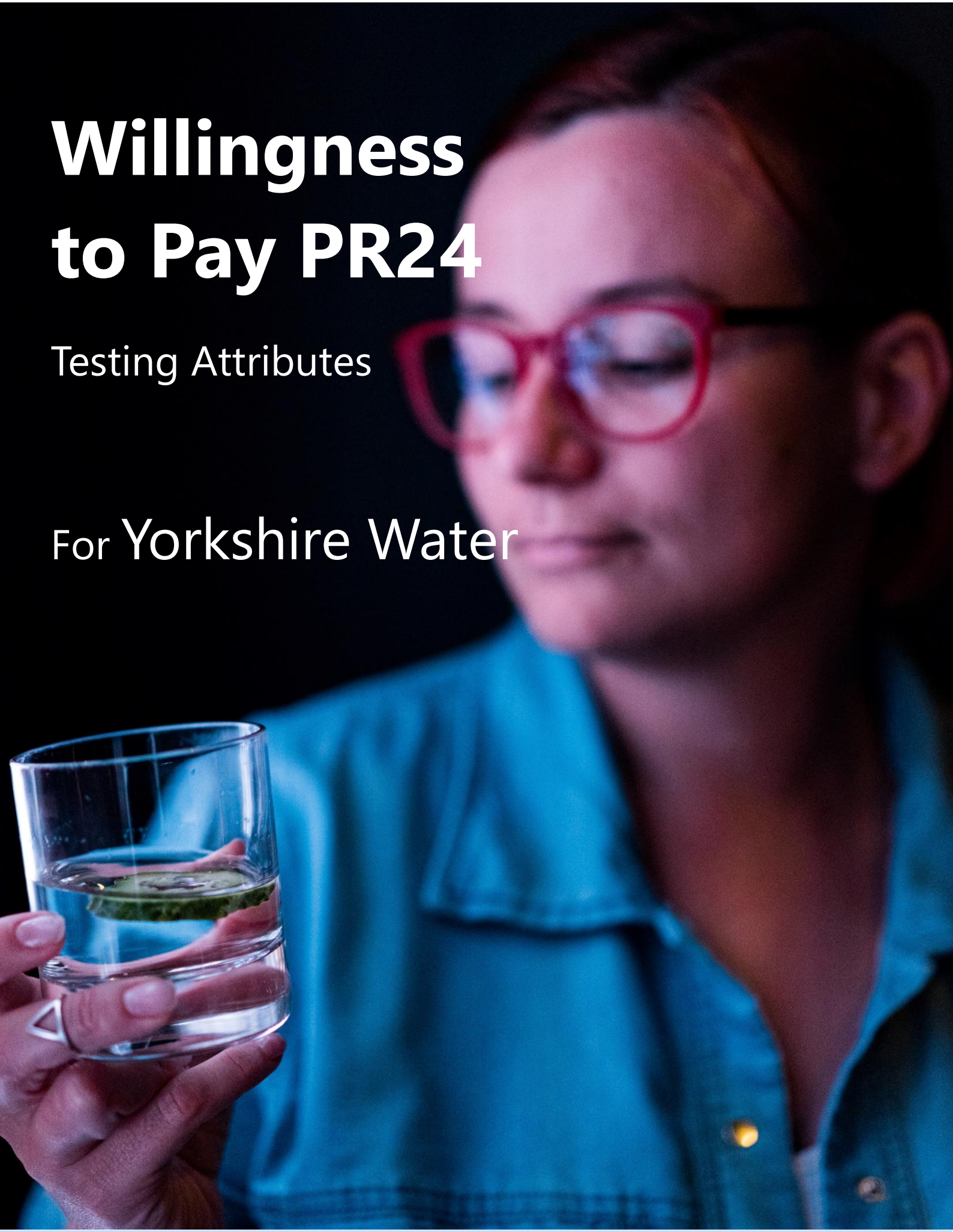
Willingness to Pay PR24

Testing Attributes

For Yorkshire Water



Qa Research
August 2022

MRS Evidence Matters™ Company Partner

QaResearch

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1. Introduction

This document produced by Qa Research provides the outcomes of qualitative research undertaken with household and non-household customers to inform the development of a Willingness to Pay (WTP) survey for the PR24 business plan.

The aim of this report is to provide advice and direction to Yorkshire Water and NERA, the economic consultancy responsible for calculating the valuations resulting from the WTP survey, and Qa Research's quantitative survey developers, to help ensure the wording of the proposed attributes and associated service level metrics are written in to the WTP survey in a way that customers will be able to understand and provide a valid opinion on.

2. Aims & Objectives

The aim of the qualitative research exercise was to:

'Test customers' levels of understanding and suggested areas for improvement with regards to the phrasing of a series of attributes and associated service level descriptions to use in a quantitative Willingness to Pay survey'

3. Methodology & sample

Insight from general household and non-household customers was collected via qualitative co-development workshops, each lasting 3 hours, using the zoom video platform.

Vulnerable household customer insight was collected via one-to-one in-depth interviews using either the zoom video platform or a telephone interview, depending on the access to technology available to the participants. Each interview lasting for an hour.

All participants were Yorkshire Water customers.

Respondents were recruited from across the Yorkshire Water region covering city, town, rural and coastal locations.

The sample comprised:

- 3 x 3-hour co-development workshop discussions with General Household Customers split by lifestage and social grade:
    - 1 x pre-family lifestage, all aged 18-30, ABC1 social grade
    - 1 x family lifestage, mix of ages of children, C2DE social grade
    - 1 x post family lifestage, C2DE social grade

- 2 x 3-hour workshop group discussions with Non-Household Customers split:
    - Business customers based in a city or town, mix of size & sector, all to have business premise separate to their own home
    - Business customers based in a rural, small town or rural coastal location mix of size & sector, all to have business premise separate to their own home

- 12 x individual depth interviews with vulnerable customers, split:
    - 4 x long term health condition (including disability)
    - 4 x very low income (e.g. dependent on benefits, are in or have experienced water debt)
    - 4 x elderly aged 75+ living alone

    - Across the 12 depth interviews 5 were digitally excluded i.e. they had very limited or no access to the internet for whatever reason.

Recruitment was organised by Qa Research's fieldwork management team.

Fieldwork took place w/c 8th August 2022.

Tools used to gauge customer opinion

In order to gauge customers level of understanding of the attributes and service levels and to allow them to suggest amendments / improvements to make them easier to comprehend, Qa produced a series of showcards to describe each attribute.

A version 1 and a version 2 of the same attribute were shown, with each version trying to communicate the same thing but using different words and numeric examples.

Each description comprised:

- A title
- An outline of the issue
- The current situation
- And what could change with more investment

Participants were asked to review each version to explore if the words made sense and how best to explain each area to customers. The ultimate goal being to make each description as customer friendly and clearly understandable as possible.

The key findings of this report show each of the showcards (the version 1 & version 2 for each of the 10 attributes tested) presented to participants along with analysis of how each was received by customers and a recommended revised version that could be used in the WTP survey.

4. Key findings: attribute descriptions

We start by providing a set of core principles and lessons learnt that could be considered when developing attribute descriptions for the Willingness to Pay survey.

Following this we provide further analysis of views towards each of the stimulus material that were presented to participants.

Following the analysis of each attribute we then provide a recommendation, which is our suggested rephrasing of the attribute for use in the quantitative survey.

4.1 Core principles and lessons learnt

Here we provide a summary of principles that emerged from all of the qualitative research sessions.

It is important to note that across the study there was very little difference in opinion amongst those recruited in the qualitative research – household, non-household and vulnerable customers.

Any differences in levels of comprehension regarding the attributes and service levels presented were only noted at an individual customer level rather than due to the fact they represented a business or were vulnerable in some way.

Although we explained the research was to test comprehension and amend or edit various descriptions, for attributes which resonate strongly with individuals it was a challenge for them not to immediately express an opinion about the actions being proposed. Therefore, attributes that they have either experienced or have a strong feeling about (e.g. perceived lack of Yorkshire Water not keeping up with ongoing repairs to pipes and sewers, bathing water quality) are aspects they may make quick knee-jerk decisions over, without always digesting the text in full.

Keep descriptions succinct

Descriptions that used fewer words were preferred. Anything that was perceived as 'too long' or 'wordy' made it harder for customers to digest the meaning or sentiment of the description

Any descriptions which are too wordy are likely to be 'skim read', so more text does not equate to the reader having a greater understanding of the issue.

Although on a small number of occasions, where descriptions had been cut more drastically, they could sometimes lose the meaning or appear too blunt.

Examples to convey what any additional investment would pay for were liked and often requested if missing. Examples provided a sense of the types of activities that will actually happen if more money was available. There is a balance to be struck with the number of examples, ideally no more than three, but having something definite and showing what will be done with 'my money' made it much easier for participants to make a choice.

Any technical phrases can cause confusion or be seen as 'internal' or 'corporate' language, so it is important to think of alternative or lay terms wherever possible.

The use of numbers

Anything that requires a lot of mental processing should be avoided; this could be processing several numbers in a description or being introduced to new areas to think about which they have never previously thought about or knew the water company was involved in.

Different numeric ways of expressing the likelihood or risk of something happening have a considerable impact on perceptions of it happening – very small percentages (e.g. 2%) are perceived to be much less likely to happen than if it is 45,000 properties, as the latter figure psychologically sounds to be greater.

Ratios feel more relatable to actual people being impacted than percentages, which for many are 'colder' and more remote. Therefore, the choice of how the numbers are expressed is likely to cause differences with regards to perception of the issue.

Where possible, round figures up as much as is feasible. They are easier to mentally digest and comprehend.

Understanding why being asked to pay more

Some attributes were viewed as activities and actions customers would expect any water company to do, which outside of testing comprehension of the wording, led to a discussion about why this wasn't being done anyway.

It is much easier to make a decision if the actions described are clearly viewed as an extra in addition to the basic service they would expect. For many, not damaging the environment, reducing issues with pipes, providing clean water and taking away sewerage (and treating it properly) are all expected, so they struggled to comprehend the additionality they were being asked to pay for.

The indication from the qualitative research is that for services which are seen as 'the bread and butter' of what any water company should provide, the willingness to pay more is likely to be very low. Not because the attribute is not deemed important but because a level of reinvestment (from profits) in this area is seen as something customers would expect as a matter of course.

It was clearly easier for participants to make a decision if they perceive any additional investment will make a definite positive change but first, they need to see the issue as a problem that needs solving.

Along similar lines, attributes where the risk appeared small, or the changes were likely to be small, generated confusion as to why customers were being asked to make a decision about doing more on this (see low water pressure).

Need to 'sell' the benefits

How transparent the descriptions are, in terms of the challenges faced or how well Yorkshire Water is currently doing, along with how specific rather than vague or general about what could change if customers are willing to pay more will have an impact on the numbers choosing to increase their bills to help solve the problem.

There is a stronger response if the actions are seen as tangible and likely to be effective in solving the problem.

Respondents are more likely to be willing to pay if they recognise that there is a significant issue which needs to be resolved , along with the benefits to them, either in the solving the problem or in potential longer-term savings on the bill by addressing a problem. Respondents want to know what is in it for them!

Based on the percentages or ratios shown some of the chances of the events happening appear to be very low, supported by the fact that few have experienced or know anyone who have experienced the issue presented. In these cases, for customers to be willing to pay more, then they will need to appreciate the need for greater investment and the benefits from this.

Not like when consumers are blamed

In certain attributes the fault is put in part on consumers for causing the problems. Respondents did not like when the text is accusatory, finger-wagging or passes the blame onto others.

Additional information may change the willingness to pay

Some respondents took a 'step back' and asked if it is only customers who are being asked to pay more to solve these problems. Many asked what contributions were going to be made from profits, reduced executive pay & bonuses and/or reduced shareholder dividends. Knowing that any increased financial burden would be shared equally between the company, shareholders and customers may increase the willingness to pay.

In a similar vein some asked what guarantees there would be that any additional funds would be ring-fenced and used as stated and would be effective. Again seeing this may increase the willingness to pay.

A handful of respondents referenced the profits YW make and for all attributes shown felt any improvements should be paid for out of this. It is therefore likely that some respondents competing the quantitative survey may be supportive of the improvements and/or actions being suggested but select a no change or even a reduction in their bill – not because they don't want to see change but because they do not feel customers should be incurring the costs to achieve these.

Across several attributes respondents wanted to know what YW had done last year and in previous years in order to feel a positive level of activity is already being undertaken, and what is being asked for is a mandate to increase this more significantly.

Impact of the current financial crisis

The current cost of living crisis was spontaneously mentioned as a factor. It is clearly on most people's minds. This may well have an impact on willingness to pay, as households are either currently feeling or anticipating a greater financial squeeze.

Therefore, to get customers to pay more, they will need to be convinced that there is a major problem to solve, and the solutions proposed will result in a positive benefit. This was not always the case in the descriptions tested.

The value of consistency

To aid the mental processing a consistent format should be adopted for all the attribute descriptions; with a similar style of title - be this a factual neutral description or using a verb to convey the aspiration (e.g. reducing or improving).

For many the aspiration is better to be in the '*what could change*' section.

Having a title, the issue, the current situation and what could change – for all 10 attributes was seen as helpful.

The length of text should ideally also be similar across all descriptions. Any with a vey long description is likely to put readers off and only be skim read.

Why these 10 areas of Investment?

A few respondents wanted clarification why these 10 areas had been chosen to potentially focus on rather than any others, especially as customers are not being asked about other ecological, environmental, community based or recreational aspects of what YW is or could be involved in.

Those with an interest in swimming in rivers or the sea felt there was little direct mention of stopping the discharge of raw sewerage form treatment works (CSO, although they did not use this technical term).

Does something need to be inserted into any initial text or preamble to the survey to explain or cover this.

4.2 Comprehension of the Attributes

For each of the 10 Attributes tested - two descriptions were shown to customers:

We have highlighted words or phrases in red which participants struggled to comprehend or caused confusion.

Aspects highlighted in green were elements they deemed positive or useful in helping them understand the descriptions.

Aspects shown in purple were the words or phrases where opinions were very mixed.

Underneath each version 1 & 2, we have summarised the key reactions and feedback, before providing a suggested revised version 3.

Attribute A – Drinking Water Quality

Version A - 1

Drinking Water Quality

The issue: The number of times our customers contact us each year because of issues with the look, taste or smell of their water.

Current situation: The number of contacts per 10,000 people in 2021/22 was 10.9

What could change: More investment, for example, in additional flushing of water mains and renewing or relining cast iron mains would help us reduce the amount of colour and smell in the water some of our customers receive.

Analysis:

- Making sure the water customers use and consume is wholesome, safe and compliant was a basic expectation – so there was concern over why customers were being asked to pay more for achieving this
- For some using the word 'drinking' makes this appear different to water in general, raising questions about if bath water, shower water or water to flush the loo is different … rather than clarifying the words adds some confusion

- The number of times customers contact or complain to YW may be an issue for the company but the issue for customers is they can't drink their water …. the description is deemed to be wrongly focussed
- The use of three numbers (per 10,000, across 2 years and 10.9) in the current situation requires a lot of mental processing and for many was therefore difficult to easily comprehend the scale of the issue
- A single year rather than across a financial year will be easier to digest … although 2021 may come across as not being very up to date
- Rather than using 2021/22 many suggested saying 'in the last year', or 'over the last 12 months' … not everyone comprehended that 2021/22 covers a 12-month period … some thinking it could cover 18 months!
- For some 2020/21 is the financial year, for others the football season or the school year ... so it is not always clear what the time period is referring to
- Rather than adding clarity using a very precise number, with decimal points (i.e. 10.9 out of 10,000) makes it harder for respondents to immediately grasp the chance or risk of the event happening to them – rounding numbers up or down was considered fine – and it would be quicker and easier to mentally process the number if it was either 10 or 11 (i.e. whole numbers)
- Even before seeing version 2 some suggested the risk could be presented as 1 in 1,000 which was seen as clearer to understand as the reader doesn't have to do any additional mathematics to try and distil the number down
- The examples gave a clear idea of what could be improved with more money, although if asking for more funding, the actions listed are what most customers would expect any water company to be doing anyway (repair and renewal of ageing infrastructure being an expectation not additionality!)
- Most customers have no idea what Yorkshire Water currently does to 'clean' the pipes but expect a degree of maintenance. There was some confusion over the phrase 'flushing of water mains' as the phrase is either related to individuals flushing the loo and / or a sense that water flows through and flushes the pipes all the time … therefore it adds confusion rather than clarity to what Yorkshire Water are offering to do
- The reference to relining cast iron mains gives the sense something is happening, but none knew what this actually meant, raising questions over how effective this is in the long term and why not just replace old metal pipes with plastic ones
- Given the perceived low risk - without offering a step change in activity or a real clear benefit to customers it is unlikely that many will be willing or see the need to pay more.

Attribute A – version 2

The look, taste and smell of your tap water

The issue: Every year some customers experience an unexpected change in the colour (normally light brown) and / or the taste or smell of their water supply (normally a chlorine smell). The water is safe to drink and can be used for bathing and in washing machines and dishwashers. The change usually lasts for around 24 hours and could happen at any time.

Current situation: Each year around 1 in 1,000 households in the region contact Yorkshire Water about the look, taste or smell of their drinking water.

What could change: More investment, for example, in maintenance of the network or modernising the mains pipes would help reduce the number of times customers experience these issues.

Analysis:

- In comparison the title is more relevant to individual consumers, describing more clearly what the text will be talking about
- Tap water quality raises concerns and captures attention
- The description of issues with colour and smell were easy to understand and explained in simple terms
- Compared to version 1 the issue is preferred as it is taken from a customers' perspective and says what could happen to them … it gives context and a sense of worry (and therefore a clear decision if to pay for an improvement)
- However, the issue is quite wordy – with the middle sentence, and the reference to only lasting 24 hours making it come across as an inconvenience rather than a major issue to resolve
- The current situation was more clear cut as only one number needed to be digested – indeed many had already suggested saying 1 in 1,000
- Some suggested, given the phrase 'the look, taste or smell of their drinking water' is already used in the title, that this could be replaced with 'this' to shorten the amount to read
- However, the chance was considered very small and unlikely to happen – and the text says there is no danger to health and only lasts a short time – all of which may impact on how many may be willing to pay more unless the issue is perceived to be something that needs to be improved

- A ratio was easier for most to perceive the risk and to view the issue in terms of the chances of it happening to them; it was more relatable in a personal sense
- What could change was liked for being short and easy to understand – it does not use technical terms or jargon – but in itself does not really sell the changes or benefits that additional funding will bring. Again many mentioned they would expect the 'what could change' to be part of the standard and existing service.

Suggested revised version

Attribute A

Drinking Water Colour, Taste and Smell

The issue: Every year some customers experience an unexpected change in the colour (normally light brown or milky) and / or the taste or smell of their water supply (normally a chlorine smell) for a short period of time. The water is still safe to drink and can be used for bathing and in washing machines and dishwashers.

Current situation: Each year around 11 in 10,000 households in the region contact Yorkshire Water about a change in the look, taste or smell of their drinking water.

What could change: More investment, for example, in extra maintenance of the network or upgrading the mains pipes, would help reduce the number of times customers experience these issues.

Attribute B – Unplanned Interruptions to Supply

Attribute B – version 1

Unplanned Interruptions to Supply

The issue: Your water supply stops working without warning, affecting all taps, toilets, dishwashers etc. and lasts for 3 to 6 hours.

Current situation: The number of properties that are affected with a 3-6 hour unplanned interruption in 2021/22 was 45,501.

What could change: More investment would allow us to reduce the number of sudden interruptions customers experience by undertaking more proactive maintenance and replacement of ageing clean water network assets; it would allow us to better manage water pressure and better respond to company and customer identified mains failures.

Analysis:

- By itself the title is not clear – many did not readily comprehend what this would be talking about
- The issue is more a description of a potential scenario rather than clearly conveying the issue i.e. why is this happening
- As with attribute A … saying 'in the last year' or 'over the last 12 months' was deemed to be easier to comprehend than referring to 2021/22
- Without a wider context (i.e. how many properties are there in the region) the number affected is difficult to judge if the current situation is ok or poor. In isolation it gives no sense of the scale of the problem, hence may asked how many properties are in the region or what the 45,501 was out of. However, compared to the 2% in version 2, 45,000 does makes it sound more of a problem
- Absolutely precise numbers are not needed – respondents were ok to have figures rounded up or down
- Using phrases (in this case in the 'what could change section') which avoid technical jargon is desired – very few customers have any idea of what is needed to provide clean water or take away sewerage so do not know what water network assets are … this was viewed as corporate speak … customers asked does this mean the 'pipes'
- If asking for more funding, the examples provided were what customers would expect anyway (ongoing maintenance is an expectation not

additionality!) – to get more support for extra funding what could change may need to offer more or a more radical approach which may result in a perceived step-change in performance.

Attribute B – version 2

Reducing the chance of a lengthy unplanned interruptions to the water supply

The issue: Every year a certain number of households in the Yorkshire Water region experience their water supply being cut-off for 3 to 6 hours due to unplanned interruptions such as burst pipes. During an interruption Yorkshire Water would deliver bottled water to vulnerable people.

Current situation: The number of properties in 2021/22 who experienced their water being cut-off during an unplanned interruption between 3 to 6 hours long is roughly 2% or 2 in 100 properties.

What could change: More investment for example replacing old and damaged pipes, using technology to identify water bursts, repairing bursts more quickly and undertaking more ongoing planned maintenance work would reduce the chances of any lengthy unplanned interruptions happening.

Analysis:

- The verb in the title was not needed – the title is already long enough – as that is the choice customers will be asked to make
- The word 'chance' in the title and in the *'what could change'* section was disliked as it suggested any actions might not have a definite impact
- The rest of the title was considered to be a clearer description than version 1 – and in itself is long enough, it does not need to be any longer!
- The issue is more focussed on what it means to them as a customer
- Cut-off had less ambiguity than an unplanned supply interruption
- The reference to burst pipes causing an unplanned interruption was easy to comprehend
- However, the last sentence about vulnerable people is not an issue – with suggestions to either remove it completely or move it into the current situation
- 'Is roughly' was seen as superfluous … 'was' would be better
- The figures 2% and 2 in 100 were clear and easy to understand but compared to the number in version 1 make it sound as if there is not really

a big problem to solve …. Even in version 2 the ratio made it appear to be more of a risk than the percentage - the numeric expression used may have a psychological impact on the willingness to pay
- Some suggested for clarity having the figure, followed by the percentage (i.e. is around 45,000 which is 2% of all properties in the region)
- What could change and the impact of doing these things was much easier to comprehend – although again it does not go beyond what many customers would expect Yorkshire Water does anyway.

For both descriptions some respondents wanted clarification why the time period was 3-6 hours; for them surely saying more than 3 hours would be a better way to phrase this.

Suggested revised version

Attribute B

Unplanned Interruptions to the Water Supply

The issue: Every year a certain number of households in the Yorkshire Water region experience their water supply being cut-off for 3 to 6 hours due to unplanned interruptions such as burst pipes.

Current situation: Last year 45,000 or 2% of properties experienced their water being cut-off for 3 to 6 hours due to an unplanned interruption. During an interruption Yorkshire Water delivers bottled water to vulnerable people.

What could change: More investment would enable us to invest in extra technology to identify water bursts, repair bursts more quickly, and undertake more maintenance work to reduce the chances of any lengthy unplanned interruptions happening.

Attribute C – Leakage

Attribute C – version 1

Leakage

The issue: Millions of litres of water are lost from the Yorkshire Water network and customer properties as a result of leaks.

Current situation: The amount of water lost between our treatment works and our customers' taps in 2021/22 was 283.1 million litres of water per day, this is approximately 22% of all the water Yorkshire Water produce.

What could change: More investment would allow us to employ more people i.e. more leakage inspectors will mean finding more leaks and more network protection colleagues to fix leaks faster. Investment would also help fund innovative projects to helps find leaks which are currently undetectable with current technology and equipment.

Analysis:

- Having read the two previous attributes the title for this one was seen as extremely short and to the point
- The start of the issue section was attention grabbing and alerts readers to the scale of the problem
- The phrase network is not readily understood – it does not conjure up a clear image of what it is referring to
- Whereas customers could clearly picture a leaky tap in their own homes' however the reference to customers properties being part of the issue is not followed through on 'what could change' – some expected YW to be offering assistance with domestic plumbing to reduce the levels of leakage
- By itself 283.1 million litres sound a lot but is rather meaningless – again the figure could be rounded up. The use of a percentage helped put the level of leakage into context and communicated that there is a severe problem … indeed many were really shocked that a fifth of water is being wasted. Some suggested adding the word 'clean; into the issue before the word water to really emphasise this
- Having a reference to employing more people (as opposed to paying for more technology) was liked and welcome

- However, the job titles used were considered to be 'made-up' and meaningless … engineers or simply more staff was deemed to be more understandable.

Attribute C – version 2

Reducing water lost through leakage

The issue: Leaks in the pipe network causes clean treated water to be lost before it reaches customers taps.

Current situation: Last year 22% of water was lost through leaks in the network, this is 283.1 million litres of water per day. This is the equivalent of supplying the population of Leeds and York each day.

What could change: More investment would mean old pipes could be replaced quicker and new smart technology could be adopted to find and fix leaks sooner. This would mean less water is lost to leakage.

Analysis:

- Compared to version 1 this was liked for being short and concise
- To be consistent with other titles it needs to be a description rather than a proposed action – the option choices will determine if this is reduced or not
- The title provides a bit more of an explanation
- The issue is clear and gets straight to the point. In comparison to version 1 the issue is all on Yorkshire Water and not customers – which helps avoid any confusion
- The words *clean treated water* … and … *be lost* … clearly communicates a sense of wastefulness
- The use of the number of litres is the same as in version 1 but the additional context of using Leeds and York was liked – it helps indicate, along with the percentage that there is a problem to be solved
- There is an expectation that old pipes will or should be replaced anyway, from the existing bill – this is surely part of they service customers already pay for, rather than being something which is additional or exceptional
- It is clear what could change, explained in a short and non-jargony way. However, to get customers to pay more to resolve the issue may require some direct benefit to them, beyond simply less water being lost or

wasted … some asked will resolving this end up in reducing customers' bills?

Suggested revised version

Attribute C

Water Lost Through Leaks

The issue: Millions of litres of clean treated water are lost from the Yorkshire Water network before it reaches customers taps.

Current situation: Last year 22% of water was lost through leaks in the network, which is 283 million litres of water per day. This is the equivalent of supplying the population of Leeds and York each day.

What could change: More investment would allow us to employ more people and use new technology to find and fix leaks sooner.

Attribute D – Per Capita Consumption

Attribute D – version 1

Per Capita Consumption

The issue: This is the average amount of water each person uses in their household each day.

Current situation: In 2021/22 the average amount of water each person used in their home is 131.5 litres of water per day.

What could change: More investment would allow us to do more targeted customer messaging on water use reduction and benefits of this. It would also allow us to encourage more customers to have a water meter fitted. We could also fit more meters when properties exchange hands.

Analysis:

- The words used in the title are rather meaningless, phrased and seen as a corporate target
- Personal or individual water usage is not really a problem for customers. Therefore, how the issue is explained is not seen as being an issue or a problem for customers
- Without any context it is impossible for respondents to know if 131.5 litres is a lot and how they themselves or other regions compare to this – so if it is something they need to address?
- No-one feels they themselves are wasteful of water and the text does not explain why the current level of average usage is a problem which needs fixing
- The text raised question on how YW would target certain customers and if they know already who is behaving 'badly' why don't they do this already
- Nor does the text explain why switching customers to being metered will help resolve the problem
- Having previously seen information about levels of leakage – many felt YW should be addressing high levels of leakage before asking customers to pay more to reduce their individual water usage. Positioning of these two attributes in the survey may make a difference to willingness to pay – rather than having one immediately after the other
- In this format it is unlikely that many will see a need to invest more.

Attribute D – version 2

Water usage

The issue: Water costs money and energy to clean, process and deliver to customers properties. It should be used wisely and not wasted.

Current situation: Every person in Yorkshire uses an average of 131.5 litres of water per day for drinking, cooking, washing, cleaning, flushing the loo, watering plants etc.

What could change: More investment would allow us to do more communications on how customers can save water, provide more water saving advice and devices, encourage more customers to switch to having a water meter so they can better monitor their water usage.

Analysis:

- In comparison to version 1 the title is much more comprehensible
- Neither version clearly communicates why the level of current consumption is a problem or why it needs reducing – the issue needs to convey what the problem is
- Many took umbrage at what they view as corporate finger wagging and being told off (it was described as condescending). As seen in version 1 no-one sees themselves as an excessive consumer, and those on a meter already feel they can use (and pay for) what they want
- The numeric used is meaningless. There is a need to have a comparison or some easy to visualise references (e.g. filling the bathtub x times a day) so respondents can determine if they feel this number is excessive (or not)
- The list of activities in the current situation are seen as everyday essential uses, which helps reinforce the impression that there is not a problem in need of a resolution
- The activities in version 2 (education & products) suggest a lot more tangible actions than version 1 which were perceived would help reduce levels of usage. It also explains why being metered would have an impact
- However, communication campaigns to encourage behavioural change are seen as something which Yorkshire Water does anyway, raising questions what would be different if customers paid more
- The benefits to customers if willing to pay more are not very clear.

Suggested revised version

Attribute D

Using less water

The issue: Ongoing challenges associated with climate change mean everyone needs to use less water for the sake of the environment and to ensure we have enough water for everyone, all of the time.

Current situation: The average amount of water each person uses in Yorkshire is 131 litres per day for drinking, cooking, washing, cleaning, flushing the loo, watering plants etc.

What could change: More investment would allow us to do more communications helping customers to save water, provide more free water saving devices, and offer more customers the option to have a water meter installed so they can better keep track of the water they use.

Attribute E – Internal Sewer flooding

Attribute E – version 1

Internal Sewer flooding

The issue: Sometimes our network can fail and sewage can flood the inside of homes or business.

Current situation: The total number of internal sewer flooding incidents per 10,000 sewer connections in 2021/22 was 2.83

What could change: More investment would allow us to increase the proactive maintenance and replacement of ageing wastewater network assets; install monitoring devices and improve mapping of sewers; increase targeted customer messaging on avoiding disposal of items down drains and toilets; better respond to reports of sewer blockages and collapses; increase jetting of sewers; management and control of rainfall induced flows into the sewer network.

Analysis:

- On an initial read, by itself the phrase internal sewerage flooding was not clear – some suggested adding 'in people homes' or 'within homes'
- The phrase 'our network can fail' puts the blame and onus on YW to resolve the issue – making some question right at the start why customers should be asked to pay if the failure is down to YW
- The current situation required some mental gymnastics with 3 numbers to read and digest
- Questions were raised if 10,000 sewer connections were the same as 10,000 homes or properties
- Having to calculate 2.83 out of 10,000 is difficult for many to visualise the scale of the problem
- The current situation suggested this was a relatively small problem – being 2.83 per 10,000. Sewerage in anyone's home is seen as awful but having an absolute number of properties impacted was suggested to make the issue come across as one that needs resolving
- Examples which focus on what could be done above and beyond (e.g. maintenance, replacement and re-investment is expected) will help customers decide if it is worth paying more
- Terms such as wastewater network assets are seen as jargon and mean very little to the general public

- Likewise targeted customer messaging was seen as a very internal way of expressing what could change
- The list of possible activities is considered to be rather technical and far too long – which includes many things that they are not aware a water company does - many lost interest as there is too much to read and think about
- An effective sewerage system was considered to be a basic function of any water company, with the list of activities considered to be quite standard activities customers would expect would be taking place anyway – again many were unsure why they should pay more for this. We have added in the word 'extra' to the suggested revised version to indicate that activities are done but if willing to pay, them even more could be achieved.

Attribute E – version 2

Sewage flooding inside properties

The issue: Flooding from the sewer can get inside homes and businesses, affecting living areas, giving off a foul smell, damaging floors, walls and furniture. This can be distressing for those affected and harmful to the home environment.

Current situation: Around 1 in 3,534 properties each year experience an internal flooding incident – defined as the escape of water from the sewerage system which enters a building.

What could change: Investing more in extra sewerage capacity (infrastructure), technology to identify and respond to issues more quickly and education (working with customers to reduce sewer blockages) will reduce the risk of sewage flooding.

Analysis:

- Overall version 2 was considered to read more clearly as it has less jargon and is less wordy including the title, although some suggested homes would be better as it is more personal than properties
- The text clearly conveys a more emotional impact from this happening – making it easier for respondents to visualise and empathise with anyone who has this happen to them
- The ratio shown suggests an extremely low risk of this happening – a total number of properties who experience this in the region may help to better communicate the scale of the issue

- Some suggested clarifying that this number is in Yorkshire or the Yorkshire region
- The suggested changes convey tangible, physical and practical solutions which are easy to understand.

Suggested revised version

Attribute E

Sewage flooding inside properties

The issue: Flooding from our sewers can sometimes get inside homes and businesses. This can be distressing for those affected and harmful to the home environment.

Current situation: Around 1 in 3,500 properties each year (which is 664 homes and businesses in Yorkshire) experience a sewer flood inside the property.

What could change: Investing more in extra sewerage capacity, technology to identify and respond to issues more quickly, and education (working with customers to reduce sewer blockages) will reduce the risk of sewage flooding.

Attribute F – External Sewer flooding

Attribute F – version 1

External Sewer flooding

The issue: External sewer flooding happens when sewage escapes from Yorkshire Water pipes and spills on to the ground outside your property or a local area such as a public park giving off a foul smell, and which could cause damage.

Current situation: The total number of external sewer flooding incidents in 2021/22 was 4,578.

What could change: More investment would allow us to increase the proactive maintenance and replacement of ageing wastewater network assets; install monitoring devices and improve mapping of sewers; increase targeted customer messaging on avoiding disposal of items down drains and toilets; better respond to reports of sewer blockages and collapses; increase jetting of sewers; management and control of rainfall induced flows into the sewer network.

Analysis:

- The title is not how the general public would refer to this but makes sense in comparison to internal sewer flooding
- The issue is clear, with the reference to public spaces, as well as domestic property making the incident appear real and believable
- Unlike for internal sewer flooding examples – the absolute number helps convey that there is a risk of this happening (compared to using a low percentage or low ratio)
- Much of what could change is generally expected to be done by YW anyway as a matter of course (e.g. proactive maintenance and replacement of ageing assets). The list of activities is too long and puts readers off rather than helps inform them what could happen – ideally keep to three of fewer examples
- There are several phrases (highlighted in red) which were seen as water company jargon.

Attribute F – version 2

Sewage flooding outside properties

The issue: Some customers experience sewage escaping from the pipes onto the outside of their property such as in their garden. This is caused by blocked or burst pipes, which can be distressing for them and harmful to the environment.

Current situation: Just over 1 in 524 properties in the Yorkshire Water region experienced sewage escaping from the pipes onto the outside of their property each year.

What could change: Investing more in infrastructure, technology and education will help reduce the chances of external sewage flooding happening.

Analysis:

- The title was viewed more how the general public would refer to this – changing properties to homes would make it more emotive
- The issue – both the cause and the consequence were clear and easy to comprehend
- The ratio suggests a very low risk of the event ever happening – which may impact on the willingness to pay to reduce the risk even further
- The phrase 'just over' is not needed if the ratio is so precise … but may be appropriate if the ration was rounded down to 1 in 500
- What could change, although lacking tangible examples, was liked for being short and to the point.

Suggested revised version

Attribute F

Sewage flooding outside properties

The issue: Some customers experience sewage escaping from the sewers into their garden or a local area such as a public park. This can be caused by a blocked or collapsed sewer, which can be harmful to the environment.

Current situation: There were 4,578 outside sewer floods last year in Yorkshire.

What could change: Investing more in extra sewerage capacity, technology to identify and respond to issues more quickly, and education (working with customers to reduce sewer blockages) will reduce the risk of sewage flooding outside.

Attribute G - Length of River Improved

Attribute G – version 1

Length of River Improved

The issue: The quality of some of the wastewater we treat and put back into the environment (as well as other factors outside of Yorkshire Water's control) can have some negative effects on habitats for fish and wildlife, and can lead to algae (green slime) in the river water. Yorkshire Water are working on improving their impact on the rivers of Yorkshire.

Current situation: In 2021/22 the cumulative length of river water that was improved as a consequence of completed improvement schemes was 50.08km, which met the target set for last year.

What could change: More investment would allow us to introduce more schemes which improve more kilometres of river water each year e.g. upgrading equipment at treatment works to treat waste water effluent to a higher standard e.g. with UV, biological phosphorous removal, or chemical treatment.

Analysis:

- The title is rather ambiguous and therefore confusing as to what the description will actually be about. It is not a phrase the general public use!
- Some asked how YW were making rivers longer and which ones would be affected!
- The issue as described comes across that it is YW who are causing the problem – so some respondents before reaching the end of the text did not feel customers should be being asked to resolve a problem being caused by YW
- The reference to 'other factors outside YW control' raised questions about the effectiveness of paying more – and would it have the actual impacts suggested
- Those with an interest in the topic felt that the description needed to talk about YW discharging raw sewerage into rivers – they felt the text was hiding or masking the real issue (and the real culprit!)
- The use of the words 'negative' and 'improving' in the same issue meant many had to re-read the sentence … if YW are having a 'negative' impact how can the situation be 'improving'?

- Length of rivers in km might be how a water company measures improvements but is very difficult for customers to visualise – nor did it communicate clearly how these stretches had improved … several asked does it mean they are safe to swim in?
- Some struggled with km, requesting that the distance be shown in miles
- There is no context to understand whether the 50km (which could be rounded up or down) is good, poor, below or above expectations – respondents wanted to know how this compared to how much is needing to be improved
- Upgrading equipment is generally viewed as a normal business expense and not something customers should be paying more for
- The words created some concern – as it suggests effluent currently is not being treated to the high standard – with the examples given being far too technical to make sense to most. More is a desire to know what impact any improvements would make either for nature & wildlife, or for people using the rivers for recreation.

Attribute G – version 2

River water quality

The issue: Chemicals and fertilisers from agriculture, pollution from industry and discharges from wastewater treatment works can all impact on the quality of river water in the region.

Current situation: The levels of damaging chemicals in some places are much higher than they should be. Last year Yorkshire Water completed a number of schemes which improved 50.08km of the rivers in Yorkshire, meeting the targets set.

What could change: Although some of this is out of Yorkshire Water's control, greater investment would result in more actions to improve the river water quality. This would benefit nature and wildlife by reducing the levels of damaging chemicals in the water.

Analysis:

- The title was seen as more understandable to participants
- The issue was clear to understand and aligned with the current situation - but raised questions about why customers should be being asked to pay

– if others are at fault – including YW themselves. Simply stop discharging nasty stuff into the rivers or fine those who do!

- Last year was preferred to 2021/22 – it is easier to understand
- Questions were asked, if the targets have been met last year, why does YW need more money rather than just repeating this again? And why should customers pay more if targets are already being achieved?
- Spelling out the benefits was liked and deemed to make it clearer than version 1 – although some still wanted to know if this meant rivers would be safe to swim in.

Suggested revised version

Attribute G

River water quality

The issue: Discharges from our wastewater treatment works, along with chemicals and fertilisers from agriculture, and pollution from industry can all impact on the quality of river water in the region.

Current situation: The levels of damaging chemicals in some places are much higher than they should be. Last year Yorkshire Water completed several schemes which improved 50km of the rivers in Yorkshire, out of the 742 which need improving.

What could change: Although some of this is out of Yorkshire Water's control, more investment would allow us to introduce more improvement schemes including working with partners to help improve river water quality. This would benefit nature and wildlife.

Attribute H – Bathing Water Quality

Attribute H – version 1

Bathing Water Quality

The issue: Most but not all bathing waters meet or exceed the European Union Bathing Water Directive for water quality requirements. You could still swim in the sea, but there would be a small increase in the chance that you might get ill if you swallowed some water.

Current situation: The total number of bathing waters which meet or exceed standards is 16 out of 18.

What could change: More investment would allow us to do more partnership working to ensure the run off from farms is of the highest standard. We can also further invest in our coastal treatment works to ensure they are run at optimal performance, treat effluent to an even higher standard and further reduce the risk of failures.

Analysis:

- The word bathing makes most initially feel the description is about bath water in their homes – which in itself creates confusion
- The words 'most but not all' helped tee up the issue
- Reference to EU directives adds little to respondents understanding of the issue and for some creates more confusion … *"I thought we had left the EU"*
- The last sentence in the issue helps convey why it matters
- The current situation suggests things are generally ok as standard are being met or exceeded at nearly every beach – which raises the question why should customers pay more for something which is already good?
- What could change introduces new issues to think about and if these are causing a problem then it is farmers or YW themselves who should be sorting out the consequences (or fined heavily for causing a problem), rather than asking customers to pay more.

Attribute H – version 2

Sea Water Quality at Yorkshire's Beaches

The issue: The sea water is not always rated as excellent, based on the tests regularly undertaken by the Environment Agency at every beach along the Yorkshire Coast.

Current situation: Out of the 18 beaches the quality of the sea water was rated by the Environment Agency as being excellent at 7 of them, good at 9 and the minimum status of sufficient at 2 – none were rated poor.

What could change: Further investment would help reduce pollution incidents from sewerage treatment plants, reduce the impacts caused by agriculture and industry, all of which would improve the quality of the sea water on Yorkshire's beaches.

Analysis:

- The title provided a much clearer description of what the text will be about – the focus on Yorkshire's beaches making it relevant
- The issue is considered to be more of an issue than version 1 – the question for customers being do they want to pay more for excellent rather than just good quality
- The Environment Agency was felt to be a more relevant body than referring to EU directives
- The number of pollution incidents has not been mentioned until the final section … nor is there any detail of the scale of the problem. The previous text instead suggests that the situation is already generally good
- Without a clear issue that needs to be resolved, it is unlikely many will select that they are willing to pay more – even if this is conveyed, those who don't visit the coast may still be unlikely to contribute unless some wider benefits can be communicated.

Suggested revised version

Attribute H

Sea Water Quality at Yorkshire's Beaches

The issue: Sea water is not always rated as excellent, based on the tests regularly undertaken by the Environment Agency. Discharges from our wastewater treatment works, along with chemicals and fertilisers from agriculture, and pollution from industry can all impact on the quality of sea water.

Current situation: Out of the 18 beaches in Yorkshire the quality of the sea water was rated as being 'excellent' at 7 of them, 'good' at 9 and the minimum status of 'sufficient' at 2, with none rated 'poor'. At a beach rated 'sufficient' you could still swim in the sea, but there would be a small increase in the chance that you might get ill if you swallowed some water.

What could change: Extra investment would help reduce pollution incidents from our sewage treatment plants, and reduce the impacts caused by agriculture and industry, all of which would improve the quality of the sea water at Yorkshire's beaches.

Attribute I – Pollution Incidents

Attribute I – version 1

Pollution Incidents

The issue: This is where Yorkshire Water's sewerage system causes pollution when unexpected sewage escapes into rivers and streams. This includes incidents where sewage enter watercourses, causing an environmental minor impact which can have minimal effects on water quality e.g. having a small loss of larvae or fish species such as stickleback.

Current situation: The number of minor pollution incidents caused by our wastewater assets from January to December 2021 was 126.

What could change: More investment would allow us to do more of the activity that prevents pollution from happening i.e. flushing sewers, recruiting more network protection colleagues, finding sewer defects and fixing them before they become a problem.

Analysis:

- Pollution is quite broad – the suggestion is to add water to make it more focussed
- Using words such as minor and minimal in the issue suggests there is not much of a problem in need of greater investment to resolve
- The description in the current situation is deemed a long way of saying what version 2 communicates much more succinctly. Wastewater assets is jargon which is not readily understood
- Compared to the other attributes this is the only one which refers to 2021 … adding in January to December is not deemed to be necessary
- Without context it is not clear if 126 incidents show a poor or worrying level of performance
- YW are expected to be doing the activities which are listed anyway as part of 'the day job'
- However, many responded positively to the reference to recruiting more staff, although the job title used is meaningless – a reference to more engineers or staff would be more understandable and positive.

Attribute I – version 2

Wastewater pollution

The issue: The environment is affected by a small number of wastewater pollution incidents a year.

Current situation: Last year there were 126 minor pollution incidents in the Yorkshire Water area.

What could change: Greater investment in areas such as more maintenance, repair and monitoring of sewers, along with educating customers about what to and not to put down the drain, will reduce the number of these incidents.

Analysis:

- The term wastewater is not readily understood – for some it means leakage or wasting water, for others it is dirty water or a euphemism for sewage - although few had better suggested wording to use in the title
- The issue is too brief and full of jargon. The first sentence in version 1 was deemed to be better
- The current situation was liked for being short, factual and simple to understand – although the same reactions to 126 and the word minor – as in version 1 emerged
- However, many asked for some comparisons to previous years to help convey if the situation is improving or getting worse
- Although quite general and high-level, the text conveys a range of activities and what impact this could have
- However, some felt strongly that the solutions should lie more with YW or fining the perpetrators rather than via education customers.

Suggested revised version

Attribute I

Pollution of watercourses

The issue: Pollution happens when sewage unexpectedly escapes from Yorkshire Water's sewerage system and spills into rivers, streams, reservoirs or the sea. This can cause environmental damage affecting not only the water it enters but also impacting on nature and wildlife which rely on that waterbody.

Current situation: Last year there were 126 minor pollution incidents in Yorkshire caused by Yorkshire Water. This was an improvement on the previous year where we had 159 minor pollution incidents. Minor incidents have minimal impact or effect on the environment.

What could change: More investment would allow us to employ more people to monitor and repair our sewers, along with helping customers understand what not to put down the drain, which will help reduce the number of these incidents.

Attribute J – Low Pressure

Attribute J – version 1

Low Pressure

The issue: When water pressure is low, it would take longer to fill a bath. Low pressure in customers properties is caused by a number of factors such as bursts or perhaps a new housing development being added to the network, we work hard on maintaining pressure for all our customers every day.

Current situation: The total number of registered properties which, at the end of the year, have received, and are likely to continue to receive, a pressure or flow below the standard level is 4. This number would have fluctuated throughout the year.

What could change: Maintaining and improving pressure reduces the risk of supply issues, more investment would allow us to do more work on our network helping to avoid low pressure but also future problems.

Analysis:

- The need for the word water to be added to the title was suggested
- The last sentence in the issue was deemed to be un-necessary – if it belongs anywhere, it is in the current situation. It does not describe the issue or problem and indeed deflects from the need to pay any more if YW are already working hard to solve any problems
- Lots of respondents felt they have experienced problems with low water pressure. Given the low numbers later on, this suggests what many consider to be low pressure, may be different to how YW define or measure this … no-one knew what the standard level referred to
- When reviewing the current situation, given the very small numbers, the issue does not appear to be so serious – respondents could not believe the figure was only 4 (asking if this was a typo) – especially as many believe they have experienced problems of low pressure themselves
- In both versions many struggled to comprehend if this is a problem and then what would they be getting if they paid more
- Given there are so few cases (i.e. 4) many participants asked why can't YW just tackle this without needing extra money?
- The small number in the metrics is likely to impact on any willingness to pay unless a clear improvement or change can be communicated.

Attribute J – version 2

Low Water Pressure

The issue: Every year some households experience problems with the force and volume that water comes out of their taps. When water pressure is low, it comes out of the tap as a trickle.

Current situation: Last year Yorkshire Water helped around 50 customers resolve problems they were experiencing with low water pressure, bringing the current number of customers who have received, and are likely to continue to receive below standard water pressure to 4.

What could change: More investment would allow Yorkshire Water to invest more in the infrastructure and network which will mean fewer customers experiencing problems that cause short periods of low water pressure.

Analysis:

- Given that many suggested adding the word water into the title at version 1 – it was liked in version 2
- The description of what low water pressure is was seen to be very clear
- The text does not suggest there is an issue in need of a solution – given only 4 properties remain affected! Even 50 customers seems a very small number out of the whole region
- As with version 1 – respondents believe they know more than 50 people who have had low water problems – so is the issue different to what respondents are believing it to be?
- Given only 4 customers have unresolved problems the reference to fewer customers experiencing problems was seen as odd
- Overall the attribute was not seen as an issue which really requires additional investment by customers to resolve. Does it need to be communicated in a different way to garner a willingness to pay?

The reactions to version 1 and 2 raise questions whether this attribute should dropped or replaced; with only 4 properties affected it is not an issue – indeed the number appears to be a typo.

As considerably more than four customers in the sessions felt they experience this problem, the perception of low water pressure and how many people it impacts is obviously considerably different to how YW define or measure the issue.

Suggested revised version

Attribute J

Low Water Pressure

The issue: Every year Yorkshire Water invests to ensure households don't experience problems with the force that water comes out of their taps. When water pressure is low, it comes out of the tap as a trickle.

Current situation: Last year we helped around 50 customers experiencing low pressure and spent approximately £1.5million on ensuring suitable pressure for all our customers. At the end of the year, we had four (4) customers who experience chronic and ongoing low water pressure and prevented it for many other customers.

What could change: More investment would allow Yorkshire Water to prevent more customers from experiencing low pressure. It will improve pressure for those customers experiencing chronic, ongoing low pressure and support other customers day to day who may experience low pressure throughout the year.

4.3 Prioritisation exercise

There were very mixed views over which of the investment areas should be a key priority, although more agreement over the ones which were seen as less important to focus on.

Drinking water quality was frequently selected as a very important area to focus on. This is due to perceived concerns around health. Drinking water is expected but also needs to be clean, safe and of the highest standards possible.

When placing this as a very high priority, respondents reacted to the headline title and a visceral thought of unclean water, rather than referring back to the text shown in the attributes (i.e. that it could still be used in washing machines and dishwashers and the problem typically lasts less than 24 hours).

Investment areas which suggested a potential financial saving by doing this (e.g. reducing leaks and stopping wasting clean water) were often given a priority; although this does not mean customers will necessarily be willing to pay for this. Less wastage is seen as a way that customer bills can be reduced.

Aspects that have severe or nasty consequences were seen as areas to address. Many felt reducing the risk of internal sewer flooding should be a priority, even if they did not think it was likely to happen to them. They could empathise how awful it would be for anyone, whereas not having water for 3-6 was seen as an inconvenience but one that most could get through without too much of a problem.

Some of the investment areas were deemed to be connected, so solving leakages as a high priority would then mean that per capita consumption would not need to be reduced or even focussed on.

Likewise investing more in a modern infrastructure network to increase capacity is seen as the way to address river water quality, bathing water quality, pollution incidents and potential internal and external sewer flooding.

River or beach users or those with a keen interest in the environment, due to having a personal interest or stake in these being of high quality, wanted these aspects to be prioritised over most of the others. Non-users were less concerned.

Investment areas which were seen as having a very low risk of every happening or aspects which respondents had never experienced, nor knew anyone who had, were easier to put as a lower priority.

Most thought focusing on reducing per capita consumption was un-necessary, as the information did not clearly communicate why this is a problem or an issue for customers.

Aspects which affect more, or most customers were more likely to be prioritised. Hence, low pressure was not seen as an Investment Area to focus on, given only a handful of houses are impacted by this.

Areas which are already deemed to be a success, or a sufficient level of activity is already being done to address the problem tended to be placed lower down. Hence those which say there is a minor problem or 16 out of 18 bathing waters are of good or better standard were relegated in the order of importance

Project number
SKILL02-9116

Location
YW_WTP_Qual_Attribute_Testing_Report_v1.docx

Date
August 2022

Report status
1st Draft

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This research has been carried out in compliance with the International standard ISO 20252, (the International Standard for Market and Social research), The Market Research Society's Code of Conduct and UK Data Protection law.

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