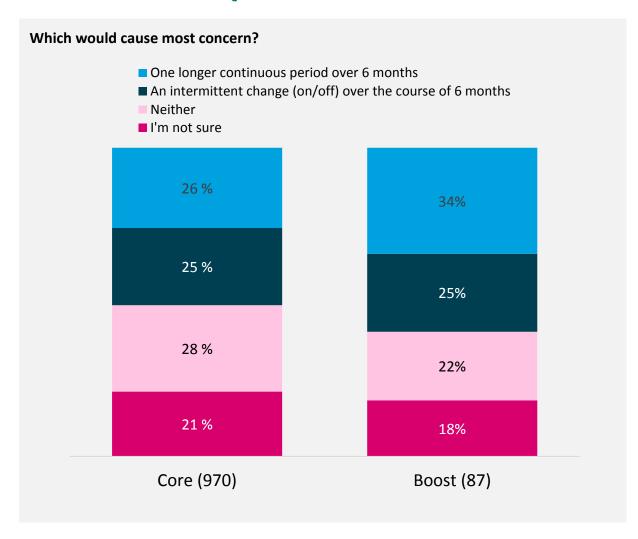
There are a number of concerns thrown up by customers should there be a change in supply.

Whilst customers are predominantly concerned over being supplied with inferior water, there is also a number of challenges / alterations customers say they would face, such as having to change detergents, installing water filters etc.

Ultimately, the customers who are most concerned need clarity and explanation on there reasons for change. There is a level of scepticism and cynicism surrounding this, and tackling this with customers is crucial to avoid a potential backlash.

Base: 465 (all respondents answering question) Q08. Why do say that? What would be your concerns?

Views on what duration/frequency would cause the most concern are split



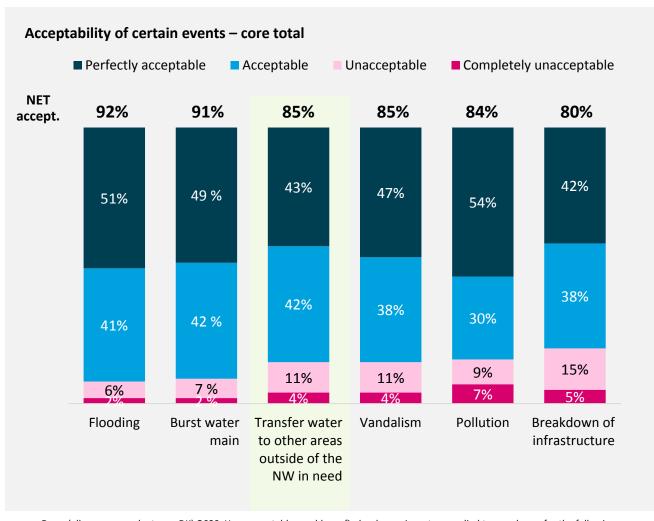
Views are mixed across subgroups as they are at a total level.

The only key difference is amongst those who would want to be notified about the changes versus those who do not. Those who do not want to be notified are significantly more likely to state neither approach would cause concern (63%) versus those who do want to be notified (21%).

	Cheshire (191)	Cumbria (47)	Greater Manchester (349)	Lancashire (263)	Liverpool (117)
One longer continuous period over 6 months	20 %	34 %	29 %	26 %	25 %
An intermittent change (on/off) over the course of 6 months	23 %	24 %	25 %	23 %	33 %
Neither	32 %	14 %	28 %	28 %	22 %
Not sure	24 %	28 %	18 %	22 %	20 %

Base: see graph (all respondents) Q015. In a scenario where a change in supply to your home was needed, which of the following options would cause you most concern?

There are relatively high levels of acceptability across all events / circumstances



Flooding is the most acceptable circumstance where a change in supply is needed

This is followed closely by a burst water main. An overwhelming majority (85%) support water trading in this scenario also.

Key differences by subgroups can be found on the subsequent slide.

Base: (all core respondents exc DK) Q020. How acceptable would you find a change in water supplied to your home for the following reasons

Despite high levels of acceptability, there is some variation across subgroups

One of the circumstances where we see the most variation is transferring water outside the North West to areas in need.

Customers in Cumbria are significantly less likely to find this acceptable versus other regions (see right).

Customers in younger age groups are more likely to find this 'perfectly acceptable' than older customers. (52% for 25-34 c.f. 41% for 65+).

Acceptability (NET acceptable %)	Cheshire	Cumbria	Greater Manchester	Lancashire	Liverpool
Flooding	91%	94%	92%	92%	92%
Burst water main	91%	90%	89%	92%	95%
Transfer water to other areas in need	87%	64%	85%	84%	90%
Vandalism	82%	88%	86%	85%	85%
Pollution	82%	84%	84%	85%	83%
Breakdown of infrastructure	79%	86%	79%	81%	80%

Boost 94% 95% 84% 86% 87% 81%

23

Base: (all respondents exc DK) Q020. How acceptable would you find a change in water supplied to your home for the following reasons

Communicating changes

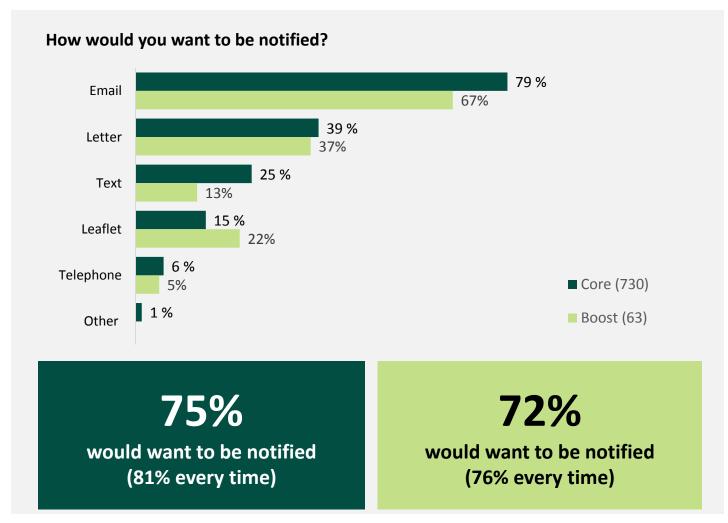


Three quarters of customers would want to be notified of a change and of those, 4 in 5 would want to be notified every time

The most appropriate notification method is via email.

Customers in lower IMD areas are most likely to want to be notified (83% - IMD7/8, 73% - IMD1/2).

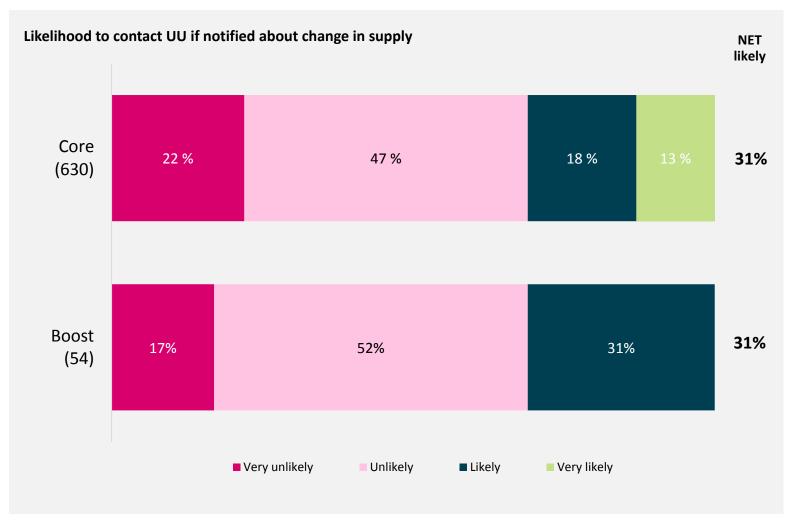
Interestingly there is no difference amongst those who believe they are supplied with soft or hard water – suggesting a broad mix of customers would want to be notified, regardless of perceptions on supply.



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Base: see graph (All respondents) Q016. In the scenario that United Utilities were to change the source of the water that supplies your home, would you want to be notified about this change? / Base: (All respondents who would want to be notified) Q017. How would you want to be notified? / Q018 Would you want to be notified every time?

The notification about a change in supply is sufficient for the majority of customers and would not prompt them to contact UU



Despite some level of concern, only a third of customers would be likely to contact UU in light of a change in supply.

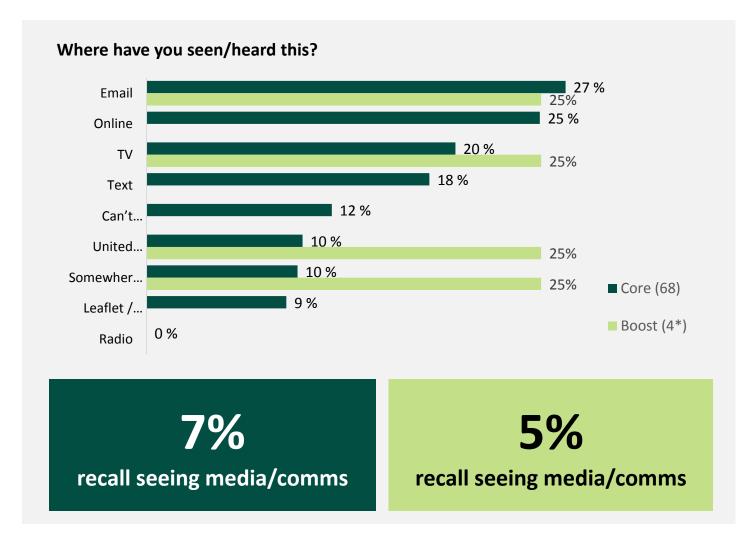
Despite this still being a large number of inbound calls to UU's contact centre, this number could potentially be reduced by better informing customers on the reasons for a change, including the likely duration.

Unsurprisingly, customers who have had to contact UU in the past regarding water quality are significantly more likely to contact UU again (43% c.f. 25% for those who haven't contact UU).

Customers in CACI segment F 'hard-pressed families' are significantly more likely to contact UU than most other segments (45%)

Base: see graph (all respondents exc don't know) Q019. How likely would you be to contact United Utilities in the event that you were notified that the source of the water for your home would be changing?

A significant minority have seen or heard items in the media regarding water quality in the last few months



Customers in Cumbria are significantly more likely to have seen/heard information in the media over other regions (18% c.f. 4-10%)

Email and online channels are the most commonly cited.

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Base: 970 / 87 (All respondents) Q021 Do you recall seeing or hearing anything about this in the last few months? / Base: see graph (All respondents who recall seeing something) / Q022. Where did you see or hear this?

Summary and conclusions



Summary and conclusions

It is evident from this research that water quality is something that many customers hold strong views on. The perceptions of such can vary by region, age and whether they believe they have hard or soft water. Customers are open to a change in supply but want to be notified, and most crucially informed on the reasons behind it.

- Two thirds of customers care about whether they are supplied with hard or soft water, and 3 in 5 want to know where their water is sourced from.
- Any change in water quality, whether by taste, smell or appearance is going to prompt inbound comms from customers – if they are not notified prior.
- Even when notified, there are still concerns over the impact on water quality. Customers question whether the 'new' water will be inferior, how will this impact their kitchen appliances, do they need to fit filters etc. Ensuring appropriate information is provided to customers around these questions will be crucial.

- The level of concern is exacerbated by the potential duration of any change in supply. The majority are prepared to accept a change for up to a week, anything over this and customers are more likely to take issue.
- Education on the reasons behind a change in supply is crucial to customer buy-in. When prompted, there is a high level of acceptability for a change in supply across a number of events / circumstances.
- 85% of customers would find a change in supply acceptable if it
 was due to having to transfer water outside of the North West to
 areas in need, however this drops off to 67% for customers in
 Cumbria

This data provides strong contextualised evidence on the perceptions of water quality and the impact a change in supply would have. However, further face-to-face research is intended in order to test specific water samples, which will be essential in understanding uniformed views on water quality

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